



# FLATGLASS

## 2020 world directory



THE LAMINATING LINE + COMPACT OUTSIDE + BIG INSIDE



### deluxe

THE AUTOMATIC PVB LAMINATING LINE FOR THE LATEST GENERATION GLASS

[www.keraglass.com](http://www.keraglass.com)



- + COMPACT AND SOLID STRUCTURE
- + EVEN AND PRECISE LAMINATION
- + EFFICIENT HEATING SYSTEM
- + AUTOMATIC LINE SUPERVISION
- + OUTSTANDING RESULTS ON MOST TYPES OF GLASS



**T** TEMP  
**D** DECO  
**L** LAMI  
**W** WASH



keraglass

- > Suppliers' Profiles
- > Suppliers' Products & Yellow Pages
- > Suppliers Guide - Data Sheet
- > Suppliers Sales Network
- > Glassworks' Addresses



DESKTOP



MOBILE & TABLET



PDF

Suppliers • Yellow Pages • Agents & Sales Offices • Glassworks

# Super Spacer®

## THE ORIGINAL SINCE 1989.

Unique accuracy, aesthetics  
and automatic high speed  
application combined.

The first ever warm edge  
made of flexible structural foam.

 **Edgetech**

A Quanex Building Products Company

The Pioneers in Warm Edge Technology

[www.superspacer.com](http://www.superspacer.com)

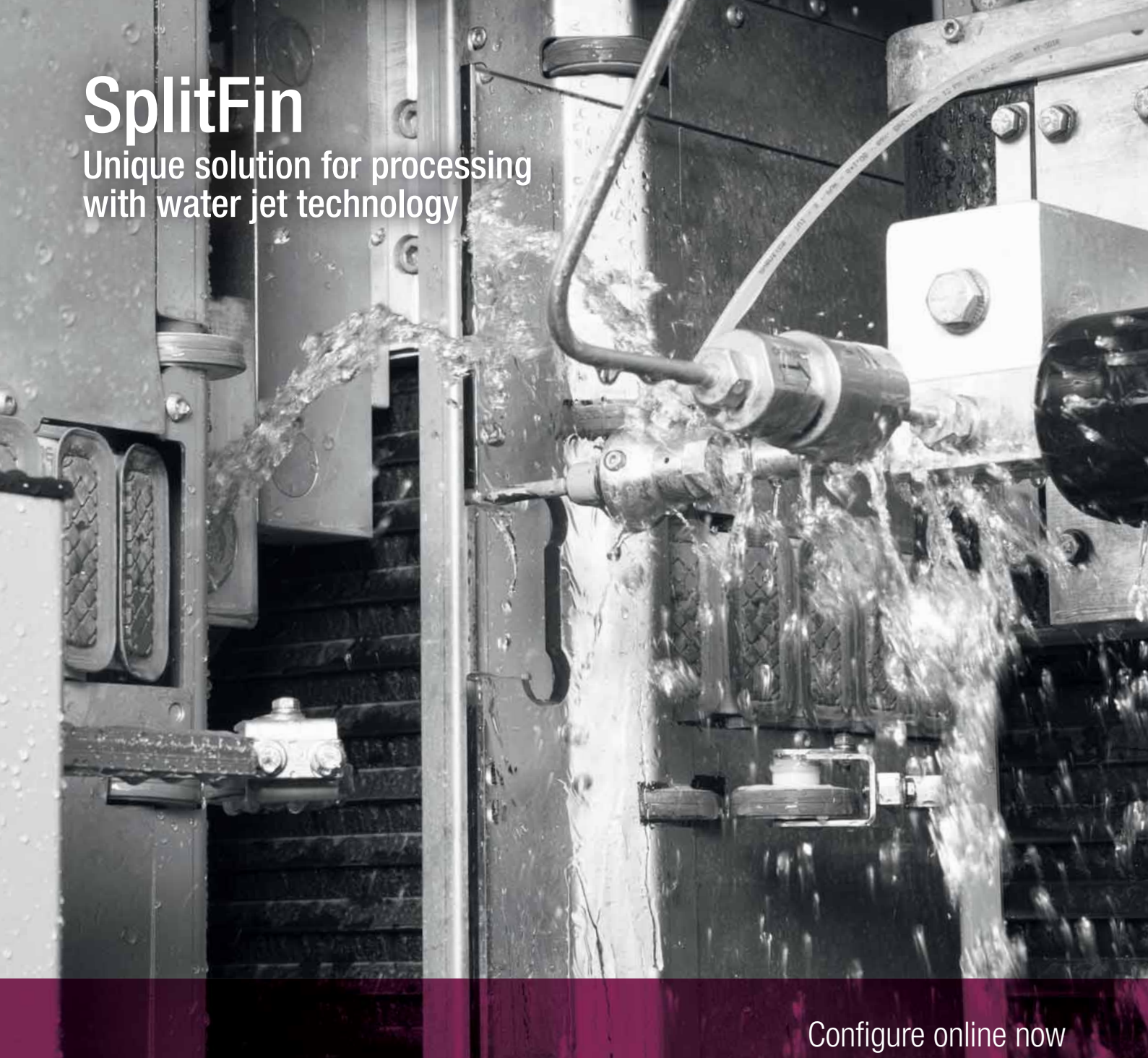
[info@edgetech-europe.com](mailto:info@edgetech-europe.com)

Super Spacer® **30** Years  
Proven  
Performance  
1989 - 2019



# SplitFin

Unique solution for processing  
with water jet technology



Configure online now  
[www.lisec.com/configurator](http://www.lisec.com/configurator)

The SplitFin is an integrated and continuous solution for fast, effective and uncomplicated processing of glass sheets. The line is aimed especially at the complete processing of sheets. A significantly higher output is achieved in comparison with individual machines as a result of the distribution of the processing steps (edge polishing and grinding / drilling and milling with water jet / washing & drying) and the associated permanent use of the individual devices. The SplitFin sets new standards, not only through extremely fast cycle times, unparalleled in the industry, but also with regard to ease of maintenance as all of the most important mechanical assemblies are easily accessible and in the dry area as far as possible.

Use our configurator for possible machine and line configurations:  
[www.lisec.com / configurator](http://www.lisec.com/configurator)



**LiSEC**

best in glass processing

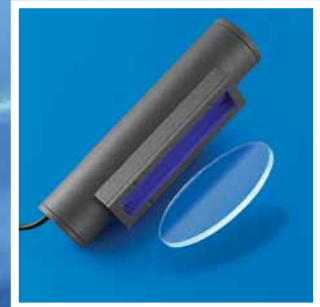
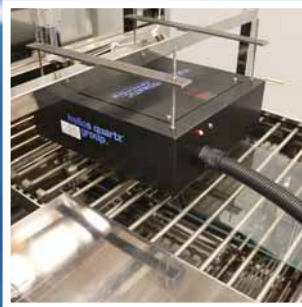
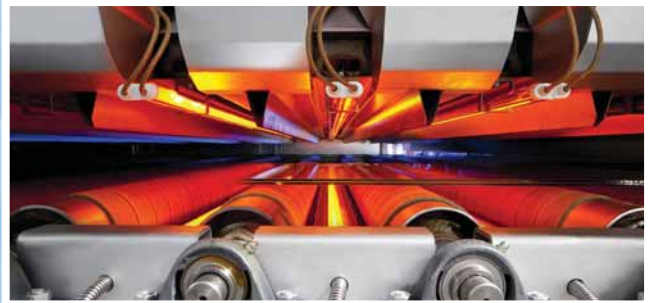
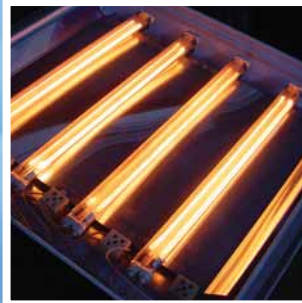
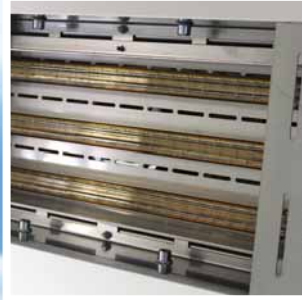
# MULTIGLASS

*MULTI-ROLLER COATING MACHINE FOR THE ENAMELLING  
AND DESIGN PRINTING OF FLOAT GLASS SHEETS*



Rollmac a division of Gemata S.p.A. - Via Postale Vecchia, 77 - 36070 Trissino (VI) Italy  
Tel. +39 0445.490618 - Fax +39 0445.490639 - E-mail: rollmac@rollmac.it - www.rollmac.it

# GLASS APPLICATIONS



## IR medium wave twin tubes emitters for:

- laminating lines
- mirroring lines
- dry screen printing lines

## IR medium wave single tube emitters for:

- bending furnaces
- fusion furnace

## IR fast medium wave twin tube emitters for:

- laminated glass cutting machines

Helios Quartz also produces highly appreciated equipment for the glass industry such as **manual and automatic tin side detectors** and **UV polymerization units**.

## helios quartz®



[www.heliosquartz.com](http://www.heliosquartz.com)

### Helios Quartz Group SA

Via Roncaglia 20 6883  
Novazzano - Switzerland  
Tel. +41 (0) 919233555/6  
Fax +41 (0) 919233557  
[swiss@heliosquartz.com](mailto:swiss@heliosquartz.com)

### Helios Italquartz S.r.l.

Via delle Industrie 103/A 20040  
Cambiago - Milano - Italy  
Tel. +39 02 95 34 93 18  
Fax +39 02 95 34 50 85  
[italy@heliosquartz.com](mailto:italy@heliosquartz.com)

# TOP ROLLER

TOP STANDS FOR QUALITY - OF COURSE

Top rollers are among the most important parts of a tin bath. These machines are used in pairs in the forming section. Each pair, consisting of master and slave, works synchronously and has to create optimal conditions for a smooth production process. That requires nothing but the highest quality standards!



**HORN**  
GLASS INDUSTRIES

Since 1884 we are passionate about building glass melting technology and driven by innovative thinking. That's why we constantly try to improve every little technical detail along the whole process line to provide our customers with tailor-made solutions.

*innovation*  
ENGINEERED IN GERMANY

LET'S GO FULL CIRCLE. [WWW.HORNGLOSS.COM](http://WWW.HORNGLOSS.COM)



We see a world designed with smarter, safer and more energy-efficient glass.  
We're innovating the technology for you to make this a reality.

All about glass processing: [www.glastory.net](http://www.glastory.net)

**glaston**

**Bystronic**  
glass

Machinery, services and solutions designed with the future in mind for the architectural, automotive, solar and appliance industries.  
[info@glaston.net](mailto:info@glaston.net) | [www.glaston.net](http://www.glaston.net) | [www.bystronic-glass.com](http://www.bystronic-glass.com)  
[www.glastory.net](http://www.glastory.net) | [www.gpd.fi](http://www.gpd.fi)



**Annual publication**

**EDITORIAL AND ADVERTISING OFFICE**

Via Antonio Gramsci, 57 - 20032 Cormano (Milano) - Italy  
Tel.: +39 - 02 - 66306866 - Fax: +39 - 02 - 66305510

**PUBLISHING DIRECTOR**

Arcangelo Altamura

**EDITOR-IN-CHIEF**

Marco Pinetti

**ASSOCIATE EDITOR**

Alison David,  
Valerie Anne Scott..... valerie.scott@glassonline.com

**ADVERTISING**

ITALY

**Maurizio Lozza**..... maurizio.lozza@glassonline.com

WORLDWIDE

**Luciano Molina**..... luciano.molina@glassonline.com

**GRAPHIC DESIGN**

Sonia Previato..... sonia.previato@glassonline.com

**PRINTED BY**

BICIDI ARTI GRAFICHE - Via San Felice n. 37d 16138  
Genova (Molassana) - Italy

**SINGLE COPIES**

€ 40 air mail included Italy: € 30

Published by A151 S.r.l.; owned by Smartenergy S.r.l.  
All rights reserved. Reproduction even partially in any form is strictly prohibited unless written permission has first been obtained from the Publisher. The magazine is open to collaboration from all, but no manuscripts or photographs will be returned. The editor's office does not accept responsibility for opinions expressed in signed articles.  
The Court responsible is Milan. Publication registered at no. 136 of the Milan Court Records Office on 11.04.2017



**COVER ADVERTISER:**

**KERAGLASS INDUSTRIES SRL**

Via Sassogattone 13/A  
42031 Baiso, Reggio Emilia - Italy  
Tel.: +39 0522 993027 / Fax: +39 0522 993030  
E-mail: info@keraglass.com  
www.keraglass.com

PUBLISHED BY



Via Antonio Gramsci, 57 - 20032 Cormano (Milano) - Italy  
Tel.: +39 - 02 - 66306866 • E-mail: publications@glassonline.com

www.glassonline.com

**9** ADVERTISERS INDEX

**8** FAIR CALENDAR

## suppliers to the glass industry

**9** ALPHABETICAL INDEX

## suppliers guide

**86** YELLOW PAGES

**95** DATA SHEETS

**138** SALES NETWORK

## glassworks - company profile

**161 - 171** GLASSWORKS - EUROPE

**173 - 185** GLASSWORKS - MIDDLE EAST and AFRICA

**186 - 211** GLASSWORKS - ASIA and AUSTRALIA

**212 - 221** GLASSWORKS - AMERICAS

## associations

**222** ALPHABETICAL INDEX






for Glass, Windows & Doors



# MY NETWORKING WITH THE FUTURE!

My software for the intelligent overall organization of my production and all commercial processes, on through to delivery.

[www.a-w.com](http://www.a-w.com)

issue	exhibition/conference	date	venue	deadlines
2020 1	<b>GLASS MIDDLE EAST EXPO</b>	27-29 February	<b>CAIRO</b> Egypt	Editorial files: <b>13-01-2020</b> Deadline Adv files: <b>27-01-2020</b>
	<b>EURASIA GLASS</b>	4-7 March	<b>ISTANBUL</b> Turkey	
	<b>ICCG</b>	<b>Postponed</b>	<b>BRAUNSCHWEIG</b> Germany	
	<b>FENSTERBAU FRONTALE</b>	<b>Postponed</b> <b>16-19 June</b>	<b>NURENBERG</b> Germany	
2020			Editorial files: <b>17-02-2020</b> Deadline Adv files: <b>28-03-2020</b>	
2020 2	<b>CHINA GLASS</b>	<b>Postponed</b>	<b>SHANGHAI</b> China	Editorial files: <b>03-03-2020</b> Deadline Adv files: <b>17-03-2020</b>
2020 3	<b>GLASS SOUTH AMERICA</b>	3-6 June	<b>SÃO PAULO</b> Brazil	Editorial files: <b>17-04-2020</b>
	<b>MIR STEKLA</b>	8-11 June	<b>MOSCOW</b> Russia	Deadline Adv files: <b>30-04-2020</b>
2020 4	<b>GLASSTECH MEXICO</b>	27-29 July	<b>GUADALAJARA</b> Mexico	Editorial files: <b>12-06-2020</b>
	<b>GLASSBUILD AMERICA</b>	15-17 September	<b>LAS VEGAS (NV)</b> USA	Deadline Adv files: <b>27-06-2020</b>
2020 5	<b>GLASSTEC</b>	20-23 October	<b>DUSSELDORF</b> Germany	Editorial files: <b>04-09-2020</b> Deadline Adv files: <b>18-09-2020</b>
ALL GLASSTEC EXHIBITORS ADVERTISING IN THIS ISSUE ALSO RECEIVE A FREE GLASSTEC PREVIEW ▶▶▶				
2020 6	<b>VETECO</b>	10-13 November	<b>MADRID</b> Spain	Editorial files: <b>02-10-2020</b> Deadline Adv files: <b>16-10-2020</b>
	<b>GLASSTECH ASIA</b>	17-19 November	<b>BANGKOK</b> Thailand	
	<b>ZAK GLASS TECHNOLOGY</b>	3-6 December	<b>MUMBAI</b> India	

# ADVERTISERS INDEX

Company Profile	ADS	Advertisers	Company Profile	ADS	Advertisers
10-11	7	A+W SOFTWARE	46-47	3	HELIOS ITALQUARTZ
12-13		ADELIO LATTUADA	48-49	4	HORN GLASS INDUSTRIES
14-15		ADI	50-51		INTERMAC
16-17		ASHTON INDUSTRIAL SALES	52-53		ITALCARRELI
18-19		B SOLUTION	54-55	Front Cover	KERAGLASS INDUSTRIES
20-21		BDT-BOVONE DIAMOND TOOLS	56-57	First page	LISEC GROUP
22-23		BOTTERO	58-59		MAPPI INTERNATIONAL
24-25		BOVONE ELETTROMECCANICA	60-61		MAZZAROPPI ENGINEERING
42-43	5	BYSTRONIC GLASS		94	MIR STEKLA
26-27		DIAMUT - BIESSE	62-65		MOLE MORESCHI
28-29		DIEFFE MACCHINE	64-65		MOVETRO
30-31	Front inside Cover	EDGETECH EUROPE	66-67		OPTIMA
32-33	Back Cover	FOREL	68-69		OPTRIS
34-35		FORVET	70-71		RBM ITALIA
36-37		GIARDINA GROUP	72-73		RCN SOLUTIONS
	160	GLASS BUILD AMERICA	74-75	2	ROLLMAC - DIVISION OF GEMATA
38-39		GLASS COMPANY	76-77		SCHIATTI ANGELO
	84	GLASS SOUTH AMERICA	78-79		SCHIAVO
	Back inside Cover	GLASSONLINE	80-81		TECNO-GLASS
40-41		GLASSTECH INC.	82-83		TUOMAS
	137	GLASSTECH MEXICO		172	ZAK GLASS
42-43	5	GLASTON CORPORATION			
44-45		HEGLA			

glassOnline THE LEADING MEDIA COMPANY FOR THE GLASS INDUSTRY

HOME NEWS PUBLICATIONS OUR EVENTS EXHIBITIONS YELLOW PAGES NEWSLETTER CONTACT VIDEO

**Fonderie Valdelsane**  
Special cast irons & alloys for glass

GLASSONLINE DAILY NEWS

Architecture worked with Matt on his previous house, so when the couple decided on a tree change in the stunning Dandenong Ranges, they...

PASSION ON GLASS TEMPERING TECHNOLOGY

**TUOMAS**  
OUR PASSION. YOUR PROGRESS

glassOnline The World's Leading Glass Industry Website

FLAT GLASS ARTISTIC GLASS PRODUCTION

- Automation
- Characteristics
- Characteristics
- Characteristics
- Characteristics

BENDING

- Automation
- Automation
- Automation

DRILLING

- Automation
- Automation
- Automation

Glass Industry Network

Video content

Home Page

glassonline  
web service

# A+W Software

for Glass, Windows & Doors



## A+W SOFTWARE GmbH

Am Pfahlgraben 4-10 - 35415 Pohlheim - Germany  
Tel.: +49 6404 2051-0 / Fax: +49 6404 2051-877

E-mail: [info@a-w.com](mailto:info@a-w.com) • [www.a-w.com](http://www.a-w.com)

### COMPANY DATA

#### Contacts

Peter Dixen - CEO  
Kai Frenzel - CFO

#### Annual turnover

EUR 25,000,000

#### Percentage of turnover from glass (%)

75

#### Number of Employees

190

#### Founding Year

1977

#### Registered Trademarks

A+W DynOpt



### COMPANY PROFILE

#### A+W

#### Software for Glass, Windows and Doors

**A+W** is the global market leader for software in the flat glass industry as well as the windows and doors business. The company develops ERP-, PPS- and optimization software in order to make glass and window manufacturers even more efficient.

A+W solutions control and optimize the whole value chain, from basic glass to finished windows or façade elements. A+W products are suitable for small-, mid-sized and large companies.

Of course, A+W offers individual advice and consulting for its entire product range and supports users from the presentation of the systems through to live operation.

With automatic updates and upgrades, the global maintenance service makes sure that the installed software is always up to date. A+W optimizes its customers' yield, reduces production costs, shortens lead times, improves quality and thus increases customer satisfaction.

A+W has been active on the market for more than 40 years and sells its products worldwide. A+W cooperates with the most experienced and competent companies in the industry. This close networking helps A+W to always provide the best possible solution for its customers' demands.

A+W is a wholly owned company of Constellation Software Inc., which is listed on the Toronto Stock Exchange under the symbol 'CSU'. The Corporation acquires, manages and builds vertical market software businesses.



## SALES NETWORK

### A+W Sales- and Services Global Network

#### UK

#### A+W Software UK Ltd.

Hardy House, Northbridge Rd. – Berkhamsted  
Hertfordshire HP4 1EF

#### POLAND

#### A+W Software Polska Sp. z o.o.

ul. Sikorskiego 50 - 62-300 Września

#### SCANDINAVIA

#### A+W Software Sweden AB

Industrivägen 17 - 302 41 Halmstad - Sweden

#### FRANCE

#### A+W Software France SAS

62 Avenue des Frères Montgolfier  
69740 Genas

#### NORTH AMERICA

#### A+W Software USA Inc.

One Parkway North, Suite 400S  
Deerfield, Illinois - USA 60015

#### AUSTRALIA

#### A+W Software Australia PTY Limited

Level 1 - 37 Brandl Street Eight Mile Plains  
QLD 4113

#### MEXICO / LATIN AMERICA

#### A+W Software Latin America S de RL de CV

Calle 18, 315  
Col. Cámara de comercio norte  
Mérida (Yucatán)  
97133 Mexico

### A+W Sales- and Service Partners (Agents)

#### LITHUANIA

**Idelis UAB** - Pelesos 3 - 02115 Vilnius

#### SPAIN, PORTUGAL

#### Appglas S.L.U.

Pol.Ind.Can Salvatella, Calle Mogoda 1, Despacho 111,  
08210 Barbera de Valles / Barcelona, Spain

#### SLOVENIA, SERBIA

#### MAB Export d.o.o.

Vodovodna Pot 3 - Kromberg  
Nova Gorica - Slovenia

#### MEA

#### Corpotrade (Cyprus) Ltd.

PO Box 42687, Larnaca 6501, Cyprus

#### SOUTH AFRICA

#### Glass Design (Pty) Ltd

1 Eugene Street - Malanshof - Randburg, 2196

#### JAPAN

#### Correns Corporation

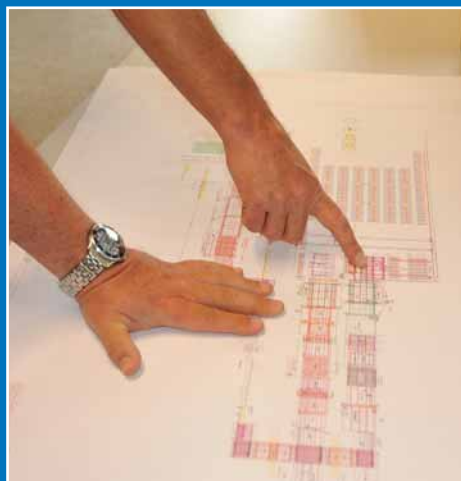
1-8-7 Roppongi, Minato-Ku. Tokyo 106-0032, Japan

#### CHINA, SINGAPORE,

#### MALAYSIA, KOREA

#### Yichen Information Technology Co., Ltd.

Room 702, No. 73 - 1028 XiuYan Road  
KangQiao Pudong  
Shanghai - China





# ADELIO LATTUADA Srl

Via Abbondanza, 11/13 - 22070 Carbonate (CO) - Italy  
Tel: +39 0331 832713 / Fax: +39 0331 833886 • E-mail: [info@adeliolattuada.com](mailto:info@adeliolattuada.com)  
[www.adeliolattuada.com](http://www.adeliolattuada.com) • [www.lattuada-na.com](http://www.lattuada-na.com) • [cyberal.adeliolattuada.com](http://cyberal.adeliolattuada.com)

## COMPANY DATA

### Contacts

**Adelio Lattuada** - President  
**Nicola Lattuada, Michela Lattuada** - Partner

### Sales

Domestic 5% / International 95%

### Area

Office area 500 m<sup>2</sup> / Plant area 3,500 m<sup>2</sup>

### Number of Employees

42

### Founding Year

1978

### Capital

EUR 90,000.00

### Planned Exhibitions

- Seebe** - Belgrade, Serbia - 22 / 25 April 2020
- Glass TEXpo** - San Antonio (TX), USA - 01 / 02 May 2020
- Glass South America** - Sao Paulo, Brazil - 3 / 6 June 2020
- Mir Stekla** - Moscow, Russia - 8 / 11 June 2020
- Glasstech Mexico** - Guadalajara, Mexico  
27 / 29 July 2020
- GlassBuild America** - Las Vegas (NV), USA  
15 / 17 September 2020
- Glasstec** - Düsseldorf, Germany - 20 / 23 October 2020

## SALES NETWORK

### ARGENTINA, CHILE, ECUADOR, PERÚ

**GLASSTEK MAQUINARIA PARA TRABAJAR VIDRIO**  
Barranco - Tel: +51 17 176133 - E-mail: [info@glasstek.org](mailto:info@glasstek.org)

### CANADA

**MARC PRÉVOST MACHINERY INC.**  
Montréal - Tel: +1 514 6404040 - E-mail: [info@mpm.ca](mailto:info@mpm.ca)

### USA

**LATTUADA NORTH AMERICA, INC.**  
Northwood (OH) - Tel: +1 567 2494486 - E-mail: [joe.g@lattuada-na.com](mailto:joe.g@lattuada-na.com)

### COLOMBIA

**GLASSTOOLS DE COLOMBIA LTDA.**  
Bogotá - Tel: +57 1 6417300  
E-mail: [cam.glasstools@gmail.com](mailto:cam.glasstools@gmail.com)

### MEXICO

**MAVHISA S.A. DE C.V.**  
Jalisco - Tel: +52 33 36192590 - E-mail: [ventas@mavhisa.com.mx](mailto:ventas@mavhisa.com.mx)

### AUSTRIA, BELGIUM, GERMANY, LUXEMBOURG, NETHERLANDS

**FÜLDNER MACHINES BV**  
Heerlen - Tel: +31 455 217757 - E-mail: [info@fuldner.nl](mailto:info@fuldner.nl)

### PORTUGAL, ANGOLA, CAPE VERDE, GUINEA BISSEAU, MOZAMBIQUE

**JLE - J. LEMOS ESTEVES, LDA**  
Marinha Grande - Tel: +351 244 573480 - E-mail: [info@jlemosestev.es.pt](mailto:info@jlemosestev.es.pt)

### SPAIN

**GRUPO ADA DISTRIBUCIONES TECNICAS SL**  
Teruel - Tel: +34 978 619469 - E-mail: [info@ada-distribuciones.com](mailto:info@ada-distribuciones.com)

### UNITED KINGDOM, IRELAND

**P.A.L. GLASS MACHINERY LTD.**  
Basildon Essex - Tel: +44 1268 493382  
E-mail: [paul@palmachinery.co.uk](mailto:paul@palmachinery.co.uk)



**POLAND**

**IN-VENTO s.c.**

Wola Rzędzińska - Tel: +48 14 6563577

E-mail: s.witek@in-vento.eu

**MIDDLE EAST**

**JOLICO TRADING FZE**

Ras Al Khaimah - Tel: + 971 502 207891

E-mail: maroun@jolicotrading.com

**AUSTRALIA**

**OGA - OVERSEAS GLASS AGENCIES PTY LTD**

Braeside, VIC - Tel: +61 395872488

E-mail: neil@oga.com.au

**RUSSIA**

**KPDT**

Moscow - Tel: +74959425375

E-mail: hp@kpdtr.ru

**ROMANIA**

**ABITARE CG SRL**

Brasov - Tel. +40 268 412 600

E-mail: office@abitare.ro

**TAIWAN**

**C.Y. HANK INDUSTRIAL CO. LTD.**

Taipei - Tel. +886 2 25318190

E-mail: cyhank@ms45.hinet.net

**SOUTH-EAST EUROPE**

**ESTE TEAM DOO**

Belgrade - Tel. +381 113196764

E-mail: komercijala@esteteam.net

**CZECH REPUBLIC AND SLOVAKIA**

**ITALCOMMA SLOVAKIA, SRO**

Zilina - Tel. +42 41 5006 224

E-mail: italcomma@italcomma.sk

**INDIA**

**GGTS**

New Delhi - Tel. +91 11 3265 8762

E-Mail: rashid.khan@ggts.in

**CAMBODIA, INDONESIA, LAOS, MALAYSIA, MYANMAR, PHILIPPINES, SINGAPORE, THAILAND, VIETNAM**

**EUROTECHCORP JSC**

Ha Noi City - Tel. +84 24 3233 6210

E-mail: eurotechline@gmail.com

**NORWAY, ICELAND, SWEDEN**

**PER MORDT AS**

Oslo - Tel. +47 2207 1770

E-mail: post@permordt.no

**TURKEY**

**CONCEPT SOLUTIONS**

Mimaroba/Buyukcekmece/Istanbul

Tel: +90 850 2281908

E-mail: sinan@glassinks.eu

**FINLAND**

**PROJECTA OY**

Turku - Tel: +358 20 77130

E-mail: info@projecta.fi

**ESTONIA**

**GLASTECH EESTI AS**

Harjumaa - Tel: +372 60 30623

E-mail: projecta@projecta.ee

**FRANCE, ALGERIA, MOROCCO, TUNISA, FRENCH overseas territories**

**PACARD S.A.S**

Valbonne - Tel: +33 492 901368

E-mail: pacard@pacard.fr

COMPANY PROFILE

**IntegrAL: MADE IN LATTUADA INTEGRATED SOLUTIONS, TO MEET ALL YOUR NEEDS**

**GRINDING SOLUTIONS**

Our strength, always. A variety of solutions taking the shape of a wide range of machines: more than 40 models that can be specifically configured to ensure maximum productivity.

**WASHING SOLUTIONS**

For more than 15 years we have been studying and providing solutions for glass washing. We offer a full range of high-tech, vertical washing machines that are easy to use and maintain.

**AUTOMATION AND ROBOTICS SOLUTIONS (CYBERAL)**

We are constantly formulating solutions to operate at the highest levels of automation, making the most of integration with robotics to increase productivity and reduce costs.

**SPECIAL MACHINE SOLUTIONS**

Do you have special needs? Out-of-standard processes? Do you treat composite materials? That's not a problem. We can find the most suitable solution for you and customise our machines to ensure you get the flexibility you need.

**COMPLEMENTARY GLASS PROCESSING SOLUTIONS**

Do you need to drill or process corners? We can provide a

complete range of horizontal drilling machines and automatic radius and straight corners grinding machines.

**STONE WORKING SOLUTIONS**

We are well aware of the specificities of stone processing. This is why we can design with you the perfect machine to process marble, stone and synthetic and composite materials.

**INDUSTRY 4.0 SOLUTIONS**

Are you ready for the fourth industrial revolution? We can support you in the streamlining of production processes by offering high-tech solutions to digitise, connect, monitor, manage and optimise data in real time.





## ADI Srl

Via Dell'Economia 12/16 - 36016 Thiene (VI) - Italy  
Tel.: +39 0445 360244 - Fax: + 39 0445 366862

E-mail: [info@aditools.com](mailto:info@aditools.com) • [www.aditools.com](http://www.aditools.com)

### COMPANY DATA

#### Contacts

Dino Zandonella Necca - President  
Lorenza Dal Maso - Glass Division Manager



#### Mother company

Surfaces Technological Abrasives SPA

#### Annual turnover of the Group

EUR 130 million

#### Annual turnover of the Company

EUR 35 million

#### Percentage of turnover from glass

18%

#### Sales

Domestic: 25% / International: 75%

#### Banks

Unicredit, Intesa San Paolo

#### Area

Office area: 2,900 m<sup>2</sup> - Plant area: 9,100 m<sup>2</sup>

#### Number of Employees

180

#### Founding year

1980

#### Paid-in capital

EUR 2,000,000.00

#### Patents obtained in

3 for the Glass Industry

#### Registered brands

UHS ; ADI

#### Parent and Sister Companies

Domestic: 1 / International: 3

#### Planned Exhibitions

**China Glass** - Postponed  
**GlassBuild America** - Las Vegas (NV), USA  
15 / 17 September 2020  
**Glasstec** - Düsseldorf, Germany  
20 / 23 October 2020



## SALES NETWORK

### USA

#### IGP

1477 Connelly Springs Road - Lenoir N.C.  
Tel: +1 828 7285338 - Fax: +1 828 7289613  
E-mail: sales@igptools.com

### TURKEY

#### ELMAS KIMYA SAN.VE TIC. LTD STI.

Topcu Cesme Sok. No. 1 - 34055 Eyupsultan/Istanbul  
Tel: + 90 212 5447172 - Fax: + 90 212 5010073  
E-mail: elmaskimya@ttmail.com

### MEXICO

#### MARBOLZ VETROSTILE SA DE CV

Av. Lazaro Cardenas 1200 Col. Alamo Ind. - 44490 Guadalajara Jal  
Tel: + 52 33 3666 2415 - Fax: +52 33 3666 2630  
E-mail: ventas@vetrostile.com

### POLAND

#### IN-VENTO Spolka Cywilna

Wola Rzedzinska 612 - 33150 Wola Rzedzinska  
Tel: + 48 14 6563577 - Fax: + 48 14 6563578  
E-mail: in-vento@in-vento.eu

### FRANCE

#### COVADIS

ZA Via Domitia - 295 Rue du Trident  
34740 Vendargues  
Tel: + 33 4 67594066 - Fax: + 33 4 67591030  
E-mail: contact@covadis.eu

### SPAIN

#### DIAMANT 2000

Calle Minas, 43 Pol. Industrial Urtinsa II  
28923 Alcorcon - Madrid  
Tel: + 34 91 6192229 - Fax: + 34 91 6101609  
E-mail: diamant2000@diamant2000.e.telefonica.net

### PORTUGAL

#### JLE J.LEMOS ESTEVES LTDA

Rua Soprem Nr. 1 - Largo Da Estacao Ap 79  
2431-901 Marinha Grande  
Tel: + 351 244 573480 - Fax: +351 244 573489  
E-mail: info@jlemosesteves.pt

### GERMANY

#### DTS HANDELSGESELLSCHAFT MBH

Gingterkamp 86 - 41069 Mönchengladbach  
Tel: + 49 2161 573180 - Fax: + 49 2161 5731879  
E-mail: info@dts-diamantwerkzeuge.de

#### KMS E. K.

Schlulze-Delitzsch-Weg 4 - 21717 Fredenbeck  
Tel: + 49 4149 9338011 - Fax: + 49 4149 9339696  
E-mail: info@kms-glas.de

### AUSTRIA

#### GMG VERTRIEBS GMBH

Handelsstrasse 11 - 09300 St. Veit a.d. Glan  
Tel.: +43 4212 28 311 - Fax: +43 4212 28 3114  
E-mail: gert.gabron@gmg-austria.com

#### K & K ProVitrum GmbH

Färberstraße 8 - A-2540 Bad Vöslau  
Tel: +43 2252 25121412 - Fax: +43 2252 251214 20  
E-mail: info@kkprovitrum.at

### SWEDEN

#### AXEL LARSSON AB

Truckvagen,12 - 19428 Upplands-Vasby  
Tel: + 46 10 4559716 - Fax: + 46 10 4559790  
E-mail: karl.larsson@axel-larsson.se

### U.A.E

#### GULF STAR INTL

P.O. Box 8545, Sharjah, Q4-296, Saif Zone - Sharjah  
Tel: + 971 6 5571977 - Fax: + 971 6 5571922  
E-mail: info@gulfstarintl.com

## COMPANY PROFILE

**ADI SpA** has been founded in 1980 and now, after 40 years, ADI has 3 plants in Italy and 3 abroad, 180 people in Italy and 12 abroad.

The growth has been possible thanks to the continuous R&D investments and the focus on the real customer's needs.

ADI manufactures diamond tools not only for glass, but also for stone, ceramics, mechanics and optics. The big advantage coming from this wide range of products is that the experience made in one application can be transferred to the others. A good example of this, is the UHS bond, which has been studied initially for the Glass Automotive industry and now it has been successfully transferred to the CNC tools for glass, stone and mechanics.

ADI is one of the very few companies in the world with all sintering technologies in house. ADI is in fact able to manufacture metal bond, resin bond, vitrified and plated bonds. In the last years an increasing number of patents has been registered worldwide. In particular, related to the glass industry, ADI was the very first to propose the ONE SHOT concept of wheel in the automotive industry to the market.

This kind of wheel has been engineered to be used just once (the real life is anyway two shots) and avoid customers of the automotive industry investing time in reprofiling processes.

In addition, continuous research is being carried out to achieve better performance in terms of life, start-up and working speed for high productivity machines.

The new segmented cup wheel for single and double edgers enables to process different kind of glass with excellent results with the same wheel, with the important advantage of not being obliged to change tool every time the glass thickness changes.

ADI is extremely proud to offer products that are 100% Made in Italy. Many Companies have tried to reduce the production costs by selling imported products or by setting production plants in Countries with lower labor and healthcare costs. ADI reduces the customer's Total Cost of Ownership with products innovation.

Since Dec. 2016 ADI is part of the Surfaces Group. This larger structure is providing synergetic growth thanks to the multiple technologies available and the stronger sales network.



## ASHTON INDUSTRIAL SALES Ltd.

South Road, Harlow, CM20 2AR Essex - UK  
Tel.: +44 - 1279 - 624810 - Fax: +44 - 1279 - 626615

E-mail: [sales@ashton-industrial.com](mailto:sales@ashton-industrial.com) • [www.ashton-industrial.com](http://www.ashton-industrial.com)

### COMPANY DATA

#### Contacts

**Steve Ashton** - Managing Director  
**Richard Green** - Senior Manager - Business Development

#### Annual turnover of the Company

EUR 5,000,000

#### Percentage of turnover from glass (%)

100

#### Sales

Domestic (20%) / International (80%)

#### Number of Employees

35

#### Founding Year

1983

#### Planned Exhibitions

**Glasstec** - Düsseldorf, Germany - 20 / 23 October 2020

### SALES NETWORK

#### AUSTRIA

##### K&K ProVitrum GmbH

Färberstraße 8, A-2540 Bad Vöslau, Austria  
Tel.: +43 2252 251214 10 - Fax: +43 2252 251214 20  
E-mail: [info@kkprovitrum.at](mailto:info@kkprovitrum.at)

#### IRAN

##### Mega Enterprise

Tel.: + 98 21 66941321-2 - Fax: + 98 21 66941324  
E-mail: [hanieh@megafzco.com](mailto:hanieh@megafzco.com)

#### MIDDLE EAST

##### HIET

Dubai Investment Park 2, PO BOX 73204, Dubai, UAE  
Tel.: +971 4 884 9020 - Fax: +971 4 884 9021  
E-mail: [info@hiet-me.com](mailto:info@hiet-me.com)

#### SPAIN

##### Tecnocrisa S.A

Las Quemadas Industrial Estate,  
Gabriel Ramos Bejarano Street Plot 67, 14014 Córdoba, Spain  
Tel.: +34 957 325550 - E-mail: [informacion@tecnocrisasa.com](mailto:informacion@tecnocrisasa.com)

#### SOUTH EAST ASIA

##### Elite Thai Marketing Co., Ltd.

8/106 Trendy Tara, Soi Anamai Ngamcharoen 11,Rama 2

Road,Thakham,Bangkhuntian, 10150 Bangkok,Thailand  
Tel.: +66 9099 212 93 - E-mail: [elitethaimktg@gmail.com](mailto:elitethaimktg@gmail.com)

#### TURKEY

##### Concept Solutions

Mimaroba Mah. Mustafa Kemal Bulv.No:4 Colorist A Blok  
Kat:3D:50 Mimaroba / Büyükçekmece / Istanbul  
Tel.: +90 530 224 25 77 - E-mail: [info@glassinks.eu](mailto:info@glassinks.eu)

#### USA - REPRESENTATIVE

##### Ashton Industrial - Joseph Santelli

Tel.: +1 724 323 2718 - E-mail: [jsantelli@ashton-industrial.com](mailto:jsantelli@ashton-industrial.com)

#### GLOBAL SALES COORDINATOR

##### Ashton Industrial - Heinz Wiedmayer

Tel.: +49 152 3361 4953  
E-mail: [hwiedmayer@ashton-industrial.com](mailto:hwiedmayer@ashton-industrial.com)

#### GLOBAL BUSINESS DEVELOPMENT

##### Ashton Industrial - Richard Green

Tel.: +44 7921 241439 - E-mail: [rgreen@ashton-industrial.com](mailto:rgreen@ashton-industrial.com)

### COMPANY PROFILE

**Ashton Industrial**, founded in 1983, is now a world leading manufacturer of pre-tempering systems, exporting over 80% of machinery to every corner of the world.

We design and manufacture high-quality, heavy-duty machinery for professional glass processors, with 24/7 reliability. Available in standard or custom-built configurations giving maximum production with minimum labour.

### PRODUCT RANGE

- Fully Automatic Seaming/Arripping Lines
- Fully Automatic Shape Seaming/Arripping Lines
- Furnace Batch Building Systems
- Robot Loading & Unloading Stations
- Horizontal & Vertical Washing Machines
- Manual Seaming/Arripping Machines (Wet & Dry Versions)
- Laser Marking Systems in-line and off-line
- Edge Deletion Systems – manual and automated
- IG Production Lines and associated equipment
- Glass Handling machinery for transporting, turning, rotating, flipping, tilting
- Shuttle conveyors for linking multiple lines
- Custom designed equipment and solutions
- Film Laminating Lines

## AUTOMATIC SEAMING/ARRISSING, WASHING AND FURNACE BATCHING EQUIPMENT

Our range of high performance automatic lines includes:



**SeamMaXX PRO** - Fully automatic high-speed seaming, producing a 1m<sup>2</sup> lite fully processed on all 4 edges, top and bottom every 8 seconds. Maximum glass sizes up to 6m x 3m and minimum size down

to 300x150mm. Options include wet or dry operation, on-line laser marking, edge deletion and corner dubbing, out-of-square mode, high volume mode, vertical edge grinding, operating modes to suit customer production flow.

**SeamMaXX SOLO PLUS** - Fully automatic seaming in straight line configuration, average 3 lites per minute seamed top and bottom on all 4 edges. Options include wet or dry operations, on-line laser marking, corner dubbing, high volume mode.

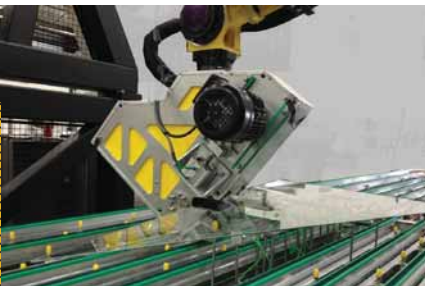


**SeamMaXX SOLO** - Semi-automatic seaming, can be specified for glass sizes up to 5m x 2.8m and handles minimum dimensions as small as 150mm. The output capacity depending on glass size, averages around 2.5 lites a minute.



Options include wet or dry operation, on-line laser marking, edge deletion and corner dubbing, out-of-square mode, high volume mode, vertical edge grinding.

**ShapeSeam PRO** - Fully automatic high speed processing of any flat glass shape, truly random loading in any sequence, no pre-programming of shape, size or thickness.



**HWM PRO** - High Performance Compact Horizontal Washing Machines. Fully stainless-steel construction, available in various standard widths from 1.3m to 3.3m. Can be specified with additional pre-spray, washing and drying sections to suit application and speed of operation.



**BatchMasta PRO** - System to automatically batch lites after seaming, prior to tempering.

Totally random mixed sizes, for example from an Ashton SeamMaXX Pro Seaming line, are arrange into multiple-row batches and transported directly on to the furnace load conveyor with absolutely no manual intervention.

Batch layout and glass sizes can be passed directly to the end of the furnace to aid identification during unloading.



## MANUAL SEAMING/ARRISSING, LASER MARKING, EDGE DELETION & ROBOT HANDLING EQUIPMENT



**UNIX Manual Seaming / Arrissing** - models available in wet and dry versions, both with the option of castor tables or our 'high float' air floatation tables. Various standard sizes are available.



**LaserMark PRO V4** - Standalone Compact Mobile Laser Unit, suitable for rectangular and shaped glass. Mobile with 'plug and play' connection, fully guarded to latest standards.



**EDPRO-A Edge Deletion** - Fast, efficient and clean deletion of soft coatings on glass. Air floatation table incorporating an edge deletion head and datum alignment bars for simple quick operation. Options of wide band edge deletion and standalone units also available.



**RoboLoad PRO** - System for high speed loading or unloading of lites and general glass handling. 6-axes robot with custom vacuum frame and conveyor system to suit individual customer requirements. Custom built solutions to suit customer requirements.

## AUTOMATIC DOUBLE SIDED FILM LAMINATING EQUIPMENT

**Opti-Stream** - Double sided heavy-duty professional film laminator with automatic border trimming for random size Insulated Glass Units.





## B SOLUTION Srl

Via Spallanzani 6 - 24061 Albano S. Alessandro (BG) - Italy - Tel.: +39 - 035 - 4521234 - Fax: +39 - 035 - 4521588

E-mail: [sales@bsolutionsrl.it](mailto:sales@bsolutionsrl.it) - [info@bsolutionsrl.it](mailto:info@bsolutionsrl.it) • [www.bsolutionsrl.com](http://www.bsolutionsrl.com)

### COMPANY DATA

#### Contacts

**Gianluca Bonfanti** - General Manager  
**Raffaello Bonfanti** - Technical Manager  
**Nardo Daniele** - Sales Manager

#### Planned Exhibitions

##### Glasstec

Düsseldorf, Germany - 20 / 23 October 2020

### COMPANY PROFILE

**B Solution** has 30 years of experience and has developed a complete range of products suitable for both small and large glassworks, satisfying the most modern production requirements.

#### B Solution is specialized in:

##### GRINDING LINES

- Vertical NC Speed Edge
- Vertical Speed Arris
- Bilateral grinding flat edge

- Bilateral grinding round edge
- Shape rounding
- Shape radius

##### DRILLING AND MILLING LINES

- Vertical NC Speed drilling and milling
- Multi-head vertical drill
- Vertical drill template
- Horizontal modular drill

##### AUTOMATION AND MANIPULATION

- Loading manipulator
- Unloading manipulator
- Rotating platform
- Shuttle
- Turning device
- Transfer
- Horizontal diverter 0-90

##### CUSTOMIZED LINES FOR:

- Home appliance industry
- Automotive industry
- Structural industry
- Furniture industry
- Small sizes



#### DRILLING

Speed drill vertical compact in high productivity, suitable for holes, notches, milling and counter-sinks on rectangular and shaped plates.

Ideal for series and to be matched with grinding or stand-alone lines.

The Speed drill is equipped of spindle with tool exchange ISO30 and two magazines for 16 positions.

Possibility to import dxf format shapes or to program shapes also directly on board.

### SPEED ARRIS

Speed Arris is B Solution's high-productivity vertical arising machine specialized in rough grinding- arising.

The machine can arris/grind two rectangular glass with different size and thickness, this guaranteeing high Productivity for double-glazing lines and also thanks to the continuous production cycle.

Glass transport and handling is carried out with suction cups, especially important for today's high-perfor-



mance glass types.

Regular arris is ensuring thanks to the oscillating spindle.

The Speed Arris can be integrated with IG or tempering line or as stand-alone machine. A software for shaped glass is available upon request.

Available in different size 2.0.3 - 2.6.4 - 2.8.5.

### SPEED EDGE

BSolution's Speed Edge is a vertical compact grinder with the innovative patented follow-glass system, which carries out both rough and polished machining, flat and round edging, arising and milling.

The machines compact dimensions include an integrated loading and unloading solution, thus reducing floorspace taken up.

The machine's suction cups have a locking system that involves the entire glass sheet.

Other features include:

- Maximum precision machining
- Best tool efficiency
- Loading of new glass sheets during the production cycle.

Available in different sizes 2.0.3 - 2.5.4 - 3.2.5 - 3.2.6 - 3.2.9





## BOVONE DIAMOND TOOLS Srl

Via Voltri 78 - 15076 Ovada (AL) - Italy  
Tel.: +39 0143 835796 / Fax: +39 0143 835797

E-mail: [sales@bovonediamond.com](mailto:sales@bovonediamond.com) • [www.bovonediamond.com](http://www.bovonediamond.com)

### COMPANY DATA

#### Contacts

**Vittorio Bovone** - Owner  
**Gianni Marengo** - Technical Manager  
**Marta Pesce** - Sales & Marketing

#### Sales

Domestic (15%) / International (85%)

#### Quality Certifications

ISO 9001:2008 QS - E-16-056

#### Banks

Intesa San Paolo - Carige Italia

#### Area

Offices 200 m<sup>2</sup> / Plants 2500 m<sup>2</sup>

#### Number of Employees

28

#### Founding Year

2003

#### Paid-in Capital

EUR 100,000

#### Parent and Sister Companies

##### 1) Elettromeccanica Bovone Srl

Via Molare, 15076 Ovada (AL) - Italy

Tel.: +39 0143 837511

Fax: +39 0143 823278

E-mail: [sales@bovone.com](mailto:sales@bovone.com)

##### 2) Bovone Maquinas e Equipamentos Industriais

Rua Serra do Japi-Vila

Nova Gomes Tatuapè

Sao Paulo - Brazil

Tel.: +55 11 20812995

E-mail:

[wadih@bovonebrasil.com.br](mailto:wadih@bovonebrasil.com.br)

### SALES NETWORK

#### BRAZIL

**Bovone Maquinas e Equipamentos Industriais**  
Rua Serra do Japi-Vila Nova  
Gomes Tatuapè  
Sao Paulo

#### USA

**Salem Distributing Co. Inc.**  
Gun Club Road 5901  
27103 Winston Salem, N.C.

#### FRANCE

**CVMI**  
5 Chemin du Jubin - 69570  
Dardilly

#### SPAIN

**Castro Glass**  
C. Benito Castro 10 - 28028  
Madrid

#### U.K.

**The Glass Machinery**  
Werley Rough Lowerhath  
Sy 132 bh, Whithchurch

#### GERMANY

**Glastechnik Holger Kramp**  
Albert Einstein Strasse 18  
23617 Stockelsdorf

#### BELGIUM

**Pieterman Glastechnik**  
Schenkenstraat 1  
3583 Paal Beringen

#### THAILAND

**Jeenny Trading Co. Ltd.**  
50/57 Wuttakard  
10150 Bangkok

#### RUSSIA

**Meran**  
Pkrov Ka St 20/1 - 101000 Moscow

#### KOREA

**Young Kyung Co Ltd**  
Chungbuk Bldg.4  
1439-5 Seocho-ku Seoul

#### ARGENTINA

**Gil Barbara**  
Venezuela 110 Piso 17 - 1095  
Buenos Aires

#### POLAND

**Italpol**  
Via Versilia 374 - 47023 Cesena

#### IRAN

**Jahan Atlas Tech**  
No. 16 Yazdan Panah  
St. Resalat Highway

#### AUSTRALIA

**Nfk Glazing & Industrial Supplies**  
28 Devlan Street  
Mansfield Qld 4122  
Australia

#### FINLANDIA

**A. Palojoki Oy**  
Sientie 17  
00760 Helsinki



**New**  
POLISHING  
WHEELS FOR  
ARRIS

COMPANY PROFILE

**BDT** was founded in 2003 to support and integrate the operations of Elettromeccanica Bovone: Vittorio Bovone, together with his daughters Federica and Giulia, and all the staff of BDT wanted to produce and manage wheels for straight-line edgers and bevellers – in-house. This, of course, was the beginning, because BDT is now a strong and consolidated company with well-prepared and experienced staff. Market demand focus and technical improvement are the keywords of BDT's history and evolution.

Over the years, this small company has grown a lot: 28 employees and considerable production capacity that includes metal bond and resin bond diamond cup and peripheral wheels for bevellers, edgers, double-edgers, CNC peripheral wheels, drill bits and glass tools to make holes. 2020 represents innovation through tradition: the new generation is now on air!

Bovone Maquinas e Equipamentos Industriais, the sister company of BDT, based in São Paulo, Brazil, was also founded in 2003, to deal with Bovone machines and BDT tools all over Brazil.

Since 2010, BDT has also been producing stone processing tools, investing in high-performance machines to provide high quality wheels which can grind new materials such as Dekton.

The company has always experienced step-by-step development, recording a steady and progressive increase in sales volume year after year. The only exception was in 2009 when sales decreased, but in 2010 the previous targets were completely restored. 2019 was a successful year since the company reported a 5% increase on total volume.



QUALITY &  
PERFORMANCE

JOINED FOR EXCELLENCE

STAINLESS QUALITY AND GOLD PERFORMANCE

**BOVONE**  
GROUP

New **Click-Fit**

That's an innovating fitting system for diamond wheels



New **AV**

High Speed Wheels for CNC Machines



The formula never changes: investing in innovation, research, development and performance with regards to machines and human resources are the secrets to growth. At BDT, employees are people first and foremost, and they are very responsive people. They feel part of a very big family, they are always ready to intensify rhythms when a customer urgently needs an order, since their efforts are always rewarded: they are always granted the best working conditions and they always receive what they ask for.

BDT uses the same philosophy with customers: first of all they are people, who need to be cared for in the best way possible. Our company aims at establishing a positive business relationship with them, and thanks to this philosophy, simple partnerships have often evolved into something more. This also happens with agents, dealers, suppliers, both Italian and international, and even forwarding agents (they are always welcome for a good Italian coffee!).

This virtuous circle keeps on producing important advantages, giving our brand name an extra value which represents BDT's long-lasting seriousness and reliability.



## **BOTTERO SpA**

Via Genova 82 - 12100 Cuneo (CN) - Italy - Tel.: +39 0171 310611

E-mail: [bottero@bottero.com](mailto:bottero@bottero.com) - [www.bottero.com](http://www.bottero.com)

### COMPANY DATA

#### Contacts

**Marco Vanni** - Flat Glass Sales Manager  
**Paolo Mazzone** - Hollow Glass Sales Manager  
**Marco Giraud** - Engineering Sales Manager

#### Annual turnover of the company

Euro 195.000.000

#### Percentage of turnover from glass

100%

#### Sales

Domestic 10% / International 90%

#### Quality certification

ISO9001 - ISO14001

#### Area

Plant area 44.000 m<sup>2</sup>

#### Number of Employees

800

#### Founding Year

1957

#### Capital

EUR 6.000.000

#### Patents obtained

102

#### Registered brands

3

#### Planned Exhibitions

##### Eurasia Glass

Istanbul, Turkey - 4 / 7 March 2020

##### Glass South America

Sao Paulo, Brazil - 3 / 6 June 2020

##### Mir Stekla

Moscow, Russia - 8 / 11 June 2020

##### GlassBuild America

Las Vegas (NV), USA - 15 / 17 September 2020

##### Glasstec

Düsseldorf, Germany - 20 / 23 October 2020

### SALES NETWORK

#### FRANCE & FRANCE DOM-TOM

**Bottero France**  
ZI du Fongéri Bât. B,  
Route de la Baronne 218  
6640 Saint Jeannet, France  
Tel: +33 493088760

#### UNITED KINGDOM & BRITISH OVERSEAS TERRITORIES

**Bottero Uk Limited**  
Heywood Distribution  
Park Unit P1, Bay  
OL10 2TT Heywood Lancashire, UK  
Tel: +44 1706655440

#### NORTHERN AND EASTERN EUROPE

**Bottero GmbH**  
Marie Curie Strasse 7  
41515 Grovenbroic, Germany  
Tel: +49 218181930

#### UNITED STATES OF AMERICA & CANADA

**Bottero Flat Glass Inc.**  
Greta's Way Suite 100, 257  
27284 Kernersville,  
North Carolina, USA  
Tel: +1 3369925623

#### SOUTH AMERICA

**Bottero do Brasil**  
Rua George Rexroth Bl.F cj.01 JD.  
Padre Anchieta 609 - 09951-270  
Diadema, San Paulo, Brasil  
Tel: +55 1140723031

#### REPUBLIC OF CHINA, CAMBODIA, MONGOLIA, LAOS, TAIWAN

**Bottero Glass Industry  
Co. Ltd.**  
Huaxu Road Room 501,  
Block 568 - 201700 Shanghai, China  
Tel: +86 2164274666





## COMPANY PROFILE



The glass industry has undergone under a global transformation in recent times. Glassworks are facing a much more variable request from the market: dimensions and order size are difficult to predict, while delivery times are becoming shorter and shorter.

The new challenge for glass makers is to keep pace, raising productivity and staying competitive. This means investing in new equipment, but mainly re-shape the workshop production flow following lean principles.

**Bottero S.p.A.** has solutions ready to go for all these challenges, based on three main pillars:

- modular machines and platform concept;
- integrated systems tailor-made to customer needs;
- Bottero 4.0: a comprehensive suite for machine learning and artificial intelligence.

For more than 60 years Bottero has been leading the flat glass industry in float and laminated glass with an in-depth and wide range of processing machines, from cutting tables to double edgers and CNC machines.

With more than 200 glass production equipment items, and more than 50,000 processing machines installed around the world for any type of glass, Bottero is the unmissable partner for everyone who wants to cut a piece of glass.

Our product range in cutting (BKM, BCS and EVO) is the widest and most in-depth available today in both stand-alone and dual-line with a laminated glass cutting table, or within an integrated line with stock management systems such as crane loaders or shuttle systems.

Thanks to their modular design, our customers can choose se-

veral options for their cutting tables, such as the Easy Deletion system with baffle grinding wheel, low-E/TPF removal with peripheral grinding wheel, PPL labelling printer and CO2 laser marking, just to name a few.

Every Bottero cutting table gathers more than six decades of experience and know-how in the glass sector, ensuring not only perfect cutting quality and a user-friendly approach, but also remote support and preventive maintenance tools.

Bottero offers a wide range of solutions for laminated glass processing scalable in terms of modularity and automation level, suitable to process laminated glass with PVB (acoustic and/or refrigerated), EVA and special anti-hurricane interlayers.

Bottero's R&D department is continuously working to innovate its laminated glass product range to ensure that the company remains the undisputed leader in this field.

The company's most advanced equipment is the 548 LAM, a fully automated table that can process different laminated glass types with reduced cycle time and energy consumption. Thanks to a great number of patents, Bottero's PVB heating system focuses energy on the PVB without heating the glass, thus reducing cycle time by 30%, saving up to 40% of energy costs and reducing the number of glass breakages.

Operator manual intervention is eliminated thanks to the patented squaring device for glass positioning and rotating, as well as by means of automatic loading and unloading arms. With regards to laminated glass production, Bottero is currently market leader in the assembly line segment with a full range of solutions ranging from entry level, with manual loading and unloading, up to fully automated with automatic PVB unwinding and trimming with an output cycle time of 38s per JS plate of up to 6.000x3.300mm.

Bottero Flex Lamelines can manage shaped glass from 200x200mm up to XJS glass of 12.000x3.300mm in multiple layers of up to 100mm thickness.

Thanks to a great number of patents and more than 25 years of experience worldwide, Bottero offers state-of-the-art nip rolls and furnace area for laminated glass production, suitable for a huge variety of glass size and dimensions.

Modularity and scalability are also applied to Bottero's wide range of horizontal double edgers and vertical edgers.

While double edgers represent the best solution when high grinding and polishing quality is required, vertical edgers are more flexible and can be easily integrated with robots for loading, unloading and glass rotation.

Of course, double edgers ensure perfect parallelism, squariness and multiple profile finishing, including arrisses, engraving and polished radius corners. With Bottero new Flex Edge, customers can really customise their machines with up to 17 spindles per side, with an unlimited range of dimensions up to 12,000mm opening width.

Remote service, cloud connection and preventive maintenance tools are the basic tool set of Bottero edgers.

Bottero is, and has been since 1957, customer centric. Our Pre-Sales and Sales Department pay special attention to understand customer expectations and limitation to develop the best proposal fitting with customer needs and reducing Total Cost of Ownership (TCO).

Fewer manual operations and more automation has allowed many of our customers around the world to improve their competitiveness and market leadership.

www.bovone.com  
**bovone**  
MADE IN EXCELLENCE



## ELETTROMECCANICA BOVONE Srl

Via Molare 23/C - 15076 Ovada (AL) - Italy  
Tel.: +39 - 0143 - 837511 - Fax: +39 - 0143 - 837560

E-mail: sales@bovone.com • www.bovone.com

### COMPANY DATA

#### Contacts

**Federica Bovone** - Sales Manager  
**Massimo Arata** - Sales Manager

#### Annual turnover of the Group

EUR 18 million

#### Percentage of Turnover from glass (%)

95%

#### Sales

Domestic (2%) / International (98%)

#### Quality Certifications

ISO 9001 - ISO 14000 - ISO 18000

#### Banks

NR 9

#### Nominal Capital

EUR 1 million

#### Area

Offices 1.000 m<sup>2</sup> / Plants 12.000 m<sup>2</sup>

#### Number of Employees

110

#### Founding Year

1954

#### Registered Trademarks

Bovone

#### Parent and Sister Companies

##### BDT - Bovone Diamond Tools

Via Voltri 78 - 15076 Ovada (AL) - Italy  
Tel.: +39 0143 835796 / Fax: +39 0143 835789  
E-mail: sales@bovonediamond.com

#### Planned Exhibitions

**Glass South America** - Sao Paulo, Brazil - 3 / 6 June 2020  
**GlassBuild America** - Las Vegas (NV), USA  
5 / 17 September 2020  
**Marmomac** - Verona, Italy - 30 September / 3 October 2020  
**Glasstec** - Düsseldorf, Germany - 20 / 23 October 2020

### SALES NETWORK

#### FRANCE

**C.V.M.I. SARL**  
cvmifrance@cvmifrance.com

#### SPAIN

**CASTRO GLASS**  
castroglass@castroglass.es

#### SWEDEN/DENMARK

**DMT APS**  
Jesper@dm-t.dk

#### GERMANY

**GLASTECHNIK HOLGER KRAMP GmbH**  
info@glastechnik.com

#### POLAND

**ITALPOL**  
italpol@italpolglass.eu

#### GREECE

**GEORGE DIKAIOS P.C.**  
georgedikaios@dgtech.gr

#### RUSSIA

**COMPANY YTA**  
stanki@yta.ru

#### BELGIUM

**PIETERMAN GLASTECHNIEK-B**  
info@pgv-be.com

#### THE NETHERLANDS

**PIETERMAN GLASTECHNIEK - H**  
info@pgv-nl.com

#### UNITED KINGDOM

**STONE AND GLASS GROUP**  
sales@stoneandglassgroup.co.uk

#### TURKEY

**SORGLAS LTD**  
sacha@sorglas.com

#### CZECH REPUBLIC

**TEKNIKA-CZ**  
zmeskal@teknika-cz.cz

#### USA

**BOVONE NORTH AMERICA**  
dmangus@bovone.com

#### USA

**SALEM DISTRIBUTING COMPANY**  
sales@salemDIST.com

#### ARGENTINA

**GIL BARBARA S.R.L.**  
diego@gilbarbara.com.ar

#### BRAZIL

**BOVONE MAQUINAS E EQUIPAMENTOS INDUSTRIAIS LTDA**  
wadih@bovonebrasil.com.br

#### JAPAN

**CORRENS CORPORATION**  
d34@correns.co.jp

#### THAILAND

**JEENNY TRADING**  
info@jeennytrading.com

#### FAR EAST

**USE ELECTRONICS (TAIWAN)**  
glass@use.com.tw

#### SOUTH KOREA

**YOUNG KYUNG CO. LTD.**  
ykcld@ykc.co.kr

#### CYPRUS

**CORPOTRADE (Cyprus)Ltd.**  
charlesmaalouf@corpotrade.com



Innovation and Customization, Flexibility and Reliability, Performance, Quality and Process Speed are the characteristics of each Bovone product. Over 65 years of production at the highest levels, Bovone Group has established itself as an international leader in the supply of stand alone machines and full-line systems, accessories and tools for the second processing of glass and natural and synthetic stones.

The continuous analysis of the different and frenetic trends of each single application market originates the technological primacy of Bovone Group, which constantly studies new solutions able to provide clients with cutting-edge technologies for present and future challenges. In fact BRS, the Bovone robotic systems, born well in advance of the other players, express the trends of a market that is increasingly looking for automated solutions, to optimize resources without losing sight of the workmanship quality. Highly technological solutions for application destinations mainly aimed at the construction, furniture and automotive sectors: the entire production takes place in the Ovada (AL) plants, which constitute an infrastructure of absolute excellence in the Italian and international industrial scene able to manage internally every step, from the supply of the best raw materials to the development and integration of management software, up to the proposal of the most suitable tool, thanks to the synergy with its subsidiary BDT, Bovone Diamond Tools. In addition to the Ovada headquarters, Bovone is also present in the market with two direct branches, one in the United States dedicated to the North American market, and the other in Brazil for coverage of South America, as well as a widespread network of distributors present throughout the world. An articulated and highly qualified system of technicians, supported by the almost unlimited availability of stock, provides an excellent after-sales assistance service, responding promptly and competently in each geographical area.

On the commercial side, the choices that are building this strategy are the result of a clear and defined vision of business objectives: starting from 2020, the new headquarters in the United States originates from this vision and is aimed at direct control



of the market. The new General Manager who will lead the US office is called to consolidate the presence of the brand on a strategic market such as the US which continues to show real interest in Made in Italy technology. The action plan involves the structuring of an excellent sales service – faster responses and more efficient sales support – and the development of new prospects.

Anticipating market needs and facing high production standards are the drivers that guide production choices: Bovone machines and systems combine high quality with process speed, the continuous innovative drive with the drastic reduction of downtime thanks to the very high reliability.

There are three production areas of reference in Bovone:

### Machines

Stand alone machines for the treatment of glass sheets: grinders, bevellers and washing machines. The main aspect of this area is its high level of customization which, today, is a fundamental strategic plus: Bovone machines are designed to solve each and every production need. They provide perfect finishes for increasing production results thanks to their high speed, and combine the most advanced electronic applications with the construction

strength and reliability guaranteed over time: an entry level machine or a more advanced model, Bovone machines are able to guarantee excellent performance.

### Plants

Complete systems for mirror silvering and laminated glass lines are fully customizable and can be integrated according to clients' specific needs: with respect to standard configurations, all construction details are customized and calibrated in order to meet every specific need. Bovone systems ensure high performance both for large numbers and for those where high flexibility is required.

### BRS – Bovone Robotic System

The production range also includes with the BRS area, fully automated Bovone robotic systems for grinding glass. The BRS integrates straight-line edging machines and articulated, multi-axis robots with different loading and application capacities. And, with regards to the field of applied industrial robotics, BOVONE is KUKA's Official System Partner. BRS conforms perfectly to Industry 4.0 protocols: the islands work without the presence of personnel and are fully connectable for the traceability and self-adjustment of the production parameters.

# DIAMUT



## DIAMUT - BIESSE SpA

Via Malpighi, 8 - 48022 Lugo (RA) - Italy - Tel.: +39 - 0545 - 211911 - Fax: +39 - 0545 - 25406

E-mail: [sales@diamut.com](mailto:sales@diamut.com) • [diamut.com](http://diamut.com)

### COMPANY DATA

#### Contacts

Gianluca Grianti - Tooling Division Director

#### Planned Exhibitions

##### Mir Stekla

Moscow, Russia - 8 / 11 June 2020

##### China Glass

Postponed

##### GlassBuild America

Las Vegas (NV), USA - 15 / 17 September 2020

##### Glasstec

Düsseldorf, Germany - 20 / 23 October 2020

##### Glasstec Asia

Bangkok, Thailand - 17 / 19 November 2020

##### Zak Windows & Doors

Mumbai, India - 3 / 6 December 2020

#### Mother Company

Biesse SpA

### SALES NETWORK

#### EUROPE

DIAMUT FRANCE

DIAMUT UK

DIAMUT DEUTSCHLAND

#### NORTH AMERICA & CANADA

DIAMUT AMERICA & CANADA

#### OCEANIA

DIAMUT AUSTRALIA & NEW ZEALAND

#### LATIN AMERICA

DIAMUT BRASIL





**Diamut** is the division of Biesse Group dedicated to the design, manufacture and distribution of tools for processing glass, stone and ceramic materials. The company was established just over 30 years ago, founded on the intuition of just three business partners. Over time, Diamut has grown and developed through the company's entry into the world of Biesse (2002), and has evolved into one of the leading competitors on the global scene, with the ability to respond to a host of requests at international scale.

Today, Diamut is a successful, trusted partner in the aeronautics, household appliance, consumer electronics, furniture and architecture industries. The needs, requests and incentives received from these markets, combined with the expertise of Diamut's people, its industrial capacity and its widespread global distribution network, come together to create the blend of ingredients that go into making every Made in Diamut tool. Before being fitted in the machines belonging to artisan-, as well as those used by major companies engaged in large-scale production, Diamut tools are developed and tested on Intermac (Biesse Group's division specialized in glass, stone and metal processing technologies) machines.

All the details of each tool are carefully designed to ensure reliability and be ready for use even in the most demanding machining applications.

## PRODUCT RANGE

### Glass tools

- DRILLS, ROUTERS
- PERIPHERAL PROFILE WHEELS
- CUP WHEELS FOR STRAIGHT LINE AND DOUBLE EDGER MACHINES
- WHEELS FOR BEVELLED EDGES
- ENGRAVING WHEELS
- CUTTING DISCS
- WRITING BITS AND SPHERICAL TOOLS
- TOOLS FOR THIN GLASS SHEETS
- TOOLHOLDERS

### Stone tools

- DRILLS, ROUTERS
- EDGE POLISHER TOOLS
- PERIPHERAL WHEELS
- RECESS DRAIN TOOLS
- FUNERARY ART
- WRITING AND BAS-RELIEF
- CUTTING DISCS
- TOOLS FOR SINTERED MATERIALS, DEKTON
- TOOLHOLDERS
- EDGE POLISHING TOOLS
- PRESETTER MACHINE



## DIEFFE MACCHINE Srl

Via delle Industrie Due, 58 - 30020 Meolo (VE) - Italy  
Tel.: +39 0421 345300

E-mail: [info@dieffemacchine.it](mailto:info@dieffemacchine.it) • [www.dieffemacchine.it](http://www.dieffemacchine.it)

### COMPANY DATA

#### Contacts

Damelico Franco - CEO  
Enrico Bonanni - Sales Manager  
Damelico Gianluca - Technical Manager

#### Percentage of turnover from glass

90%

#### Sales

Domestic: 50% / International: 50%





## COMPANY PROFILE

**DIEFFE MACCHINE** designs and develops targeted solutions for water treatment and for the micro-filtration of water for the glass industry.

Thanks to years of experience in solid/liquid separation since 2002, DIEFFE MACCHINE is highly specialized in the development, manufacture and turnkey installation of plants using the most updated and reliable technologies.

The technical staff at DIEFFE MACCHINE carries out exhaustive feasibility analyses, in order to offer clients an accurate technical and economical assessment of the viability of the project and to build plants tailored to clients' specific needs.

DIEFFE MACCHINE provides technical assistance across all phases of machine construction, from order commissioning to plant operation and on-site personnel training.

DIEFFE MACCHINE offers a reliable, easy to operate, wide range of solid/liquid separation equipment:

- Manual centrifuges
- Automatic centrifuges
- Fine filtration
- Micro-filtration
- Reverse osmosis
- Complete plants

Many glass makers are still cleaning out their coolant tanks by hand, or using ineffective underground settling tanks.

These traditional methods simply don't solve the problems, and continue to result in lost machine time (and profits) during clean-outs, increased labour, disposal and coolant costs, and the typical problems caused by dirty coolant (slower operating speeds, decreased cutting/bevelling quality, decreased life of diamond wheels, conveyor bearings and other components, and increased maintenance costs.

- Decreased production costs
- Greater life for diamond wheels, conveyor

- bearings and other components
- Extended coolant life
- Reduced settling tank clean-out
- Reduced maintenance costs
- Reduced disposal costs
- Reduced labour costs
- Increased productivity ND quality
- Less machine/line downtime
- Cleaner coolant increases running speeds
- Less scratches caused by dirty coolant, so less scrap



# Edgetech

A **Quanex** Building Products Company



## EDGETECH EUROPE GmbH

Gladbacher Strasse 23 - 52525 Heinsberg - Germany  
Tel.: +49 2452 96491.0 / Fax: +49 2452 96491.11

E-mail: [info@edgetech-europe.com](mailto:info@edgetech-europe.com) • [www.superspacer.com](http://www.superspacer.com)

### COMPANY DATA

#### Contacts

**Robert E. Daniels**

President / IG Systems (USA)

**Joachim Stoss**

Managing Director of Edgetech Europe GmbH,  
Vice President International Sales & Marketing

**Chris Alderson**

Managing Director IG Europe (UK)

#### Mother company

**Quanex Building Products Corporation**

#### Area

Cambridge, Ohio USA: 38,740 m<sup>2</sup>  
Heinsberg, Germany: 4,368 m<sup>2</sup>  
Coventry, UK: 2,522 m<sup>2</sup>

#### Number of Employees

450

#### Founding Year

1989

#### Registered brands

Super Spacer®

#### Parent and Sister Companies

##### 1) Quanex IG Systems, Inc.

800 Cochran Avenue - 43725 - Cambridge, Ohio - USA  
Tel.: +1 800 233 4383 - Fax: +1 740 439 0121  
E-mail: [IGSales@quanex.com](mailto:IGSales@quanex.com) / [www.quanex.com](http://www.quanex.com)

##### 2) Edgetech (UK) Ltd.

Stonebridge House, Rowley Drive  
Stonebridge Trading Estate  
CV3 4FG Coventry - United Kingdom  
Tel.: +44 2476 639931 / Fax: +44 2476 639727  
E-mail: [ukenquiries@edgetechig.com](mailto:ukenquiries@edgetechig.com)  
[www.edgetechig.co.uk](http://www.edgetechig.co.uk)

##### 3) Edgetech Europe GmbH

Gladbacher Strasse 23 - 52525 Heinsberg - Germany  
Tel.: +49 2452 96491.0 / Fax: +49 2452 96491.11  
E-mail: [info@edgetech-europe.com](mailto:info@edgetech-europe.com) / [www.superspacer.com](http://www.superspacer.com)

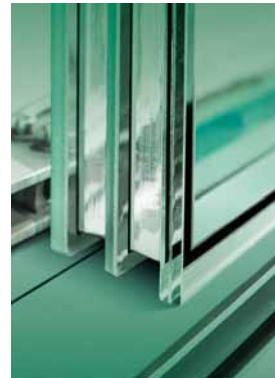
### Customisation plus scaling = Industry 4.0

*Mass customisation is often proclaimed one of the formulas for success for products and services in the 21st century. Edgetech Europe demonstrates the advantages of the Super Spacer® for automated processes in the digital age.*

Customised made to measure windows have characterised the fields of window construction and insulating glass production since time immemorial. Due to intense competition and the great pressure to be efficient, a large portion of the industry has effected the transition towards industrial-style production. Last but not least, energy requirements and the trend towards large glass surfaces as well as curved and free-formed glazing are constantly presenting the industry with new challenges.

Through the use of intelligent automation, insulating glass manufacturers are capable, on the one hand, of taking advantage of the economies of scale offered by producing higher volumes and, on the other hand, of economically realising even out of the ordinary customer requirements in batch size 1. "Automation-ready" components are required in order to transform this customer-oriented thinking into digitised production.

If flexible spacers from the roll are applied automatically, the majority of set-up times are eliminated and the line is flexible to the maximum possible extent in terms of the window dimensions, glass type, number of panes and spacer width. Super Spacer® is set in parallel down to the last millimetre and guarantees a visually appealing and, above all, tight edge seal. The warm edge has gained a market share in the spacers sector of over 50% in almost every single country in Europe. The core function of Super Spacer® as a warm edge remains the ongoing number 1.





## Planned Exhibitions

**Eurasia Window** - Istanbul, Turkey  
4 / 7 March 2020

**Fensterbau FRONTALE**

Postponed

**Zak Facades** - Dublin, Ireland - 7 May 2020  
**Mir Stekla** - Moscow, Russia - 8 / 11 June 2020  
**Kazbuild** - Kasachstan - 8 / 10 September 2020

**GlassBuild America** - Las Vegas (NV), USA  
15 / 17 September 2020

**Glasstec** - Düsseldorf, Germany - 20 / 23 October 2020

**WinDoor** - Montreal, Canada  
18 / 19 November 2020

**BAU** - Munich, Germany - 11 / 16 January 2021

**FIT Show** - Birmingham, United Kingdom  
25 / 27 May 2021

## SALES NETWORK

### GENERAL SALES CONTACT

EUROPE, AFRICA, MIDDLE EAST, ASIA, AUSTRALIA & OCEANIA

**EDGETECH EUROPE GMBH**

Gladbacher Strasse 23 - 52525 Heinsberg

Tel.: +49 2452 96491 0 - Fax: +49 2452 96491 11

E-mail: info@edgetech-europe.com

### UK & IRELAND

**EDGETECH (UK) Ltd.**

Stonebridge House - Rowley Drive

Stonebridge Trading Estate - Coventry, CV3 4FG

Tel.: +44 2476 639931 - Fax: +44 2476 639727

E-mail: ukenquiries@edgetechig.com

### NORTH, CENTRAL & SOUTH AMERICA

**QUANEX IG SYSTEMS, INC.**

800 Cochran Avenue - Cambridge, Ohio, 43725 - USA

Tel.: +1 800 233 4383 - Fax: +1 740 439 0121

E-mail: IGSales@quanex.com

### SOUTHERN EUROPE

#### ITALY, SAN MARINO, VATICAN, REPUBLIC OF MALTA

**Tommaso Pascucci** (Sales Agent)

Mobile: +39 320 632 2008 - E-mail: t.pascucci@edgetech-europe.com

#### FRANCE, MONACO, BELGIUM (WALLOON) & BALKANS

**Fabrice Keller**

Mobile: +33 687 689654 - E-mail: f.keller@edgetech-europe.com

#### TURKEY

**Esat Suvarierol - FGI Flat Glass International** (Distributor)

Mobile: +90 532 337 0475 - E-mail: esuvarierol@fgias.com

#### ANDORRA, SPAIN, PORTUGAL

**Jacinto Mora - TEKVIMO - PLADENEX S.L.** (Distributor)

Mobile: +34 649 905 410 - E-mail: jacinto.mora@tekvimo.es

#### NORTHERN EUROPE & BALTIC

#### DENMARK, ESTONIA, FINLAND, ICELAND, LATVIA, LITHUANIA, NORWAY, SWEDEN

**Christina Bång - SINCHRIJO AGENTURE AB** (Distributor)

Mobile: +46 705 803789 - E-mail: christina@sinchrijo.com

#### EASTERN EUROPE & RUSSIA

#### POLAND, RUSSIA, UKRAINE, BELARUS, UZBEKISTAN, BELARUS, KAZAKHSTAN, MONGOLIA

**Georg Janik - JANGE - JERZY JANIK** (Sales Agent)

Mobile: +48 503 035605 - E-mail: g.janik@edgetech-europe.com

#### CZECH REPUBLIC, SLOVAK REPUBLIC

**Andrej Titov - EWCOO s.r.o.** (Distributor)

Mobile: +420 603 480148 - E-mail: a.titov@ewcoo.com

### HUNGARY, REPUBLIC MOLDOVA, ROMANIA

**Robert Jug, IMROGLASS S.r.l.** (Distributor)

Mobile: +40 745 468582 - E-mail: robert.jug@imroglass.ro

### BULGARIA, MACEDONIA, MONTENEGRO, SERBIA

**Roberto Paoletti - GLASMIK BEOGRAD d.o.o** (Distributor)

Mobile: +381 65 574 92 25 - E-mail: roberto.paoletti@glasmik.si

### BOSNIA-HERZEGOVINA, KOSOVO, SLOVENIA

**Igor Florenin - GLASMIK d.o.o.** (Distributor)

Mobile: +386 51 614925 - E-mail: igor.florenin@glasmik.si

### CROATIA

**Ana Varga - FORMATOR - SIGURNOSNA STAKLA d.o.o.** (Distributor)

Mobile: +385 91 1503371 - E-mail: ana.varga@formator.hr

### AUSTRIA, GERMANY & SWITZERLAND

#### AUSTRIA, GERMANY, SWITZERLAND

**Horst Matias**

Mobile: +49 151 55046650 - E-mail: h.matias@edgetech-europe.com

### BENELUX

#### BELGIUM (FLEMING), THE NETHERLAND, LUXEMBURG

**Roger Kahlen**

Mobile: +49 151 55850050 - E-mail: r.kahlen@edgetech-europe.com

### ASIA

#### SOUTH KOREA

**YS PARK - Advanced Material Resource, Inc.** (Distributor)

Mobile: +82 10 3255 9841 - E-mail: ys.park@quanex.com

#### JAPAN

**Yuma Motohashi - Correns Corporation** (Distributor)

Mobile: +81 3 5114 0852 - E-mail: yuma.motohashi@correns.co.jp

#### CHINA

**Daniel Zhang - Linkeast International Trading (Shanghai) Co., Ltd.** (Distributor)

Mobile: +86 1864 0258 988 - E-mail: daniel.zhang@linkeast.com.cn

### AUSTRALIA & OCEANIA

#### AUSTRALIA

**Sandro Ianni - Elegant Glass Trading PTY Ltd.** (Distributor)

Mobile: +61 29 473 6500 - E-mail: sandroianni@aol.com

#### NEW ZEALAND

**Richard Stokes - Glasscorp Ltd.** (Distributor)

Mobile: +64 21 2853525 - E-mail: richard@glasscorp.co.nz

### AFRICA

#### SOUTH AFRICA

**Stuart Fraser - Fraser Global Trading (Pty) Ltd.** (Distributor)

Mobile: +27 717 426 759 - E-mail: sfraser@fgtrading.co.za

# FOREL



## FOREL SpA

Via per Monastier 4 - 31056 Vallio di Roncade, Treviso - Italy  
Tel.: +39 39 0422 840507 - Fax: +39 0422 840900

E-mail: [info@forelspa.com](mailto:info@forelspa.com) • [www.forelspa.com](http://www.forelspa.com)

### COMPANY DATA

#### Founding Year

1976

#### Branches

##### 1) FOREL NORTH AMERICA

1819 Buerkle Road St. Paul - Minnesota USA  
Tel.: +1 651 493 4378 - E-mail: [sales@na.forelspa.com](mailto:sales@na.forelspa.com)

##### 2) FOREL RUSSIA

Sovetskaya str.23A - Taldom - Moscow region - Russia  
Tel.: +7 495 410 36 59 - E-mail: [e.kovacic@forelspa.ru](mailto:e.kovacic@forelspa.ru)

#### Planned Exhibitions

**GlassBuild America** - Las Vegas (NV), USA  
15 / 17 September 2020

**Glasstec** - Düsseldorf, Germany - 20 / 23 October 2020

**Veteco** - Madrid, Spain - 10 / 13 November 2020



### COMPANY PROFILE

**Forel** is an Italian company and world leader in the design and production of machinery for the flat glass and double glazing industries.

Established in 1976, for more than 40 years Forel has invested, researched and persevered to deliver technical projects using know-how, technical skills and creativity.

"Made in Forel" technology covers the following families of products: Vertical Cutting Line for Laminated Glass, Laminating PVB line, Edging Machines, Sorting System and IGU Machinery.

### SALES NETWORK

#### AFRICA

##### AFAM IKE

111 Bagley Terrace - Valeriedene,  
Johannesburg - Gauteng, 2195 - South Africa  
Tel: +27 83 251 0417  
E-mail: [ike.afam@gmail.com](mailto:ike.afam@gmail.com)

#### ALBANIA

##### ARVIS

SH.P.K. Lagja n° 4 - Rruga Skenderbej - Durres  
Tel: +355 684097550  
E-mail: [islam.isufaj@arvis.al](mailto:islam.isufaj@arvis.al)

#### ARGENTINA

##### CASA FIGINI

J. A. Cabrera 3183, C.P.1186 CABA,  
Buenos Aires - Argentina  
Tel: +54 (011) 4961-9027  
E-mail: [info@casafigini.com](mailto:info@casafigini.com)

#### AUSTRALIA / NEW ZEALAND

##### OVERSEAS GLASS AGENCIES PTY.

140 Malcom road braeside Victoria 3195 -  
Australia - Tel: +61 395872488  
E-mail: [enquiries@oga.com.au](mailto:enquiries@oga.com.au)



#### BELARUS - LATVIA - LITHUANIA - ESTONIA

**UAB "IDELIS"**  
Pelesos str.3 - LT-02115 Vilnius  
Lithuania  
Tel : +370 5 2383391  
E-mail : [info@idelis.lt](mailto:info@idelis.lt)

#### BELGIUM

##### PIETERMAN GLASTECHNIEK

Schemkensstraat 1 - 3583 Paal - Belgium  
Tel: +32 11 421775  
E-mail: [e.indestege@pgv-be.com](mailto:e.indestege@pgv-be.com)

#### BRAZIL

##### MUNIZ REPRESENTAÇÕES

Rua Quixeramobim, 15 Bairro Parque  
Uirapuru Cep: 07230-440 Guarulhos  
SP - Brazil - Tel: + 55 11 9 6438 5588  
E-mail: [genilson@munizrepresentacoes.com.br](mailto:genilson@munizrepresentacoes.com.br)

#### CHILE

##### DIAMANCHILE

22 Norte 1125, D-502, Viña del Mar - Chile  
Tel: +56 32 297 4509  
E-mail: [diamanchile@yahoo.es](mailto:diamanchile@yahoo.es)

## CHINA

### USE ELECTRONICS CO., LTD. MACHINERY DIV.

20th Floor, No. 85, Section 1, Chung Hsiao East Road, Taipei 10049, Taiwan  
Tel: +886-2- 2393 4825  
E-mail: glass@use.com.tw

## FINLAND

### PROJECTA

Lukkosepankatu 14 - 20321 Turku - Finland  
Tel: +358 20 771 30  
E-mail: arto.parkko@projecta.fi

## FRANCE

### DUMATEK SARL

Siège social: 1214 av Vaugrenier  
06270 Villeneuve Loubet - France  
Tel: + 33 5 56 20 29 11  
E-mail: dumatek@dumatek.fr

## GERMANY - AUSTRIA - SWITZERLAND

### - CZECH REPUBLIC

### PRO-GLAS

Kurstraße 6 A-6323 Bad Häring - Austria  
Tel: +43 699 122 122 32  
E-mail: sales@pro-glas.at

## JAPAN

### TGM CO.,

5F MetLife Sanbancho BLDG., 7-14 Sanbancho Chiyoda-Ku, Tokyo, 102-0075 - Japan  
Tel: +81 3 5733 6261  
E-mail: hironaka@tgm-japan.com

## INDIA

### THORNGATE SALES CORP

05-117, WeWork, Zenia Building, Hiranandani Circle, Hiranandani Business Park, Thane, Mumbai - 400607 - India  
Tel.: +91 98201 59819  
E-mail: sales@thorngate.in

## MEXICO

### PROVIGLASS S.A. DE C.V.

Calle 30 N° 2642-A Zona Industrial, C.P 44940, Guadalajara - Jalisco - Mexico  
Tel: +52 (33) 31451168  
E-mail: proviglass@yahoo.com.mx



## SAUDI ARABIA - QATAR - UAE

### HIET

Dubai Investment Park 2,  
PO Box: 73204, Dubai  
UAE  
Tel: +971 4 884 9020  
Email: marcel.dagher@hiet-me.com

## NETHERLANDS

### PIETERMAN GLASTECHNIEK

Industrieweg 28 3133 EE Vlaardingen  
Netherlands  
Tel: +31 10 4451062  
E-mail: r.rommers@pgv-nl.com

## POLAND

### GLASSMAK ADAM MAKAROWSKI

Ul.Lisieckiego 31 /18,  
40-070 Katowice - Poland  
Tel: +48 032 205 08 14  
E-mail: glassmak@vp.pl

## PERU - BOLIVIA

### OSAMU E.I.R.L

Merino 195 San Isidro - 27 - Lima  
Peru  
Tel: +51 1 421 6412  
E-mail: osamukihara@hotmail.com

## ROMANIA - HUNGARY - MOLDOVA

### IMROGLASS

Str. Cuza I. Al. 50 510193 Alba Iulia,  
Alba - Romania  
Tel: + 40 74 54 68 582  
E-mail: robert.jug@imroglass.ro

## SERBIA - MONTENEGRO - MACEDONIA

### GLASMIK RS

Joze Laurencica 4°, Naselje Altina, 11080,  
Zemun- Serbia - Tel: +381 65 57 49 225  
E-mail: roberto.paoletti@glasmik.si

## SLOVENIA - BOSNIA - CROAZIA- KOSOVO

### - ROMANIA

### GLASMIK SI

Ulica Lavžnik 9, 5290 Šempeter  
pri Gorici - Slovenia  
Tel: +386 5 335 97 10  
E-mail: igor.florenin@glasmik.si

## SPAIN - PORTUGAL

### SOLUTEC GLASS

Paseo Landabbarri, 3, Oficina 1° A-B, 48940  
Leioa, Vizcaya - Spain  
Tel: +34 94 600 22 11  
E-mail: gonzalo@solutecglass.com

## THAILAND

### MOTECH MACHINERY SERVICE CO., LTD.

38/84 - 85 Moo 3, Kukot,  
Lumlukka, Patumthani 12130 - Thailand  
Tel : + 66 2 5313384  
E-mail: p.huailai1@yahoo.co.th

## UK & IRELAND

### PROMAC GLASS MACHINERY SALES LTD.

Unit 3C Hadrians Way - Glebe Farm Ind Est.  
Rugby - Warwickshire cv21 1st - England  
Tel: +44 1788 577577  
E-mail: sales@promac.co.uk

## VIETNAM

### EUROTECHCORP

No 192/8 Tam Trinh Street, Yen so Ward,  
Hoang Mai District, Hanoi  
Tel: + 84 968 986 375  
Email: eurotechlines@gmail.com



**FORVET**

The Blue Solution

Innovative solutions in special glassworking machinery



## FORVET SpA

Str. Piossasco, 46 - 10040 Volvera (TO) - Italy  
Tel: +39 - 011 - 9855200 r.a. / Fax: +39 - 011 - 9853032

E-mail: [forvet00@forvet.it](mailto:forvet00@forvet.it) • [www.forvet.it](http://www.forvet.it)



## COMPANY PROFILE

Founded in 1990, **FORVET** has always aimed to the most advanced

market's niches, offering innovative, hi-tech and reliable glass working machines.

Forvet thinks "out of the box" and carries out a constant search for special solutions to fit perfectly customer needs. Anything standard cannot be considered enough, while each choice is excellence-driven.

As anything in our history, starting from the stone age all the way to the space exploration era, progress has always been triggered by ideas. Every invention, every discovery, every improvement that has allowed human beings to evolve, has been propelled by ideas, no matter if good or bad, correct or wrong, motivated or not.

In the same manner, Forvet has invented a new way to conceive the glass working processes: from the first CNC drilling machine of the history, through grinding and polishing lines, where the machine heads turn around the glass, to the Combiflex island - technological jewel - capable of performing seven different processes simultaneously.

New ideas, supported by constant significant investments in R&D, have allowed the Company to grow at a steady pace. The registration of numerous world-wide patents accounts for the evolution of ideas that become projects and then result into customer satisfaction, which is Forvet most important commitment.

Forvet is indeed a people-centric Company and its heart beats with enthusiasm and passion. Every activity is carried out knowing that customers love to make business with people they like.

Quality is the main target, achieved through a strong excellence-oriented business culture based on a highly specialized, strong and motivated staff.

### FRANCESCA FC 1250 HO



The FRANCESCA FC 1250 H.O. is a glass working Numerically Controlled (NC) drilling centre, capable to perform drilling, counter-

sinking and milling operations on flat glass sheets, including "out of square" pieces.

The FC 1250 HO was built over years of experience gained with the previous FC1250 model. Based on the same production philosophy, FC 1250 HO was improved in order to ensure space reduction, productivity increase, operational cost reduction and energy saving. The machine dimension is minimized, an area of 3x3 meters in total, though maintaining the possibility to process 5 sqm glass.

The FRANCESCA FC 1250 H.O AIR with vertical or horizontal loading/unloading is the latest evolution of this now proven drilling technology.

### FRANCESCA FC 16M 1600 WJ



The NC working centre Francesca FC 16M 1600 WJ is a new machine concept that is able to combine two production technologies, managed by single Numerical Control.

The brilliant news conceived by Forvet is to join the drilling basis realized with diamonds tools and the water jet cut. It is traduced in a big advantage for the production and the operator can choose which type of cuts to use, depending on the work to be carried out. Forvet water jet technology, developed according to Company philosophy, allows to perform fully automated loading, positioning, processing and unloading operations.

### FRANCESCA PORTALS



The Francesca FC 2000/2600/3000 is Forvet's answer to big glass sheets processing problems. The 3300 model processes two glasses

simultaneously. Forvet patented system based on dynamic vacuum belts provides the support during transport. The vacuum belts maintain the glass in its correct position along the entire length of the glass. This special feature allows to process low-E magnetron glass without any contact point with its surface.

Francesca FC machines is the only equipment able to carry out drilling and milling fully automated operations, including loading, positioning, setting and unloading.

### CHIARA EDGE PROCESSOR



The Chiara project has revolutionized the grinding sector thanks to the high flexibility this equipment ensures. Chiara can produce 1,000 pieces completely different from each other in size, thickness, even out of square, by processing them as all equals.

### CHIARA MULTIFLEX



Chiara MTP10 MULTIFLEX is designed to produce large volumes up to 3,300x18,000mm with 10 spindle grinding heads. The integration with a NC working centre enables to carry out radii corners, cut outs, milling (also polished) as well as drilling implementations, without repositioning the glass. It also allows the production of flat and/or pencil polished edge finish. The machine can also manage two glasses (even different from each other) simultaneously. As the glass flow is in a straight line, the Multiflex uses a third of the space required for a traditional double edger machine, for the same maximum dimensions.

### COMBIFLEX



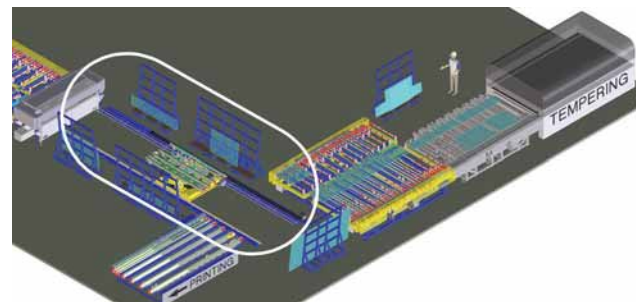
The experience gained with the Chiara and Francesca machines and the union of different working technologies on the same glass, has been extended to realize something unique: the COMBIFLEX working island – COMBination and FLEXibility, which boasts more than 10 worldwide patented systems.

The machine is able to perform automated loading, grinding, polishing, drilling, notching, water jet, rounded edges, countersinking, washing, drying and automatic unloading operations on flat glass and also out of square. All this in less than 32mq.

COMBIFLEX has been created with the possibility to evolve in time, according to production needs. The machine is already set to be implemented over time, without needs for long machine stops and/or additional wirings.

With the full configuration, the COMBIFLEX becomes an independent stand-alone productive island, where the positioning of the rack sheets is the only manual operation required.

### FORBOT



In 2018, during the international glass fair “Glasstec” in Dusseldorf (Germany), last Forvet smart creation “FORBOT” was introduced to the market.

FORBOT is a patented glass handling automatic system, that does not require any additional operator intervention.

This fully automated system brings many benefits like cycle times optimization and breaking risk reduction related to manual handling.

FORBOT creates an automated link between the working zone (grinding, drilling and milling) and the successive processes (tempering, printing etc...). It is able to temporarily disjoin the upstream and downstream zones, managing a buffer of configurable dimension.

During the storage phase on a dedicate glass stock rack, an innovative patented system step in, to separate glass sheets with a wire. This device can be installed on fixed racks or it can be left independent and self supporting. Its movable arms insert a wire or a plurality of wires between two adjacent glass sheets on the rack, keeping them separated during the storage. The insertion of the wire during the glass loading on the rack and its recovery during the unloading take place in a fully automated manner.



## GIARDINA GROUP

Via Vico Necchi 63 - 22060 Figino Serenza (Como) - Italy

Tel.: +39 - 031 - 7830801 - Fax: +39 - 031 - 781650

E-mail: [info@giardinagroup.com](mailto:info@giardinagroup.com) • [www.giardinagroup.com](http://www.giardinagroup.com)

### COMPANY DATA

#### Contacts

**Stefano Mauri** - Member of Board

**Riccardo Mauri** - Member of Board

**Stefano Tibé** - Sales Director

#### Mother company

**Giardina Finishing Srl**

#### Annual turnover of the Group

EUR 16,000,000

#### Sales

Domestic (10%) / International (90%)

#### Area

Offices 2000 m<sup>2</sup> / Plants 9000 m<sup>2</sup>

#### Number of Employees

60

#### Founding Year

1972

#### Paid-in capital

EURO 90,000

#### Planned Exhibitions

##### Glass South America

Sao Paulo, Brazil

3 / 6 June 2020

##### Glasstec

Düsseldorf, Germany

20 / 23 October 2020

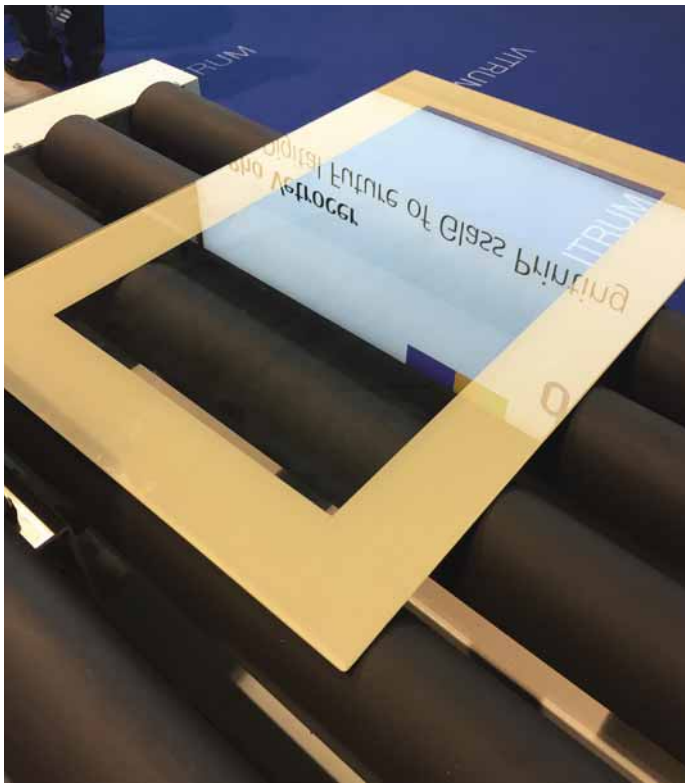


## COMPANY PROFILE

**Giardina Group** is specialized in coating and drying systems to the highest standards using the very latest techniques and environmental friendly finishing solutions available, including cost effective UV and Selected Microwaves (MOS®) dryers for water-based products. The highest standards in finishing and cost effective methods, coupled with environmental protection are one of the ongoing targets that Giardina Group, supported by many years of experience, successfully employ with many customers throughout the world.

Among the products:

- Heavy Precision Roller Coaters suitable for lacquer application on glass. Standard working widths as follows: mm 1300-1800-2200-2500, wider machines on request.
- Roller Coaters for special glass decoration.
- Automatic Spray machines, either with disposable paper belt conveyor or with paint recovery belt. Curtain coaters with double bed and 1- or 2 coating heads on fix or removable trolleys.
- 3D Glass Finishing with combined systems MOS® IR for water-based products.
- Quick drying systems such as MOS®UV dryers.
- Flash-off and hot air tunnels.
- Cooling tunnels.





## GLASS COMPANY Srl

Strada Cerreto 59/4 - 61122 Pesaro - Italy  
Tel.: +39 - 0721 - 283519 - Fax: +39 - 0721 - 283310

E-mail: [cb@glasscompany.com](mailto:cb@glasscompany.com) • [www.glasscompany.com](http://www.glasscompany.com)

### COMPANY DATA

#### Contacts

Claudio Bernabucci - CEO

#### Annual turnover of the Company

EUR 3,000,000

#### Sales

International > 70%

#### Area

Offices 250 m<sup>2</sup> / Plants 550 m<sup>2</sup>

#### Number of Employees

7

#### Third-party suppliers

Pesaro area, as well as international suppliers

#### Planned Exhibitions

##### Glasstec

Düsseldorf, Germany  
20 / 23 October 2020

### PRODUCT RANGE

- Laser cutting and engraving machines
- Systems for the production of fire-resistant glass
- Tempering furnaces
- Laminating furnaces and turnkey plants





## COMPANY PROFILE

**Glass Company** was founded in 2001 for the development of innovative solutions for flat glass processing. Over the years, Glass Company has designed and created diverse tempering and laminating machinery. 'Glass Company Project' plants are now equipped with highly advanced technology that is continuing to have extremely positive feedback from the sector.

GlassMek was founded in 2019 as a division specialised in glass processing machines to work alongside Glass Company's turnkey plants. GlassMek has the advantage of privileged third-party suppliers, thus enabling it to have competitive products with the highest quality. GlassMek's product range includes:

**LASERMEK**, a highly-configurable modular machine for the laser engraving of glass with any type of coating and silvering. The machine is available in a wide range of sizes, power levels and types of laser, as per clients' requests.

**FIREMEK**, on the other hand, is a system made up of machines and equipment dedicated to the production of fire-resistant glass, certified in accordance with the laws in force. Alongside this system, GlassMek also supplies a complete solution that includes technical consultancy with the regards to the certification of the glass produced with this system.

### Divisions

Glass Company: project and engineering for turnkey plants.  
GlassMek: flat glass processing machinery.

### Products

Laser cutting and engraving machines, systems for the production of fire-resistant glass, tempering furnaces, laminating furnaces and turnkey plants.



**glasstech**  
WHERE INNOVATION CONTINUES



## GLASSTECH, INC.

995 Fourth Street, Ampoint Industrial Park - 43551 Perrysburg Ohio - USA

Tel.: +1 419 661-9500 / Fax: +1 419 661-9616

E-mail: [sales@glasstech.com](mailto:sales@glasstech.com) • [www.glasstech.com](http://www.glasstech.com)

### COMPANY DATA

#### Contacts

Jay Molter - Senior Vice President Marketing & Sales

#### Other locations

##### 1) Glasstech, Inc. Shanghai

Representative Office: Shanghai, China

Tel.: +86 21 5836-7560

##### 1) Glasstech, Inc. Mumbai

Liason Office: Mumbai, India - Tel.: +91 - 98 - 3392-2876

### COMPANY PROFILE

**Glasstech**, Inc. is the world's leading manufacturer of glass bending and tempering technology for the solar, automotive and architectural glass markets.

Innovative ideas and concepts were largely responsible for Glasstech's early success, after the company's founding in 1971. Today, that spirit of innovation continues as a new generation of products - from a new generation of technology - is being brought to market by a new generation of management.

Glasstech is based in Perrysburg, Ohio USA, with facilities in New York City; Shanghai, China and Mumbai, India.

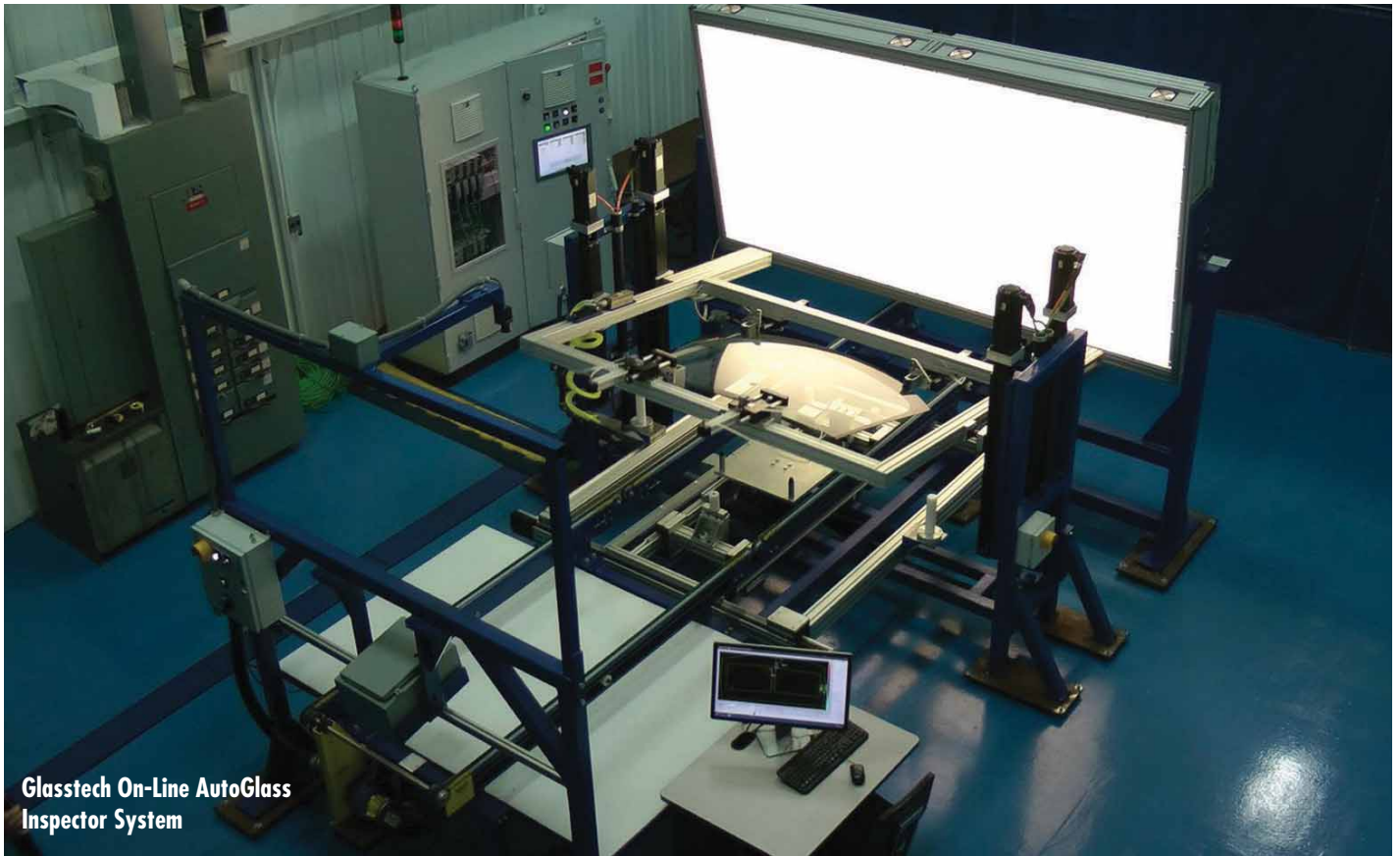


Glasstech EPB-L Glass Bending and Annealing System

### Planned Exhibitions

**China Glass** - Postponed

**Glasstec** - Düsseldorf, Germany - 20 / 23 October 2020

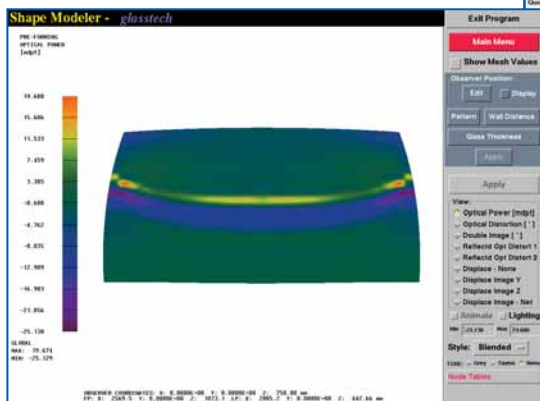
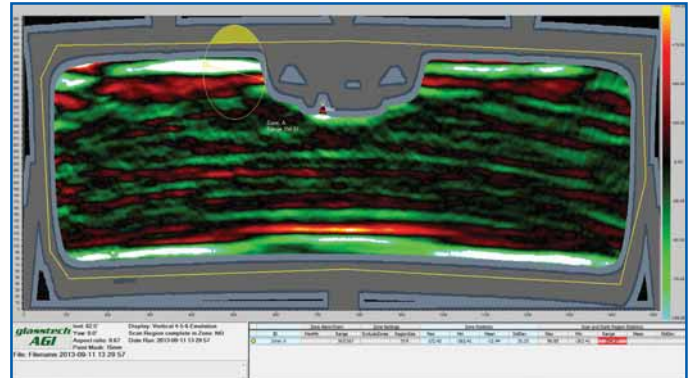


**Glasstech On-Line AutoGlass Inspector System**

- Manufacturer of advanced glass bending and tempering systems
- Over 500 systems sold in over 50 countries
- Provides solutions to the Automotive, Solar, Architectural and Specialty Glass Markets
- Technological leader with more than 600 patents and patent filings
- Experienced, capable organization

Glasstech is the world leader in the production of OE automotive glass bending and tempering systems and bending and annealing systems. Glasstech also offers:

- Retrofit & upgrade to current technology
- Glass inspection equipment
- Tooling production
- Shape Modeler™ software
- System auditing
- Service contracting
- Spare parts



**PERRYSBURG, OHIO U.S.A.**

**SHANGHAI, CHINA**

**MUMBAI, INDIA**

# glaston



## GLASTON CORPORATION

### HEADQUARTERS:

Lönnotinkatu 11 - 00120  
Helsinki - Finland  
Tel.: +358 10 500 500  
Fax: +358 10 500 6190  
E-mail: [info@glaston.net](mailto:info@glaston.net)  
[www.glaston.net](http://www.glaston.net)

### TECHNOLOGY CENTER FINLAND HEAT TREATMENT TECHNOLOGY:

**Glaston Finland Oy**  
Vehmaistenkatu 5 -  
33730 Tampere - Finland  
Tel. +358 10 500 500  
E-mail: [info@glaston.net](mailto:info@glaston.net)  
[www.glaston.net](http://www.glaston.net)

### TECHNOLOGY CENTER GERMANY INSULATING GLASS TECHNOLOGY:

**Bystronic Lenhardt GmbH**  
Karl-Lenhardt-Strasse 1-9  
75242 Neuhausen-  
Hamborg - Germany  
Tel. +49 7234 6010  
E-mail:  
[mail@bystronic-glass.com](mailto:mail@bystronic-glass.com)  
[www.bystronic-glass.com](http://www.bystronic-glass.com)

### TECHNOLOGY CENTER SWITZER- LAND DISPLAY & AUTOMOTIVE GLASS PRE-PROCESSING TECH- NOLOGY:

**Bystronic Maschinen AG**  
Industriestrasse 5 4922  
Bützberg - Switzerland  
Tel. +41 62 958 7777  
E-mail:  
[info@bystronic-glass.com](mailto:info@bystronic-glass.com)  
[www.bystronic-glass.com](http://www.bystronic-glass.com)

### TECHNOLOGY CENTER CHINA HEAT TREATMENT & INSULATING GLASS TECHNOLOGIES:

**Glaston (Tianjin) Co., Ltd.**  
11 Huifeng Road  
Wuqing Development  
Area 301700 Tianjin P.R.  
China  
E-mail: [info@glaston.net](mailto:info@glaston.net)  
[www.glaston.net](http://www.glaston.net)



## COMPANY DATA

### Contacts

**Arto Metsänen** - President, CEO  
All contacts:  
<https://glaston.net/contacts/>

### Annual Turnover of the Group

EUR 181 million

### Number of Employees

800

### Registered Patents

130

### Planned Exhibitions

Glaston will be present at all major  
glass exhibitions in 2020

## COMPANY PROFILE

### Glaston in brief

Glaston is the glass processing industry's innovative technology leader supplying equipment, services and solutions to the architectural, automotive, solar and appliance industries. The company also supports the development of emerging technologies by integrating intelligence in glass.

As of April 2019, Bystronic glass is part of Glaston Group and, working together, they provide clients with both the best know-how and the latest technologies in glass processing, with safer, smarter, and more energy-efficient glass solutions. We operate globally with manufacturing, services and sales offices in 12 countries. Glaston's shares (GLA1V) are listed on NASDAQ Helsinki Ltd.

This year, Glaston is celebrating 150 years of business, thanks to its ongoing track record of being an innovator, frontrunner and visionary thinker, now moving beyond machinery manufacturing to automated processes. As one of the first to seize the opportunities of the digital age, Glaston focuses on artificial intelligence and cloud-based services to provide smarter



machines and higher performance to keep business one step ahead.

### Putting digitalization into practice in Heat Treatment technology

The latest versions of Glaston flat glass tempering furnaces **Glaston FC Series, RC Series** and Jumbo Series incorporate high levels of automation and intelligent process control. Insight Assistant Pro provides intelligent online process assistance, while Insight Reporting Pro allows to track all trends online and improve overall performance for long-term strategic planning. Another new feature is active edge control technology, enabled by intelligent cooling profiling that automatically adapts to glass sizes, eliminating issues with edge lift. Vortex Pro convection system utilizes glass-size-sensitive convection profiling that actually follows the glass in the furnace, enabling higher loading efficiency with top quality.

**Glaston ProL** flat glass lamination line provides unprecedented flexibility for mixed production. The ProL convection heating chamber makes switching between glass types and different 'sandwiches' easier than ever. The whole line, from glass handling to the latest PVB cutting technology, has been designed for flexible operations. Glaston ProL can also now be connected to the Glaston Insight ecosystem for the monitoring of furnace production data online and taking advantage of the ecosystem benefits.

**Glaston ProBend** with its zero-tooling process offers a cost-effective, flexible way of producing quality cylindrical safety glass in a wide range of sizes and thicknesses. It can process large glass sizes for bent tempered, heat-strengthened and even laminated products. The machine features separate or combined bending and tempering sections, LB and CB, processing flat glass in the bending section or in a separate chiller.

### The power of Glaston Siru

Glaston's latest mobile application, Glaston Siru, is based on artificial intelligence. It allows anyone to perform tempered glass fragmentation tests quickly and easily with a mobile phone. There is no longer the need to spend time counting cullet pieces manually or risk making mistakes. It is a free app to be downloaded from the app stores.

### Satisfying the toughest warm edge demands in Insulating Glass manufacturing



TPS® applicator

The advanced architectural glass **TPS® (Thermo Plastic Spacer)** technology from Bystronic glass provides processors with end products to satisfy the toughest warm edge demands. Insulating glass units made with TPS® improve energy efficiency in buildings, increase durability and reduce energy costs.

A major advantage of TPS® is its production flexibility: the direct application of the Thermo Plastic Spacer onto the glass lite significantly simplifies the processes for I.G. manufacturers. The entire production mix can be manufactured on one line on the various Bystronic glass

TPS® I.G. production lines – from individually configurable solutions via fast system solutions with shortest cycle times, up to maxi size solutions for glass sizes up to 9 m in length.

Irrespective of whether a fully-automatic line for I.G. production with warm-edge spacers or an entry-level solution: At Bystronic glass, every I.G. manufacturer will find the line or machine that meets their requirements. The benchmark in this sector is the modern **B'SPEED** production line, which can be used to produce triple I.G. units in the same time it takes other lines to produce double I.G. units. At the other side of the product range is the **B'COMFORT**, the ideal entry-level solution to industrial I.G. production. It cannot be overlooked – the trend is always heading towards bigger I.G. units and façade elements. With the **B'JUMBO** production line, XXL units up to 18 meters in length can be manufactured in an economical manner.

### Maximum yield and flexibility for Automotive and Display glass processing

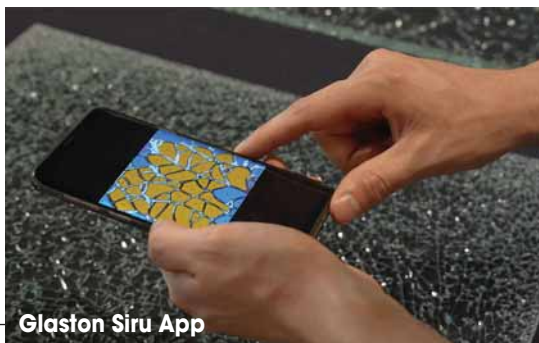
**B'CHAMP** automotive glass pre-processing solutions enable to enhance efficiency in the daily production of windshields, sidelites, backlites or quarterlites. This means a yield greater than 98%, shorter cycle times, reaction-fast software to minimize downtime and an excellent cost-per-unit ratio.

**B'BRIGHT** display glass solutions are individualized production systems for automatic cutting, breaking, grinding and drilling of thin glass down to 0.4 mm in thickness. These thin glasses are used for monitors, TV-screens, mobile devices as well as for automotive glass displays. The machine configuration offers not only a process-optimized line layout, but also various expansion options using upgrade kits.

**Glaston Matrix**, the automatic windshield bending furnace for fast, efficient and high-performance windshield production, features a new windshield press for bending deep sags and wraps around corners to match the tightest tolerances. The new active convection heating enhances the production of windshields with conductive or heat-reflective coatings.

**Glaston HTBS** bending and tempering system covers a wide range of application areas in the automotive, appliance and furniture glass industries. With its flexibility and high end-product quality, the HTBS furnace allows to meet evolving market requirements and process multiple glass sheets in one production load.

More about our products and services: [www.glaston.net](http://www.glaston.net)



Glaston Siru App

**HEGLA**<sup>®</sup>

**HEGLA**

Industriestraße 21 - 37688 Beverungen - Germany  
Tel.: +49 5273 905-0 / Fax: +49 5273 905-255

E-mail: [info@hegla.de](mailto:info@hegla.de) • [www.hegla.com](http://www.hegla.com)



COMPANY DATA

**Contacts**

Jochen H. Hesselbach - CEO  
Bernhard Hötger - COO  
Dr. Heinrich Ostendarp - CTIO

**Annual Turnover of the Group**

EUR 101,000,000

**Percentage of Turnover from Glass**

100%

**Quality Certifications**

DIN EN ISO 9001:2015

**Number of Employees**

750

**Registered Trademarks**

SortJet, ReMaster, Optimax

**Planned Exhibitions**

**Fensterbau Frontale** - Nuremberg, Germany - 16 / 17 June 2020

**China Glass** - Postponed

**Mir Stekla** - Moscow, Russia - 8 / 11 June 2020

**GlassBuild America** - Las Vegas (NV), USA

15 / 17 September 2020

**Glasstec** - Düsseldorf, Germany - 20 / 23 October 2020

**Euroblech** - Hanover, Germany - 27 / 30 October 2020

**Glass Industry Fair** - Poznan, Poland - 18 / 21 November 2020

**Glasstec Asia** - Bangkok, Thailand - 17 / 19 November 2020

**Zak Windows & Doors** - Mumbai, India - 3 / 6 December 2020

COMPANY PROFILE

**Loading**

For loading **HEGLA** offers different solutions such as Automatic Floor Loading Systems, Compact and Gantry Loaders. Alongside security aspects for operators, this equipment is suitable to increase output and expand the possibilities of using special glass types. Double sided floor loaders of 3 x 2 metres and 6 x 3 metres are available with up to 6 positions (12 racks), while the gantry systems are infinitely variable and can use 'A' and 'L' frames as well as compact storage systems. 6 x 3-metre gantry loaders can also load directly from Float Liner delivery racks dropped in the crane area.

**Float Glass Cutting**

With its wide range of cutting systems, **HEGLA** offers a perfect solution for each and every customer needs. For the industrial volume cutting of float glass for example the Galactic with its shortest processing time and full automation was invented. **RAPIDLINE**, with its optional grinding device for low-E, is **HEGLA**'s universal cutting machine for float glass.



**Linear Driven Cutting Machine for float glass: Hegla Galactic**

**Laminated Glass Cutting**

For the cutting of laminated glass **HEGLA** became known with its ProLam series which cuts precise and quickly. To offer customers more flexibility **HEGLA** offers the ProLam Kombi which can cut even float glass and laminated glass. As a space-saving solution for automatic scoring of free forms and models of laminated glass **Hegla** designed the RapidLam which can be used as a stand-alone solution or as an add-on for an existing cutting line. Two synchronous cutting heads achieve high precision results which can be reproduced at any time.



## SALES NETWORK

### GERMANY

#### HEGLA MASCHINENBAU GMBH & CO. KG

Industriering 5 - D-06712 - Kretzschau - Tel.: +49 3 44 25 - 5 01-0 / Fax: +49 3 44 25 - 5 01-29 - E-mail: info.k@hegla.de

### AMERICA, USA

#### HEGLA CORP.

277 Southfield Pkwy Suite 170 - GA 30297 - Forest Park  
Tel.: +1 404 763 9700 / Fax: +1 404 763 0901  
E-mail: info@heglacorp.com

### FRANCE

#### HEGLA FRANCE S.A.R.L

Zone les Terrasses de la Sarre - 4 Terrasse Bretagne 57400 - Sarrebourg - Tel.: +33 3 88 - 91 01 01 / Fax: +33 3 88 - 91 05 05  
E-mail: hegla.france@heglafrance.com

### UNITED KINGDOM

#### HEGLA MACHINERY (UK) LTD.

11 Cochran Close - Milton Keynes, MK8 0AJ - Buckinghamshire  
Tel.: +44 19 08 - 26 19 33 / Fax: +44 19 08 - 26 19 50  
E-mail: info@hegla.co.uk

### RUSSIAN FEDERATION

#### HEGLA TRADING & SERVICE GMBH, REPRESENTATIVE OFFICE RUSSIA

8/1, Bibirevskaja str. - Office 401, 127549 - Moscow  
Tel.: +7 (495) 724 27 09 /  
Mobile: +7 (903) 144 16 19 - E-mail: hegla.rus@gmail.com



**ProLam Kombi: Automated cutting system for laminated and float glass**

### Laser markings for glass

The ES-Guard laser marking system of HEGLA boraident enables a non-destructive marking of coated and uncoated glass surfaces. The glass is marked using our reliable and patented laser transfer technology, UniColor. As an added advantage, the machine is designed for fully automatic operation on production or cutting lines. Besides, thanks to the laser technology the markings are attached within the panel for its entire life cycle, giving us important information that is collected and saved.

### ReMaster

The ReMaster for optimised processing of remnant sheets is an innovative system that allows sub-plates of any type be stored without manual handling above the cutting line. Without interrupting the production process the remnant can be used for following glass runs, thus reducing sub plate waste drastically. This creates the basis for efficient production of IG-units of all glass types and thicknesses. It offers optimal

### INDIA

#### HEGLA TRADING & SERVICE GMBH - Branch Office

44 Veerabadran Street, Nungambakkam, 600034, Chennai  
Tel.: +91 80 56 13 31 13 - E-mail: naresh.kumar@hegla.in

### CHINA

#### OUFENG TRADING (HANGZHOU) CO., LTD., QIN WANG

1-804, Twin Tower, 168 Chaohui Road, 310014 - Hangzhou  
Tel.: +86 571 8588 9539 / 8545 5623 - E-mail: qin.wang@dtmthz.cn

### ITALY

#### FABIO ZUCAL

Via Roma 3 - 22070 - Bregnano (CO)  
Tel.: +39 334 59 56 212 - +39 333 35 65 003  
E-mail: zucal.hegla@vodafone.it

### POLAND

#### MC DIAM SP. Z O.O.

PL 02-668 Warszawa, Al. Lotników 12  
Tel.: +48 609 858 877 / 693 451 606  
E-mail: mcdiam@mcdiam.com.pl

### SPAIN

#### R. MEYER S.L., ROLF MEYER

C/Llull 70-72, 3º 3a, 08005 - Barcelona  
Tel.: +34 93 30 10 52 5 / Fax: +34 93 41 20 57 6  
E-mail: rolf.meyer@rmeyersl.com



**HEGLA SortJet: Invented to reduce material costs and improve production flow**

utilization of subplates, decreases material costs and reduces unnecessary handling.

### SortJet

With the need for more and more automation and high-speed operations in glassworks, HEGLA invented the SortJet – An innovative product that not only improves material flow but also reduces material costs to a minimum. After cutting the glass in random order to reduce offcuts, all panes are stored in the dynamic buffer of the SortJet. Just 250 bays can accommodate multiple panes to buffer all the glasses in the production process for an insulation glass line.

When the panes for an IG-unit are required on the line, the individual panes are handed over directly in production orientation and sequence. The separate processes in front of and behind the dynamic buffer contribute towards a production process that significantly reduces downtime while at the same time accelerating the material flow and reducing cutting costs.

**helios quartz®**



**HELIOS ITALQUARTZ Srl**  
**Production Site / R&D and Technical Center**

Viale delle Industrie, 103/A - 20040 Cambiagio (Mi) - Italy  
Tel.: +39 02 95349318 / Fax: +39 02 95345085

E-mail: [italy@heliosquartz.com](mailto:italy@heliosquartz.com) • [www.heliosquartz.com](http://www.heliosquartz.com)

COMPANY DATA

**Contacts**

Armando Giro - Chairman  
Luigi Gastaldo - CEO

**EUROPE (Headquarter)**

**HELIOS QUARTZ GROUP SA**  
**Production Site / R&D and Technical Center**

Via Roncaglia 20 6883 Novazzano (CH)  
Tel.: +41 (0) 919233555/6  
Fax: +41 (0) 919233557  
E-mail: [swiss@heliosquartz.com](mailto:swiss@heliosquartz.com)  
[www.heliosquartz.com](http://www.heliosquartz.com)

**Sister Companies**

**AMERICA**

**HELIOS QUARTZ AMERICA INC.**  
**Distributor – Logistic and Technical center**  
**for North America region**

8444 W. Central Ave.  
# 2 Sylvania, OH 43560 - USA  
Tel.: +1 (419) 882-3377 - Fax: +1 (419) 787-8307  
E-mail: [america@heliosquartz.com](mailto:america@heliosquartz.com)  
[www.heliosquartz.com](http://www.heliosquartz.com)

**CHINA**

**SHENYANG HELIOS TECH. CO. LTD**  
**Distributor and Logistic center**  
**for China Mainland region**

Building A, 1506 Midland Tower. No.208  
Changjiang S.St. Huanggu District  
Shenyang - China  
Tel.: +86 024-31632308 / 024-31653319  
E-mail: [china@heliosquartz.com](mailto:china@heliosquartz.com)  
[www.heliosquartz.com](http://www.heliosquartz.com)

**ASIA**

**HELIOS QUARTZ ASIA LTD.**  
**Distributor and Logistic center for Asia Pacific region**

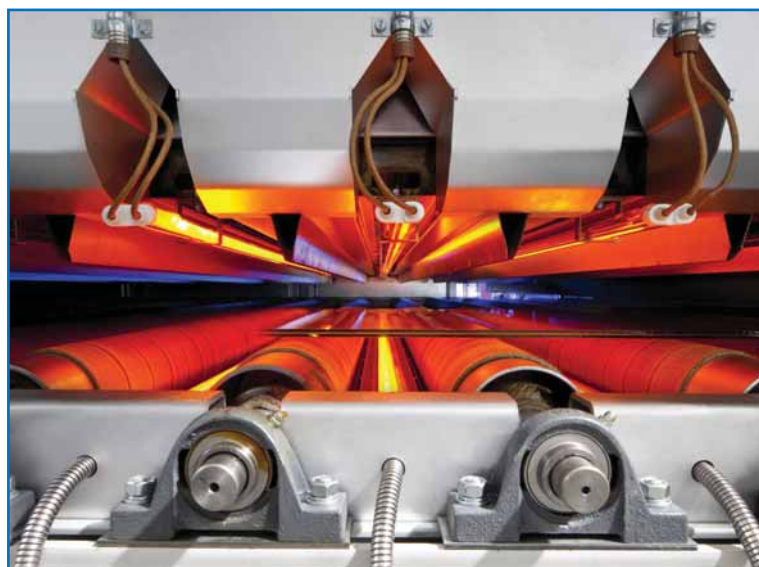
Suite 3401, 34/F., One Taikoo Place, 979 King's Road  
Quarry Bay, Hong Kong - Hong Kong  
Tel.: +86 (132) 38830625  
E-mail: [asia@heliosquartz.com](mailto:asia@heliosquartz.com)  
[www.heliosquartz.com](http://www.heliosquartz.com)

**TURKEY**

**HELIOS QUARTZ TURKEY**

**Commercial branch for Turkey region**

Mimaroba Mh. Mustafa Kemal Bulvarı.  
Colorist A Blok. Kat 3 D.50  
Mimaroba, Büyükçekmece - Istanbul  
Tel.: +90 8502281908 - E-mail: [turkey@heliosquartz.com](mailto:turkey@heliosquartz.com)  
[www.heliosquartz.com](http://www.heliosquartz.com)



**Planned Exhibitions**

**Eurasia Glass**

Istanbul, Turkey - 4 / 7 March 2020

**China Plas**

Postponed: Shanghai, China - 3 / 6 August 2020

**China Glass**

Postponed

**Glass South America**

Sao Paulo, Brazil - 3 / 6 June 2020

**Drupa**

Düsseldorf, Germany - 16 / 26 June 2020

**Fakuma**

Friedrichshafen, Germany - 13 / 17 October 2020

**Glasstec**

Düsseldorf, Germany - 20 / 23 October 2020

**Inprint**

Milan, Italy - 22 / 24 October 2020



## SALES NETWORK

### TAIWAN

#### GENERAL TECHNICAL CO LTD

N6 Lane 497 C.Cheng Rd.Hsin-Tien C Taipei County 103 - Taipei  
Tel.: +886 2 22191223  
E-mail: jack@gtc-tekdesign.com

### POLAND

#### MD COAT SP. z o. o.

Drwinia 67, 32-709 - Drwinia  
Tel.: +41 12 2817262  
E-mail: d.filak@mdcoat.pl

### SPAIN

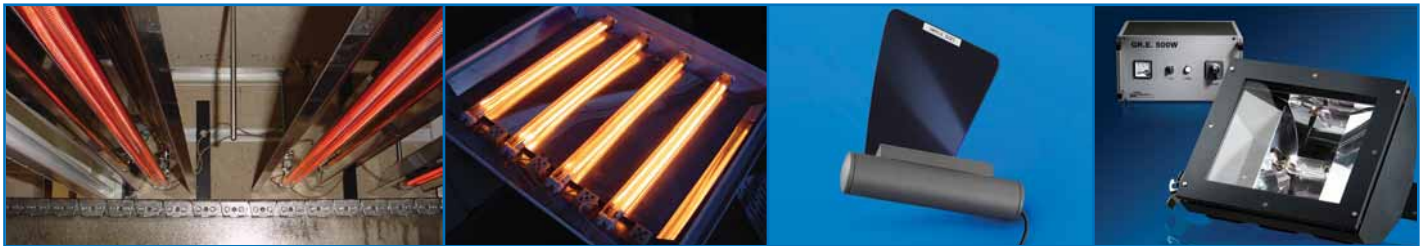
#### E.VILA PROJECTS & SUPPLIES S.L.

C/Castellallet Nau 8B Poligono Els Dolors  
08243 Manresa - Barcelona  
Tel.: +34 93 1131300 / Fax: +41 93 8762744  
E-mail: vilavilaro@gmail.com

### REP. OF SOUTH AFRICA

#### IRuv Tech / Lightas

10 Joubert Street - Brenthurst - Brakpan  
1541 Gauteng - Tel.: +27-11-8130375  
E-mail: sales@iruvtech.co.za - Web: iruvtech.co.za



## COMPANY PROFILE

Founded in 1940, **Helios Quartz** is a family-owned company with two production plants in Italy (Helios Italquartz S.r.l.) and Switzerland (Helios Quartz Group SA) combined with distribution channels in the USA, South America and Asia. Helios Quartz has grown into a major international supplier for Quartz Glass processing and the manufacturing of Infrared Emitters and Ultraviolet Lamps. Helios Quartz also produces Specialized Equipment for Industrial, Scientific, and Medical applications.

TÜV certified, Helios Quartz is a very flexible and dynamic group which is deeply oriented towards internationalization and which is living a strong and stable growing phase with great momentum: in the last 6 years, Helios Quartz has opened commercial branches in USA (Helios Quartz America), in China (Shenyang Helios Tech) and Hong Kong (Helios Quartz Asia).

Thanks to its long track record and to its

cutting-edge testing laboratory located in the historical Helios Italquartz S.r.l. plant in Cambiagio (Italy), Helios Quartz can advise customers and provide them with the best solution for every specific application.

Helios Quartz product range for the glass industry includes:

- QUARTZ INFRARED HEATERS in short, medium and fast medium wavelength, in single and twin tube, with or without gold reflector for:
  - Laminating lines (plastic film coupling);
  - Screen printing lines;
  - Bending furnaces;
  - Fusion furnaces;
  - Laminated glass cutting tables;
- UV POLYMERIZATION EQUIPMENT: UV high and medium pressure lamps for drying screen printing of reactive inks, paints, coatings and adhesives for the decorating and furnishing sector;



- MANWOOD 25-N: UV black light apparatus able to identify the tinned coated side of the float glass even under high brightness conditions. Such identification is very important prior to laminating, mirroring, printing and decorating processes;
- AUTOMATIC TIN DETECTOR: the technological development of the Manwood 25-N. It can be fixed directly on the glass transportation line, before the process starts, in order to check each and every piece of glass. Thanks to the simplicity of installation and the great flexibility, it is suitable for mass manufacturing where methodological control is essential to support the rate of production.



# HORN GLASS INDUSTRIES AG

Bergstrasse 2 - D-95703 Plössberg - Germany - Tel: +49 - 9636 - 92040 - Fax: +49 - 9636 - 920410

E-mail: [info@hornglas.de](mailto:info@hornglas.de) • [www.hornglass.com](http://www.hornglass.com)

## COMPANY DATA

### Contacts

**Stephan Meindl** - CEO  
**Ekaterina Firsova** - Executive Director Glass  
Plant Technology  
**Ulrich Imhof** - Executive Director Container/  
Special Glass  
**Andreas Kopp** - General Manager  
HORN BAU & SERVICE GMBH

### Number of Employees

Approx. 400 (worldwide)

### Company founded

1999





## COMPANY PROFILE

At its location in Plößberg, Germany, **HORN Glass Industries AG** designs and makes glass melting technology and turnkey projects for the float and container glass industries. The company's high-performance glass melting furnaces and turnkey projects are installed at glass manufacturers all over the world and serve the production of beverage bottles, food containers, drinking glasses, glass panes, glass tubes, glass fibres and special glass.

With more than 130 years of experience, HORN has been the specialist and expert in the field of the construction of glass melting furnaces for many years, and is now one of the industry leaders in the implementation of turnkey projects.

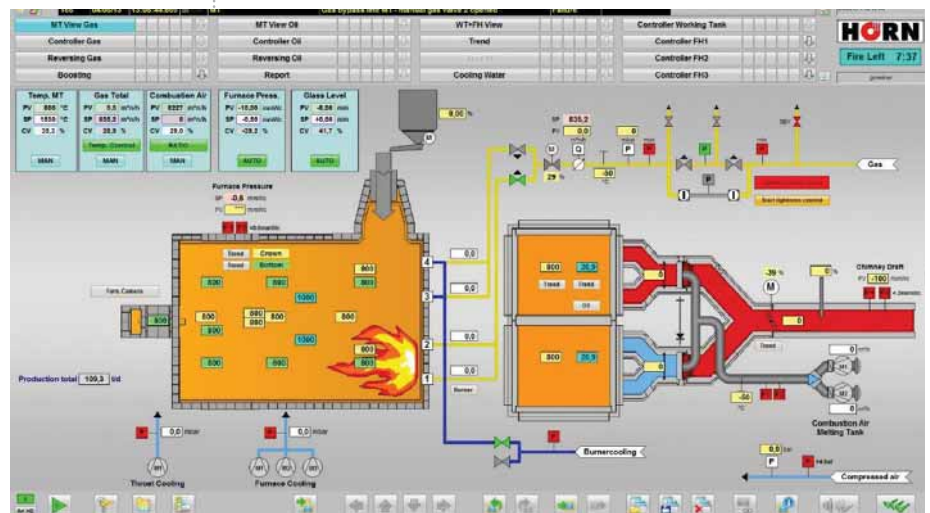
Subsidiary companies in China, Malaysia, India, Croatia, Ukraine and the Czech Republic add value to global customers, offering proximity and prompt response in the global market. Almost 80% of HORN's products are exported from Plößberg in Upper Palatinate to more than 61 countries worldwide.

HORN offers its customers complete support and a helping hand at all times. HORN can offer tailor-made solutions because we have a very high level of vertical integration for all our products.

HORN has ventured into unknown areas, e.g. in the construction of its own tin baths and associated equipment. HORN manufactures a large number of products in its workshops in Plößberg:

- Glass melting furnaces (container glass, float glass, etc.)
- Tin baths
- Batch chargers
- Stirrers

- Gas, oil and heavy oil heating for melting furnaces
- Tin bath equipment such as top roller, pusher, flags, fences
- Tweel
- Dross boxes
- Shield gas supply stations



## PRODUCT RANGE

MELTING FURNACES  
TURNKEY TECHNOLOGICAL PLANTS  
PROJECT ENGINEERING  
FINANCING & AUTHORISATIONS  
PROJECT MANAGEMENT ON SITE  
TRAINING  
OPERATIONAL SUPPORT  
TIN BATHS

HEATING EQUIPMENT  
CONTROL EQUIPMENT  
ELECTRIC BOOSTING SYSTEMS  
BATCH CHARGERS  
MEDIA SUPPLY EQUIPMENT  
SERVICE WORKS  
FOREHEARTHES

# INTERMAC



## INTERMAC

Via dell'Economia, 40 - 61122 Pesaro (PU) - Italy - Tel.: +39 0721 483100

E-mail: [intermac.sales@intermac.com](mailto:intermac.sales@intermac.com)

[www.intermac.com](http://www.intermac.com)

### COMPANY DATA

#### Contacts

Lanfranco Fontanelli - Sales Manager

#### Mother Company

Biesse SpA

#### Number of Employees

4.200

#### Founding Year

1987

### SALES NETWORK

#### EUROPE

##### INTERMAC FRANCE

Brignais - Tel. +33 (0)4 78 96.73.29 / Fax. +33 (0)4 78 96.73.30

E-mail: [commercial@intermacfrance.com](mailto:commercial@intermacfrance.com)

##### INTERMAC DEUTSCHLAND

Nersingen Tel. +49 (0)7308 9606-0 - Fax +49 (0)7308 9606-66

E-mail: [info@intermacdeutschland.de](mailto:info@intermacdeutschland.de)

##### INTERMAC UK

Daventry Northamptonshire

Tel.: +44 1327 307311 / Fax: +44 1327 705150

E-mail: [info@intermacuk.com](mailto:info@intermacuk.com) / [derek.byrne@biesse.co.uk](mailto:derek.byrne@biesse.co.uk) (Ireland)

#### ASIA

##### INTERMAC INDIA - BIESSE MANUFACTURING CO. PVT. LTD.

Bangalore - Tel. +91 80 49489800 / Fax. +91 80 49489880

INTERMAC ASIA - Kuala Lumpur - Malaysia - Tel.: +60 03 4021 4843

##### INTERMAC CHINA

Dongguan City - Guangdong Province

Tel.: +86 769 8865 8999 / Fax: +86 769 8865 8993

E-mail: [intermac@biesse-china.com.cn](mailto:intermac@biesse-china.com.cn)

#### NORTH AMERICA & CANADA

##### INTERMAC CANADA

Mirabel - Tel. 877-8-BIESSE / Fax. 450 437 2859

E-mail: [sales@biessecanada.com](mailto:sales@biessecanada.com)

##### INTERMAC AMERICA

Charlotte, NC - Tel. 704 357-3131 / Fax. 704 583-3094

E-mail: [marketing@biesseamerica.com](mailto:marketing@biesseamerica.com)

#### LATIN AMERICA

##### INTERMAC BRASIL

Vila Vermelha - São Paulo- SP - Tel.: +55 11 2351-3939

#### OCEANIA

##### INTERMAC AUSTRALIA

Wetherill Park - Tel.: +61 (0)2 96095355 / Fax: +61 (0)2 96094291

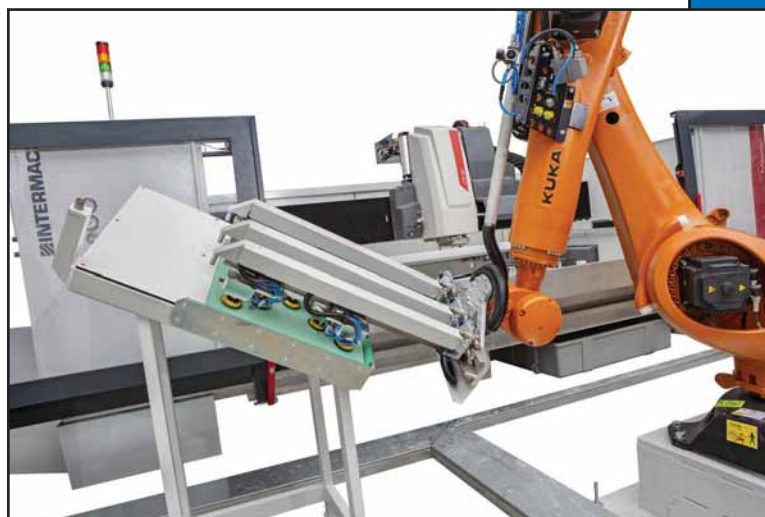
E-mail: [nsw@biesseaustralia.com.au](mailto:nsw@biesseaustralia.com.au)

##### INTERMAC NEW ZEALAND

Auckland - Tel.: +64 (0)9 820-0534 / Fax: +64 (0)9 820-0968

E-mail: [sales@biessenewzealand.co.nz](mailto:sales@biessenewzealand.co.nz)





## COMPANY PROFILE

**Intermac** is the division of the Biesse Group specialized in the production and distribution of machines and systems for the working of flat glass and more in general for the sectors of furniture, auto-motive and building.

Founded in 1987, thanks to the idea to introduce in the glass sector all the experience and technology already developed for the wood working sector, Intermac has been a powerful engine behind the innovation in this industrial segment, becoming in brief the synonym for centres for the working of glass.

The very first line of machinery already made new processes possible, and immediately caught the attention of designers and architects, thus creating new markets. The high technological level of the products, built with the most advanced components and with a winning building philosophy, have enabled Intermac to conquer a leading position in this sector worldwide.

Thanks to its widespread network of subsidiaries, dealers and agents, Intermac is able to grant global professional pre-sales advice and after-sales and spare parts service, employing structures and personnel close to customers and with solid technical knowledge and great in the field experience.



## PRODUCT RANGE

### TABLES FOR FLOAT GLASS CUTTING

Genius RS-A  
Genius CT-A series  
Genius CT-Plus series  
Genius CT-RED series

### TABLES FOR LAMINATED GLASS CUTTING

Genius LM series  
Genius LM-A series

### MACHINES FOR LAMINATED AND FLOAT GLASS CUTTING

Genius Comby Lines  
**LINES FOR LAMINATED OR FLOAT GLASS CUTTING**  
Genius Lines & Systems

**WATERJET**  
Primus series

### DOUBLE EDGING MACHINES AND SYSTEMS

Busetti FK series  
Busetti F series  
Busetti P series  
Customised solutions

### WORK CENTRES

Master 23  
Master ONE  
Master 33.3-38.3-45.3  
Master 33.5-38.5-45.5- 45.5Plus

### SPECIAL WORK CENTRES AND AUTOMATIC CELLS

Master 63-65  
Master 95  
Master 185  
Master with belts  
Master working cell

### WORK CENTRES ENGRAVING

Master 34  
**VERTICAL MACHINES**  
Vertmax series  
V-Loader

### TOOLS FOR GLASS

Diamut tools

### VERTICAL WASHING MACHINES

Aqua series



## ITALCARRELLI Srl

Via Monte Rosa, 9 - 36072 Chiampo (VI) - Italy - Tel.: +39 0444 623393 / Fax: +39 0444 420195

E-mail: [info@italcarrelli.eu](mailto:info@italcarrelli.eu) • [www.italcarrelli.eu](http://www.italcarrelli.eu)

### COMPANY DATA

#### Contacts

Agostino Negrin - President  
Stefania Negrin - CEO  
Alessandro Negrin - CEO  
Davide Schiavon - Sales Manager

#### Annual Turnover of the Company

EUR 10 / 50 mil

#### Sales

Domestic (3%) / International (97%)

#### Quality Certifications

ISO 9001:2015

#### Banks

Intesa San Paolo - Arzignano

#### Number of Employees

> 100

#### Founding Year

1962

#### Registered Patents

Telescopic Arm for rack handling in autoclaves,  
Collar Handling Device, ABV Device/EN BOX for glass  
handling in containers, Laser guided jumbo frame  
transporter PTN 330 LGV

#### Registered Trademarks

Italcarrelli

#### Planned Exhibitions

**China Glass** - Postponed  
**Glass South America** - Sao Paulo, Brazil  
3 / 6 June 2020  
**Mir Stekla** - Moscow, Russia - 8 / 11 June 2020  
**Marmomac** - Verona, Italy  
30 September / 3 October 2020  
**Glasstec** - Düsseldorf, Germany - 20 / 23 October 2020



SIDE-LOADERS



TAILOR-MADE SOLUTIONS



LAMINATED GLASS HANDLING



PLATFORM TRANSPORTERS



INLOADER TRANSPORTERS

CONTAINER LOAD/UNLOAD



## COMPANY PROFILE

### SMART WORKING, SAFE WORKING WITH TOP HANDLING SOLUTIONS

ITALCARRELLI® designs and builds special machines, technology and accessories for the transport and storage of glass. After many years of hard work, the third generation of the Negrin family – the owners of Italcarrelli – have put into practice their idea of smart work.

- Smart – with clients to create personalized machines responding to their precise needs and demands;
- Smart – with suppliers to have the constant availability of top class material and components;
- Smart – solutions both with regards to technology and energy savings;
- Smart – for safety each and every day.

Thanks to the perfect synergy between the company's design departments and software development, Italcarrelli's machines have the highest levels of performance and ease of use, with low energy consumption levels.

## PRODUCT RANGE

- PLATFORM TRANSPORTERS
- INLOADER TRANSPORTERS
- SIDE-LOADERS
- TAILOR-MADE SOLUTIONS
- CONTAINER LOAD/UNLOAD
- LAMINATED GLASS HANDLING



**keraglass**



## **KERAGLASS INDUSTRIES Srl**

Via Sassogattone 13/A - 42031 Baiso, Reggio Emilia - Italy

Tel.: +39 0522 993027 / Fax: +39 0522 993030

E-mail: [info@keraglass.com](mailto:info@keraglass.com) • [www.keraglass.com](http://www.keraglass.com)

### COMPANY DATA

#### **Contacts**

**Corrado Fanti** – Chairman & CEO

**Stefano Spezzani**– Founder, Vice President

**Maicol Spezzani** – Director, Sales Coordinator

#### **Mother Company**

Keraglass Industries (Voiláp Holding)

#### **Annual Turnover of the Company**

EUR 26,800,000.00

#### **Sales**

Domestic (12%) / International (88%)

#### **Parent and Sister Companies**

##### **Keraglass South America do Brasil Ltda**

Rua Arturo Fogoso Nieves, 141

12655 Guarulhos SP - Brazil

Tel.: +55 11 954407000

E-mail: [southamerica@keraglass.com](mailto:southamerica@keraglass.com)

##### **Keraglass USA Inc.**

20 Murray Hill Parkway, Unit 120

East Rutherford - NJ 07073 USA

Tel.: +1 201 561 2191

E-mail: [info.usa@keraglass.com](mailto:info.usa@keraglass.com)



deluxe - PVB laminating line

#### **Planned Exhibitions**

##### **Eurasia Glass**

Istanbul, Turkey - 4 / 7 March 2020

##### **Glass South America**

Sao Paulo, Brazil - 3 / 6 June 2020

##### **Glasstech Mexico**

Guadalajara, Mexico - 27 / 29 July 2020

##### **GlassBuild America**

Las Vegas (NV), USA - 15 / 17 September 2020

##### **Glasstec**

Düsseldorf, Germany - 20 / 23 October 2020

##### **Veteco**

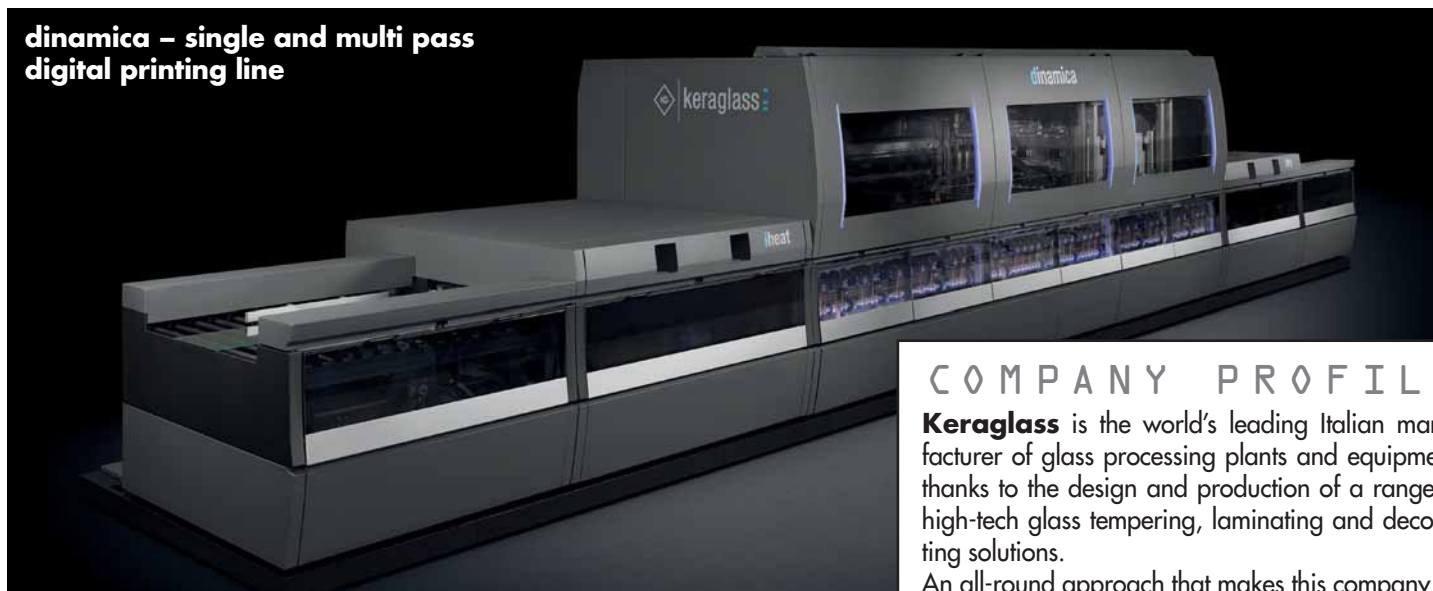
Madrid, Spain - 10 / 13 November 2020



Vision - oscillating tempering furnace



**dinamica – single and multi pass  
digital printing line**



**SALES NETWORK**

**EGYPT**

**STAR JET MIDDLE EAST**

Giza, Egypt - Tel.: +20 382 44533  
E-mail: Khaled.salah@starjetme.com

**SPAIN**

**GRUPO ADA DISTRIBUCIONES**

Madrid, Spain - Tel.: +34 918 149 406  
E-mail: carlos@satecris.com

**COLOMBIA - ECUADOR - PANAMA - VENEZUELA**

**PROTECH COLOMBIA S.A.S.**

Barranquilla - Colombia  
Tel.: +57 301 5412688  
E-mail: paocol@hotmail.it

**MEXICO**

**CERTECH IMPIANTI DE MEXICO S.A. DE C.V.  
MATRIZ GUADALUPE**

Tel.: +52 8183876270 / +52 8183876272  
E-mail: roberto.amaya@certechmexico.com

**SUCURSAL PUEBLA**

Mob.: +52 8118059635  
E-mail: arturo.vazquez@certechmexico.com

**TURKEY**

**CONCEPT SOLUTIONS**

Istanbul - Tel.: +90 212 8643881  
E-mail: acar.g@keraglass.it

**USA - CANADA - PUERTO RICO**

**MATODI USA**

Greensboro, NC USA  
Tel.: +1 336 668 2300  
E-mail: jackvm@matodiusa.com

**UAE - SAUDI ARABIA - KUWAIT**

**BAHRAIN - OMAN - QATAR - YEMEN**

**IBA MIDDLE EAST FZE**

Dubai, U.A.E. - Tel.: +971 4 8819454  
E-mail: sudip@iba-me.com

**SOUTH KOREA**

**ALPTECH CO. LTD**

Suwon-City, Gyunggi-Do - Tel.: +82 31 6957201  
E-mail: ymh@alptech.co.kr

**VIETNAM**

**NINH SERVICE & TRADING DIVISION -  
HOANG SON CO., LTD**

Vietnam - Tel.: +84 (0) 650 3 731 636  
E-mail: n.ninh@keraglass.com

**ALBANIA - KOSOVO - MACEDONIA**

**ARVIS SH.P.K.**

Durres - Albania - Tel.: +355 4807987  
E-mail: islam.isufaj@arvis.al

**PORTUGAL**

**HMGLASS UNIPESSOAL, LDA**

Fiães VFR, Portugal - Tel.: +351 918 468 865  
E-mail: hugogoncalves1977@gmail.com

**ESTONIA/FINLAND**

**PROJECTA OY**

Turku, Finland - Tel.: +358 20 771 30  
Email: markus.tasala@projecta.fi

**ITALY: TRENTO ALTO ADIGE-VENETO-FRIULI V.G.**

**STRATOS SERVICE SNC**

Pordenone (PN) - Tel.: +39 335 5363340  
E-mail: fulvio.valeri@virgilio.it

**COMPANY PROFILE**

**Keraglass** is the world's leading Italian manufacturer of glass processing plants and equipment, thanks to the design and production of a range of high-tech glass tempering, laminating and decorating solutions.

An all-round approach that makes this company an ever higher performing and more competitive player on the global market.

**ITALY: EMILIA ROMAGNA - TOSCANA - MARCHE -  
UMBRIA - LAZIO - ABRUZZO - MOLISE -  
CAMPANIA - PUGLIA - BASILICATA - CALABRIA -  
SICILIA - SARDEGNA**

**TECNO-GLASS SRL**

Ortona (CH) - Tel.: +39 085 9032165  
E-mail: manuela@tecnoglass.it

**BRAZIL**

**MUNIZ REPRESENTAÇÕES**

Guarulhos - San Paolo  
Tel.: +55 11 9 6438 5588 - Vivo  
E-mail: genilson@munizrepresentacoes.com.br

**LIBYA - TUNISIA - ALGERIA - MOROCCO**

**ART MED SRL**

Ariana, Tunisia - Tel.: +216 70688062  
E-mail: artmed.tn@gmail.com

**SOUTH AFRICA**

**GLASS SPECIFICS**

Pretoria, South Africa  
Tel.: +27 083 4577362  
E-mail: john@glass-specifics.co.za

**THAILAND**

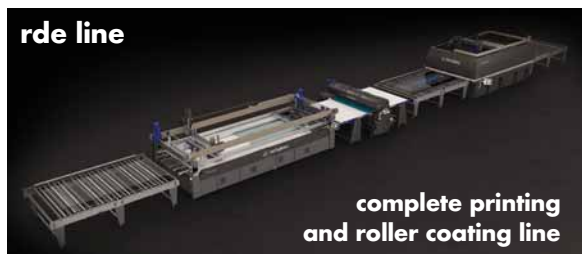
**MOTECH MACHINERY SERVICE CO., LTD**

Patumthani, Thailand - Tel.: +66 2 5313384  
E-mail: p.huailai1@yahoo.co.th

**ENGLAND**

**STONE & GLASS GROUP LTD**

Whitchurch, UK - Tel.: +44 1948 842010  
E-mail: sales@stoneandglassgroup.co.uk



**rde line**

**complete printing  
and roller coating line**



**iplotter line**

**high-definition  
ink-jet digital printing line**

# **LiSEC**



## **LiSEC AUSTRIA GMBH**

Peter-Lisec-Straße 1 - 3353 Seitenstetten - Austria  
Tel.: +43 7477 405-0 / Fax: +43 7477 405-80

E-mail: [sales@lisc.com](mailto:sales@lisc.com) • [www.lisc.com](http://www.lisc.com)

### COMPANY DATA

#### **Contacts**

**Dipl.-Ing. Gottfried Brunbauer**  
CEO

#### **Founding Year**

1961

#### **Sister Companies**

##### **Glastronic Hungary Kft.**

Mester utca 4 - 2840 Oroszlány - Hungary

E-mail: [preowned@lisc.com](mailto:preowned@lisc.com)

web: [glastronic.lisc.com](http://glastronic.lisc.com)

##### **Schraml Glastechnik GmbH**

Lumpgraben 49 - 4463 Grossraming - Austria

E-mail: [schraml@lisc.com](mailto:schraml@lisc.com) - web: [www.schraml.com](http://www.schraml.com)

#### **Number of Employees**

1,300

#### **Planned Exhibitions**

**China Glass** - Postponed

**Glass South America** - Sao Paulo, Brazil - 3 / 6 June 2020

**GlassBuild America** - Las Vegas (NV),

USA - 15 / 17 September 2020

**Glasstec** - Düsseldorf, Germany - 20 / 23 October 2020



## COMPANY PROFILE

**LiSEC**, with headquarters in Hausmening/Amstetten, is a globally operating group, and has been offering individual and complete solutions in the field of flat glass processing and finishing for over 50 years. The company's service portfolio includes machines, automation solutions and services.

In 2018, the group, with around 1,300 employees and over 25 locations, generated total revenues of around EUR 230 million, with an export rate of more than 95 per cent.

LiSEC develops and fabricates glass cutting and sorting systems, single components and complete production lines for insulating glass and laminated glass fabrication as well as glass edge processing machines and tempering machinery.

With reliable technology and intelligent automation solutions, LiSEC sets standards in quality and engineering and significantly contributes to the success of its customers.

## SALES NETWORK

### AUSTRALIA

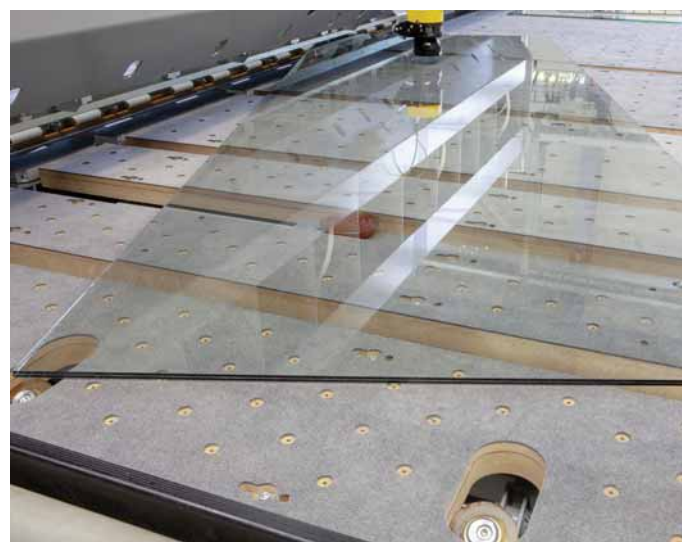
#### LiSEC AUSTRALIA PTY LIMITED

79-81/23 Narabang Way  
2085 - Belrose NSW  
Tel.: +61 2 9485-890-0  
Fax: +61 2 9485-890-9  
E-mail: sales-australia@lisc.com

### CHINA

#### LiSEC SHANGHAI

11th Floor, Building B, Baolong Plaza,  
No. 7802, East Yinggang Road, Qingpu District  
201799 Shanghai  
Tel.: +86-21-6030-30-80  
Fax: +86-21-6130-34-30  
E-mail: office.cn@lisc.com



### GERMANY

#### LiSEC DEUTSCHLAND GMBH

Osterholzstr. 124 - 34123 - Kassel  
Tel.: +49 561 570-57-0  
Fax: +49 561 570-57-40  
E-mail: info-deutschland@lisc.com

### RUSSIA

#### LLC "LiSEC CIS"

Myasnitzkaya ulitsa 48 - 107078  
Moscow  
Tel.: +7 495 933-29-68  
E-mail: sales.russia@lisc.com

### UAE

#### LiSEC MIDDLE EAST LTD. FZE.

Dubai Air Port Free Zone LIU  
No: B1-Road WB-21  
P.O. Box 54290 Dubai  
Tel.: +971 4 2994-596  
Fax: +971 4 2994-740  
E-mail: sales.middleeast@lisc.com

### USA

#### LiSEC AMERICA, INC.

12571 Oliver Avenue South, Suite 100  
55337 - Burnsville MN  
Tel.: +1 952 641-99-00  
Fax: +1 952 641-99-33  
E-mail: lisc@liscamerica.com

You can find a full list of  
our Sales Network on:  
[www.lisc.com](http://www.lisc.com)



## PRODUCT RANGE

- Glass Cutting machines
- Insulating Glass Production machines
- Sorting & Logistic Systems
- Laminated Glass Production machines
- Flat Glass Processing machines
- Glass Processing & Washing machines
- Tempering
- Business Software
- Service



**MAPPI**  
BEYOND GLASS PERFECTION

## MAPPI INTERNATIONAL S.r.l.

Via Fieramonti, 1 - 04012 Cisterna di Latina (LT) - Italy  
Tel.: +39 06 96873284 / Fax: +39 06 96873211

mailto:info@mappi.it • www.mappi.it, www.mappi.us



### COMPANY DATA

#### Contacts

**Nancy Mammaro** - Managing Director  
**Ermanno Petitti** - Sales Manager  
**Sergio Cosano** - Sales Manager

#### Annual Turnover of the Company

EUR 11,000,000

#### Percentage of Turnover from Glass

100%

#### Sales

Domestic (10%) / International (90%)

#### Area

Offices 1000 m<sup>2</sup> / Plants 4000 m<sup>2</sup>

#### Number of Employees

55

#### Founding Year

1993

#### Registered Trademarks

Mappi

#### Parent and Sister Companies

##### Mappi America

3888 Mannix Dr.#314 - 34114 Naples, FL - USA  
Tel.: +1 336 8787460 - mailto:sales@mappi-na.com

#### Planned Exhibitions

**Glass Middle East Expo** - Cairo, Egypt - 27 / 29 February 2020

**Eurasia Glass** - Istanbul, Turkey - 4 / 7 March 2020

**Fensterbau Frontale** - Postponed

**Glass South America** - Sao Paulo, Brazil - 3 / 6 June 2020

**Mir Stekla** - Moscow, Russia - 8 / 11 June 2020

**Fenetechnik** - Vienna, Austria - 9 / 10 June 2020

**Glasstech Mexico** - Guadalajara, Mexico - 27 / 29 July 2020

**GlassBuild America** - Las Vegas (NV), USA - 15 / 17 September 2020

**Glasstec** - Düsseldorf, Germany - 20 / 23 October 2020

**Veteco** - Madrid, Spain - 10 / 13 November 2020

**Glasstec Asia** - Bangkok, Thailand - 17 / 19 November 2020

**Zak Windows & Doors** - Mumbai, India - 3 / 6 December 2020

### SALES NETWORK

**USA:** see **MAPPI AMERICA**

#### SPAIN

##### TEKVIMO

Jacinto Mora - Tel.: +346 49905410  
mailto:Jacinto.mora@tekvimo.es

#### UK - IRELAND

##### PROMAC GROUP

Joe Hague  
Unit 3c, Hadrians Way - Glebe Farm  
Industrial Estate  
Rugby Warwickshire, CV21 1ST  
Tel.: +44 (0)1788 577577  
Fax: +44 (0)1788 567938  
www.promac.co.uk

##### P.A.L. GLASS MACHINERY LTD

Paul Lithauer  
33 Hornsby Square Southfields Business  
Park - Basildon - Essex - SS15 6SD  
Tel.: +44 (0)1268 493382  
Fax: +44 (0) 1268 493385  
mailto:paul@palmachinery.co.uk  
www.palmachinery.co.uk

#### FRANCE

##### DUMATEK

Paolo Ducci  
1214, Avenue de Vaugrenier  
06270 Villeneuve Loubet  
Tel.: +33 05 46 88 02 66  
Fax: +33 05 46 41 59 22  
Mobile: +33 06 27 64 93 89  
mailto:dumatek@dumatek.fr  
www.dumatek.fr

##### GERMANY - THE NETHERLAND - BELGIUM - SWITZERLAND

##### FÜLDNER MACHINES BV

Frank Verhooren  
De Koumen 116 - NL 6433 KE Heerlen  
Tel.: +31 (0)45 5217757  
Fax: +31 (0)45 5231292  
mailto:frank.verhooren@fuldner.nl www.fuldner.nl

#### POLAND

##### MEKANIKA SP. Z O.O.

ul. Krakowska 4238-300 Gorlice  
Paweł Szczepanik, Konrad Węgrzyn,  
Piotr Medrygal, Arkadiusz Krauschar  
Tel.: +48 18 353 06 69  
Fax: +48 18 353 51 48  
Paweł Szczepanik  
Mobile: +48 660 709 925  
Konrad Węgrzyn  
Mobile: +48 664 061 233  
Piotr Medrygal  
Mobile: +48 784 059 978  
Arkadiusz Krauschar

Mobile: +48 604 794 810  
mailto:biuro@mekanika.pl /  
pawel.szczepanik@teknika.pl  
www.teknika.pl

##### SLOVENIA - CROATIA - BOSNIA AND HERZEGOVINA - SERBIA - BULGARIA - SLOVAK REP. - KOSOVO - MACEDONIA - MONTENEGRO

##### GLASMNIK D.O.O.

Roberto Paoletti  
Ulica Lavžnik, 9 - 5290 Šempeter pri  
Gorici - Slovenia  
Mobile: +39 335 794 2257  
Tel.: +386 5 335 9710  
mailto:roberto.paoletti@glasmnik.si  
www.glasmnik.com

#### RUSSIA

##### CM COMPANY

Irina Lumpova  
Tel.: +7 964 250 53 88  
mailto:steklo-m@mail.ru  
www.stankimira.ru

#### MEXICO

##### MARBOLZ VETROSTILE

Avenida Lázaro Cárdenas 1200 Col.  
Álamo Industrial 44490 - Guadalajara,  
mailto:info@vetrostile.com  
www.vetrostile.com

#### TURKEY

##### AS CAM DESIGN

Kadir SEN  
Sancaktepe Sanayi Mah. Sancak  
Sk. Seferogullari Ishani No: 21/5  
Güngören Istanbul / Turkiye  
Tel.: +90 212 637 86 12  
Fax: +90 212 637 90 59  
mailto:kadir@ascam.com.tr  
www.ascam.com.tr

#### ROMANIA

##### IMROGLASS S.R.L.

Robert Jug  
Str. A. I. Cuza, nr.50 - 510193 Alba  
Lulia, Judetul Alba  
mailto:robert.jug@imsagroup.com  
www.imsagroup.com

#### AUSTRALIA & NEW ZELAND

##### OVERSEAS GLASS AGENCIES

Neil Searle  
140 Malcolm Road, Braeside, 3195  
Tel.: 0418 338 777  
E-mail: neil@oga.com.au  
www.oga.com.au

#### MIDDLE EAST

##### CORPOTRADE

Dubai Office:

Charles MAALOUF  
St. 14 A, Shed. 11,  
Ras Al Khor Industrial Area 2,  
Dubai, United Arab Emirates  
Tel. +971 4 333 77 25  
Mobile: KSA Mobile: +966 502728081  
E-mail:  
charlesmaalouf@corptrade.com

*Beirut Office:*  
Aymen Hasni  
Land Bldg. facing Toyota Body Shop,  
2nd Floor, Mekalles Industrial Area,  
El Metn Area, Lebanon  
Tel: +961 1 685 999  
Fax: +961 1 684 099  
E-mail: aymen@corptrade.com  
www.corptrade.com

**COLOMBIA**  
**GLASSTOOLS**  
Carlos alberto Méndez C.  
Cra. 65 No. 94 - 14, Bogotá  
Tel: +571 624 0122  
E-mail: cam.glasstools@gmail.com  
www.glasstools.com.co

**PORTUGAL**  
**A.F.C.PEREIRA, LDA**  
Ricardo Pereira  
Rua Do Bom Pastor, 800 – Água Longa  
4825-075 Santo Tirso  
Tel.: +351229689900  
Fax: +351229689901  
E-mail: ricardo.pereira@afcpereira.com  
www.afcpereira.com

**JAPAN**  
**TGM**  
Taira Kamijima  
7F, Mast-Life Nishi-Shinbashi Bld. 3-6-  
10, Nishi-Shinbashi, Minato-ku, Tokyo  
Tel.: +81 35 733 6261  
Fax: +81 35 733 6262  
E-mail: kamijima@tgm-japan.com  
www.tgm-japan.com

**VIETNAM - LAOS - CAMBODIA - PHILIPPINES**  
**- SINGAPORE - MALAYSIA - THAILAND -**  
**INDONESIA - MYANMAR**  
**EUROTECHCORP**  
Nguyen Huu Nghia, Michele Minh  
No 192/8 Tam Trinh Street, Yen so  
Ward, Hoang Mai District, Ha Noi City,

Viet Nam  
Tel: +84 24 3233 6210  
Fax: +84 24 3233 6211  
Mobile: + 84 968 986 375  
mailto:eurotechline@gmail.com

**ITALIA**  
Puglia  
**CARAMIA**  
**RAPPRESENTANZA SNC**  
Vito Caramia  
Via Montemerlo, 5  
74012 Crispiano  
Tel.: +39 0335260516  
Fax: +39 099612369  
E-mail: martino.montanaro@tele2.it

Triveneto  
Cosano Sergio  
31100 Treviso  
Tel.: +39 348 2524370  
E-mail: cosano@mappi.it  
Liguria, Piemonte, Lombardia  
**ELMAR S.R.L.**  
Marino Airoldi  
Via Meucci, 9 - 20025 Legnano (MI)  
Tel: +39 335 8176864  
E-mail: marino\_airoldi@fastwebnet.it  
Lazio  
Flavio Natali  
Via Vicenza, 7 - 00040 Ardea (RM)  
Tel.: + 39 3282832555  
E-mail: info@flavionatali.it  
www.flavionatali.it



## COMPANY PROFILE

### MAPPI INTERNATIONAL, FURNACES READY NOW FOR THE FUTURE

Since 1993, **Mappi International** has been designing and manufacturing high quality tempering systems for the glass industry. Nancy Mammaro, CEO of Mappi says: "Our payoff, beyond glass perfection, sums up in three words our everyday aim shared at every level and in every area in Mappi. For all of us, to go beyond glass perfection means taking a unique material like glass and committing ourselves to making it even better." Mappi International uses in-house production for each and every product. This enables the company to have complete quality control over each component, guaranteeing the highest quality performance and

functionality of its machines – constantly. More than 300 plants installed all over the world represent the company's stages of steady growth, important investments in research and development, uncompromising quality, and great attention to the specific needs of each and every customer. Mappi America, located in Florida, enables the customer service department to reach each and every plant within 24 hours. Now, thanks to important collaboration with Siemens, Mappi machines have made a significant new leap into the future. They are, first in the entire glass industry, recognized as 'Powered by Siemens'. This means that they are ready to implement all MindSphere applications, ready to enter the world of industry 4.0, ready to change the way of working in the glass industry, with full integration between the furnace and all production processes, from planning to quality reports.

From design to assistance, quality is at the centre of everything. Products and people are the expression of Mappi's thoughts and actions. This constant quality is found both in the design and in the range of products, where machines are different in size, technical solutions, mechanical engineering, and software solutions. User-friendly machines that have been designed to minimize downtime during shutdown and subsequent restart, along with the constant perfection of glass, and vast energy savings show just how Mappi produces tempering furnaces that go beyond perfection day after day.

Over the years, Mappi has never changed its aim: to become the leader in tempering furnaces and manufacturing, and to constantly increase quality and customization to satisfy the specific needs of each customer.





**MAZZAROPPI**  
HIGH PERFORMANCE. ALWAYS



## MAZZAROPPI ENGINEERING Srl

Via Cagliari 49 - 04011 Aprilia (LT) - Italy  
Tel.: +39 06 92854602 / Fax: +39 06 92730082

E-mail: [commerciale@mazzaroppi.com](mailto:commerciale@mazzaroppi.com) • [www.mazzaroppi.com](http://www.mazzaroppi.com)

### COMPANY DATA

#### Contacts

**Antonio Mazzaroppi**  
General Manager

#### Planned Exhibitions

##### GlassBuild America

Las Vegas (NV), USA - 15 / 17 September 2020

##### Glasstec

Düsseldorf, Germany - 20 / 23 October 2020

### SALES NETWORK

#### GERMANY, AUSTRIA AND SWITZERLAND

##### LECHNER SRL

Arquata Scrivia (AL)

Tel.: + 39 0143 637054 - E-mail: [marco-lechner@lechner-srl.com](mailto:marco-lechner@lechner-srl.com)

#### SPAIN

##### MAQUIGLASS SA

Barcelona - E-mail: [commerciale@mazzaroppi.com](mailto:commerciale@mazzaroppi.com)

#### POLAND

##### ITALPOL

E-mail: [commerciale@mazzaroppi.com](mailto:commerciale@mazzaroppi.com)



### COMPANY PROFILE

#### TP 160 1600x3200 tempering furnace

Our tempering machines has been designed to meet customers' needs with regards to space and low power consumption.

The TP 160 machine, in particular, has an average consumption of 160 kWh and occupies a space of only 17 m. This machine is built with special materials that enable us to have low thermal inertia, in fact, the heating section has excellent thermal insulation, thus avoiding important heat losses

to the outside, and, above all, it enables to obtain huge advantages in terms of energy savings.

The heating section is divided in 60 independent zones controlled and managed by the software system, developed in order to optimize production and, at the same time, to reduce power consumption to the minimum; using electricity to heat the glass and not the furnace.

The heating elements of the lower heating chamber are adequately protected thanks to our innovative system of INOX



from room temperature (about 20°C) in 60 minutes during the first day of ignition, and about 30 minutes the following days.

The machine can be switched off the machinery every single day without problems, cutting energy costs and overall business costs.

The whole mechanical drive system has been further improved, in order to move the rollers even more precisely and regularly, with the aim of obtaining extremely high quality final products. The advantages of this new drive system can be seen in terms of maintenance, in fact, it will be easier to carry out maintenance operations, minimizing downtime and related costs.

All parameters are set from a touch screen monitor, while machine operations can also be monitored via mobile phone, pc, tablet pc, etc.

The management of the recipes is automated.

Once working parameters have been identified, you can save all of them in a recipe, and the operator must simply select the recipe in a file manager, therefore guaranteeing process repeatability.

The machine is extremely adaptive in terms of thickness changeover, cutting waiting time. This means that different types and thickness of glass can be in the different sections of the machine during processing.

The machine design includes numerous measures that ensure smooth and infrequent maintenance. All installed components have been chosen carefully so as not to require, or require as little as possible, maintenance activities. Moreover, thanks to a project designed specifically to minimize downtime resulting from maintenance activities, these activities can be carried very quickly and smoothly, affecting productivity as little as possible.

All our machines are equipped with a remote connection with our technical assistance office.

Non-standard sizes of machines are also possible on request.

## Italian masterpiece Capolavoro italiano



panels. These panels perform an important protective function in the event that a glass breakage occurs inside the heating chamber. In this way the glass fragments do not reach – and damage – the resistances. This protection system does not interfere with the direct irradiation of the resistances towards the glass.

The heating chamber is lifted by a system with mechanical jacks, ensuring smooth and homogeneous movement, avoiding excessive vibrations in the heating chamber or falling dust which could settle on the ceramic rollers and from these onto the treated glass.

The use of special materials combined with effective technological solutions implemented in the manufacture of the heating section, enable to reach the operating temperature of about 680°C, starting





## MOLE MORESCHI

Via Palazzetti, 5 - 40068 S. Lazzaro di Savena (BO) - Italy  
Tel.: +39 - 051 - 6255919 - Fax:+39 - 051 - 6255952

E-mail: [sales@molemoreschi.com](mailto:sales@molemoreschi.com) • [www.molemoreschi.com](http://www.molemoreschi.com)

### COMPANY DATA

#### Contacts

**Marco Moreschi** - Owner  
Sale Department:  
**Barbara Doda**  
Technical Department:  
**Yuri Cattabriga**

#### Planned Exhibitions

**China Glass** - Postponed  
**Glass South America** - Sao Paulo, Brazil - 3 / 6 June 2020  
**GlassBuild America**  
Las Vegas (NV), USA - 15 / 17 September 2020  
**Glasstec** - Düsseldorf, Germany - 20 / 23 October 2020





## COMPANY PROFILE

**Mole Moreschi** has know-how and direct experience in the production of diamond wheels and tools for glass processing, that are the result of more than 90 years of production. The company was first in the production and development of the resin wheels and, today, Mole Moreschi has a complete range of standard and special tools for the glass industry, with very high quality.

Some Italian and international glass machinery manufacturers have chosen Mole Moreschi as their preferred partner and found that the company's wheels have the best reliability and constant quality. This means that tools can be tested and new products developed to increase machine performances.

Mole Moreschi uses the most advanced technologies in tool

production to guarantee the highest quality level possible. The research and development activities of the company are dedicated to improving tool quality and guarantee production level.

Mole Moreschi's target is to maintain this very high level of quality, while guaranteeing the highest possible performance of customers' machines.

Mole Moreschi is always available to study and manufacture tools as per specific customers' requests for special production.

The company's sales and distribution network is a winner not only for the quality and timing of service, but also with regards to the technical knowledge of its distributors who can assist and suggest the best tools.





# MOVETRO Srl

Head Office: Via Della Meccanica, 16 - 61122 Pesaro (PU) - Italy

Production site: Via Marco Polo, 12 - 35040 Sant'Urbano (PD) - Italy

Tel. +39 0429 695098 - Fax +39 0429 695099 - E-mail: [info@movetro.it](mailto:info@movetro.it) • [www.movetro.it](http://www.movetro.it)

## COMPANY DATA

### Contacts

- Biesse Group** - Owner
- Giorgio Mistrello** - Owner
- Daide Mistrello** - Owner



## COMPANY PROFILE

**Movetro Srl** is a leading company for the manufacture and installation of automatic plants for the storage and handling of glass sheets.

The acquisition of Movetro by Intermac, which was completed in July 2017, expands the product range with the offer of special fully-automated and integrated turnkey systems and production lines. Intermac and Movetro are able to offer a high-value consulting approach, providing classifiers, shuttle magazines, automatic loaders, loaders and filters, in addition to its current range, designing dedicated management software.

Movetro is a real industrial company, able to accept new technological challenges, counting on technical and human resources, listening to and understanding customers' needs, which are always satisfied with highly customized designs and which have, as their main considerations, reliability, safety and efficiency of the plants.

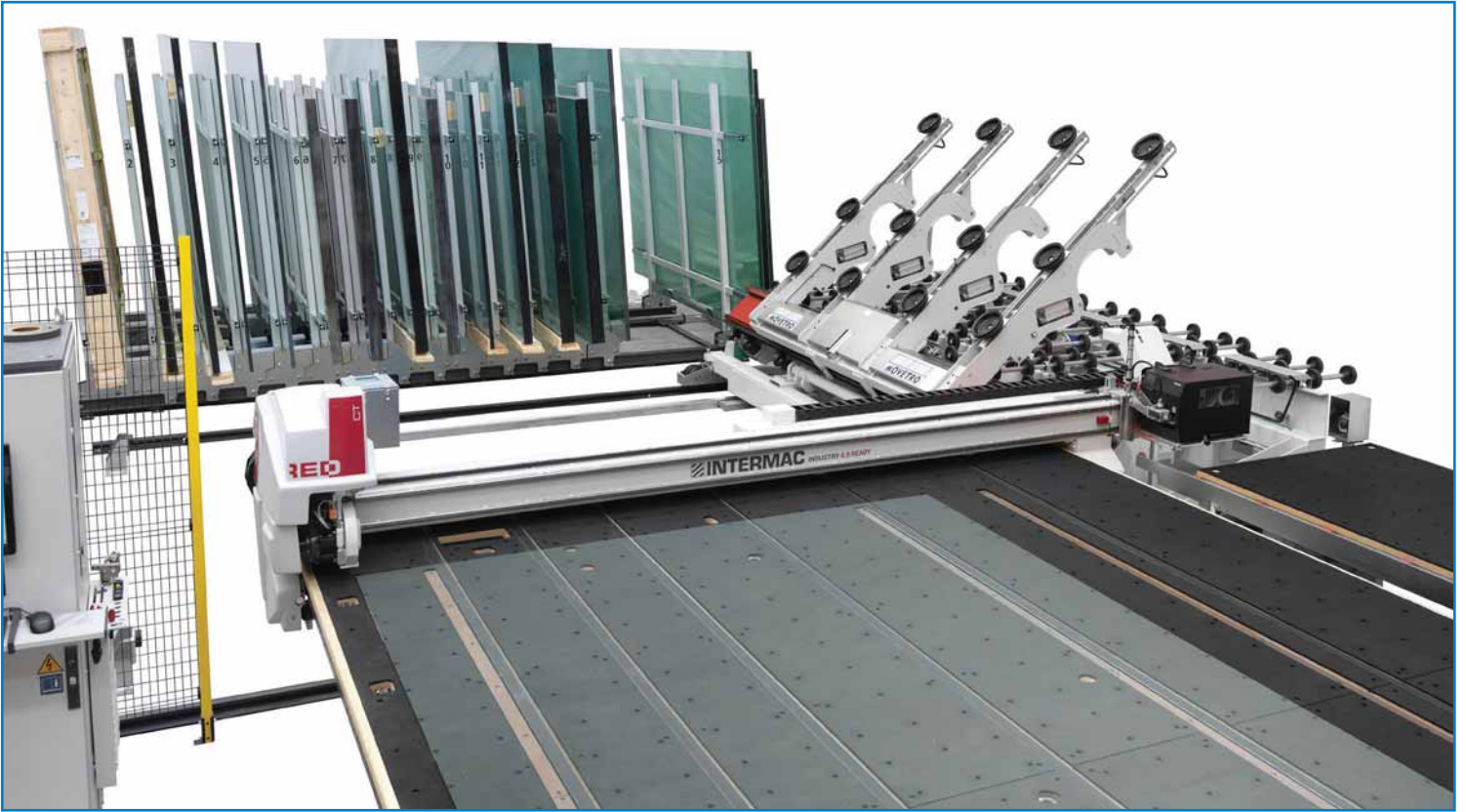
Movetro guarantees a very high quality level which positions the company among the leaders of similar glass industries as all machines are entirely manufactured and tested in-house at the company's metal workshop, while welding, painting and

assembling lines are positioned in order to reach the very ambitious target of 'total product quality'.

Movetro does not only manufacture and install automatic systems, but goes beyond this point thanks to the fact that all plants can be fully connected and integrated to existing processing lines manufactured by any other company.

From the smallest to the largest glass processing company: all can find in Movetro the right partner who can, thanks to a wide product range and well qualified technical staff, provide the correct solution when space, storage or handling needs cannot be satisfied by the standard market offer.





## PRODUCT RANGE

AUTOMATIC STORAGE AND HANDLING SYSTEMS

Shuttle storage system



## OPTIMA SRL

Via Vespucci, 4 - 40017 San Giovanni in Persiceto (BO) - Italy  
Tel.: +39 051 826336 / Fax: +39 051 825182

E-mail: [info@optima.it](mailto:info@optima.it) • [www.optima.it](http://www.optima.it)

### COMPANY DATA

#### Contacts

**Marco Menzolini** - CTO  
**Cristian Zanca** - General Manager

#### Annual Turnover of the Group

EUR 4,500,000.00

#### Annual Turnover of the Company

EUR 2,550,000.00

#### Percentage of Turnover from Glass

100%

#### Sales

Domestic (30%) / International (70%)

#### Banks

Unicredit – Intesa Sanpaolo

#### Area

Offices 350 m<sup>2</sup>

#### Number of Employees

18

#### Founding Year

1994

#### Registered Trademarks

OPTY-WAY

#### Planned Exhibitions

##### Glass South America

Sao Paulo, Brazil - 3 / 6 June 2020

##### Mir Stekla

Moscow, Russia - 8 / 11 June 2020

##### GlassBuild America

Las Vegas (NV), USA - 15 / 17 September 2020

##### Glasstec

Düsseldorf, Germany - 20 / 23 October 2020

### COMPANY PROFILE

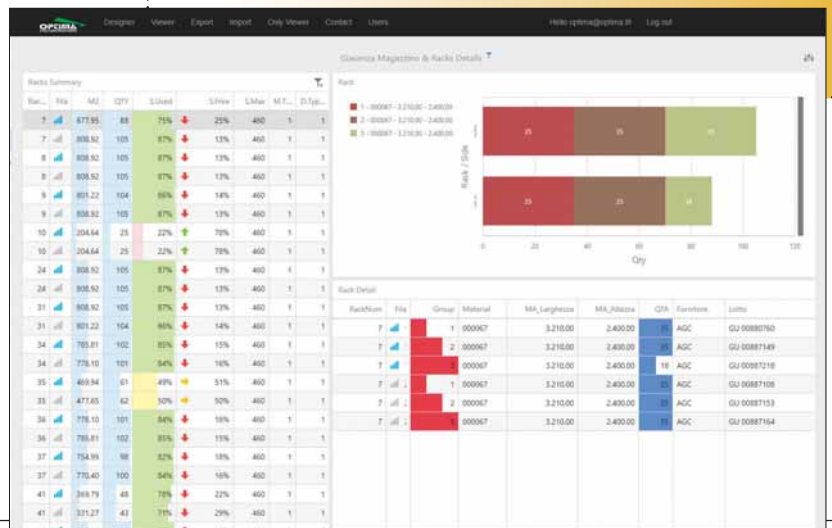
**Optima** is, and has been, a global leader in software solutions for the flat glass sector and, generally, for all flat surfaces tool processing areas since 1994. We develop ERP, monitoring systems, HMI interfaces, CAD-CAM and optimization software to always provide the most efficient solutions for glassworks' activities.

This is possible thanks to the use of high-level software development and implementation technologies, plus direct contact with technology developers, as well as the use of consultants and technicians who can skillfully interpret company processes.

We cooperate with all major technology manufacturers to help manage all needs and problems of glassworks, and thanks to our network of international branches and agents we provide sales and services to our customers worldwide.

### PRODUCT RANGE

- **Opty-Way Enterprise ERP solution for Sales & Production management**
- **Optimization modules and output to cutting tables, IG Lines, Spacer Bender, Double Edger and sorting systems**
- **Parametrical CAD\CAM software modules**
- **Cutting table supervisor and re-optimization system**
- **Tracking system via barcode and touchscreens**
- **WEB based Dashboards for statistics report**



# SALES NETWORK

## SPAIN & LATIN AMERICA

### OPTIMA SOFTWARE S.L.

Av. Puig i Ferrer, 22 - La Selva del Camp - Tarragona  
Tel.: +34 977 845994 / Fax: +34 977 845703  
E-mail: oscar@optimaiberica.es

## USA & CANADA

### OPTIMA NORTH AMERICA INC.

7860 Grenache, suite 200 - H1J 1C3 Montreal - Québec  
Tel.: +1 514 645 8998 / Fax: +1 514 645 8558  
E-mail: sales@optima-america.com

## CHINA & FAR EAST

### OPTIMA SOFTWARE (TIANJIN) CO., LTD.

Bldg C12, Venture Hqr Base, Fuyuan Rd  
Wuqing develop. area  
301700 - Tianjin  
Tel.: +86 22 82176860  
Fax: +86 22 82176861  
E-mail: sales@optima-software.com.cn

## TURKEY

### SDC IC VE DIS TICARET LTD. STI.

Varyap Meridian Grand Tower, Al Zambak Sok. No:2 - A Blok  
D:142 Ata ehir 34746  
Istanbul - Turkey  
Tel.: +90 216 504-04-34 / Fax: +90 216 504-04-30  
E-mail: sdc@sdctr.com

## BRAZIL

### VETRO MAQUINAS LTDA

Rua Juquis 287, sala 04 - 04081-010 - Sao Paulo - SP  
Tel.: +55 011 5041 6688 / Fax: +55 011 5041 6688  
E-mail: wagner.hubmann@hotmail.com

## JAPAN

### TGM CO., LTD

7F Mast Life Nishi-Shimbashi Bldg. 3-6-10  
Nishi-Shimbashi, Minato-Ku  
105-0003 Tokyo  
E-mail: hironaka@tgm-japan.com

## RUSSIA

### MERAN

Kotlyakovskaya str. 6 - 115201 - Moscow  
Tel.: +7 495 921-9872  
E-mail: optima@meran.ru

## POLAND

### LUSPOL RYSZARD KOWALCZYK

ul. Syrokomli 3  
30-102 Kraków  
Mob. phone: 48 602 334 745  
e-mail: luspol@poczta.onet.pl

## ROMANIA

### ALUMNI SRL

Str. Albatrosului Nr. 2., Ap. 3, Brasov  
Tel.: +40 268 416448 - E-mail: office@alm.ro

## GREECE

### PRISMA S.A.

Ind.area of Thessaloniki, Entrance C - Block 37 NB7 Str.  
57400 - Sindos, Thessaloniki  
Tel.: +30 2310 777 777 / Fax: +30 2310 777778  
E-mail: sales@prismaglass.gr

## FRANCE

### CILPAK INFORMATIQUE

2 Rue de Paris - 94100 - Saint Maur des Fosses  
Tel.: +33 1 48898780 / Fax: +33 1 48892693  
E-mail: paris@cilpak.com

The screenshot displays the OPTIMA software interface. The top section shows order details for Order No. 15-00277, Customer CRISTIAN, and Trade Name Cristian - Optima S.r.l. The middle section contains a detailed list of items with columns for Item No., Description, Quantity, and Price. The bottom section shows a summary of the order, including Total Order Lines, Header Discount, and Total Costs.

Item No.	Description	Quantity	Price
1	1802.0 mm	1202.0 mm	15-00291
2	1802.0 mm	1202.0 mm	15-00291
3	1802.0 mm	1202.0 mm	15-00291
4	1802.0 mm	1202.0 mm	15-00291
5	1802.0 mm	1202.0 mm	15-00291
6	1802.0 mm	1202.0 mm	15-00291
7	1802.0 mm	1202.0 mm	15-00291
8	1802.0 mm	1202.0 mm	15-00291



## OPTRIS GMBH

Ferdinand-Buisson-Str. 14 - 13127 Berlin - Germany - Tel.: +49 - (0)30 - 500 197 0 - Fax: +49 - (0)30 - 500 197 10

E-mail: [info@optris.global](mailto:info@optris.global) • [www.optris.global](http://www.optris.global)

### COMPANY DATA

#### Contacts

**Ulrich Kienitz** - General Manager  
**Jens Sauther** - Head of Application Engineering  
**Ingo Stahlkopf** - Head of Sales

#### Number of Employees

110

#### Company founded

2003

#### Planned Exhibitions

##### China Glass

Postponed

##### Glasstec

Düsseldorf, Germany - 20 / 23 October 2020

##### Conference on Glass Problems

Columbus, USA - 26 / 29 October 2020

### SALES NETWORK

#### OPTRIS HEADQUARTERS

##### Optris GmbH

Ferdinand-Buisson-Str. 14 - 13127 Berlin, Germany

Tel.: +49 30-500 197-0

[info@optris.global](mailto:info@optris.global) - [www.optris.global](http://www.optris.global)

#### USA

##### Optris Infrared Sensing

200 International Drive - Suite 170, Portsmouth  
NH 03801 USA

Tel.: +1-603 766-6060

[sales@optris-ir.com](mailto:sales@optris-ir.com) - [www.optris.com](http://www.optris.com)

#### CHINA

##### Shenzhen Optris Electronic Technology Co., Ltd.

1/F, Building 3, Zhonghaixin Science & Technology Park,  
No.12, Bulan Road, Buji Street,  
Shenzhen 518112, China

Tel.: +86-755-88 86 82 21

[info@optris.com.cn](mailto:info@optris.com.cn) - [www.optris.com.cn](http://www.optris.com.cn)

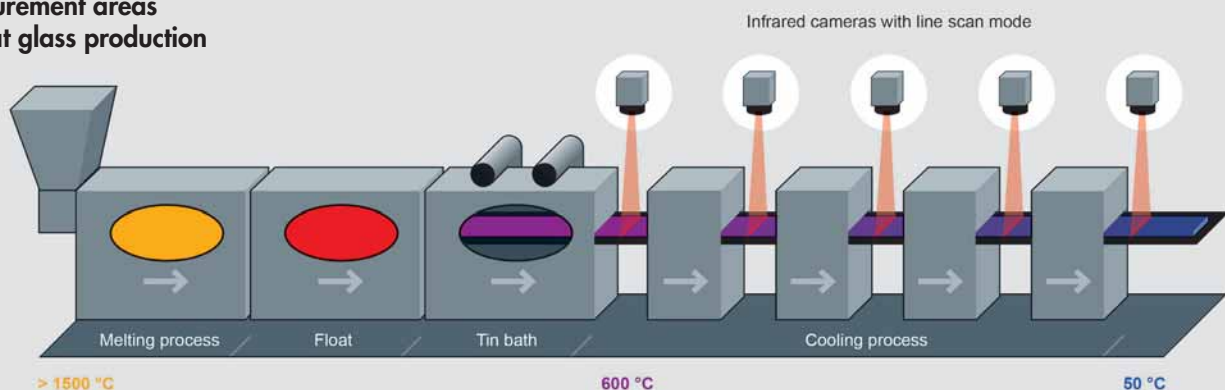
### COMPANY PROFILE

Optris is one of the leading innovative companies in the field of non-contact temperature measurement through infrared radiation since its establishment in 2003. The company's product range covers fixed industrial thermometers, infrared cameras, and accessories.

#### Tradition and innovation

Thanks to an extensive know-how and innovative concepts, their experienced engineers and physicists work continuously to obtain outstanding solutions.

#### Measurement areas in float glass production



**Top quality at affordable prices**  
Optris provides cutting-edge infrared technology. Cost advantages arising from bulk purchasing of semiconductor products and from the production process are passed directly on to their customers.

**Process optimization via temperature monitoring**

In many manufacturing processes (e.g. the glass industry), product and process temperature are important physical variables. Non-contact temperature measurement with Optris sensors and thermal imaging cameras ensures high production line quality standards.

In order to ensure the highest level of quality, the glass industry and its energy-intensive production process relies on dependable means of temperature monitoring.

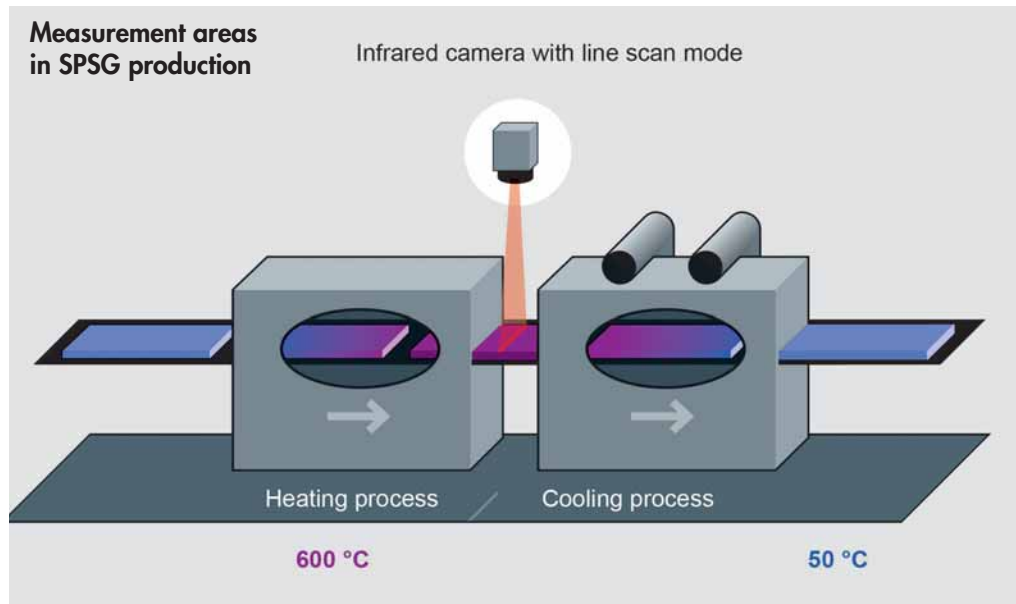
Optris' glass thermometers and IR cameras are optimally suited to non-contact temperature measurement of glass surfaces, using innovative double lasers to indicate the exact measurement spot.

**Production optimization in the float glass process**

After the tin bath, the flat glass band has a temperature of about 600°C; the first infrared camera in line-scan mode is applied for temperature monitoring at the transition to the cooling zone. The glass is transported through various cooling ranges in the cooling zone. Between the cooling ranges, infrared cameras are also installed for temperature monitoring, in order to guarantee optimal quality.

**Single-pane safety glass production with correct temperature measurement technology**

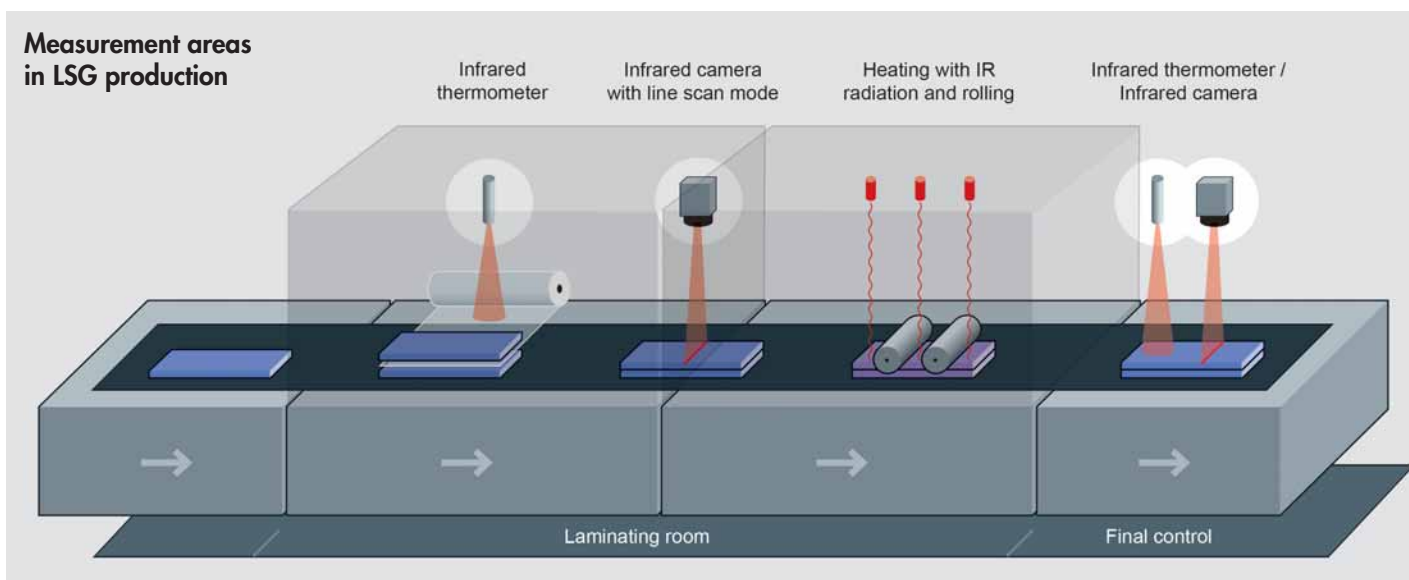
For the production of single-pane safety glass (SPSG), the cut and processed flat glass is heated in a furnace under



continuous movement at over 600°C. During the transport of the heated glass in the pretension zone, an infrared camera monitors the temperature distribution on the glass surface in line-scan mode. During the pretension process, where the glass is shock-cooled, inhomogeneities can be compensated. The quality of the SPSG mainly depends on a homogeneous thermal treatment, which is ensured by the application of temperature measurement technology.

**Ensuring the quality of laminated safety glass**

Laminated safety glass (LSG) consists of at least two flat panes of glass, which are laminated in a clean room with a sheet of PVB film between them. The temperature of the film can be monitored with infrared thermometers. In the pre-lamination furnace, the glass panes are heated in order to melt the film and simultaneously press the 'sandwich' together, to prevent air pockets. During the transition to the autoclaves, temperature distribution is monitored with an infrared camera, in order to adjust the heating elements in the pre-lamination furnace for subsequent panes, when necessary.





## R.B.M. ITALIA SRL

Via Nazionale, 48/52 - 14011 Baldichieri (AT) - Italy  
Tel.: +39 0141 66121 / Fax: +39 0141 66535

E-mail: [info@rbmitalia.com](mailto:info@rbmitalia.com) • [www.rbmitalia.com](http://www.rbmitalia.com)

### COMPANY DATA

#### Contacts

**Paola Reynaud** - CEO  
**Simona Biamino** - Sales Manager  
**Miriam Munari** - National Sales  
**Tomaso Zago** - Technical Manager  
**Lorenzo Cannella** - Technical Assistance

#### Annual Turnover of R.B.M.

EUR 6 million

#### Annual Turnover of the Group

EUR 85 million

#### Sales

Domestic 20% / International 80%

#### Area

Offices 200 m<sup>2</sup> / Plants 4500 m<sup>2</sup>

#### Number of Employees

28

#### Founding Year

1963

#### Registered Trademarks

RBM/10S

#### Planned Exhibitions

**Glasstec**

Düsseldorf, Germany - 20 / 23 October 2020





## COMPANY PROFILE

**R.B.M. ITALIA** is an Italian company that produces rubber polishing wheels for flat glass used on the most common edgers and double-edger machinery. Its extensive product range includes many different formulations of wheels with different grit and sizes, commercialized by a global sales network. Nowadays the R.B.M. brand means 100% made in Italy, high consistent quality and reliability. The company has its factory in Baldichieri, Asti, in North West Italy and has still a background of a manufactory company with a long history of technology and experience. Now it has become a part of a bigger group and that gives a big

opportunity to grow and invest more and more in R&D and human resources as never before. With a strong focus on customized solutions, which is going to become one of the strongest points for R.B.M., the partnership with the customers is enriched.

The most popular product is still the 10S, a wheel that can be considered universal, easy to be used on every type on machinery, while the top product is the cerium wheel X5000 for buffing.

In the last few years it has developed a complete range of wheels for removing low-E glass.



### PRODUCT RANGE

- Cup wheels
- Peripheral wheels
- Edge-deletion wheels



## R.C.N. SOLUTIONS Srl

Via Marcatutto 7, 20080 Albairate (MI) - Italy  
Tel.: +39 02 94602434 / Fax: +39 02 94602244

E-mail: [info@rcnsolutions.it](mailto:info@rcnsolutions.it) • [www.rcnsolutions.it](http://www.rcnsolutions.it)

### COMPANY DATA

#### Contacts

**Elena Calvi** - CEO  
**Davide Ricchi** - Owner  
**Simone Vecchi** - Sales Manager  
**Roberta Cometti** - International Department

#### Annual Turnover of the Company

EUR 5,500,000

#### Percentage of Turnover from Glass

70%

#### Percentage of Third-Party Turnover

30%

#### Sales

Domestic (30%) / International (70%)

#### Area

Offices 500 m<sup>2</sup> / Plants 2000 m<sup>2</sup>

#### Founding Year

1993

#### Planned Exhibitions

**Eurasia Glass** - Istanbul, Turkey - 4 / 7 March 2020  
**Mir Stekla** - Moscow, Russia - 8 / 11 June 2020  
**Glasstec** - Düsseldorf, Germany - 20 / 23 October 2020

### COMPANY PROFILE

Our company's core business is machines that have the power of "taming" glass:

- **Tempering** glass we learned how to temper our own characters, enhancing day after day our drive to reach our goals.

- **Bending** glass we learned how to mould our ideas to best meet our clients' needs. For them, we took the ideas of "newness" and "uniqueness" and gave them the shape and body of a machine.

- **Laminating** glass we learned to pile together our know-how and skills, generating a multi-layered experience based on creativity, method, quality standards and the desire of constant renewal.

We generated a know-how embodied by machines that are solid, durable, and succeed in tasks that prove impossible for others.

This is why we show them as they are, with no veils, just as issued from our minds and hands. Glass bears no secrets to us, and we are alike.

2020 will be an intense year for us, full of all-round innovations, the results of which will be visible at Glasstec.

#### "RIVA by RCN" chemical tempering furnaces

"Riva by RCN" is a double winning solution if we consider the possibility of customizing the machines along with the technical expertise of Gianfranco Rivaroli who has, in fact, more than 40 years of top level professional activity





**POWERLAM and LAMMY SYSTEM  
laminating furnaces**

POWERLAM is RCN's laminating machine without bags, developed and built in 2008. POWERLAM is the production and logistic solution for significant lamination quantities. POWERLAM has been studied to meet the most important production needs in very short working times, where volumes need: fast handling, precise performance, little operator intervention, promptness of finished products.

This range of special machines works alongside the more traditional laminating furnaces with bags in different sizes for each and every production need. RCN has also given this product line a series of special features, such as the easy closure of the bags, an important characteristics to reduce times, and to ensure vacuum sealing.



**"ECO SPECIAL"  
bending furnaces**

The important comeback in the request for bending furnaces has enabled RCN to start-up and up-grade its production of bending furnaces, now with the possibility of customization and an increase in the number of independent heating zones, a fundamental feature to enable to carry out more complex bending, thanks to independent controls and temperature zones.

**REVA BF  
lamination interlayer**

This project started up more than eight years ago with the (limited) introduction of an EVA interlayer combining adhesion quality, transparency, ease of use, characteristics that are no so guaranteed in today's range of EVA products.

Indeed, this balance of very sensitive and difficult to calibrate quality is reached only after years of experience and collaboration with important chemical companies.

REVA BF, which has been validated by international certification institutions, has had a constant development, along with the commitment to maintain high quality based on the targeted choice of raw materials,



supplied by one of the most prestigious international chemical companies and capillary and professional production controls. Production has also increased thanks to an extension of the extruders range carried out in 2018.

		
Miami Dade County Approved	SGCC List Approved	UNI EN ISO 12543-4:2011
AINSI Z 97.1-2009; CPSC 16 CFR 1201	AINSI Z97.1-2015 Section 5.4.2	UNI EN 12600:2003
		



**ROLLMAC A DIVISION OF GEMATA SPA**

Via Postale Vecchia 77 - 36070 - Trissino (VI) - Italy  
Tel.: +39 0445 492711 / Fax: +39 0445 490111

E-mail: [rollmac@rollmac.it](mailto:rollmac@rollmac.it) • [www.rollmac.it](http://www.rollmac.it)

COMPANY DATA

**Contacts**

Mauro Pellizzari - Sales Director  
Michele Fassina, Marco Preto,  
Renzo Gonzato, Giovanni Posenato  
Sales Manager

**Mother Company**

GeMaTa Spa

**Sales**

Domestic (13%) / International (87%)

**Quality Certifications**

ISO9002, 14001, 9001:2000

**Number of Employees**

114

**Founding Year**

1971

**Planned Exhibitions**

**Eurasia Glass** - Istanbul, Turkey - 4 / 7 March 2020

**Glass South America** - Sao Paulo, Brazil  
3 / 6 June 2020

**Glass South America** - Sao Paulo, Brazil  
3 / 6 June 2020

**Mir Stekla** - Moscow, Russia - 8 / 11 June 2020

**GlassBuild America** - Las Vegas (NV), USA  
15 / 17 September 2020

**Glasstec** - Düsseldorf, Germany - 20 / 23 October 2020





## COMPANY PROFILE

**Rollmac** is the branch of Gemata Spa, primary group in the leather finishing manufacturers, devoted to the production of machinery for the enameling and satin-coating flat glass. Its specific expertise, acquired over years on the global market, means it can offer the final user a complete know-how service and support from individual machines to complete lines. All the products are designed in-house by the R&D division and tested both internally and later at the premises of those clients with whom it has established close cooperation.

### Production

Gemata/Rollmac creates complete systems that integrate the "GlassLine" system, for coating of the edges of glass sheets, "Multiglass" for coating the entire glass sheet, and the IR drying furnace "GlassDrier IR". These systems can also integrate the digital printing system "GlassPrint One" or silk-screen printers by other manufacturers. According to specific factors such as production needs, sheet size, and high automation levels requirements, a wide range of accessories and options are also available.

In compliance with current standards, all Rollmac machines come with remote assistance as standard, thereby meeting the requirements for Industry 4.0.

Rollmac-Gemata is certified as per ISO 9001, ISO 14000, and Italian "Safe Work" standards.





## OFF. MECC. SCHIATTI ANGELO Srl

Via alla Porada 188 - 20831 Seregno (MB) - Italy  
Tel.: +39 - 0362 - 238496 - Fax: +39 - 0362 - 327990

E-mail: [info@schiattingelosrl.com](mailto:info@schiattingelosrl.com) • [www.schiattingelosrl.com](http://www.schiattingelosrl.com)

### COMPANY DATA

#### Contacts

**Angelo Schiatti** - President  
**Cinzia Schiatti** - Sales Manager  
**Emanuela Schiatti** - Account Manager  
**Alessandro Schiatti** - Technical Manager

#### Sales

Domestic (20%) / International (80%)

#### Number of Employees

43

#### Founding Year

1950

#### Planned Exhibitions

**Eurasia Glass**  
Istanbul, Turkey - 4 / 7 March 2020  
**GlassBuild America**  
Las Vegas (NV), USA - 15 / 17 September 2020  
**Glasstec**  
Düsseldorf, Germany - 20 / 23 October 2020  
**Veteco**  
Madrid, Spain - 10 / 13 November 2020

### COMPANY PROFILE

The Schiatti Elia company manufactured the first glass machine in 1950. Elia was Angelo's father and the company's founder. When Angelo took over the ownership of the company in 1969, he called the company with his name: **Schiatti Angelo**. The company's current production range includes:

- Seven models of straight grinding machines for the processing of pencil, flat and arris, ogee and waterfall edges. Cerium oxide finishing. Suitable for small, medium and large glassworks specifically for the production of mirrors, shelves for bathroom, laminated glass and table tops.
- 25 models of straight-edge grinding machines for the processing of flat edges and arris - 45° mitres - cerium oxide polishing on the edge. Especially suitable for small- and medium glass companies for the production of mirrors, shelves for furniture, laminated glass, glass tables and stairs.
- 16 models of double edging machines for the processing of polished pencil and flat +arris profiles, available in different sizes. Especially suitable for medium/large glass companies for the production of mirrors, shelves for furniture, laminated glass, stairs and photovoltaic glass.
- Corner machine for the production of variable radii or cant corners. Especially suitable for medium/big glass companies for the production of mirrors and **glass for kitchen appliances**.
- Straight-edge bevelling machines for the



- processing of bevels from 0° to 45° - with cerium oxide polishing. Especially suitable for medium/big glass companies for the production of mirrors, furniture and interiors.
- Glass loaders/unloaders especially suitable for medium/large glass companies for coupling with horizontal edging or drilling machines.
- Drilling machines with opposite heads suitable for the production of mirrors, shelves for furniture, laminated glass, tables tops and household appliances.
- Multi-head drilling machines for the execution of 2, 3 or 4 holes at the same time. Especially suitable for the production of mirrors, shelves for furniture, laminated glass and household appliances.
- Vertical drilling machines for the execution of holes and notches. Especially suitable for medium/large glass companies for the production of mirrors, shelves for furniture, laminated glass, table-tops, household appliances and doors.
- **Special machines** such as complete vertical grinding lines composed of 4 straight edges and 3 turnover units for the complete processing of the 4 sides of the glass, drilling centers customizable according to customers' needs and special solutions for smart factories.



## SALES NETWORK

### ALBANIA BELLUCCI

Tel.: +39 0744305298  
Fax: +39 0744305298  
E-mail: belluccisrl@hotmail.it

**AUSTRIA, SWITZERLAND,  
HUNGARY**  
**K & K PROVITRUM GMBH**  
Tel.: +43 2252 251214 10  
Fax: +43 2252 251214 20  
E-mail: harald.kraus@kkprovitrum.at; zita.kellermayer@kkprovitrum.at

**BELGIUM**  
**PIETERMAN GLASTECHNIEK NV**  
Tel.: +32 11 421775  
Fax: +32 11 420792  
E-mail: info@pgv-be.com  
e.indesteege@pgv-be.com

**BOSNIA, BULGARIA, CROATIA,  
MACEDONIA, MONTENEGRO,  
SERBIA, SLOVENIA**  
**GLASMIK D.O.O.**  
Tel.: +386 5 3359714  
Fax: +386 5 1668456  
E-mail: marco.mazgon@imsa-technology.com

**DENMARK, SWEDEN**  
**GLAS X GLASTEKNIK**  
Tel.: +45 28921201  
E-mail: glasx@live.dk

**CZECH REPUBLIC, SLOVAKIA**  
**IMPRA SPOL.S.R.O.**  
Tel.: +420 2 35301504  
E-mail: rgajdosik@impra.cz

**FRANCE**  
**COVADIS**  
Tel.: +33 (0)4 67 59 40 66

Fax: +33 (0)4 67 59 10 30  
E-mail: contact@covadis.eu

**GERMANY**  
**DTS HANDELSGESELLSCHAFT MBH**  
Tel.: +49 0 2161 573180  
Fax: +49 0 2161 5731879  
E-mail: info@dts-diamantwerkzeuge.de

**GREECE**  
**STEFANOS THEMELIS**  
Tel.: +30 213 0693067  
Fax: +30 210 6724157  
E-mail: stefanos.themelis@gmail.com

**IRELAND, U.K.**  
**PETER HAWKINS LTD**  
Tel.: +44 1332 864747  
Fax: +44 1332 864748  
E-mail: sheila@phawkins.co.uk

**THE NETHERLANDS**  
**PIETERMAN GLASTECHNIEK BV**  
Tel.: +31 10 4358022  
Fax: +31 10 4353481  
E-mail: info@pgv-nl.com  
r.rommers@pgv-nl.com

**POLAND**  
**MCS TECHNO SP. Z.O.O.**  
Tel.: +48 61 8143569  
Cel: +48 605 769 657  
E-mail: danilo.f@mcs-techno.pl  
michele.l@mcs-techno.pl

**PORTUGAL, SPAIN**  
**TEKVIMO**  
Tel.: +34 649 905 410  
E-mail: jacinto.mora@tekvimo.es

**ROMANIA**  
**IMROGLASS SRL**  
Mobile: +40 745 468582  
E-mail: robert.jug@imsagroup.com

**UKRAINA**  
**EVROFORMAT**  
Tel.: +380 673631100  
E-mail: evroformat.ua@gmail.com

**PERÙ - BOLIVIA**  
**HECMAQ S.A.S.**  
Tel.: +51 1 251-0699  
E-mail: hecmaq@hecmaq.com

**CANADA**  
**DROLET EQUIPEMENT CNC**  
Tel.: +1 819 474-2149  
Fax: +1 819 474-7909  
Contacts: Josée Therrien  
E-mail: jtherrien@drolet-equipementcnc.com

**BRAZIL**  
**GUSMAO REPRESENTACOES LTDA**  
Tel.: +55 11 3998-2020  
Fax: +55 11 3998 2028  
E-mail: gusmao@gusmao.com.br

**ITALOTEC**  
(Technical Assistance)  
Tel.: +55 11 3017-0930  
Fax: +55 11 3923-5519  
E-mail: silvio@italotec.com.br

**USA**  
**DE GORTER INC.**  
Tel.: +1 704 282 2055  
Fax: +01 704 2258290  
E-mail: sales@degorter.com

**NEW ZEALAND**  
**GLASSCORP LIMITED**  
Tel.: +64 9 4156338  
Fax: +64 9 4156339  
E-mail: richard@glasscorp.co.nz

**SOUTH KOREA**  
**EASTWEST TRADING INC.**  
Tel.: +82 51 642 2123  
Fax: +82 51 642 2125  
E-mail: eastwest-glass@hanmail.net

**JORDAN, SYRIA**  
**LANA INTERNATIONAL EST**  
Tel.: +962 6 5810487  
Fax: +962 6 5810497  
E-mail: lanaco@orange.jo

**TAIWAN**  
**USE ELECTRONICS CO. LTD**  
Tel.: +886 2 23934825  
Fax: +886 2 23414900  
+886 2 23222782

**THAILANDIA**  
**USE ELECTRONICS (THAILAND) CO., LTD.**  
Tel.: +66 (0) 2938-3300  
Ext.105, 106  
Fax: +66 (0) 2938-2199  
E-mail: boonlert@use-thailand.com  
boonchoo@use-thailand.com  
tayavee@use-thailand.com

**BAHRAIN, OMAN, QATAR, U.A.E.**  
**GULF STAR ENTERPRISE (FZC)**  
Tel.: +9716-5573259  
Fax: +9716-5571922  
E-mail: rg@gulfstarenter.com  
gulfstarenterprise@gmail.com

**SOUTH AFRICA**  
**BWT LTD**  
Tel.: +27 11 431 1361  
E-mail: bwtltd@global.co.za  
cooperation with LISEC AFRICA



## SCHIAVO Srl

Via Cave Ticino, 10 - 20020 Robecchetto con Induno (MI) - Italy

Tel.: +39 0331 897904 / Fax: +39 0331 890645

E-mail: [info@schiavotech.it](mailto:info@schiavotech.it) • [www.schiavotech.it](http://www.schiavotech.it)

### COMPANY DATA

#### Contacts

**Michele Schiavo** - General Manager  
**Francesco Schiavo** - General Manager

#### Percentage of turnover from glass

100%

#### Sales

Domestic (20%) / International (80%)

#### Founding Year

2003

### PRODUCT RANGE

- Vertical and horizontal washing machines
- Manual, Semi-automatic, Automatic Storage Systems
- Vertical Milling Machines
- Vertical and horizontal drilling machines
- Fixed, Manual, Motorized Vacuum Lifters
- Manipulators
- Unloaders for packs

### COMPANY PROFILE

#### Products

SCHIAVO machines are well-known the world over for their quality, reliability and advanced technology. As of today, more than 5,000 machines have been installed in over 50 countries.

The company's machines are 100% Made in Italy with 100% high-quality European components.

#### Washing

SCHIAVO horizontal and vertical washers have been developed to offer high-quality and high-performing machines, for clients requiring affordable and quality machinery.

The company's washing machines can be equipped with from 2 to 6 brushes or more, and are made entirely of stainless steel.

#### Milling - Drilling

Very precise and CNC controlled, the new FV series of vertical milling machines are versatile machines to obtain each and every type of cuts, notches and holes needed for the installation of hinges, handles, locks and accessories on glass doors and glass furniture, with a small-business budget.

#### Storage systems

Glass storage systems are essential for glassworks to organize production efficiently and to optimize available space.



Glass washing machine 1600 pre-washing





**FV1000 vertical milling machine**

In this sector, SCHIAVO is a leader, with highly reliable solutions for the needs of its clients. CLO is a sideways-moving storage system available in manual, semiautomatic and fully automatic versions. UCS is the new, ultra-compact, ultra-low storage system for glass sheets and offcut glass, patented by SCHIAVO.

**Handling**

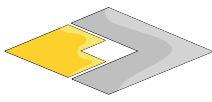
With regards to machinery for the lifting and handling of glass, SCHIAVO offers: tongs, vacuum lifters for all kinds of flat glass, including IG glass, manipulators, jib cranes, automatic loaders and unloaders for glass packs.



**Horizontal glass washing machine HTL2600**



**Glass washing machine TOP3000-6**



**TECNO  
GLASS**



## TECNO-GLASS Srl

Località Caldari Stazione 63/A - 66026 Ortona, Chieti - Italy - Tel.: +39 - 085 - 9032165  
Fax: +39 - 085 - 9031376 - E-mail: [info@tecnoglass.it](mailto:info@tecnoglass.it) • [www.tecnoglass.it](http://www.tecnoglass.it)



ENGINEERING • DEPARTMENT

### COMPANY DATA

#### Contacts

**Franco Canzano** - Owner and Sales Manager  
**Sandro Canzano** - Technical Manager  
**Manuela Canzano** - Sales & Marketing

#### Sales

Domestic (95%) / International (5%)

#### Number of Employees

30

#### Planned Exhibitions

##### Glasstec

Düsseldorf, Germany - 20 / 23 October 2020

### COMPANY PROFILE

**Tecno-Glass** was founded 40 years ago by the Canzano family. The Company is now a leader in the construction and sale of machinery and equipment for glassworks in the Italian and international markets. For over 15 years, the company has been designing and making different glass processing machines, that highly reliable, easy to use and to maintain, and, of course, with functional and aesthetic features that make Tecno-Glass machines unique and irreplaceable.



#### TKD-3000 PLUS (Profile Cutting Machine)

Two cutting disks and two motors. The TKD-3000 PLUS guarantees perfect processing of all types of profiles on today's market. Windows management software.

#### HM-1 (HOT-MELT extruder)

The HM-1 is reliable and compact. It has last-generation components to minimize consumption and reduce noise to a minimum. The stainless steel carter facilitates cleaning operations.



#### BRX-700 (butyl extruder 7KG)

The BRX-700 is the top of the series of BRX butyl extruders, featuring high speed and automatically adjusted pressure. Precision and continuity of operations are guaranteed.



**We are really happy with our work and the goals that we have reached, proud to be 'Made in Europe, proud to be Made in Italy'.**

Sandro Canzano



• **MFC-ROCKER**  
Extruder for silicone sealants

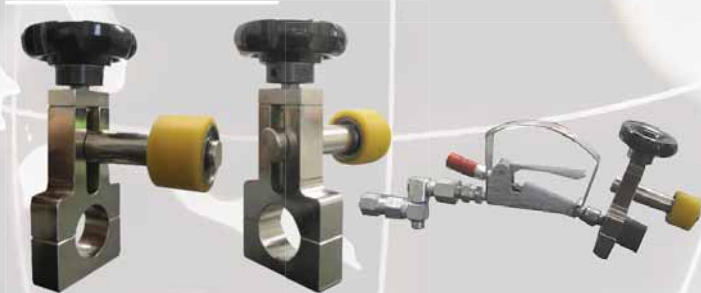


• **MFC-RADIANT**  
Extruder for polysulphuric and polyurethane sealants.

MFC extruders are built with carefully selected components, coming from top Italian and American mechanical companies. They are also equipped with a series of optional devices to facilitate operations, such as the centring guide roller and the mixing unit with AISI 316 stainless steel propellers. The MFC-Rocker extruder is also equipped with the innovative MD2 gun.

**Centring guide roller**

The centring guide roller has been created especially to support the weight of the mixing-dosing unit. It guarantees the axial centring in the interspace and, thanks to the lower blocking belt, it facilitates the tightening of the extruder gun rubber nozzle.



**Mixing unit with AISI 316 stainless steel propellers**

Made up of two calibrated containment sleeves with two AISI 316 stainless steel propellers used to mix the sealant with the catalyst.



**MD2 pistol gun**

The MD2 pistol enables to stop production with only 90g of waste mixed material, considerably reducing environmental impact and bypassing all types of coolant used to block crosslinking.



# TUROMAS

OUR PASSION, YOUR PROGRESS



## TUROMAS

Carretera Estación Km. 15,8 - 44415 Rubielos de Mora - Spain

Tel.: +34 - 978 - 804158 - E-mail: [info@tuomas.com](mailto:info@tuomas.com) • [www.tuomas.com](http://www.tuomas.com)

### COMPANY DATA

#### Founding Year

1985

#### Registered brands

Tuomas

#### Planned Exhibitions

##### Eurasia Glass

Istanbul, Turkey - 4 / 7 March 2020

**China Glass** - Postponed

**Glass South America**

Sao Paulo, Brazil - 3 / 6 June 2020

**Mir Stekla**

Moscow, Russia - 8 / 11 June 2020

**Glasstech Mexico**

Guadalajara, Mexico - 27 / 29 July 2020

**GlassBuild America**

Las Vegas (NV), USA - 15 / 17 September 2020

**Glasstec**

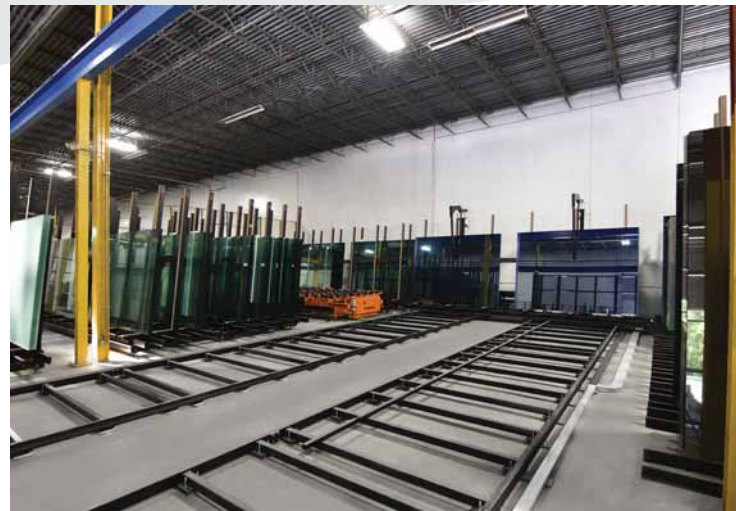
Düsseldorf, Germany - 20 / 23 October 2020

**Veteco**

Madrid, Spain - 10 / 13 November 2020

**Zak Windows & Doors**

Mumbai, India - 3 / 6 December 2020



### COMPANY PROFILE

Since 1985, **TUROMAS** has been manufacturing equipment for glass storage, loading and cutting, becoming an undisputed industry reference through its continuous R&D investment and commitment to reliability, versatility and performance. Nowadays the company has an intensive and strong presence in Europe and America, and its products are increasingly acclaimed in Africa, Asia and Oceania.

### PRODUCT RANGE

- SMART GLASS STORAGE AND LOADING SYSTEMS
- FLOAT GLASS CUTTING SYSTEMS
- LAMINATED GLASS CUTTING SYSTEMS
- CUSTOMIZED PROJECTS



### 100% EUROPEAN MACHINERY

Quality, reliability and service are a must. TUROMAS production is carried out 100% in its Spanish factories, using only top rated European components and following the highest quality controls to ensure reliability and performance over the years.

### READY FOR THE FUTURE

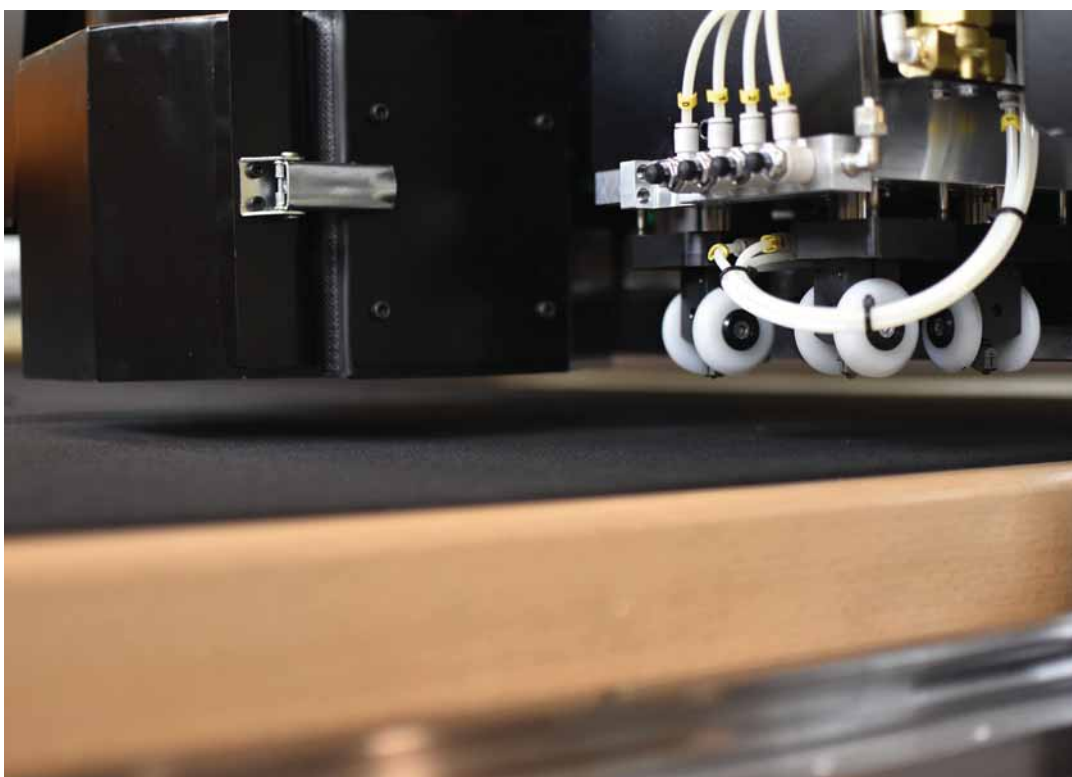
A future-proof investment needs machines able to integrate with other equipment, flexible enough to adapt to new requirements and even capable of growing with the company. Automation and the philosophy of Industry 4.0 are leading the glass industry towards a new model to be prepared for.

### SMART STORAGE AND LOADING MACHINERY

TUROMAS provides an entire range of intelligent warehouses to achieve more performance, reliability and flexibility. The new range of automatic storage systems SR and LA have revolutionized the concept of storage space utilization, while significantly reducing the loading cycle, making it the current market benchmark. As no two factories or two customers are the same. TUROMAS designs and optimizes smart glass storage and loading systems individually according to available space, current production needs and future projections in order to generate the ideal solution for each particular case.

### PIONEERS IN MAGNET DRIVEN CUTTING TABLES

TUROMAS presented the first-ever cutting table with linear drives back in 2000, enabling to achieve an accuracy of  $\pm 0,1$ mm, maximum speeds of 310 m/min and, most importantly, accelerations of up to 19 m/s<sup>2</sup>, which allowed for unprecedented performance. Since then, many of the world's leading glass processing companies have relied on the reference technology and expertise offered by Spanish machinery.



### 4-TOOL: CUTTING 4 PERFECTION

The exclusive 4-TOOL cutting technology by TUROMAS offers unparalleled cutting quality in any glass from only 0.55mm to 25mm thickness. It uses specific pressure cylinders, lubrication and cutting wheels for each glass thickness, automatically adjusted without the operator intervention.

The result is a perfect and vertical cutting of any thickness, achieving the famous TUROMAS Open Cut and optimizing the company's time and resources.

# GLASS

SOUTH AMERICA

## TECHNOLOGY & DESIGN

03<sup>rd</sup>-06<sup>th</sup>  
JUN.2020  
SÃO PAULO EXPO

14<sup>th</sup> INTERNATIONAL TRADE SHOW OF GLASS TECHNOLOGY AND DESIGN

**IN 2020,  
YOU HAVE A  
MEETING WITH THE  
GLASS INDUSTRY!**

### THE EVENT

Glass South America is the most important trade show in the Latin America.

+ than  
**14.000**  
visitors

**215**

Brands present  
(national and  
international)

## EVENT SECTORS

Companies throughout the glass chain are present in Trade Show. Focused in design and technology for the construction, architecture, furniture and automotive industries, the event features new applications of glass, machines, equipment and accessories.



**Machinery and  
Equipment**



**Tools**



**Plain  
Glass**



**Photovoltaic  
energy**



**Hardware and  
accessories**

**LARGEST SHOW IN  
LATIN AMERICA**

**PRESENCE OF THE MOST  
IMPORTANT ASSOCIATIONS**

**MAIN EXHIBITING  
BRANDS**

[www.glassexpo.com.br](http://www.glassexpo.com.br)

[f /glassexpo](https://www.facebook.com/glassexpo)

Organization and Promotion:



Exclusive Support:



Parallel Event:



Venue:





## COMPANY

website

## COMPANY

website

### **A+W** Software

for Glass, Windows & Doors

**A+W SOFTWARE**  
[www.a-w.com](http://www.a-w.com)

### **FOREL**

**FOREL**  
[www.forelspa.com](http://www.forelspa.com)



**ADELIO LATTUADA**  
[www.adeliolattuada.com](http://www.adeliolattuada.com)

### **FORVET**

Innovative Solutions in Special Glassworking Machinery

**FORVET**  
[www.forvet.it](http://www.forvet.it)



**ADI**  
[www.aditools.com](http://www.aditools.com)

### **giardinagroup**

**GIARDINA FINISHING**  
[www.giardinagroup.com](http://www.giardinagroup.com)



**ASHTON INDUSTRIAL SALES**  
[www.ashton-industrial.com](http://www.ashton-industrial.com)

### **GLASSCOMPANY**

**GLASS COMPANY**  
[www.glasscompany.com](http://www.glasscompany.com)



**B SOLUTION LICENSEE OF BF PROJECT**  
[www.bsolutionsrl.com](http://www.bsolutionsrl.com)

### **glaston**

seeing it through

**GLASTON**  
[www.glaston.net](http://www.glaston.net)



**BOTTERO**  
[www.bottero.com](http://www.bottero.com)



**HEGLA**  
[www.hegla.com](http://www.hegla.com)



**BOVONE DIAMOND TOOLS**  
[www.bovonediamond.com](http://www.bovonediamond.com)

### **helios quartz**



**HELIOS QUARTZ**  
[www.heliositalquartz.com](http://www.heliositalquartz.com)



**BOVONE Elett.**  
[www.bovone.com](http://www.bovone.com)



**HORN**  
[www.hornglas.de](http://www.hornglas.de)



Because we care

**BYSTRONIC GLASS**  
[bystronic-glass.com](http://bystronic-glass.com)

### **INTERMAC**

**INTERMAC - BIESSE**  
[www.intermac.com](http://www.intermac.com)

### **DIAMUT**

**DIAMUT - BIESSE**  
[www.diamut.com](http://www.diamut.com)



**ITALCARRELLI**  
[www.italcarrelli.eu](http://www.italcarrelli.eu)



**DIEFFE MACCHINE**  
[www.dieffemacchine.it](http://www.dieffemacchine.it)



**KERAGLASS**  
[www.keraglass.com](http://www.keraglass.com)



**EDGETECH EUROPE**  
[www.superspacer.com](http://www.superspacer.com)

### **LISEC**

**LISEC GROUP**  
[www.lisec.com](http://www.lisec.com)



## COMPANY

website

## COMPANY

website



**MAPPI INTERNATIONAL**  
[www.mappi.it](http://www.mappi.it)



**R.C.N. SOLUTIONS**  
[www.rcnsolutions.it](http://www.rcnsolutions.it)



**MAZZAROPPI ENGINEERING**  
[www.mazzaroppi.com](http://www.mazzaroppi.com)



**ROLLMAC DIVISION OF GEMATA**  
[www.rollmac.it](http://www.rollmac.it)



**MOLE MORESCHI**  
[www.molemoreschi.com](http://www.molemoreschi.com)



**SCHIATTI ANGELO**  
[www.schiattiangelosrl.com](http://www.schiattiangelosrl.com)



**MOVETRO - MISTRELLO**  
[www.movetro.it](http://www.movetro.it)



**SCHIAVO**  
[www.schiavotech.it](http://www.schiavotech.it)



**OPTIMA**  
[www.optima.it](http://www.optima.it)



**TECNO GLASS**  
[www.tecnoglass.it](http://www.tecnoglass.it)



**OPTRIS**  
[www.optris.global](http://www.optris.global)



**TUROMAS**  
[www.tuomas.com](http://www.tuomas.com)



**RBM ITALIA**  
[www.rbmitalia.com](http://www.rbmitalia.com)



LISTING IN THIS SECTION  
IS RESERVED FOR ADVERTISERS.

FOR FURTHER INFORMATION PLEASE  
CONTACT OUR ADVERTISING DEPARTMENT:  
**E-mail: [marketing@a151.eu](mailto:marketing@a151.eu)**

The listing in this "Suppliers Guide -  
Yellow Pages" is free of charge  
and reserved to advertisers of this issue.  
The "Suppliers Guide - Yellow Pages" promotes  
their products and services worldwide.

### Glass manufacturing and Processing

#### FLOAT GLASS

Bavelloni  
Sisecam

#### PROCESSED SHEET GLASS

CMS  
North Glass Technology

#### LAMINATED SAFETY GLASS

Kuraray - Trosifol

#### MIRRORS

CMS

### Stocking, handling and movement

#### COMPLETE STOCKING LINES / ENGINEERING

##### Bystronic glass

Cugher Glass  
ECOL

##### Hegla

IOCCO Group

##### Keraglass

##### Lisec Group

North Glass Technology

##### MOVETRO

##### Schiavo

Torgauer Maschinenbau

##### Tuomas

## COMPLETE HANDLING AND MOVEMENT LINES

Bando Kiko  
**Bottero**  
**Bystronic glass**  
 Cugher Glass  
 CMS  
 ECOL  
**Forvet**  
**Hegla**  
**Giardina Finishing + HS Glassprinting**  
 IOCCO Group  
**Keraglass**  
**Lisec Group**  
 North Glass Technology  
**Schiavo**  
 Torgauer Maschinenbau  
**Tuomas**

## MACHINES FOR HANDLING GLASS SHEETS

**Ashton Industrial Sales**  
 Bando Kiko  
 Bavelloni  
**Bottero**  
**Bystronic glass**  
 CMS  
 ECOL  
**Forel**  
 Goldglass Technologies  
 Guangdong Northglass  
 & Juisun Technology  
 Industrial  
**Hegla**  
 IOCCO Group  
**Italcarrelli**  
**Keraglass**  
**Lisec Group**  
**Schiavo**  
 Torgauer Maschinenbau  
**Tuomas**

## HANDLING ROBOTS

**Ashton Industrial Sales**  
 Bavelloni  
**Bottero**  
 CMS  
 ECOL  
**Hegla**  
 IOCCO Group  
**Lisec Group**  
**Schiavo**  
 Torgauer Maschinenbau  
**Tuomas**

## HANDLING EQUIPMENT FOR FLOAT GLASS

**Bovone Elett.**  
**Bottero**  
**Bystronic glass**  
 ECOL  
 Goldglass Technologies  
**Hegla**  
 IOCCO Group  
**Italcarrelli**  
**Lisec Group**  
**Schiavo**

Torgauer Maschinenbau  
**Tuomas**

## TROLLEYS AND CLASSIFIERS

CMS  
**Forel**  
**Hegla**  
**Lisec Group**  
**MOVETRO**  
**Schiavo**  
**Tecno Glass**  
 Torgauer Maschinenbau  
**Tuomas**

## TRANSPORTATION SYSTEMS/TRUCKS

**Giardina Finishing + HS Glassprinting**  
**Hegla**  
**Italcarrelli**  
**Lisec Group**  
**Schiavo**

## VACUUM LIFTING EQUIPMENT

**Bottero**  
**Bystronic glass**  
 CMS  
 ECOL  
 Fenzi  
**Forel**  
**Hegla**  
**Lisec Group**  
**Schiavo**  
 Torgauer Maschinenbau  
**Tuomas**

## CRANE SUCTION CUPS FOR LARGE SHEETS

**Bottero**  
**Bystronic glass**  
 Fenzi  
**Hegla**  
**Lisec Group**  
**Schiavo**  
**Tuomas**

## TRANSPORTATION TONGS

**Bottero**  
 Fenzi  
 IOCCO Group  
**Schiavo**  
**Tuomas**

## SUCTION CUPS

**ADI**  
**Bottero**  
**Bystronic glass**  
 CMS  
 Fenzi  
**Hegla**  
**Schiavo**  
**Tuomas**

## CONVEYOR BELTS

**Ashton Industrial Sales**  
**Bystronic glass**  
 Cugher Glass

ECOL  
**Schiavo**  
**Tuomas**

## PACKAGING MATERIALS AND SYSTEMS

ECOL  
**Hegla**  
**Schiavo**

## ACCESSORIES

**Bottero**  
 CMS  
 Fenzi  
**Hegla**  
**Helios Quartz**  
**Mole Moreschi**  
**Schiavo**  
**Tuomas**

## Straight-edge and shape cutting

## COMPLETE STRAIGHT-EDGE LINES

Bando Kiko  
 Bavelloni  
**Bottero**  
**Bystronic glass**  
 CMS  
 Euromec  
**Forvet**  
**Hegla**  
**Lisec Group**  
**Schiavo**  
**Schiatti Angelo**  
 Shanghai North Glass  
 Technology

## COMPLETE SHAPE CUTTING LINES

Bando Kiko  
 Bavelloni  
**Bottero**  
**Bystronic glass**  
 CMS  
 Guangdong Northglass  
 & Juisun Technology  
 Industrial  
**Hegla**  
**Lisec Group**  
**Schiavo**  
 Shanghai North Glass  
 Technology  
**Tuomas**

## AUTOMATIC CUTTING MACHINES FOR AUTOMOTIVE GLASS

Bando Kiko  
**Bottero**  
**Bystronic glass**  
 CMS  
**Glaston**  
 IOCCO Group

**Lisec Group**  
**Schiavo**

## LOADING AND TILTING MACHINES

Bando Kiko  
 Bavelloni  
**Bottero**  
**Bystronic glass**  
 CMS  
 ECOL  
 Euromec  
**Forel**  
**Glass Company**  
**Hegla**  
**Intermac - Biesse**  
 IOCCO Group  
**Lisec Group**  
**Schiavo**  
 Tenon (Beijing) Equipment  
**Tuomas**

## CUTTING TABLES

Bando Kiko  
 Bavelloni  
**Bottero**  
**Bystronic glass**  
 CMS  
 Euromec  
 Fenzi  
**Forel**  
**Hegla**  
 IOCCO Group  
**Lisec Group**  
 Macotec  
**Schiavo**  
 Tekno Kilns  
 Tenon (Beijing) Equipment  
 TK  
 Triulzi  
**Tuomas**

## CUTTING OPTIMIZERS

Bando Kiko  
 Bavelloni  
**Bottero**  
**Bystronic glass**  
 CMS  
 Deltamax Automazione  
 Euromec  
**Forel**  
**Hegla**  
 IOCCO Group  
**Lisec Group**  
**Optima**  
**Schiavo**  
**Tuomas**

## CUTTING PATH OPTIMIZERS

Bando Kiko  
**Bottero**  
**Bystronic glass**  
 CMS  
 Euromec  
 IOCCO Group  
**Lisec Group**  
**Optima**  
**Schiavo**

## CAD SYSTEMS

Bavelloni  
CMS  
**Lisec Group**  
Prodim  
**Schiavo**

## ARMoured AND LAMINATED GLASS CUTTING MACHINES

Bando Kiko  
Bavelloni  
**Bottero**  
**Bystronic glass**  
CMS  
**Hegla**  
**Lisec Group**  
**Schiavo**  
**Tuomas**

## ROUND OR SHAPE CUTTING MACHINES

Bando Kiko  
Bavelloni  
**Bottero**  
**Bystronic glass**  
CMS  
Fenzi  
**Hegla**  
**Lisec Group**  
**Schiavo**  
**Tuomas**

## CUTTING ACCESSORIES

**ADI**  
Ayrox  
Bando Kiko  
**Bottero**  
Fenzi  
IOCCO Group  
**Schiavo**  
Softeco  
Talamoni  
**Tuomas**  
Tyrolit Vincent

## SAW MACHINES

**Schiavo**  
**Tecno Glass**

## AUTOMATIC SAWS FOR CUTTING LAMINATED AND BULLET-PROOF GLASS

CMS  
**Schiavo**

## BREAKING SYSTEMS

Bando Kiko  
Bavelloni  
**Bottero**  
**Bystronic glass**  
CMS  
Euromec  
**Hegla**  
IOCCO Group  
**Lisec Group**  
**Schiavo**  
**Tuomas**

## CUTTING MACHINES WITH BREAKING AND EDGE DELETING DEVICES

Bando Kiko  
**Bottero**  
**Bystronic glass**  
CMS  
Euromec  
Guangdong Northglass  
& Juisun Technology  
Industrial  
**Hegla**  
IOCCO Group  
**Lisec Group**  
**Schiavo**  
**Tuomas**

## GLASS CUTTING FLUIDS

Diamant - AR Nunziata  
**Schiavo**  
**Tuomas**

## ACCESSORIES

**Schiavo**  
**Schiatti Angelo**  
Talamoni  
**Tuomas**

## Edging and bevelling

### COMPLETE EDGING LINES

**Adelio Lattuada**  
**Ashton Industrial Sales**  
**B Solution Licensee of BF Project**  
Bando Kiko  
Bavelloni  
**Bottero**  
CMS  
**Forel**  
**Forvet**  
Hiseng Glass Machinery  
IOCCO Group  
**Schiavo**  
**Schiatti Angelo**  
SKG - Skill Glass

### COMPLETE BEVELLING LINES

**Adelio Lattuada**  
Bando Kiko  
**Bottero**  
CMS  
Hiseng Glass Machinery  
IOCCO Group  
**Schiavo**

### COMPLETE AUTOMOTIVE GLASS EDGING AND BEVELLING LINES

**Adelio Lattuada**  
Bando Kiko  
Bavelloni  
**Bottero**  
**Bystronic glass**

Hiseng Glass Machinery  
**Intermac - Biesse**  
IOCCO Group  
SKG - Skill Glass

### DOUBLE-EDGE GRINDING MACHINES

**Ashton Industrial Sales**  
**B Solution Licensee of BF Project**  
Bando Kiko  
Bavelloni  
**Bottero**  
CMS  
**Forvet**  
Hiseng Glass Machinery  
**Intermac - Biesse**  
IOCCO Group  
**Schiatti Angelo**

### VERTICAL-EDGE GRINDING MACHINES

**Adelio Lattuada**  
**B Solution Licensee of BF Project**  
Bando Kiko  
Bavelloni  
**Bottero**  
**Bystronic glass**  
**Forel**  
**Glass Company**  
Hiseng Glass Machinery  
**Schiavo**  
**Schiatti Angelo**  
Shanghai North Glass  
Technology  
SKG - Skill Glass

### GRINDING SPINDLES

**Schiavo**  
**Tecno Glass**

### BEVELLING MACHINES FOR ROUND AND SHAPED GLASS

**Adelio Lattuada**  
Bando Kiko  
Bavelloni  
CMS  
Hiseng Glass Machinery  
**Intermac - Biesse**  
**Schiavo**

### STRAIGHT-EDGE BEVELLING MACHINES

**Adelio Lattuada**  
Bando Kiko  
Bavelloni  
**Bovone Elett.**  
CMS  
**Glass Company**  
Hiseng Glass Machinery  
**Schiavo**  
**Schiatti Angelo**

### BEVEL POLISHING MACHINES

**Adelio Lattuada**  
Bando Kiko

Bavelloni  
**Bovone Elett.**  
CMS  
Hiseng Glass Machinery  
**Intermac - Biesse**

### STRAIGHT-EDGE ENGRAVING MACHINES

Bavelloni  
**Bottero**  
CMS  
**Intermac - Biesse**  
SKG - Skill Glass

### SHAPED GLASS ENGRAVING MACHINES

Bavelloni  
**Bottero**  
CMS  
**Intermac - Biesse**

### CORNER GRINDING MACHINES

**Adelio Lattuada**  
**Ashton Industrial Sales**  
**B Solution Licensee of BF Project**  
Bavelloni  
CMS  
**Intermac - Biesse**  
SKG - Skill Glass

### SHAPED GLASS GRINDING MACHINES

**Adelio Lattuada**  
**Ashton Industrial Sales**  
Bando Kiko  
Bavelloni  
**Bottero**  
CMS  
**Forel**  
**Glass Company**  
Guangdong Northglass  
& Juisun Technology  
Industrial  
Hiseng Glass Machinery  
**Intermac - Biesse**

### BELT GRINDING MACHINES

**Adelio Lattuada**  
**Ashton Industrial Sales**  
Fenzi  
Hiseng Glass Machinery  
IOCCO Group  
Tenon (Beijing) Equipment

### LATHES - VERTICAL AND HORIZONTAL

CMS  
Fenzi

### EMBOSSING MACHINES

CMS  
Fenzi

### PORTABLE MACHINES

Fenzi

**Helios Quartz  
Tecno Glass**

**DIAMOND TOOLS**

**Adelio Lattuada  
ADI**  
**Ashton Industrial Sales**  
Bando Kiko  
**Bovone Diamond Tools**  
**Bottero**  
Diamant - AR Nunziata  
**Diamut - Biesse**  
Fenzi  
**Glaston**  
**Mole Moreschi**  
**Schiavo**  
Talamoni  
Tyrolit Vincent

**DIAMOND BELTS**

**Mole Moreschi**

**SEAMING LINES**

**Ashton Industrial Sales**

**MANUAL LINES**

**Ashton Industrial Sales**

**POLISHING WHEELS**

**Adelio Lattuada  
ADI**  
Bando Kiko  
**Bovone Diamond Tools**  
Diamant - AR Nunziata  
**Diamut - Biesse**  
Fenzi  
**Glaston**  
Italmole  
**Mole Moreschi**  
**RBM Italia**  
**Schiavo**  
Tyrolit Vincent

**POLISHING AGENTS AND  
OXIDES**

**ADI**  
**Bovone Diamond Tools**  
Diamant - AR Nunziata  
Fenzi  
**Schiavo**  
Tyrolit Vincent

**POLISHING BELTS**

Diamant - AR Nunziata  
Fenzi  
**Schiavo**

**COOLANTS**

**Adelio Lattuada**  
**Bovone Diamond Tools**  
Fenzi  
**Schiavo**

**GLASS GRINDING AND  
BEVELLING COOLANTS**

**Schiavo**

**SEPARATORS FOR  
GLASS-SOLIDS**

**Ashton Industrial Sales**  
**Schiavo**

**ACCESSORIES**

**ADI**  
CMS  
Fenzi  
**Helios Quartz**  
IOCCO Group  
**Mole Moreschi**  
**Schiavo**  
**Schiatti Angelo**  
Tyrolit Vincent

**Washing**

**HORIZONTAL WASHING  
MACHINES**

**Ashton Industrial Sales**  
Bando Kiko  
Bavelloni  
**Bovone Elett.**  
**Bystronic glass**  
ECOL  
**Forel**  
**Glass Company**  
Hiseng Glass Machinery  
IOCCO Group  
**Lisec Group**  
Neptun  
**Schiavo**  
Triulzi

**VERTICAL WASHING  
MACHINES**

**Adelio Lattuada**  
**Ashton Industrial Sales**  
Bavelloni  
Best Makina  
**Bystronic glass**  
ECOL  
**Forel**  
**Glass Company**  
Hiseng Glass Machinery  
IOCCO Group  
**Lisec Group**  
Neptun  
**Schiavo**  
Shanghai North Glass  
Technology  
S.T. Group  
Stefiglass  
Tenon (Beijing) Equipment  
Triulzi

**WASHING MACHINES  
FOR AUTOMOTIVE GLASS**

Bando Kiko  
**Bystronic glass**  
ECOL  
IOCCO Group  
Triulzi

**WASHING PURIFICATION  
SYSTEMS**

**Bystronic glass**  
**Dieffe macchine**  
**Forel**  
**Glass Company**  
IOCCO Group  
**Schiavo**  
Tenon (Beijing) Equipment

**LIQUID WASHING  
CONCENTRATES**

Diamant - AR Nunziata  
**Schiavo**

**SEPARATORS  
FOR GLASS-SOLIDS**

**Dieffe macchine**  
Vitrosep  
Filtraglass

**ACCESSORIES**

**Helios Quartz**  
Idrotecnica  
**Schiavo**  
S.T. Group

**Mirror production**

**COMPLETE PLANTS  
& CONVEYORS  
FOR MIRROR PRODUCTION**

**Bovone Elett.**  
IOCCO Group  
Triulzi

**PAINTING EQUIPMENT**

Fenzi  
**Giardina Finishing + HS**  
**Glassprinting**  
Goldglass Technologies  
IOCCO Group  
Triulzi

**DRYING OVENS**

**Bovone Elett.**  
CMS  
**Giardina Finishing + HS**  
**Glassprinting**  
Goldglass Technologies

**AUTOMOTIVE MIRROR  
BENDING FURNACES**

**Bovone Elett.**

**MANUAL SILVER- SPRAYING  
EQUIPMENT**

Fenzi  
**Glass Company**

**PAINTS AND CHEMICAL  
PRODUCTS**

Fenzi

**ACCESSORIES**

Fenzi  
**Helios Quartz**

**Insulating glass**

**COMPLETE INSULATING  
GLASS LINES**

**Ashton Industrial Sales**  
Bavelloni  
Best Makina  
**Bystronic glass**  
**Forel**  
**Glass Company**  
Neptun  
**Schiavo**  
S.T. Group  
Tenon (Beijing) Equipment  
Thermoseal Group  
Triulzi

**AUTOMATIC SEALING LINES**

Bavelloni  
**Bystronic glass**  
**Forel**  
**Lisec Group**  
S.T. Group

**AUTOMATIC SPACER  
BENDING MACHINES**

Bavelloni  
Best Makina  
**Bystronic glass**  
Fenzi  
**Forel**  
IOCCO Group  
**Lisec Group**  
Lombarda Macchine  
**Schiavo**  
S.T. Group  
Tenon (Beijing) Equipment  
Thermoseal Group

**DESICCANT SALT FILLING  
MACHINES**

**Ashton Industrial Sales**  
Bavelloni  
Best Makina  
**Bystronic glass**  
Di Gregorio  
Fenzi  
**Forel**  
**Lisec Group**  
Lombarda Macchine  
Neptun  
**Schiavo**  
S.T. Group  
**Tecno Glass**  
Tenon (Beijing) Equipment  
Thermoseal Group  
Triulzi

**SPACER CUTTING SAWS**

**Ashton Industrial Sales**

Bavelloni  
Best Makina  
Fenzi  
**Forel**  
**Lisec Group**  
Neptun  
**Schiavo**  
S.T. Group  
**Tecno Glass**  
Tenon (Beijing) Equipment  
Thermoseal Group

#### BUTYL EXTRUDERS

Bavelloni  
Best Makina  
**Bystronic glass**  
**Forel**  
**Lisec Group**  
Neptun  
**Schiavo**  
S.T. Group  
**Tecno Glass**  
Tenon (Beijing) Equipment  
Thermoseal Group  
Triulzi

#### HOT-MELT EXTRUDERS

Bavelloni  
Best Makina  
Fenzi  
**Forel**  
**Lisec Group**  
Neptun  
**Schiavo**  
S.T. Group  
**Tecno Glass**  
Tenon (Beijing) Equipment  
Thermoseal Group  
Triulzi

#### POLYURETHANE EXTRUDERS

Bavelloni  
Best Makina  
**Bystronic glass**  
Fenzi  
**Forel**  
**Lisec Group**  
**Schiavo**  
S.T. Group  
**Tecno Glass**

#### POLYURETHANE ENCAPSULATION

**Bystronic glass**  
**Lisec Group**  
**Schiavo**

#### SILICONE EXTRUDERS

Best Makina  
**Bystronic glass**  
Fenzi  
**Forel**  
**Lisec Group**  
**Schiavo**  
S.T. Group  
**Tecno Glass**  
Tenon (Beijing) Equipment  
Triulzi

#### POLYSULPHIDE SEALANT EXTRUDERS

Best Makina  
**Bystronic glass**  
Fenzi  
**Forel**  
**Lisec Group**  
**Schiavo**  
**Tecno Glass**  
Tenon (Beijing) Equipment  
Triulzi

#### GAS FILLING EQUIPMENT

**Bystronic glass**  
Fenzi  
**Forel**  
**Lisec Group**  
Neptun  
**Schiavo**  
Sparklike  
S.T. Group  
**Tecno Glass**  
Tenon (Beijing) Equipment  
Thermoseal Group

#### DESICCANT SALTS

**Ashton Industrial Sales**  
Fenzi  
Neptun  
**Schiavo**  
S.T. Group  
**Tecno Glass**  
Thermoseal Group

#### SPACERS/PROFILES

**Ashton Industrial Sales**  
**Edgetech Europe**  
Fenzi  
**Schiavo**  
S.T. Group  
**Tecno Glass**  
Thermoseal Group

#### GEORGIAN BARS

**Ashton Industrial Sales**  
**Hegla**  
**Tecno Glass**  
Thermoseal Group

#### BUTYL

**Ashton Industrial Sales**  
Fenzi  
Thermoseal Group

#### POLYSULPHIDE SEALANTS

Fenzi

#### HOT MELT

**Ashton Industrial Sales**  
Fenzi  
Thermoseal Group

#### OTHER SEALANTS

Fenzi

#### PANTOGRAPHES

Fratelli Pezza

#### ACCESSORIES

**Ashton Industrial Sales**  
Deltamax Automazione  
Diamant - AR Nunziata  
**Forel**  
Forza G / G. Tech  
**Helios Quartz**  
**Schiavo**  
Sparklike  
S.T. Group  
Tenon (Beijing) Equipment  
Triulzi

#### Tempering

#### TEMPERING FURNACES (ARCHITECTURAL GLASS)

CNUD-EFCO  
**Glaston**  
**Glass Company**  
Glasstech Inc.  
**Hornos Industriales Pujol**  
**Keraglass**  
Landglass Technology  
Lema  
**Lisec Group**  
**Mappi International**  
**Schiavo**  
Shanghai North Glass  
Technology  
Tekno Kilns  
TK

#### TEMPERING FURNACES (AUTOMOTIVE GLASS)

**Glaston**  
**Glass Company**  
Glasstech Inc.  
**Keraglass**  
Landglass Technology  
**Mappi International**  
**Mazzaroppi Engineering**  
SGLASS  
Shanghai North Glass  
Technology

#### CHEMICALS TEMPERING EQUIPMENT

**Glass Company**  
**R.C.N. Solutions**

#### ACCESSORIES

CNUD-EFCO  
Deltamax Automazione  
Fenzi  
**Glaston**  
**Glass Company**  
**Helios Quartz**  
**Hornos Industriales Pujol**  
**Keraglass**  
Landglass Technology  
**Mappi International**  
**Mazzaroppi Engineering**  
**R.C.N. Solutions**  
SGLASS

Tekno Kilns  
TK  
Torgauer Maschinenbau

#### Bending

#### BENDING FURNACES (ARCHITECTURAL GLASS)

**Glaston**  
**Glass Company**  
Glasstech Inc.  
**Hornos Industriales Pujol**  
**Keraglass**  
**Mappi International**  
**Mazzaroppi Engineering**  
**R.C.N. Solutions**  
SGLASS  
Tekno Kilns  
TK

#### BENDING FURNACES (AUTOMOTIVE GLASS)

CNUD-EFCO  
**Glaston**  
**Glass Company**  
Glasstech Inc.  
**Keraglass**  
**Mappi International**  
**Mazzaroppi Engineering**  
**R.C.N. Solutions**

#### ACCESSORIES

Ayrox  
Deltamax Automazione  
**Glaston**  
**Glass Company**  
Glasstech Inc.  
**Hornos Industriales Pujol**  
**Keraglass**  
**Mappi International**  
Softeco  
Tekno Kilns  
TK

#### Laminated glass production

#### COMPLETE PLANTS

**Bovone Elett.**  
**Bottero**  
**Bystronic glass**  
**Forel**  
**Glaston**  
**Glass Company**  
**Hornos Industriales Pujol**  
IOCCO Group  
**Lisec Group**  
**Mazzaroppi Engineering**  
**R.C.N. Solutions**  
Triulzi

#### LAMINATED WINDSCREEN

## BENDING FURNACES

ECOL  
**Glaston**  
**Glass Company**  
**Glasstech Inc.**  
**Keraglass**  
**Mappi International**

## AUTOCLAVES

**Bystronic glass**  
**Glaston**  
**Glass Company**  
**Hornos Industriales Pujol**  
**Lisec Group**  
 Triulzi

## CLIMATIC CABINS

**Bystronic glass**  
**Forel**  
 IOCCO Group  
**Lisec Group**  
 Triulzi

## INFRARED OVENS

**Bystronic glass**  
 ECOL  
**Forel**  
**Glass Company**  
**Hornos Industriales Pujol**  
 IOCCO Group  
**Lisec Group**  
 SGLASS  
 Triulzi

## PRESSES/BENDING MACHINES

**Forel**  
 IOCCO Group  
**Lisec Group**  
 Triulzi

## RESIN LAMINATING MATERIALS AND EQUIPMENT

IOCCO Group  
 Torgauer Maschinenbau

## PVB

Everlam  
 Kuraray - Trosifol

## PVB - SHAPING AND CUTTING EQUIPMENT

Ayrox  
**Bystronic glass**  
 ECOL  
**Forel**  
 IOCCO Group  
**Lisec Group**  
 Softeco

## PVB - WIRING TECHNOLOGY FOR HEATABLE LAMINATES

Ayrox  
 ECOL  
 Softeco

## ACCESSORIES

Ayrox  
**Bottero**

Deltamax Automazione  
**Glaston**  
**Helios Quartz**  
 Hornos Industriales Pujol  
 IOCCO Group  
**Lisec Group**  
 Softeco  
 Triulzi

## Drilling

### AUTOMATIC DRILLING LINES

**B Solution Licensee of BF Project**  
 Bando Kiko  
 Bavelloni  
**Bystronic glass**  
**Forvet**  
 Guangdong Northglass  
 & Juisun Technology  
 Industrial  
**Intermac - Biesse**  
 IOCCO Group  
**Schiatti Angelo**  
 SKG - Skill Glass

### MULTI-SPINDLE DRILLING MACHINES

**B Solution Licensee of BF Project**  
 Bando Kiko  
 Bavelloni  
**Bystronic glass**  
 CMS  
**Forvet**  
**Glass Company**  
**Intermac - Biesse**  
 IOCCO Group  
**Schiavo**  
**Schiatti Angelo**  
 SKG - Skill Glass

### DRILLING MACHINES WITH OPPOSITE DRILLING HEADS

**B Solution Licensee of BF Project**  
 Bando Kiko  
 Bavelloni  
**Bottero**  
**Bystronic glass**  
 CMS  
 Fenzi  
**Forvet**  
 Hiseng Glass Machinery  
**Intermac - Biesse**  
 IOCCO Group  
**Schiavo**  
**Schiatti Angelo**  
 SKG - Skill Glass

### COLUMN DRILLING MACHINES

**B Solution Licensee of BF Project**  
**Bottero**  
 Fenzi

## Schiavo

### PORTABLE DRILLING MACHINES

CMS  
 Fenzi  
**Schiavo**

### DRILLING AND MILLING MACHINES

Bavelloni  
**Bottero**  
 CMS  
**Forvet**  
 IOCCO Group  
**Schiavo**  
 SGLASS

### DIAMOND DRILLS

**ADI**  
**Bovone Diamond Tools**  
 Diamant - AR Nunziata  
**Diamut - Biesse**  
 Fenzi  
**Glaston**  
**Mole Moreschi**  
**Schiavo**  
 Tyrolit Vincent

### ACCESSORIES

CMS  
 Fenzi  
**Schiavo**

## Other equipment and plants

### TURNKEY PLANTS / ENGINEERING - FOR BUILDING GLASS

Bando Kiko  
**Bottero**  
**Bystronic glass**  
 Cugher Glass  
 Horn  
**Intermac - Biesse**  
 IOCCO Group  
**Keraglass**  
**Lisec Group**  
 Torgauer Maschinenbau

### TURNKEY PLANTS / ENGINEERING - FOR AUTOMOTIVE GLASS

Bando Kiko  
**Bottero**  
**Bystronic glass**  
 Cugher Glass  
 Easy Automation  
 Horn  
**Intermac - Biesse**  
 IOCCO Group

### KEY PLANTS / ENGINEERING - FOR DISPLAY GLASS

Bando Kiko  
 Cugher Glass

Torgauer Maschinenbau

### WORKING CENTRES - CNC CONTROLLED

Bando Kiko  
 Bavelloni  
**Bottero**  
**Bystronic glass**  
**Glass Company**  
 Glasstech Inc.  
**Hegla**  
**Intermac - Biesse**  
 SKG - Skill Glass

### FLOAT PLANTS/LINES (EQUIPMENT & ACCESSORIES)

**Bovone Elett.**  
 Horn  
 IOCCO Group

### CULLET HANDLING SYSTEMS

ECOL

### COMPLETE BATCH PLANTS

Zippe

### VACUUM COATING EQUIPMENT AND PLANTS

**Glass Company**  
 Shanghai North Glass  
 Technology

### ENAMELLING EQUIPMENT AND PLANTS

**Giardina Finishing + HS**  
**Glassprinting**  
**Glass Company**  
**Rollmac division of GeMaTa**

### HOT- AND COLD-END COATING SYSTEMS AND MATERIALS (CVD, ROLLER, CURTAIN COATERS, DRYERS)

**Giardina Finishing + HS**  
**Glassprinting**  
 Goldglass Technologies

### SANDBLASTING SYSTEMS, EQUIPMENT AND PLANTS - OPTIMIZERS

Fenzi  
 Fratelli Pezza  
**Glass Company**  
**Schiavo**  
 SKG - Skill Glass

### DIGITAL INKJET PRINTERS

**Glass Company**

### SCREEN PRINTING EQUIPMENT AND PLANTS

Ayrox  
 COMSS  
 Cugher Glass  
 Deltamax Automazione  
 ECOL  
**Giardina Finishing + HS**

**Glassprinting  
Glass Company**  
Guangdong Northglass &  
Juisun Technology  
Industrial

**Keraglass  
Rollmac division of  
GeMaTa**  
Shanghai North Glass  
Technology  
Softeco

**SCREEN PRINTING FRAMES**  
COMSS

**SCREEN PRINTING  
DRYING SYSTEMS**

COMSS  
Cugher Glass  
**Glass Company**  
Guangdong Northglass &  
Juisun Technology  
Industrial

**Rollmac division of  
GeMaTa**

**ACIDING GLASS  
EQUIPMENT AND PLANTS**

**Lisec Group  
Rollmac division of  
GeMaTa**

**LASER DECORATING MACHINES**

**Ashton Industrial Sales  
Glass Company**

**LASER MARKING**

**Ashton Industrial Sales**

## Artistic glass production

**CERMAMIC INKS**

**Glass Company**

**CHAMBER ELECTRIC KILNS**

**Glass Company  
Keraglass**  
Tekno Kilns  
TK

**ACCESSORIES**

Deltamax Automazione  
**Helios Quartz**

## Miscellaneous

**AUTOMATION**

**Ashton Industrial Sales**  
Goldglass Technologies  
Horn  
IOCCO Group  
Torgauer Maschinenbau  
Zippe

**AUTOMOTIVE GLASS  
APPROVAL SERVICES**

Ayrox  
Softeco

**AUTOMOTIVE GLASS  
QUALITY CONTROL**

Ayrox  
Bando Kiko  
**Bystronic glass**  
Cugher Glass  
Deltamax Automazione  
Easy Automation

**Glaston**  
IOCCO Group  
Softeco

**CE MARKING - QUALITY  
CONTROL EQUIPMENT FOR  
GLASS IN BUILDING**

Ayrox  
Softeco

**COATING OF GLASS SHEETS -  
SYSTEMS & MATERIALS - HOT  
/ COLD END**

Goldglass Technologies

**COLOURS & ENAMELS -  
OTHER APPLICATIONS**

Ayro  
Goldglass Technologies

**DEIONIZING AND WATER  
SOFTENING EQUIPMENT**

Fenzi  
**Forel  
Glass Company**  
Idrotecnica  
**Lisec Group**  
Triulzi

**FLAT GLASS QUALITY  
CONTROL DEVICES**

Ayrox  
Deltamax Automazione  
**Forel**  
IOCCO Group  
Softeco

**FURNACES**

**Glass Company**  
Horn

**FURNACES / HYDROGEN  
GENERATORS (WATER  
ELECTROLYSERS)**

Nel Hydrogen

**GLASS COATING AND TINTING**

**Giardina Finishing + HS  
Glassprinting  
Glass Company**  
Goldglass Technologies  
**Rollmac division of  
GeMaTa**

**GLASS TREATMENT FILMS**

**Glass Company**

**HEATING EQUIPMENT -  
STANDARD (GAS FIRING,  
BURNERS, AIR GAS MIXERS,  
SAFETY DEVICES,  
ELECTRICAL RESISTORS)**

Horn  
**Keraglass**

**INFRARED TUBES**

**Helios Quartz**  
Deltamax Automazione

**KILNS**

**Glass Company  
Keraglass  
Lisec Group**  
Tekno Kilns  
TK

**METAL ACCESSORIES**

Fenzi

**METALLIC SECTIONS**

Fenzi

**NUMERICAL CONTROL  
SYSTEM (CNC) FOR ALL GLASS  
PROCESSING MACHINES**

**Glass Company**  
IOCCO Group  
Prodim

**OPTICAL DISTORTION  
ANALYSERS FOR  
AUTOMOTIVE GLASS**

IOCCO Group  
**Keraglass**

**OPTICAL INFRARED  
THERMOMETERS**

**Optris**

**POWDER OR LIQUID  
APPLICATION SYSTEMS FOR  
PROTECTING FLOAT GLASS**

Cugher Glass  
**Giardina Finishing + HS  
Glassprinting  
Glass Company**

**PUMPING AND APPLICATION  
SYSTEMS (AUTOMOTIVE GLASS)**  
IOCCO Group

**PURIFIERS FOR REFLUENT  
WATER**

**Dieffe Macchine**

**PUTTIES AND SEALANTS**

Fenzi

**QUARTZ EQUIPMENT**

**Helios Quartz**

**SHAPE CHECKING DEVICES**

Easy Automation  
IOCCO Group

**SIC HEATERS**

**Helios Quartz**

**SOFTWARE DATABASE,  
PROPERTY PREDICTOR**

Synerglass Soft

**SOFTWARE SYSTEMS  
FOR PRODUCTION CONTROL**

**A+W Software**

CMS  
Cugher Glass  
Deltamax Automazione  
**Edgetech Europe**

**Forel**

**Lisec Group**

**Optima**

Prodim  
Synerglass Soft

**SOLDERING EQUIPMENT  
FOR ELECTRICAL CONNECTORS  
FOR WINDSCREENS AND  
BACKLITES**

Ayrox  
Easy Automation  
Softeco

**SORTING SYSTEMS**

**Bystronic glass  
Lisec Group**

**SURFACE STRESS  
MEASUREMENT INSTRUMENT**

Ayrox  
**Glass Company**  
Jeffoptics

**TESTING FOR SOLDERINGS**

Ayrox  
Easy Automation  
Softeco

**TESTING DEVICES OF BACKLITES  
ELECTRICAL HEATING**

Ayrox  
Softeco

**THERMAL IMAGING SYSTEMS**

Easy Automation  
**Glass Company**  
**Optris**

**TIN FLOAT BATH FURNACES**

Horn  
IOCCO Group

**UV LAMPS**

**Helios Quartz**

**UV PORTABLE MACHINES**

**Helios Quartz**

**8-11 June  
2020**

EXPOCENTRE  
Fairgrounds,  
Moscow,  
Russia



# Mir Stekla

**PRODUCTION • PROCESSING • APPLICATION**

22nd International  
Exhibition for Glass Products,  
Manufacturing, Processing  
and Finishing Technology

Organised by EXPOCENTRE AO

Under auspices of Russian Chamber  
of Commerce and Industry

[www.mirstekla-expo.ru/en](http://www.mirstekla-expo.ru/en)

Advertising **12+**



 **EXPOCENTRE**



## Section for advertisers, with presentations of their machinery and accessories, and technical data sheets

### ALPHABETICAL INDEX

Companies	Pag
A+W SOFTWARE	96 - 97
ADELIO LATTUADA	97 - 99
ADI	99
B SOLUTION	100
BOVONE DIAMOND TOOLS	101
BOTTERO	102 - 108
ELETTROMECCANICA BOVONE	108 - 109
DIAMUT - BIESSE	110
DIEFFE MACCHINE	110 - 112
EDGETECH EUROPE	112
FOREL	113 - 117
FORVET	117 - 118
GIARDINA GROUP	119
GLASS COMPANY	119
GLASSTECH, INC.	120
HORN GLASS INDUSTRIES	121
INTERMAC	122 - 124
ITALCARRELLI	125
KERAGLASS INDUSTRIES	125 - 126
MAPPI INTERNATIONAL	126 - 128
MAZZAROPPI ENGINEERING	128
MOLE MORESCHI	129
MOVETRO	129 - 130
R.B.M. ITALIA	131
R.C.N. SOLUTIONS	131 - 132
ROLLMAC A DIVISION OF GEMATA	132
OFF. MECC. SCHIATTI ANGELO	133 - 134
SCHIAVO	134 - 135
TECNO-GLASS	135
TUOMAS	136

## A+W Software

for Glass, Windows & Doors

## A+W Software GmbH

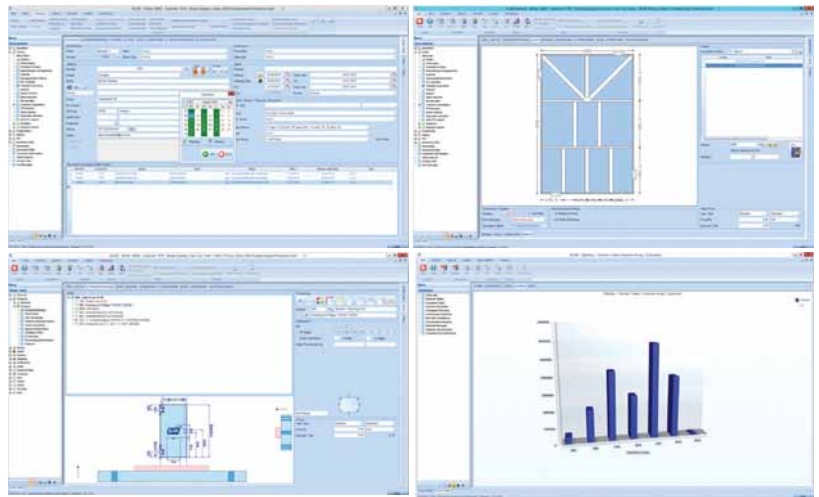
### A+W Software A+W BUSINESS

#### THE PERFECT SOLUTION THAT GROWS WITH YOU

A+W Business is a complete ERP system for small and medium-sized companies in the flat glass industry. The A+W commercial solution allows not just the entry of quotations, orders, credit notes, complaints, delivery notes, and the management of purchase orders and inquiries, but also control of other company areas (e.g. stock, purchasing, dispatch, etc.). The main functions are master data management, quotation creation, order processing, the creation of partial deliveries and complaints, and all associated documents and evaluations. With its graphic interface, A+W Business is easy and quick to use, and it simplifies all company-internal processes relating to order processing.

#### FUNCTIONS AND BENEFITS

- Modern look & feel like MS Outlook: multi tasking, multi dialogue, easy usage, everything graphical
- Construction & processing via BOM Concept: every level and part of a product can be processed (processing = article number)
- Easy order handling: copy documents (order -> P.O.), automatic purchasing
- User and/or automated order/P.O. processing: define work flows and user rights, time and cost savings thanks to automation
- Interconnection with A+W Production: transfer of orders & P.O.'s, production status & feedback
- Full integration of CAD Designer (Shapes & Bars): easy Technical Order Entry (TOE)
- Integration of A+W standard shape & standard processing catalogue
- Simple master data replication (in the case of several subsidiaries)



### A+W Software A+W PRODUCTION

#### EVERYTHING PERFECTLY PLANNED AND OPTIMIZED

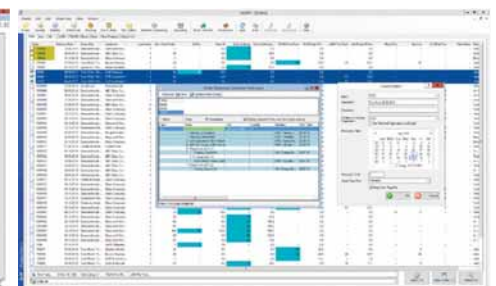
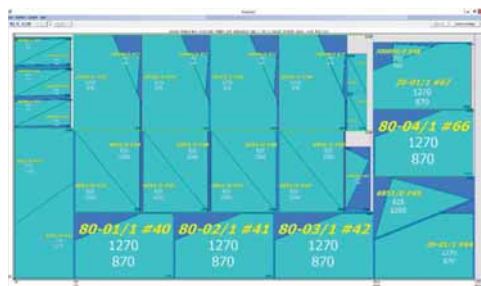
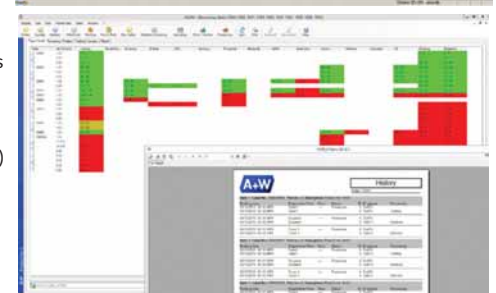
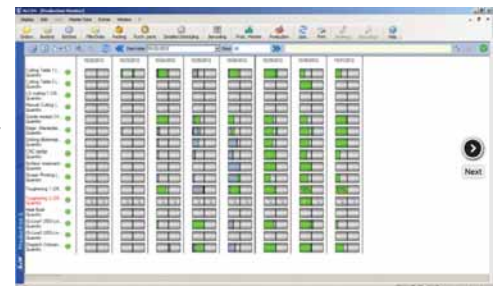
An expanded product line and state-of-the-art machines are placing ever-higher demands on organizational concepts, as well as planning and control software. These machines, which are highly complex and sensitive high-tech systems, enable high cycle rates and thus quick throughput times, but only if the overall concept is right and the production process is optimally planned and controlled. Therefore, scalable software systems and integrated solutions are the key to an optimized production environment.

A+W Production is an extremely flexible PPS solution for complete rough and detailed scheduling for insulated glass, tempered glass, and laminated glass production. The system allows planning and control of even the most demanding multi-level production flows.

The latest improvements within capacity planning and scheduling such as campaign planning, simplified rescheduling possibilities, and improved scheduling algorithms have expanded A+W Production's functions and simplified the daily business of production management and work preparation.

#### FUNCTIONS AND BENEFITS

- Production planning and control by means of various restrictions (machines, process sequence ...)
- Job management using predefined and self-defined views thanks to open database and views
- Yield optimization by state-of-the-art optimization kernel
- Sequence optimization, rack and stacking organization and optimization
- Optimization directly onto racks and boxes in despatch sequence (Add-On A+W Rack Optimizer)
- Cutting plan visualization and modification
- Easy machinery management and direct machine control
- Efficient and graphical Capacity Planner (Add-On)
- Full integration of barcoding and tracking (Add-On A+W Barcode Manager)
- Always up to date statistics using Crystal Reports or QLIK
- Printout of production papers, bender texts and barcode labels
- Possibility to grow with your company based on add-ons such as Capacity Planner, Barcoding, Production Terminal





## A+W Software A+W iQUOTE

### GLASS ORDERS 24/7

A+W iQuote brings your online shop into the future. Your customers can enter and manage quotations and orders 24/7 and view quotation/order status – even when they're on the road. This not only gives you an additional sales channel, it also provides competitive advantages. It reduces the work involved in recalculating quotations and orders and making changes, for, depending on the status, your customers can make these changes themselves and also enter notes (for example, different delivery address or requested delivery date).

A+W iQuote relies on your ERP system, which means that the data comes directly and online from your database. There are no more delays due to e-mails or telephone calls only to find out that a customer inquired about a product that cannot be built. The products and prices that your customers see online are always up-to-date and you can manage them in your ERP system. A+W iQuote follows the rules of your A+W ERP system, with the same prices, feasibility and plausibility checks that you have defined there.

Functions and Benefits

### BROWSER-BASED PRODUCT CONFIGURATION

- Online construction and price calculation
- Data directly calculated and saved in A+W ERP
- Products, prices and discounts from your A+W ERP System
- Integrated authorization based on A+W ERP
- Paperwork done by ERP
- Interface for touch screen
- Order history
- Attractive design
- Responsive Design: made for modern and portable devices (tablets)
- Creation of orders and quotes
- Restrictions and prices from ERP for that customer (login)
- Entry of single glass, Lami and IG (including exchange of glasses and spacer), stock sizes and boxes (cases)



## ADELIO LATTUADA Srl

### Adelio Lattuada AL 10 M

Electronic straight-line edging machine for the processing of flat edges with arris, polished by cerium wheel. Read-outs placed on the control panel enable to set adjustments such as working speed and glass thickness. Mechanic glass clamping system. A centralized lubrication system avoids wheel wear and tear. The conveyor is composed of pads, made of a special material, which are mounted on precision chains. Automatic adjustment of the arris wheels when the glass thickness changes. The wheels are fitted on spindles to which the movement is transmitted via toothed belts linked to the motors. Automatic polishing wheel intervention thanks to PLC-control. Adjustable inlet conveyor with which glass removal can be adjusted up to 3 mm.



### Adelio Lattuada CTS 3300/1000/6S

Closed-top vertical washing and drying machine for glass with thicknesses from 3 up to 80 mm and minimum dimensions of 400 mm.

The body of the machine and all parts in contact with water are made of stainless steel, while an anti-corrosion covering is granted by epoxy and polyurethane



paints. The machine is equipped with six brushes, which are also available in the special version for low-E coated glass. Hot water can also be required. Drying is carried out by a pair of blowers powered by a high-pressure soundproof ventilator. The inlet and outlet conveyors, as well as glass thickness adjustment, are motorized, thus guaranteeing improved washing quality on every thickness. A black panel with inspection lamps can be applied on the outlet conveyor.

## Adelio Lattuada GAMMA 614

Straight-line bevelling machine for the processing of bevels polished by liquid cerium oxide.

Available both with electronic systems and PC.

This machine, conceived in order to satisfy the medium production levels, is equipped with all the devices that are necessary to simplify its use and maintenance. Read outs placed on the control panel enable to set adjustments such as glass thickness, bevel inclination and edge thickness in order to process the desired bevel. The wheels are fitted on spindles in order to allow rotation homogeneity and to avoid vibrations; movement is transmitted thanks to toothed belts linked to the motors. The mechanical seal, an essential element of the spindle, is obtained thanks to the application of diaphragms. The conveyor is composed of pads, made of special material, which are mounted on precision chains. One of the peculiarities of the GAMMA 614 is that it is the first machine with four felts, positioning it at the top as far as working quality and speed are concerned.



## Adelio Lattuada OT 1600/500/4S

Open top vertical washing and drying machine for glass with a thickness from 3 up to 25 mm and with minimum dimensions of 350 mm. The body of the machine and all parts in contact with water are made of stainless steel while an anti-corrosion covering is granted by epoxy and polyurethane paints. The machine is equipped with four brushes which are also available in the special version for low-E coated glass. Hot water can also be required. Drying is carried out by a pair of blowers powered by a high-pressure soundproof ventilator. The inlet and outlet conveyors, as well as glass thickness adjustment, are motorized, thus guaranteeing improved washing quality on every thickness. A black panel with inspection lamps can be applied on the outlet conveyor.



## Adelio Lattuada LATTUADA ROBOTIC SOLUTIONS

New integrated, flexible and customised solutions with the following advantages:

1. **CUSTOMISABLE SUCTION CUPS:** Venturi system vacuum
2. **HIGH FLEXIBILITY:** side-by-side processing of glass of different sizes with minimum distance between them
3. **AUTOMATIC MEASUREMENT OF GLASS:** pre-setting glass size not required
4. **EASE OF USE:** straight-line edging machines with standard maintenance
5. **AUTOMATIC SPEED ADJUSTMENT:** depending on the sizes of the glass
6. **LOWER COSTS:** just one operator required
7. **HIGHER PRODUCTIVITY:** thanks to the high speed of this system
8. **CONTINUOUS QUALITY CHECK:** access to the area
9. **OPTION OF INTEGRATION:** with other machines
10. **CONTINUITY ASSURED:** thanks to the low maintenance required by our machines

Plus:

**CYCLE TIME:** the robot is ready for the next glass in less than 10 seconds.  
**INTEGRATION:** full integration with other machines of the line (edging and washing machines).  
**SIMPLICITY:** simple and one-point programming of thickness, speed, robot



programme (90/180°).

**SPECIAL APPLICATIONS:** special applications for very small/large glass sizes. Different configurations available for implementation in numerous applications.

## Adelio Lattuada TLR 10 C DD

Electronic straight-line edging machine for the processing of flat edges with arris, polished by liquid cerium wheels. The machine is also equipped with a dubbing device. Read-outs placed on the control panel enable to set adjustments such as working speed and glass thickness. Mechanic glass clamping system. A centralized lubrication system avoids wheel wear and tear. The conveyor is composed of pads, made of a special material, which are mounted on precision chains. Automatic adjustment of the arris wheels when the glass thickness changes. The wheels are fitted on spindles to which the movement is transmitted via toothed belts linked to the motors. Automatic polishing wheel intervention thanks to PLC-control. Adjustable inlet conveyor with which glass removal can be adjusted up to 5 mm.

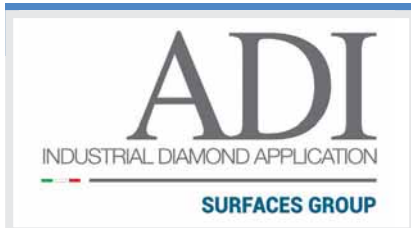


## Adelio Lattuada TLR 13 AVC



Electronic straight-line edging machine for the processing of flat edges with arris, and with variable angle from 0 up to 45°, polished by liquid cerium oxide.

Read-outs placed on the control panel enable to set adjustments such as glass thickness, working speed, mitre inclination and edge thickness. A centralized lubrication system avoids wheel wear and tear. The conveyor is composed of pads, made of a special material, which are mounted on precision chains. Mechanic glass clamping system. Automatic polishing wheel intervention thanks to PLC-control. Automatic adjustment of the arris wheels when the glass thickness changes. Adjustable inlet conveyor with which glass removal can be adjusted up to 5 mm.



## ADI Srl

The range of diamond tools proposed by ADI srl includes the High Performance wheels with the special UHS <sup>UNIS</sup> bond which is the best solution for VERTICAL CNC machine. Another product proposed by ADI are the segmented flat edge wheels already shaped with the flat with arris profile, as a first step instead of the more common segmented flat wheel. This solution helps to preserve the life of the medium or fine grit flat with arris wheel, as the majority of the glass has been removed by the roughing wheel. ADI can propose also customized solutions in terms of grit, to fulfil the grade of



finishing requested by the customers.

The range of tools for vertical CNC is completed with the combined seaming wheel. The array of available tools includes cup wheels for straight edging, double edging machines as well as for bevellers, along with all tools and routers for the standard CNC machines. To complete the service to the customers, ADI also has a patented scratch removal system produced by GLASSRENU, which is the only one working dry, and consequently with unlimited application



## B Solution Srl

### B Solution SPEED ARRIS FOR INSULATED AND TEMPERED GLASS

Arrising or rough grinding in continuous cycle by two spindles follow-system. Equipped with transport system with suction-cups for high performance glass types.

Automatic survey of glass sizes and thickness.

High-productivity guaranteed for double-glazing and tempering lines.

System with oscillating spindles which ensures the regular execution of threads.

Possibility of stand-alone installation or integrated with existing lines.



Mod.	Min glass size mm.	Max. Glass size mm.	Arris glass thickness mm.	Rough grinding glass thickness mm.	Spindle	Kw	Process	Standard wheels configuration	Options		
									Software shaped glass	Pre-washing system	Double wheel positioning
VAS 2.0.3	420 x 500	2000 x 3200	4 ÷ 19	4 ÷ 12	2	2.5	Arrising/ Rough grinding	n. 2 cones n. 2 wheel for glass arrising up to 12 mm. n. 2 wheel for rough-grinding monolithic glass 6 mm.	Software shaped glass	Pre-washing system	Double wheel positioning
VAS 2.6.4	420 x 500	2600 x 4000	4 ÷ 19	4 ÷ 12	2	2.5	Arrising/ Rough grinding	n. 2 cones n. 2 wheel for glass arrising up to 12 mm. n. 2 wheel for rough-grinding monolithic glass 6 mm.	Software shaped glass	Pre-washing system	Double wheel positioning
VAS 2.8.5	420 x 500	2800 x 5000	4 ÷ 19	4 ÷ 12	2	2.5	Arrising/ Rough Grinding	n. 2 cones n. 2 wheel for glass arrising up to 12 mm. n. 2 wheel for rough-grinding monolithic glass 6 mm.	Software shaped glass	Pre-washing system	Double wheel positioning
VAS 3.2.6	420 x 500	2800 x 5000	4 ÷ 19	4 ÷ 12	2	2.5	Arrising/ Rough Grinding	n. 2 cones n. 2 wheel for glass arrising up to 12 mm. n. 2 wheel for rough-grinding monolithic glass 6 mm.	Software shaped glass	Pre-washing system	Double wheel positioning

### B Solution SPEED EDGE

High-production vertical grinding machine for rough or polished grinding, round or flat edges, low-E glass with the possibility of performing shaped glasses with a straight horizontal support side and a maximum vertical angle of 90°.

The innovative suction cup system guarantees the locking of the entire sheet to be machined, allowing higher processing of squaring and respect of the size of the glass being machined. Ideal for series and to be combined with drilling lines or as stand-alone machines.



Mod.	Min glass size mm.	Max. Glass size mm.	Glass thickness mm.	Max. Tool ø	Spindle	Kw	Rapid tool holder	Process	Options	
VAS 2.0.3	420x500	2000x3200	3 ÷ 21	1 ÷ 50	1	7.5	ISO 40	Grinding	Software shaped glass	Pre-washing system
VAS 2.5.4	420x500	2600x4000	3 ÷ 21	1 ÷ 50	1	7.5	ISO 40	Grinding	Software shaped glass	Pre-washing system
VAS 3.2.5	420x500	3200x5000	3 ÷ 19	1 ÷ 50	1	7.5	ISO 40	Grinding	Software shaped glass	Pre-washing system
VAS 3.2.6	420x500	3200x6000	3 ÷ 19	1 ÷ 50	1	7.5	ISO 40	Grinding	Software shaped glass	Pre-washing system



## Bovone Diamond Tools Srl

### Bovone Diamond Tools **CLICK-FIT**

The aluminium hub is fixed on the spindle while the diamond part is replaced – valid for all brands and models on the market, with savings in terms of stocking and time, and, of course, money.



### Bovone Diamond Tools **HIGH SPEED RANGE**

The particular feature of BDT's flat profile wheels is the new design of the sectors, which are smaller and set more closely together; as a result, they can reach speeds of 10 metres/minute, operating at 7,500 RPM. Trapezoidal wheels are made differently compared with traditional ones and have a different grit size. Accordingly, they can reach speeds of up to 8 metres/minute, also operating at 7,500 RPM. BDT's new routers also feature modified sector design and can reach speeds 50% higher than traditional ones, with operations of about 12,000 RPM.

### Bovone Diamond Tools **NEW RESIN PLATE FOR CUP WHEELS**

The wheel is lighter, which means less stress on the chuck. The plate fins have been specially designed so that the water is atomised and thus delivered in a uniform manner at the optimal point of contact between the wheel and the glass.

The material ensures greater rigidity and therefore more direct transmission of the pressure determined by the operator.

The plate ensures that the wheel itself is perfectly balanced.



## NEW FREE-OF-CHARGE WEB SERVICE:

Read our glass publications online, easy to navigate, with **INTERACTIVE SUPPORT**, slide shows, movies and more. Available also for tablets and smartphones.



This issue is also available on:



[www.glassOnline.com](http://www.glassOnline.com)



### Bottero CNC PRATICA PLUS

Electro spindle		2500	3300	4000
Maximum rotation speed	rpm	10.000	10.000	10.000
Power in continuous service (S1)	Kw	9,2	9,2	9,2
Torque in continuous service (S1)	Nm	30,3 up to 3.000 rpm	30,3 up to 3.000 rpm	30,3 up to 3.000 rpm
Power in intermittent service (S6)	Kw	11,04	11,04	11,04
Torque in intermittent service (S6)	Nm	36,4 up to 3.000 rpm	36,4 up to 3.000 rpm	36,4 up to 3.000 rpm

Tools magazines		2500	3300	4000
Magazine type	-	fixed	fixed	mobile
Without C axis	pos.	10 + 10	13 + 13	18 + 18
With C axis	pos.	max. 8 + 8	max. 11 + 11	max. 15 + 15
Maximum tool diameter	mm	150	150	150

Weight		2500	3300	4000
Weight		3.990 Kg	4.180 Kg	4.800 Kg

Maximum glass processing *		2500	3300	4000
Standard configuration **	mm	2545 x 1620	3300 x 1620	4300 x 2320

\* With 100 mm tool diameter

\*\* Standard configuration for 3300 = left fixed tools storage / 3 axis

Standard configuration for 4000 = left mobile tools storage / 3 axis. For all the other configurations check the technical specifications

#### PRACTICALLY PERFECT IN EVERY SITUATION

Bottero machining centres are extremely powerful and flexible machines that can perform many processing operations with precision and reliability, such as profiling, drilling, edge finishing, cutting and much more. The ease and intuitiveness of the software are a great strong point for these machines that can be used in any high-tech glass factory. Bottero machining centres can operate both on glass and on stone, making their use even more flexible.

After the success of the first version, the Bottero Pratica CNC workcentres have evolved with the new PLUS version.

Both 3- and 4-axes versions are equipped with the new high performance pressurised spindle.

#### THE STANDARD VERSION OF THE MACHINE IS ABLE TO PERFORM THE FOLLOWING OPERATIONS ON GLASS SHEETS:

- Milling on the sheet with a rectilinear and/or curvilinear path.
- Edging and radial polishing on a straight and/or curved path on the edge of the sheet.
- Drilling and/or countersinking perpendicular to the surface of the sheet.
- Writing and drawing on the top side of the sheet.

#### BY USING OPTIONAL EQUIPMENT, THE POSSIBILITIES ARE EXPANDED TO:

- Cutting with a straight diamond disc.
- Cutting with a straight diamond disc angled at 45°.
- Writing and drawing on the side surface of the sheet.
- Straight and/or curved bevelling on the top side of the sheet.
- Straight and/or curved engraving on the top side of the sheet.
- Straight and/or curved cup grinding on the side surface of the sheet.
- Drilling on the underside of the sheet.



### Bottero DOUBLE EDGERS FLAT EDGE

#### THE IDEAL CHOICE FOR INTENSIVE APPLICATIONS

Bottero produces a complete range of solutions for flat edge bilateral grinding, which can satisfy the requirements of small-, medium- and large glass factories with fixed or flexible production, thanks to the vast possibilities of choice and configuration of the products.

Bottero machines are ideal for processing structural glass, partition walls, shower cubicles, shelves, balustrades, steps and furnishing elements, providing productivity, precision and reliability over time to operate on multiple shifts, up to 24/7 service.

The Bottero flat edge bilateral machines are designed to support the high production flows typically required by the industry. Thanks to the significant flexibility, however, these machines are effective and profitable even when applied in small- and medium glass factories with flexible production.



## TwinEdge

The four configurations that make up the Twin-Edge range enable the processing of flat edges, threads and possible edge-removal.

## Titan

The six configurations that make up the Titan range enable the processing of flat edges, threads and possible edge-removal.

Twin Edge	220 N	222 D	222 L	224 N
Minimum glass dim	160 x 160 mm	160 x 160 mm	160 x 160 mm	160 x 160 mm
Glass thickness	3 ÷ 30 mm	3 ÷ 30 mm	3 ÷ 30 mm	3 ÷ 30 mm
Speed	0,6 ÷ 6 m/min (1 ÷ 10 m/min opt.)	0,6 ÷ 6 m/min (1 ÷ 10 m/min opt.)	0,6 ÷ 6 m/min (1 ÷ 10 m/min opt.)	0,6 ÷ 6 m/min (1 ÷ 10 m/min opt.)
Installed power	55 KVA (45 KW)	61 KVA (45 KW)	61 KVA (45 KW)	66 KVA (45 KW)
Weight	6090 Kg	6170 Kg	6170 Kg	6250 Kg

Titan	220 N	222 D-F-L	224 N-F
Minimum glass dim	160x160 mm	160x160 mm	160x160 mm
Glass thickness	3 ÷ 30 mm	3 ÷ 30 mm	3 ÷ 30 mm
Speed	0,1 ÷ 10 m/min	0,1 ÷ 10 m/min	0,1 ÷ 10 m/min
Installed power	56 KVA (45 KW)	61 KVA (49 KW)	66 KVA (53 KW)
Weight	6090 Kg*	6170 Kg*	6250 Kg*
Worktable height	950 ± 50 mm	950 ± 50 mm	950 ± 50 mm
Max opening speed	30 m/min	30 m/min	30 m/min

\*Max. glass 4000 mm

## Flex Edge

Flex Edge bilateral edging machine can be configured with 10, 12, 14,15 or 17 grinding wheels.

The machine is particularly suited to process large sizes and thickness and the double edger platform can be integrated with totally automatic lines for flexible production, in small or large batches, with automatic dimension changeover managed by dedicated software.

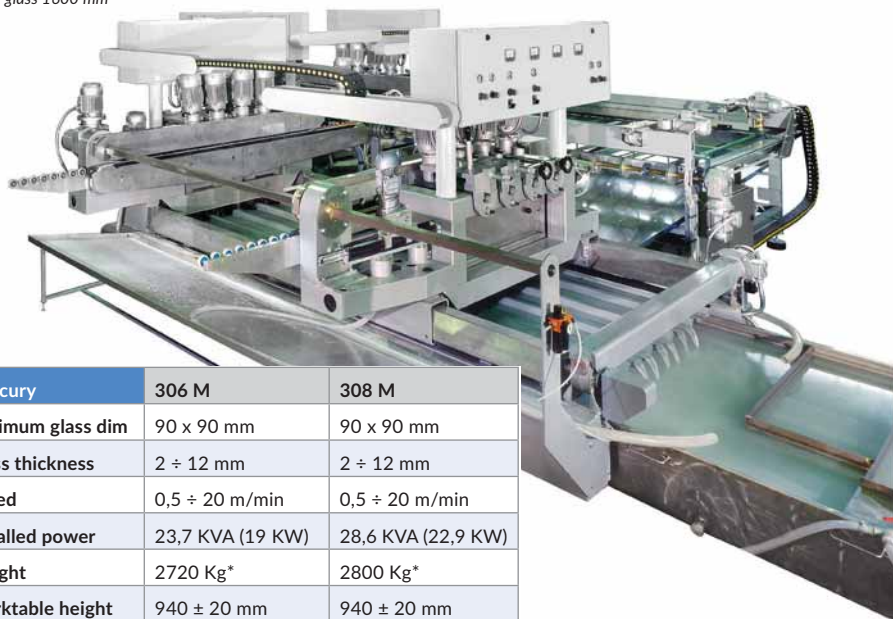
Minimum glass dim*	115 x 115 mm
Glass thickness	3 ÷ 40 mm
Speed	up to 12 m/min
Max glass weight	1000 Kg
Worktable height	970 ± 50 mm
Max opening speed	30 m/min

\* the minimum glass dimension can change depending on options included

## Bottero DOUBLE EDGERS PENCIL EDGE

Gemini	306 N	306 HP	308 N	308 HP
Minimum glass dim	80 x 80 mm	80 x 80 mm	80 x 80 mm	80 x 80 mm
Glass thickness	2 ÷ 12 mm	2 ÷ 12 mm	2 ÷ 12 mm	2 ÷ 12 mm
Speed	1 ÷ 12 m/min	2 ÷ 20 m/min	1 ÷ 12 m/min	2 ÷ 20 m/min
Installed power	24,5 KVA (19,2 KW)	47,5 KVA (38KW)	28 KVA (22,4KW)	47,5 KVA (38KW)
Weight	2420 Kg*	2420 Kg*	2500 Kg*	2500 Kg*
Worktable height	900 ± 50 mm	900 ± 50 mm	900 ± 50 mm	900 ± 50 mm

\*Max glass 1600 mm



Mercury	306 M	308 M
Minimum glass dim	90 x 90 mm	90 x 90 mm
Glass thickness	2 ÷ 12 mm	2 ÷ 12 mm
Speed	0,5 ÷ 20 m/min	0,5 ÷ 20 m/min
Installed power	23,7 KVA (19 KW)	28,6 KVA (22,9 KW)
Weight	2720 Kg*	2800 Kg*
Worktable height	940 ± 20 mm	940 ± 20 mm
Max opening speed	2,5 m/min	2,5 m/min

\*Max glass 2000 mm

## TECHNOLOGY AT THE SERVICE OF THE INDUSTRY

Bottero pencil-edge bilateral machines are the ideal machines for processing at high production rates, typical of the household appliance, automotive, industrial refrigeration, TV screen and solar panel production sectors. In these contexts, where the demand for productivity is accompanied by the need for reliability and automation, the solutions offered by Bottero have been chosen by some of the largest industrial groups in the world for the implementation of plants that can treat thousands of square metres of product per day.

Bottero's pencil-edge bilateral machines contribute to the treatment of glass elements used in numerous industrial manufacturing products.

The Bottero range of double edgers for pencil edge machining has been designed to guarantee high precision and to minimise maintenance.

### Gemini

The Gemini double edger is a safe and reliable machine, designed to guarantee high precision and limit maintenance as much as possible.

### Mercury

Mercury can be adapted to one's own production requirements thanks to the possibility of choosing not only the number of spindles but also grinding wheel configuration.

## Bottero FLEX LAMILINES

### FLEX LAMILINES - PRODUCTIVITY AND FLEXIBILITY AT THE HIGHEST LEVELS

Bottero's Flex lines offer high performance and great flexibility, thanks to the possibility of laminating jumbo sheets with particularly short production cycles that laminate already shaped glass of up to 10 layers. Bottero technology, chosen by the world's largest laminated glass producers, is now available to all state-of-the-art glassworks thanks to the Flex lines. Laminated glass finds new and ever more interesting applications every day, offering architects and designers unique and expressive opportunities. Bottero is committed to supporting the development and diffusion of this material, constantly researching and developing technologies to improve its processing, thus widening its horizons of use.

#### Bottero experience

Since its first line in 1989, Bottero has always been partner of companies worldwide for laminated glass production.

In 25 years, Bottero has reached and maintained an undisputed technological leadership in laminated glass processing, serving all multinational companies and developing top-performance devices for maximum productivity and the highest quality.

Today, all this know-how is also available in custom-sized production at an affordable price.

- 25 years of experience
- 52 lines worldwide
- Complete process know-how

Bottero flex Lamelines are the most advanced custom-sized laminated assembly systems in the market today. The nip rolls and furnaces, which are provided as standard, are the same ones up and running all over the world by the most important glass manufacturers.

The IR furnace and the patented mechanical press system on the nip rolls are just two of the several patents and innovations which guarantee the best final result in lamination.

Bottero produces laminated glass lines both for stock sheets, high capacity production, as well as for the custom market of cut-to-size laminated glass. These lines are capable of easily manufacturing different product types irrespective of dimensions, shape and make-up. This key factor is achieved



by implementing a strategy focusing on quality, reliability and total flexibility of the manufacturing plant.

#### Unique features

Flex Lamiline is equipped with the most advanced solutions for the pre-lamination process, such as the nip roller with anti-torsion system and forced air convection furnaces. Moreover, it can easily be adapted according to customers' needs with optional equipment and accessories such as automatic loaders, additional PVB rolls, automatic PVB foil application, cutting and trimming... Bottero is capable of providing complete turnkey packages, including autoclaves, climatic rooms and all accessories required.

#### Technical features

Bottero Flex Lamiline is a modular system which is completely configurable, according to each customer needs from small to large glass sheets.

Most options and upgrades can also be added later with a simple and effective intervention.

	Metric	Imperial
Glass sizes (min)	350 x 180 mm	14" x 7"
Glass thickness	3 - 19 mm	8/64" - 48/64"
Type of glass allowed	Float   Low-e   Tempered   Coated	
Glass thickness output (max)	100 mm	4"
Glass weight output (max)	1350 kg	2980 lb
Interlayers thickness	0,38 mm   0,76 mm 1,14 mm   1,52 mm	1/64"   2/64" 3/64"   4/64"
Type of interlayers allowed	Interleaved PVB   EVA   SentryGlass Plus	

## Bottero FLOAT CUTTING BCS

### BCS: THE HIGHEST PRODUCTIVITY AND QUALITY STANDARDS IN THE INDUSTRY

BCS cutting tables are designed to withstand the high workloads typically adopted during single- or even multiple-shift production of windows or panels in the furniture sector, as well as components for household appliances, in the automotive industry and in many other areas. BCS cutting tables are among the most popular and sought-after in the world, representing a major benchmark in terms of production capacity and reliability in today's market.

The BCS range stands out due to its modularity and versatility, thanks to which the float cutting tables can be configured completely according to specific customer requirements: from stand-alone cutting tables intended for small production runs, up to intensive high automation level production systems, fully integrated with low-E grinding devices and marking, as well

as loading and breakout modules. With the aim of meeting all production needs, the BS cutting tables also enable the fitting of the cutting carriage with one of the numerous accessories available. Each constructive and functional feature of the BCS range is designed to ensure extreme processing precision and maximum productivity, at the service of each specific production requirement.

#### Performance

A complete, modular and versatile range, fully configurable according to each specific production requirement. Bottero tables guarantee top performance at 360°: cycle execution speed, accuracy and reliability over time.



Working speed	
Maximum bridge speed	140 m/ min
Maximum carriage speed (*)	200 m/ min
Maximum grinding speed with Easy deletion	80 m/ min
Maximum grinding speed with LMT	160 m/ min

(\*) the maximum carriage speed is 160 m/min in the presence of LMT, PPL or LAM Shape set-ups.

Thicknesses which can be cut	
Standard thicknesses	2 ÷ 19 mm
Optional thickness	19 ÷ 25 mm

Accuracy	
Cutting accuracy on straight processes	± 0.15

Work table	
Worktable height	930 ± 40 mm

## Bottero FLOAT CUTTING BKM

### BKM, THE ART OF CUTTING GLASS

Designed for glassmakers who want to evolve their business by adopting automated and flexible cutting systems, BKM tables offer all the quality and ease of use typical of Bottero products. Thanks to the shared single development platform, common to all cutting systems, BKM tables use technological solutions and components that are also adopted on top of the range Bottero systems, thereby ensuring uncompromising performance and reliability.

BKM cutting systems can perform linear cuts and shapes on sheets with a thickness of up to 19 mm, thereby offering the possibility of carrying out small and medium production runs

Working speed	
Maximum bridge speed	150 m/min
Maximum carriage speed	150 m/min
Maximum grinding speed with Easy deletion	80 m/min

Accuracy	
Cutting accuracy on straight processes	± 0,15 mm

Thicknesses which can be cut	
Glass thickness	2 ÷ 19 mm

Work table	
Worktable height	930 ± 40 mm



in series, as well as special pieces.

BKM cutting systems are available both in stand-alone versions, for loading, cutting and breakout of material on the table, as well as in fixed structure version for high productivity in-line integration. All models can be equipped with a wide range of accessories.

Each constructive and functional feature of the BKM range is designed to ensure extreme processing precision and maximum productivity, at the service of each specific production requirement.

#### Performance

A complete, modular and versatile range, fully configurable according to each specific production requirement.

Bottero tables guarantee top performances at 360°: cycle execution speed, accuracy and reliability over time.

## Bottero FLOAT CUTTING EVO

### EVO, THE PLATFORM THAT GOES BEYOND CUTTING

The EVO cutting platform is the top of the range of Bottero cutting systems, offering exclusive performance and flexibility. Thanks to the option of equipping the machines with two additional tools besides the cutting tool. EVO systems can, in addition to low-E glass grinding, also be equipped with laser cutting or labelling of the processed pieces. This option makes EVO systems ideal to form part of automated and controlled production flows, typical in high-tech glass factories and indicated in "Industry 4.0" regulations.

The EVO range stands out due to its modularity and versatility, thanks to which the float cutting tables can be configured totally according to specific customer requirements: from stand-alone cutting tables intended for small production runs, up to intensive high automation level production systems, fully integrated with low-E grinding devices and marking, as well as loading and breakout modules.

Each constructive and functional feature of the EVO range is designed to ensure extreme processing precision and maximum productivity, at the service of each and every specific production requirement.

Working speed	
Maximum bridge speed during cutting	160 m/min
Maximum carriage speed during cutting	200 m/min
Maximum carriage speed during cutting	200 m/min*
Maximum carriage speed with 2 tools (Cut + PPL)	200 m/min
Maximum carriage speed with 2 tools (Cut + Laser)	160 m/min
Maximum cutting bridge speed with 2 tools	160 m/min*
Maximum cutting bridge speed with 3 tools	160 m/min*

(\*100 m/min with TPF

Thicknesses which can be cut	
Standard thicknesses	2 ÷ 19 mm
Optional thickness	2 ÷ 25 mm

Accuracy	
Cutting accuracy on straight processes	± 0,15 mm

Work table	
Worktable height	930 ± 20 mm



#### Performance

A complete, modular and versatile range, fully configurable according to each specific production requirement.

Bottero tables guarantee top performance in terms of cycle execution speed, accuracy and reliability over time.

## Bottero GLASS STOCK MANAGEMENT SYSTEMS

### THE SOLUTION TO ALL REQUIREMENTS

Bottero solutions for material storage and handling are the answer to the requirements of all glass factories that want to make the connection between material storage areas and production lines more efficient and rapid. Bottero systems make warehouses compact and optimised, and speed up the connection between the storage area and processing lines, while offering the possibility of quickly managing sheets that differ in material, format and thickness.

Automation or optimisation of the warehouse management system is an important development element for any glass factory.

The widest range of products for any production and storage management requirement with any automation level. Whether you have large or small spaces, whether you process numerous types of glass in variable formats, or whether you produce a single product, Bottero can provide the machine or combination of machines that is suitable to improve work flows.

#### 605 Movable racks

An extremely cost-effective and flexible solution for compact automated glass storage. The comprehensive range of racks keeps floor space requirements to a minimum.

#### 636 Rack system

Reliable and practical stand-alone, or automated overhead loader integrated warehouse systems. Every rack system is made up of one fixed rack and one motorized rack, whereas the following are movable racks.



## Bottero LAMINATED CUTTING MACHINE

### THE VALUE OF A UNIQUE EXPERIENCE

Bottero was among the first companies in the industry to believe in the potential of laminated glass, and started developing automatic cutting machines as early as the 1970s. For over 25 years, Bottero has been, and still is, the only company in the world with the know-how and organisation required to manufacture both machines and lines for the production of laminated glass, and can therefore provide its customers with a unique experience, which turns into excellent processing results and extremely reliable solutions.

Bottero's range of applications of laminated glass is becoming more and more interesting and diverse, thus offering architects and designers unprecedented expressive opportunities. Bottero is committed to promoting the development and popularity of this material by constantly researching and developing new technological solutions able to improve processing opportunities and



#### 620|630|640 Loaders

These machines are recognized worldwide for their high degree of flexibility, reliability and ease of use. They can handle glass from 2 up to 25 mm with a Glass rack depth of 1200 mm.

Unique system for pneumatically assisted glass detachment, with mechanically actuated arm movements.

#### 621|631 Loaders

These loaders are suitable for standard line configuration to handle glass sheets from 3 up to 19 mm with a Glass rack depth of 1000 mm.

#### 650 Shuttle system

Ideal system for the management and storage of different types of glass and for buildings with restricted height not suitable to accommodate overhead type loaders. The ultimate solution to manage an unlimited number of racks feeding an unlimited number of cutting lines.

#### 695 Gantry system

A unique telescopic frame system allows to organize a very flexible storage area with a combination of jumbo and regular sized glass positions: in particular it is possible to load only one regular glass size, when needed, from racks with two rows of regular sheets placed at the side. This system provides the most versatile solution for warehouse management and is designed to load glass sheets from any rack with any pack depth.

#### 680 Management system

Simple vertical type storage system to manage remnant sheets efficiently and minimize waste.

It can handle glass sheets with minimum dimensions of 1500 x 2000 mm and maximum dimensions of 6100 x 3300 mm with maximum weight of 1000 kg.



thus increase its possible range of applications.

All manufacturing and running features of the laminated glass series have been designed in order to grant top level accuracy in glass processing and the highest production level aimed at meeting any production need.

### Dual Line

Combined lines for cutting laminated and float glass.

### Semi-Auto

#### 520 LAMe + 353 BCS

The 520 LAMe cuts and breaks trims with a minimum width of 20 mm. In addition to scoring the float glass, the BCS cutting bridge can be used to label, cut the laminated glass to shape, remove low-E on all types of sheets based on the chosen set-up (see specific BCS catalogue) and, when combining the two machines, can assist the 520 LAMe during sheet positioning, thanks to a specific suction cup system.

### Fully-Auto

#### 548 LAM + 363 BCS/EVO

The 548 LAM can be combined with a belt loading table. Breakout and detachment of 20 mm trims and automatic positioning for diagonal cuts

	511 LAM-S	515 LAMe	520 LAMe	548 LAM
<b>Cutting speed</b>	65 m/min	100 m/min	100 m/min	140m/min
<b>Grinding speed with Easy deletion</b>	N/A	N/A	up to 80 m/min*	N/A
<b>Grinding speed con opt. Low-E</b>	N/A	N/A	N/A	140m/min
<b>Max cut</b>	3700 mm	3700   4600 mm	3700   4600 mm	3800   4950 mm 6100mm
<b>Min cut</b>	250 mm	250 mm	250 mm	150 mm
<b>Min thickness</b>	2.2.0,38 PVB mm	2.2.0,38 PVB mm	2.2.0,38 PVB mm	2.2.0,38 PVB mm
<b>Max thickness</b>	8.8.4,56 PVB mm	8.8.4,56 PVB mm	8.8.4,56 PVB mm	8.8.4,56 PVB mm
<b>Opt. thickness</b>	N/A	N/A	10.10.2,28 PVB mm	12.12.2,28 PVB mm
<b>Max squaring length</b>	3210 mm	3210 mm	3210 mm	6100 mm**
<b>Max weight loadable on arms</b>	450 Kg	450 Kg	450 Kg	700 Kg
<b>Tolerance</b>	+/- 0,5 mm	+/- 0,5 mm	+/- 0,5 mm	+/- 0,5 mm
<b>Height of working table</b>	930 +/- 20 mm	930 +/- 20 mm	930 +/- 20 mm	930 +/- 20 mm

(\* ) Depending on type of glass and quality requirements. (\*\* ) With optional unloading table.

ensure fully automatic, high production levels. If combined with the float glass cutting table, the bridge can also be used to label, cut the laminated glass to shape, remove low-E on all types of sheets based on the chosen set-up (see specific BCS/EVO catalogues).

### Performance

Bottero tables provide 360° top level performance in all areas: cycle time speed, accuracy and reliability in the long term.

## Bottero STRAIGHT LINE EDGING & BEVELLING

### UNCOMPROMISED QUALITY

Bottero's vertical edge grinding and bevelling machines allow the highest quality results to be achieved when processing edges, thereby guaranteeing perfect finish in the most elegant applications, in which quality is considered an essential element.

Bottero's vertical edge grinding and bevelling machines offer great expressive possibilities and are well suited to produce sophisticated furnishing elements.

These vertical edgers and bevelling machines are designed to ensure maximum production and maximum reliability. The availability of numerous machine set-up configurations allows to choose the right product for both simple and extremely advanced processing operations.

### Victralux

Victralux is Bottero's range of Straight Line Edgers. The five models available within this range of machines enables to process edges with arrisses, as well as the possible dubbing system.



Victralux	108 FX	108 FX-HP	110 FX	110 FX-HP	111 FX	111 FX-HP	109 CDX	109 CDX-HP	112 FX	112 FX
<b>Minimum glass dim</b>	40 x 40 mm	100 x 100 mm	40 x 40 mm	100 x 100 mm	40 x 40 mm	100 x 100 mm	40 x 40 mm	100 x 100 mm	40 x 40 mm	100 x 100 mm
<b>Glass thickness</b>	3 ÷ 30 mm	3 ÷ 30 mm	3 ÷ 50 mm	3 ÷ 50 mm	3 ÷ 50 mm	3 ÷ 50 mm	3 ÷ 30 mm	3 ÷ 30 mm	3 ÷ 30 mm	3 ÷ 30 mm
<b>Speed</b>	0,6 ÷ 6 m/min	0,6 ÷ 6 m/min	0,6 ÷ 6 m/min	0,6 ÷ 6 m/min	0,6 ÷ 6 m/min	0,6 ÷ 6 m/min	0,6 ÷ 6 m/min	0,6 ÷ 6 m/min	0,6 ÷ 6 m/min	0,6 ÷ 6 m/min
<b>Installed power</b>	23,5 KVA	23,5 KVA	27 KVA	27 KVA	27 KVA	27 KVA	23,5 KVA	23,5 KVA	29 KVA	29 KVA
<b>Weight</b>	3200 Kg	3200 Kg	3600 Kg	3600 Kg	3600 Kg	3600 Kg	3200 Kg	3200 Kg	3600 Kg	3600 Kg

## Variant

Variant is Bottero's range of variable angle Straight Line Edgers.

The eight models available within this range of machines allows to process the flat edges of an angle up to 45° as well as to remove arrisses.

Variant	810 BC-BR	810 BCS-BRS	810 CD	810 CDS	814 BC-BR	814 BCS-BRS	815 BC-BR	815 BCS-BRS
Minimum glass dim	100 x 100 mm	40 x 40 mm	100 x 100 mm	40 x 40 mm	100 x 100 mm	40 x 40 mm	100 x 100 mm	40 x 40 mm
Glass thickness	3 ÷ 55 mm	3 ÷ 55 mm	3 ÷ 55 mm	3 ÷ 55 mm	3 ÷ 55 mm	3 ÷ 55 mm	3 ÷ 55 mm	3 ÷ 55 mm
Speed	0,4 ÷ 6 m/min	0,4 ÷ 6 m/min	0,4 ÷ 6 m/min	0,4 ÷ 6 m/min	0,4 ÷ 6 m/min	0,4 ÷ 6 m/min	0,4 ÷ 6 m/min	0,4 ÷ 6 m/min
Processing angle	0 ÷ 45°	0 ÷ 45°	0 ÷ 45°	0 ÷ 45°	0 ÷ 45°	0 ÷ 45°	0 ÷ 45°	0 ÷ 45°
Installed power	27 KVA	27 KVA	27 KVA	27 KVA	36 KVA	36 KVA	38 KVA	38 KVA
Weight	4600 Kg	4600 Kg	5200 Kg	5200 Kg	5200 Kg	5200 Kg	5400 Kg	5400 Kg



## Vision

The five models available within this range, produce bevels on the front face of the glass and either simple pencil edge profiles on the edge of the glass, or with the 913T, full flat edges and arris profiles.

Vision	907	910	913
Minimum glass dim	40 x 40 mm	40 x 40 mm	40 x 40 mm
Glass thickness	3 ÷ 30 mm	3 ÷ 30 mm	3 ÷ 30 mm
Speed	0,4 ÷ 6 m/min	0,4 ÷ 6 m/min	0,4 ÷ 6 m/min
Processing angle	3 ÷ 45°	3 ÷ 45°	3 ÷ 45°
Max corner edge dim.	40 mm (50 mm opt.)	40 mm (60 mm opt.)	40 mm (60 mm opt.)
Installed power	23,5 KVA	32 KVA	40 KVA
Weight	3600 Kg	4600 Kg	5200 Kg



## Elettromeccanica Bovone Srl

### Elettromeccanica Bovone EDGING MACHINES

The Bovone ELB series straight-line edging machines guarantee the highest quality of both flat and inclined edges, even at the highest working speeds, optimizing customers' production. Most machine models are also equipped with Cerium oxide processing, elevating polishing quality to the utmost.

The machines' solid cast iron base and cutting-edge construction solutions are integrated with high-end electronics, while the dedicated software allows a very intuitive use of the machine.

The wide range of models enables to satisfy each and every need, from the processing of 'micro' pieces with extraordinary finish, up to large panels for outdoor architecture. The very high customization potential of each individual model is then oriented towards maximizing the response to specific customer needs. The edging machines of the ELB series can be integrated into fully automated robotic systems: the Bovone Robotic Systems - BRS.

Machine type	Wheels number	Min piece dimension	MAX Speed	MAX thickness
Straight	10 to 14	35 x 35 25 x 50	from 5.4 m/min to 10 m/min	From 30 mm to 100 mm
45° miter	10 to 17	65 x 65 at 0° 105 x 105 at 45°	Up to 5.4 m/min	From 30 to 90 mm



## Elettromeccanica Bovone BEVELLING MACHINES



Wheels number	Min piece dimension	MAX Speed	MAX thickness
From 8 to 12	35 x 35 25 x 50	from 5.4 m/min to 10 m/min	25 mm

On the market since 1974, Bovone's range of straight-line beveling machines have, since then, been unbeaten for quality, performance and durability – the trend setter and reference point for the whole market, always a step ahead of competition.

Bovone beveling machines are internationally recognized for their extreme reliability: they are, in fact, solid machines capable of ensuring minimum maintenance levels and reduced downtime.

The finishing quality obtained with a Bovone machine is first-rate: this aspect is in synergy with the very fast execution times, the versatility of the models and the high customization potential work to guarantee the final customer higher productivity.

The beveling machines, like the whole range of Bovone machines, are driven by dedicated software for simple and immediate use.

## Elettromeccanica Bovone LAMINATING LINES

In the 1980's Bovone introduced its first laminated glass lines, which, right from the start, were already one of the most accurate and fastest lines manufactured, and also by far the most reliable – as always with Bovone products. The lines are:

- **Modular:** in fact, they are configured according to the customers' specific needs, who can also gradually integrate their line in different steps;
- **Versatile:** ensuring excellent performance both in the production of large numbers and for those in which high flexibility is required;
- **Reliable:** with minimal maintenance, they allow very short machine down-times; they guarantee high precision and quality of the finished glass sheets, thus increasing the productivity of the system together with the high level of automation;
- **Automated:** they can be integrated with robotic elements, configured in independent islands.

The lines are equipped with the latest generation of furnaces developed by the company: an innovative technology that integrates two heating systems – convection of forced hot air and radiation – that can be managed either completely independent from each other or in combination, depending on the needs of the user. Our lines can process 'sandwiches' of glass and PVB up to 80 mm and glass width from 1600 mm up to 3300 mm and length up to 6000 mm.



## Elettromeccanica Bovone BRS

Bovone Robotic System, the automated islands for edging, represent the perfect solution to optimize production. The systems are compliant with Industry 4.0 protocols: the islands work without the presence of personnel and are fully connectable for the traceability and self-regulation of the production parameters.

The use of robotic elements produced by companies rooted in the market then increases the levels of safety and reliability, also in terms of after-sales assistance. As always, with a view to safety and productivity, Bovone has created grippers with reduced weight and size that allow to weigh less on the robot's load capacity, improving performance in terms of time (25 per cent less) and energy used during the processing of particularly heavy plates.

The robots can be supplied stand-alone, applied to existing edgers or as customized robotic islands according to specific needs.



## Diamut - Biesse SpA

### Diamut - Biesse **EVOX 10**

#### EVOX 10 NEW PERIPHERAL WHEELS FOR CNC MACHINES - RENEWED DESIGN FOR GUARANTEED PERFORMANCE

The new Diamut **EVOX<sup>10</sup>** (diameter 100 mm) peripheral diamond wheels for CNC machines are Diamut's new high-tech product to obtain maximized performance.

The design has been completely renewed: the wheel body height has been reduced to allow the assembly of different wheels on the same tool holder (packed wheels). Thanks to the new bond and cuts through the diamond crown, the tool guarantees improved processing performance: +20% in working speed.



### Diamut - Biesse **EVOX 15**

#### EVOX 15 NEW PERIPHERAL DIAMOND WHEELS FOR VERTICAL MACHINES - A NEW ERA FOR GLASS GRINDING.

The new line peripheral diamond wheel **EVOX<sup>15</sup>** made by Diamut, for vertical machines (diameter 150 mm) is the perfect change to carry out an uncompromising glass grinding.

**A shape with innovative features:** cut through the diamond crown to guarantee a unique and perfect grinding on all types of monolithic glass.

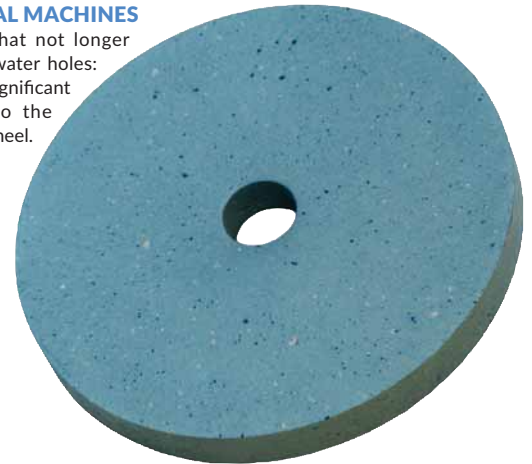
A new formulation allows to use **EVOX<sup>15</sup>** with the new parameters that guarantee optimized processing performance, reducing the effort of spindle machines. Savings also for maintenance and energy consumption costs.



### Diamut - Biesse **SHINY LINE**

#### DIAMUT'S NEW RANGE OF POLISHING WHEELS FOR CNC AND VERTICAL MACHINES

A new wheel that not longer needs internal water holes: this ensures a significant improvement to the final polishing wheel.

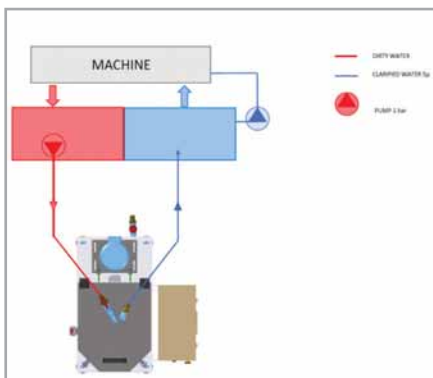


## Dieffe Machine Srl

### Manual centrifuges

### Dieffe Machine **DFL 50 M**

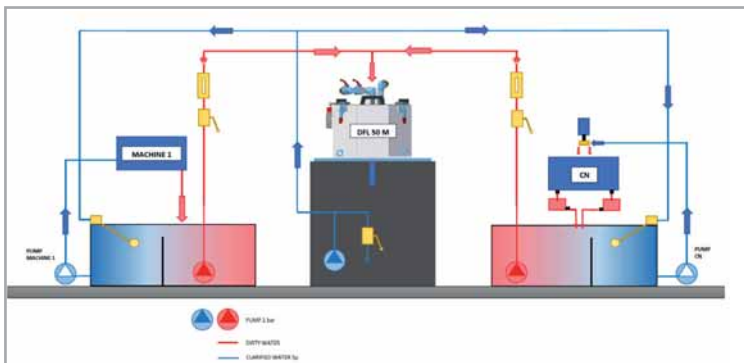
Manual centrifuge for a single machine





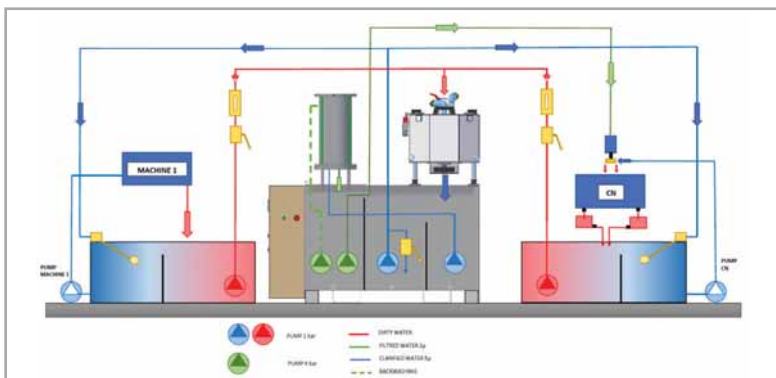
## Dieffe Machine DFL 50 M DUPLEX

Manual centrifuge for two machines



## Dieffe Machine DFL 50 MMF DUPLEX

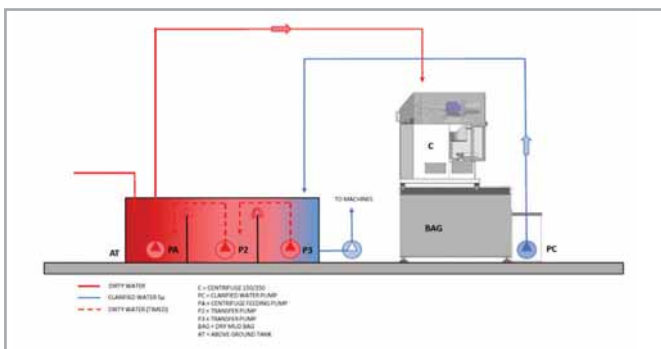
Manual centrifuge for two machines with additional microfilter for the spindle water



## Automatic centrifuges

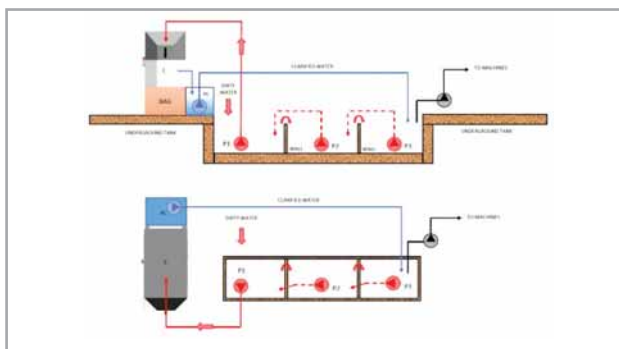
### Dieffe Machine DFL 150/250 A AT

Automatic centrifuge with an above-ground tank

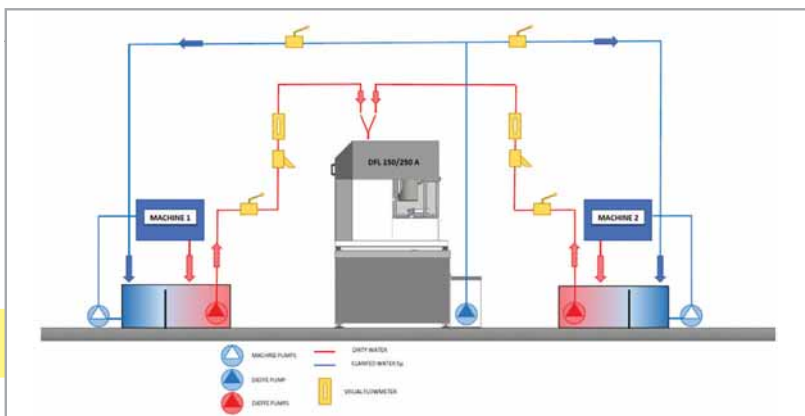


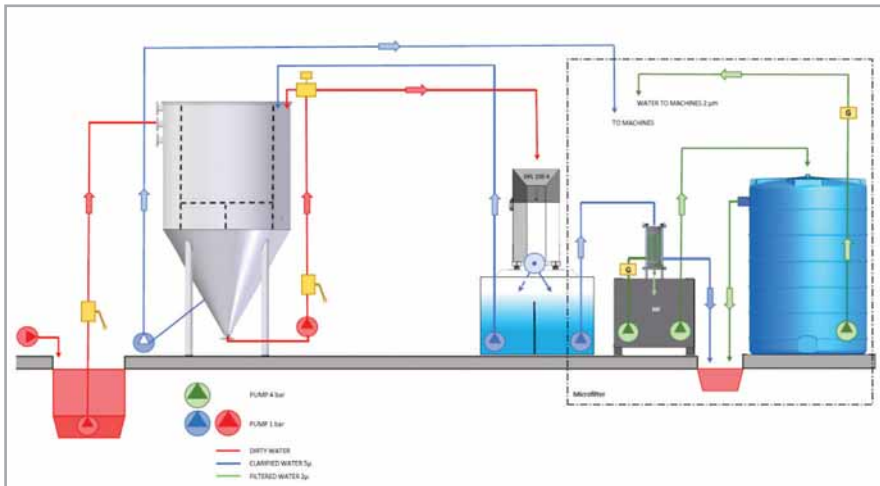
### Dieffe Machine DFL 150/250 A UT

Automatic centrifuge with an underground tank



### Dieffe Machine DFL 150/250 A DUPLEX





## Dieffe Machine COMPLETE PLANT

Plant includes:

- Automatic centrifuge
- Hydro cyclone
- Spindle water microfilter (optional)



A Quanex Building Products Company

## Edgetech Europe GmbH

### THE ADVANTAGES OF THE SUPER SPACER®

- low thermal conductivity
- fast dew point drop
- durable edge seal, continuous vapour barrier at corners
- moisture-adsorbing, flexible foam matrix
- high desiccant content adsorbs more moisture than two-sided and generally also more than four-sided filled conventional systems
- no chemical fogging\*
- attractive aesthetic appearance
- high-quality silicone for superior resistance to UV-light and oxidation
- very good gas-loss rate values according to EN 1279 part 3
- optimum values for energy efficiency (Psi-Values up to 0.031\*\*)
- enhanced comfort and well-being near windows
- excellent condensation resistance, shape retention and colour stability
- excellent durability for sustainable performance
- higher productivity through ease of processing (only three process steps)
- North America ASTM E2188/E2189/E2190
- Passive House certificate for Arctic Climate
- Europe EN 1279
- Canada CGSB 12.8
- CEKAL - certified for France
- RAL Quality Label
- ISO 5001 Energy Management
- P1 Industry standard USA

\* safe up to approx. +80°C, higher depending on the test method.  
 \*\* Super Spacer® T-Spacer™ Premium Plus made from structural foam processed in triple-pane insulating glass; source: Bundesverband Flachglas e.v. (German flat glass association).



Forel SpA

## Arrissing Machine

### Forel ART. EG ARRISSING MACHINE

The vertical arrissing machines series Art. EG remove the sharp edges of glass sheets by eliminating irregularities, ensuring safe and smooth finishes. Art. EG significantly increases the productivity of arrissing operations as is equipped with **two operating heads**, that are capable of working simultaneously on two different sheets of glass, or by synchronizing both operating heads onto one sheet of glass.

The **"self-learning"** mode automatically acquires the dimensions for the square shapes, while a separate device measures the thickness of the glass being processed. During the arrissing process, the **double**

	EG04020HT	EG04025HT	EG05028HT	EG06033HT
Height (mm)	3.670	4.170	4.470	4.970
Length (mm)	9.650	9.650	9.650	9.650
Depth (mm)	3.260	3.260	3.260	3.260
MAX glass length (mm)	4.000	4.000	5.000	6.000
MAX glass height (mm)	2.000	2.500	2.800	3.300
MAX glass weight (kg/linear meter)	200			



**suction cup carriages** secure the sheets of glass and move them forward. Depending on the sizes of the glass sheets being processed, the suction cup carriages automatically move to the correct position.

The presence of two independent suction cup carriages allows Art. EG to **reduce processing cycle time, guaranteeing high productivity.**

**Art. EG** can also process different shapes of glass sheets. (shape must be linear, such as triangles, trapezium, etc.).

Art. EG is equipped with two operating heads with **"V" shape diamond tools ø 200 mm.**

The arrissing machine is able to process **glass thickness between 3 and 20 mm with processing speed up to 300 mm/sec.**

## Edging - Drilling - Milling Line

### Forel ART. EM EDGING MACHINE

The edging machine Art. EM, one of the most appreciated of the Forel range, is for the edge processing of monolithic and laminated glass sheets. The machine can perform three different processing operations: arrissing, grinding, polishing. Thanks to the different technological measures used, Art. EM guarantees total stability and high processing speed during the different processes. It can also process low-E glass without damaging the coating.

The operating head of the **Art. EM** edging machine is equipped with a **patented system for the localized holding of the glass sheets.**

The device consists of **two self-adjusting glass-pressing wheels** that rest on the glass sheet and hold it in place. The system guarantees a perfect hold, centring with respect to the tool, as well as the absence of vibrations during processing.

Thanks to this device, **Art. EM** offers precise processing even when the glass sheet is not perfectly flat.

The **Art. EM** vertical edge processing machine is equipped with an exclusive feeler that controls the edge of the sheet locally during processing, 'guiding' the grinding wheel.

It can therefore operate in **dynamic self-learning mode for rectangular glass**, guaranteeing consistently uniform results in both arrissing and edging.

To ensure continuous uniform results, the edging machine is equipped with a pre-setting system that controls consumption and the contact of the tool.

	EM04020HT	EM04525HT	EM05028HT	EM06033HT	EM09033HT
Height (mm)	4.000	4.000	4.300	4.800	4.800
Length (mm)	10.800	10.800	10.800	11.900	20.170
Depth (mm)	2.600	2.600	2.600	2.600	3.180
MAX glass length (mm)	4.000	4.500	5.000	6.000	9.000
MAX glass height (mm)	2.000	2.500	2.800	3.300	3.300
MAX glass weight (kg/linear meter)	200	200	200	200	200



## Forel ART. DM DRILLING AND MILLING MACHINE

Enriched with specific features to guarantee precision and stability, the vertical drilling and milling machine art. DM represents an irreplaceable resource, both for stand-alone use and in line with an edging machine art. EM. The quality of processing of the glass sheets depends mostly on the stability of the glass while the various tools are being used. For this reason, the art. DM is equipped with **two opposite operating heads (which are independent and equipped with an automatic tool change system, with 6 + 8 positions) and two exclusive suction cups systems**, both patented. The first group of **fixed suction cups** offers a strong grip on the glass sheet, while a second group of smaller **adjustable suction cups** offers greater stability close to the processing tools. These suction cups can be positioned differently depending on needs.



	DM04020HT	DM04525HT	DM05028HT	DM06033HT	DM09033HT
Height (mm)	3.950	3.950	4.250	4.750	4.750
Length (mm)	12.085	12.085	13.185	15.085	21.920
Depth (mm)	3.500	3.500	3.500	3.500	3.450
MAX glass length (mm)	4.000	4.500	5.000	6.000	9.000
MAX glass height (mm)	2.000	2.500	2.800	3.300	3.300
MAX glass weight (kg/linear meter)	200				
Automatic tools change	8 tools (front) + 6 tools (rear)				

An additional system of suction cups can be applied directly on the rear spindle. In addition to ensuring greater stability during drilling and milling, the rear suction cup group holds the cuts and releases them in the bottom tank. Alternatively, a **buffer** can be set in contrast to the tool for the execution of particular processing operations. This tool can be applied **both on the rear spindle and on the front spindle**. The Art. DM drilling and milling machine is equipped with two opposite operating heads. The two operating heads are independent and are equipped with an **automatic tool change system**, with 6 + 8 positions.



## Forel EM-DM COMBINATION

**Art. DM** vertical drilling and milling machine can work together with the **Art. EM** vertical edging machine. This configuration, by far one of Forel's most popular solutions, combines the **arrissing, rough or polished edging, drilling and milling** processes in a single line. As well as demonstrably improving the quality of the finished product, spreading the workload of edge processing over more machineries also offers significantly better productivity than other solutions: indeed, while a glass sheet is being grinded or polished, another one is already being drilled and another one is being washed. The line can be completed with an **Art. VW** vertical washing machine.

## Forel ART. SS SORTING SYSTEM

The **Art. SS Sorting System** is the complete solution for the automation of the handling, storage and reordering of products in glass factories.

The **Art. SS Sorting System** consists of highly customizable handling and sorting buffers.

Its modularity allows it to adapt to the specific needs of glass factories. However, it is not just a matter of 'moving' the glass sheets: **Art. SS organizes and manages the progression of outgoing pieces** depending on the work programs (both previous and subsequent lines), contributing immediately in terms of productivity, speed and efficiency. Made up of glass sheet handling shuttles and storage units, the Sorting System solves the problem of so-called 'bottlenecks'.

In fact, different production lines often have different production times: thanks to its automated storage system, **Art. SS** guarantees order within the glass factory and allows to **optimize available space**. Several advantages are obtained by decreasing manual **handling** of the glass sheets in favour of **automated** handling:

- **more rapid flow**, with time saving in supplying processing lines.



## SORTING SYSTEM

	SS04028HT	SS05028HT	SS05033HT
Shuttle height (mm)	3.570	3.570	4.070
Shuttle length (mm)	4.200	5.270	5.270
MAX glass length (mm)	4000	5000	5000
MAX glass height (mm)	2800	2800	3300
MAX glass weight (kg/linear meter)	200		

- **less risk of breakage or damage.**
- **reduction of waste.**
- **fewer risks for operators.**

The installation of the Sorting System results in a clear improvement in the order and efficiency of glass factories.

In fact, the Sorting System assigns a **unique ID (identification number)** to all glass sheets: **the sheets are constantly tracked, localised and managed according to the program**. The position of each single sheet can be monitored at any time from a PC station and the progress of each single order is therefore always known.

## Vertical Cutting For Laminated Glass

### Forel ART. VC VERTICAL CUTTING LINE FOR LAMINATED GLASS

The vertical cutting line for laminated glass Art. VC combines high productivity and excellent quality: equipped with two cutting bridges and an automatic sheet rotating element, it has been designed to process Jumbo size sheets, optimizing cutting on X, Y, Z axes. The Art. VC offers precise, fast and safe processing. During cutting, the sheet remains in a vertical position throughout the duration of the production cycle, for high productivity in a reduced space. Cutting optimization is elaborated by means of a special software that reorganizes data, speeding up processing and assisting operators.

The line offers absolute precision, showing to be a true top product for the cutting of laminated glass. Each of the two cutting bridges has **two opposite ripping units** for the scoring of the glass and

	VC04533HT	VC06033HT
Height (mm)	5500	7000
Length (kg)	26000	26000
MAX glass length (mm)	6000	
MAX glass height (mm)	3300	
MAX glass thickness	from 6,3 mm to 20,5 mm	

two breaking bars (front and rear), to also allow the uniform opening of the sheet along its entire length. In the case of Low-E glass, the cutting bridges can also be equipped with a **special coating removal system**.

After scoring, the two pieces of the sheet are pulled, uncovering the PVB film. A **special infrared emitter** heats and softens the PVB film without heating the glass. A **patented motorized drawing system** totally or partially detaches the two panes. In the case of thick interlayer, a blade can also operate.

#### COMPLEMENTARY EQUIPMENT

The art. VC cutting line can be combined with:

- **Art. ST** automatic stock selector unit for quick and safe handling of the sheets from the storage stations to the line by means of a shuttle.
- **Art. VL** automatic loader.
- **Art. TT** tilting table at the end of the line to turn the into horizontal position.



## IG Lines

The extensive choice of insulating glass solutions is the pride of the Forel range. Versatile and configurable to cater to a wide variety of needs, these machines are the result of over 40 years of research and development in this sector. Boasting a host of exclusive, patented technological solutions, Forel's products are a strategic choice, helping businesses attain the highest possible productivity and process quality. Forel offers four different series of solutions for insulating glass production: 'Residential', 'High Tech', 'No Limits' and 'High Speed'.

### Forel THE RESIDENTIAL IG LINE

The Residential IG line is mainly designed for the production of double- and triple insulating glass units, with sizes, thicknesses and conveying weight capacity suited to residential architecture. This range consists of Forel's classic offering of machines for the industrial production of insulating glass. Designed to offer Forel quality in a version focused on a specific goal: IG units in commonly-used sizes, with rigid or flexible spacers. Compact but still with outstanding performances, this is the ideal solution for standardised production. The line is capable

MAX glass length (mm)	4.000
MAX glass height (mm)	2.500
IG unit thickness (mm)	65
IG unit weight (kg/linear meter)	200
Number of chambers	up to 2 (triple glazing)
Spacer	rigid/flexible
Gas filled	argon
Sealing products	up to 2



of working with individual glass sheets of up to 4.000 mm length and 2.500 mm height, weighing up to 200 kg/linear meter. It can also process up to two chambers and using up to two different sealing products.

## Forel THE HIGH TECH IG LINE

The cornerstone of Forel's product range for insulating glass. The result of Forel's decades of experience in this field, the "High Tech" range is complemented by a choice of exclusive devices and systems for work with offset and shaped glass

MAX glass length (mm)	6.000
MAX glass height (mm)	3.300
IG unit thickness (mm)	100
IG unit weight (kg/linear meter)	400
Number of chambers	up to 3 (quadruple glazing)
Spacer	rigid or flexible
Gas filled	argon and krypton
Stepped unit	up to 100 mm
Sealing products	up to 3



sheets, as well as for double, triple and quadruple IG units. This line can process assembled glass units up to 6.000 x 3.300 mm in size, weighing up to 400 kg per linear metre (assembled panel), and thicknesses up to 100 mm. Equipped with a flat plate coupling press with gas filling function (argon/krypton) and sealing machines, the High Tech line can process rigid or flexible spacers and can use up to three different sealing products. Special technology also enable the management of possible curvatures of the glass sheets.

## Forel THE NO-LIMITS IG LINE

The "No Limits" IG line meets all requisits for the ultra large sizes and facade markets: capable of managing the pane curvatures, weights and stepped units required by the extra-jumbo format, "No Limits" IG line goes beyond the restrictions of commercial architecture. It can process extra-Jumbo units up to 12 meters of length and 3,3 meters of height, with a capacity per linear meter of up to 350 kg for single panes and 550 kg for assembled panes, with thicknesses up to 40 mm single glass and 100 mm single glass. "No Limits" IG



MAX glass length (mm)	12.000
MAX glass height (mm)	3.300
IG unit thickness (mm)	100
IG unit weight (kg/linear meter)	550
Number of chambers	up to 3 (quadruple glazing)
Spacer	rigid or flexible
Gas filled	argon and krypton
Stepped unit	up to 1.000 mm (leading and trailing edge) up to 250 mm (upper and lower edge)
Sealing products	up to 3

Line can also assemble units with up to 3 chambers and is able to handle offsets up to 250 mm on the upper and lower edge and 1.000 mm on the leading and trailing side, thanks to the dynamic support of the coupled panes. Each machine that makes up the line is equipped with devices developed specifically to handle large dimensions, substantial weights and any non-planarity throughout every phase. The line can process both rigid and flexible spacers and the sealing robot can use up to 3 different sealing products in a "continuous sealing" mode, offering an astonishing quality.

## Forel HIGH SPEED IG LINE

The "High Speed" IG line represents the speed in the insulating glass units production and allows astonishing productivity. Designed to offer extremely reduced production cycle times, the "High Speed" line offers its best performance in "dual mode".



The line indeed is equipped with a double flexible spacer applicators, with a "tandem" coupling press with gas filling and two sealing robots: so "High Speed" IG line can process 2 IG unit at the same time up to 1.200 x 1.200 mm size, of double and triple glazing.

This line can sustain up to 200 kg for linear meter and, if necessary, can be used also in "single mode", processing pane up to 3.200 m x 2.000 mm size.

	DUAL MODE	SINGLE MODE
Process	2 panes simultaneously	1 pane at time
MAX glass length (mm)	1.200	3.200
MAX glass height (mm)	1.200	2.000
IG unit thickness (mm)	65	
IG unit weight (kg/linear meter)	200	
Number of chambers	up to 2 (triple glazing)	
Spacer	flexible	
Gas filled	argon	

## Lamination Line

### Forel ART. LL LAMINATION LINE

The lamination line Art. LL has been designed and engineered specifically for the laminating of flat and tempered glass with PVB interlayers.

The line is made up of the following operating zones:

**Loading area.**

**Washing:** The washing zone features a six brushes washing machine (brushes diameter Ø 200 mm) equipped with a self-learning device for measuring the glass thickness. Low emissivity (Low-e) glass is detected automatically. An antistatic bar can be fitted to the washers out feed conveyor to prevent dust contamination of the glass surface.

**Transferring area:** equipped with a suction cups system to pick up the glass sheets, with variable arrangements and glass sheets detection sensor.

**Interlayer positioning:** a multiple PVB reels holder is located in a dedicated mezzanine within the clean room and is connected to lines management software. The positioning station is equipped with an automatic sheet centering system that guarantees the perfect alignment of the glass relative in the pressing rollers.

**Heating and pressing:** the pressing rollers are coned shaped in design to allows the exhaust of air from the centre of the glass out through the sides. The management of the rollers is independent of the glass thickness and is accurate in both dimension and pressure. The heating and pressing areas are made up of two temperature controlled zones and two sets of pressing rollers. Both ovens are equipped with thermo regulated electronic resistors which

	LL04526HT	LL05026HT	LL06033HT
MAX pane length (mm)	4.500	5.000	6.000
MAX pane width (mm)	2.600	2.600	3.300
Single glass thickness (mm)	3- 20 mm		
MAX laminated unit thickness	60 mm		
MAX assembled panes	4		
MAX assembled panes	150 kg/linear meter		

work in conjunction with a forced air convection system.

**Unloading:** The lamination line is equipped with a tilting table with lateral drive, with a capacity of 3.500 Kg.

The lamination line can be supplied with an external rotary 8 station PVB magazine, with a table and semiautomatic cutter. The line is equipped with a self-diagnostic system that identifies faults with codes, descriptions and images with an additional system that allows remote assistance.



\*Forel is constantly working on the development of new solutions. Some data present in this report may differ from the models available on the market.



### Forvet CHIARA

The Chiara has been designed to achieve flexibility and productivity for glass from 2000x3000mm up to 3300x18000mm with 8/10 spindles grinding heads working on multiple sides and out of square.

The possible integration with a CNC machining centre on the Multiflex model, allows to perform polished radii in the corners, notches, milling, drilling, without having to reposition the glass. Moreover, it allows to obtain both flat and round edge profiles. The overlapping of two different machining processes on a stationary sheet doesn't

Maximum glass dimension	from 2000x3000 to 3300x18000mm (dimensions can vary according to the Chiara model)
Minimum glass dimension	410 x 500mm (200x930mm opt.)
Glass thickness	from 3 to 19mm (25mm opt.)
Heads achievable angles	-45° +90° or -120° +120° according to the model
Grinding speed	from 0.5 to 10m./min.



require any large sheets handling thus eliminating the risk of damage during transport and zeroing errors, with the consequent dimensional inaccuracies of the machining. Moreover, the machine is able to handle two pieces simultaneously, even if they are different from each other. What really makes the Chiara a unique solution in the configuration for large glass sizes is its small footprint on the shop floor. In fact, when comparing a Chiara straight line to a double edger with the same maximum dimensions, the Chiara will only use 1/3 of the space required.

## Forvet SpA

## Forvet COMBIFLEX

Combiflex, a multi-purpose machine able to execute multiple glass processes in reciprocal synergy.

Glass dimension up to 1500x3000mm with different type and quality of edge finish can be processed on each glass side in less than 32m2.

The machine performs automatic loading, grinding, polishing, drilling, notching, water jet cutting, rounding corners, chamfering, washing and automatic unloading operations on flat glass, even out of square or shaped.



Maximum glass dimension	1500x3000 mm. (60x120 inches)
Minimum glass dimension	410x500mm (13.6x16.1 inches) (200x900mm optional)
Glass thickness	from 3 to 19 mm
Heads achievable angles	-120° +120°
Grinding speed	from 0.5 to 10 m. /min.
Maximum drilling diameter	65 mm. (70 mm. optional)
Number of spindles	16(8+8)

COMBIFLEX has been designed to be self sufficient in the execution of all processes. From the loading of the raw glass to the unloading of the completely processed glass, the operator is not required to perform any adjustment during all processes, even with regards to thickness, shape or dimensional changes.

The machine configuration can also be implemented with optional equipment such as:

- Water jet technology
- Compact washing machine
- Automatic loading and unloading system
- MC - CNC working centre

## Forvet FRANCESCA

The **FRANCESCA FC 1250 H.O.** is a Numerically Controlled (NC) glass processing drilling centre, capable of performing drilling, countersinking and milling operations on flat glass sheets, including "out of square" pieces.

The **Francesca FC 2000/2600/3000** is Forvet's response to big glass sheets processing problems.

The **Francesca FC 16M 1600 WJ** NC work centre is a new machine concept combining two production technologies, managed by a single Numerical Control. The **FRANCESCA FC 1250 H.O.** is a Numerically Controlled (NC) glass processing drilling centre, capable of performing drilling, countersinking and milling operations on flat glass sheets, including "out of square" pieces.

The **Francesca FC 2000/2600/3000** is Forvet's response to big glass sheets processing problems.

The **Francesca FC 16M 1600 WJ** NC work centre is a new machine concept combining two production technologies, managed by a single Numerical Control.

The brilliant news conceived by Forvet is to join the drilling basis realized with diamond tools with the water jet cutting technology. This results in a big advantage for production and the operators can choose which type of cuts to use, depending on the work to be carried out. Forvet water jet technology, developed according to the company philosophy, allows to perform two different processes (water jet, drilling & milling) on the same machine with fully automated loading, positioning, processing and unloading operations

The **FRANCESCA FC 1250 H.O** and **FC 1600** can be equipped with the **AIR option** which allows vertical loading and unloading.



Working area	X axis: according to the conveyor length Y axis: maximum from 150 to 3300mm
Glass thickness	3 to 19mm (25mm optional)
Maximum drilling diameter	65 mm (70mm optional)
Number of spindles	16 (8+8) or 32 (16+16)
High Pressure Pump	up to 400 MPa

**Glass-Technology International**  
THE LEADING MAGAZINE FOR THE INTERNATIONAL FLAT GLASS BUSINESS

www.glassOnline.com  
The World's Leading Glass Industry Website

NEW WEB SERVICE:  
**interactive**  
MAGAZINES







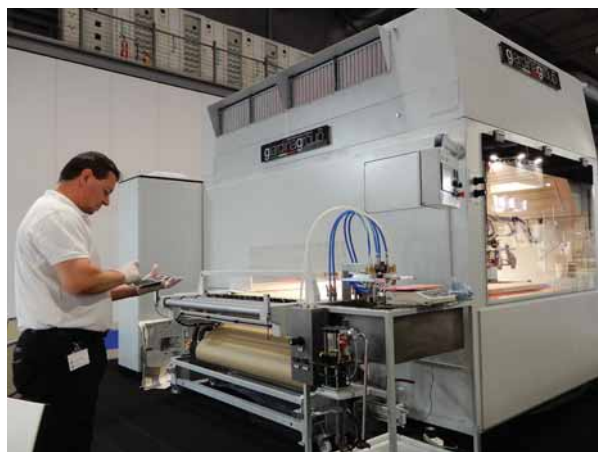
## Giardina Group

### Giardina Group Dualtech 415 spraying machine

Dualtech 415, with its improved air flow system to better control overspray, an innovative air filtration system to ensure longer filter life, and a new machine design is, today, one of the best performing spraying machines on the market. The machine is equipped with a motorized synthetic belt covered with a 1600m-wide paper belt. Paper feed on inlet and paper coiling on outlet is managed by electronic motor control, providing optimum and continuous belt tension.

Dualtech spraying technology is guaranteed by a central reciprocating unit, which is equipped with spraying guns. The spray circuit, designed for up to two spray guns,

includes lacquer feeding and lacquer return, in order to speed up and facilitate flushing, as well as minimize the quantity of cleaning solvent used. In order to allow fast and safe colour change, the machine can be equipped with the well known Dualfast system that allows to remove the guns from the reciprocating arm in few seconds and plug in a new set ready to use. The previous set of guns can also be flushed while the machine is spraying another colour. This system also reduces paint waste between colour changes.



Max. useful working width:	1300 mm
Adjustable reciprocating unit speed:	0 - 120 m/min
Ambient room air intake volume:	9,000 m <sup>3</sup> /h
Exhausted air volume:	9,000 m <sup>3</sup> /h
Intake fan power:	2 x 0.37 kW
Exhauster power:	5.5 kW
Conveyor motor power:	0.75 kW
Reciprocating unit motor power:	3.2 kW
Total installed power:	10.2 kW

\* Compressed air consumption: 100 NI/min (without guns whose consumption must be added accordingly to the type and number of installed guns)



## Glass Company Srl

### Glass Company LASERMEK

'SurFace' Laser to remove functional and decorative coating, with diverse industrial applications:

- refrigeration: processing of electro-resistive tracks, on coating, for various types of anti-condensation heating glass.
- furniture: removal of silvering from mirrors for the production of mirrored transparent glass for the decorative sector.
- building: matt surface graphic engraving also on large glass sizes for doors, windows and walls.
- transport: processing of wi-fi pass-through grids for personal passenger devices.
- heating: engraving of heating coils on heating glass products for heated towel rails.



Laser Beam	Power	Source	Useful dimensions	Structure
Beam or Galvo from 300 x 300mm	50W	Fiber	1.000 x 2.100 mm	Closed
			1.500 x 3.000 mm	Open
			2.000 x 3.000 mm	Open



## Glasstech, Inc.

### Glasstech AUTOMOTIVE EPB-L™

#### EXTERNAL PRESS BENDING SYSTEM FOR WINDSHIELDS

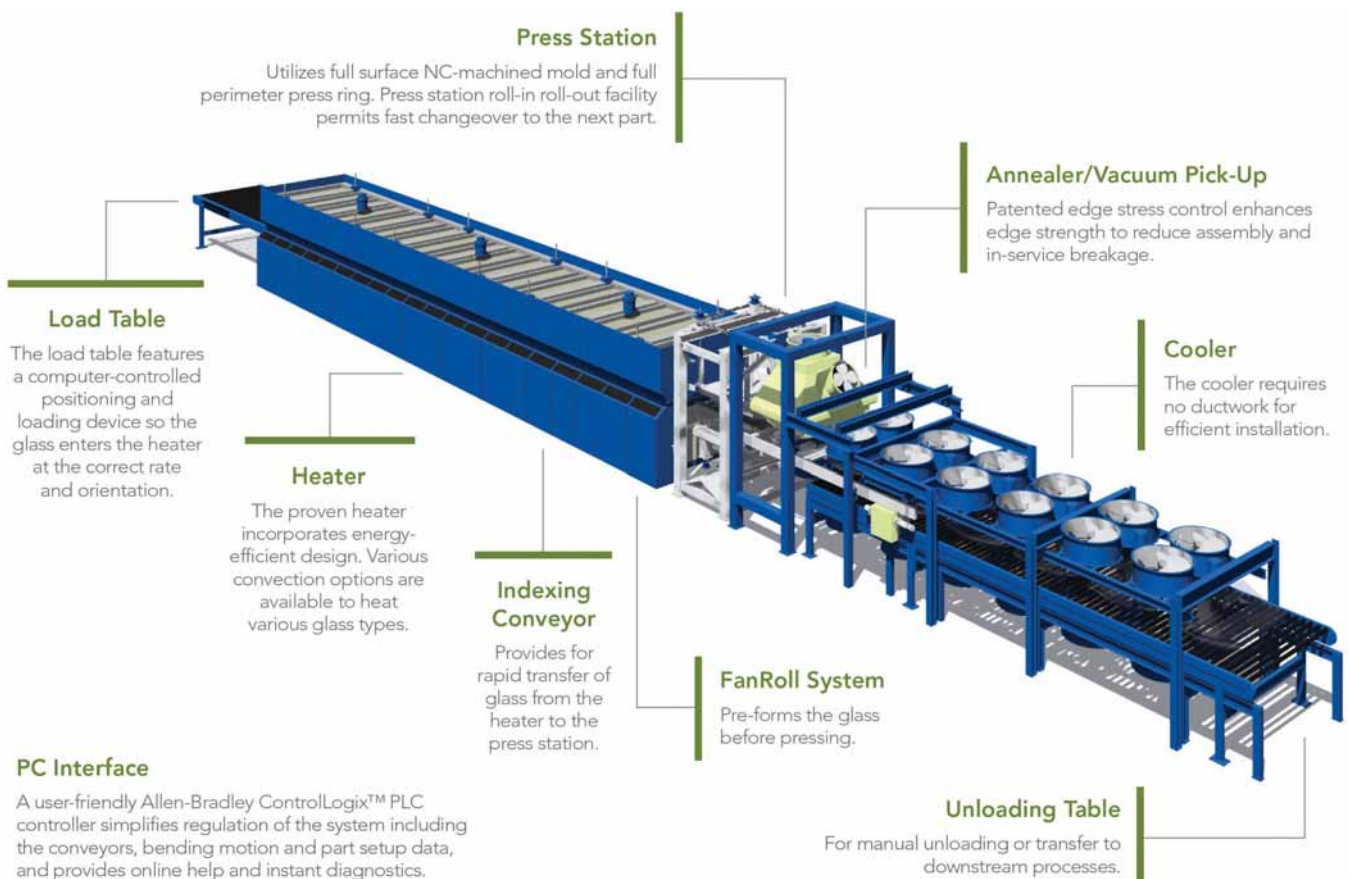
Glasstech's EPB-L system is an innovative, highly versatile glass bending system designed for producers of automotive windshields. The system satisfies the automotive OEM demand for tighter surface tolerances with superior optical quality to meet the latest requirements for heads up display (HUD), while also meeting glass processors' needs for greater productivity, economical tooling and energy conservation.

#### PRODUCT SIZE AND FORMING CAPABILITY

	Size					Depth of Bend		Minimum Radius of Curvature	
	Glass Thickness	Minimum Glass Size Length x Width		Maximum Glass Size Length x Width					
	(mm)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
EPB-L with FanRoll System	1.6 - 2.1	890 x 500	35 x 20	1220 x 1828	48 x 72	165	6.5	380	15

#### EXAMPLE SYSTEM CONFIGURATIONS

	Heater Length		Glass Thickness		
	(m)	(ft)	1.6mm (sec)	1.8mm (sec)	2.1mm (sec)
EPB-L Standard Capacity	21.0	68.9	9.5	10.3	11
EPB-L High Capacity	27.3	89.6	9.5	9.5	9.5



**glassmachinery**  
world  
plants & accessories

www.glassOnline.com  
The World's Leading GLASS Industry Website

NEW WEB SERVICE:  
**interactive**  
MAGAZINES





## HORN Glass Industries AG

### Top rollers

Top rollers are amongst the most important parts of a tin bath. These machines are always used in pairs in the forming section of the tin bath. Each pair, consisting of master and slave, works synchronously and thereby creates optimal conditions for a smooth production process.

Top rollers are always used when products are to be manufactured which cannot be produced in the 'direct stretch' process or more precisely when items are to be produced which are thinner or thicker than 7 mm.

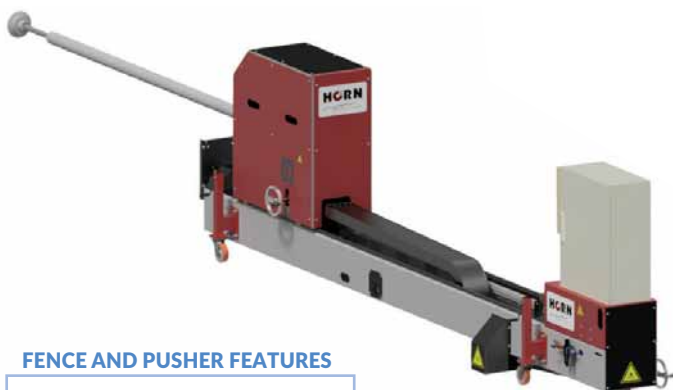
HORN offers two different types of top roller machines:

- HRTM-F - floor-based top roller, which is installed on the hall floor
- HRTM-S - suspended top roller, which is suspended from the tin bath steel structure

#### HRTM-F AND HRTM-S BENEFITS

- Easy and quick installation and maintenance
- Easy operation
- Optimised setup operation and on site control by means of a mobile touch panel
- Compact design with integrated switch cabinet
- High safety standard – safe handling and safe operation for users
- Complete media supply from below at the pivot point of the machine

#### HORN Glass Industries AG HRTM-F TOP ROLLER



#### FENCE AND PUSHER FEATURES

- Easy and ergonomic handling
- Simple and compact structure
- Quick and easy installation
- Rotary graphite part reduces wear
- High safety standard – safe handling and safe operation for users
- The design of both machines is the same, they only differ with regard to the graphite working element

#### HORN Glass Industries AG HRTM-S TOP ROLLER



### Fence and Pusher

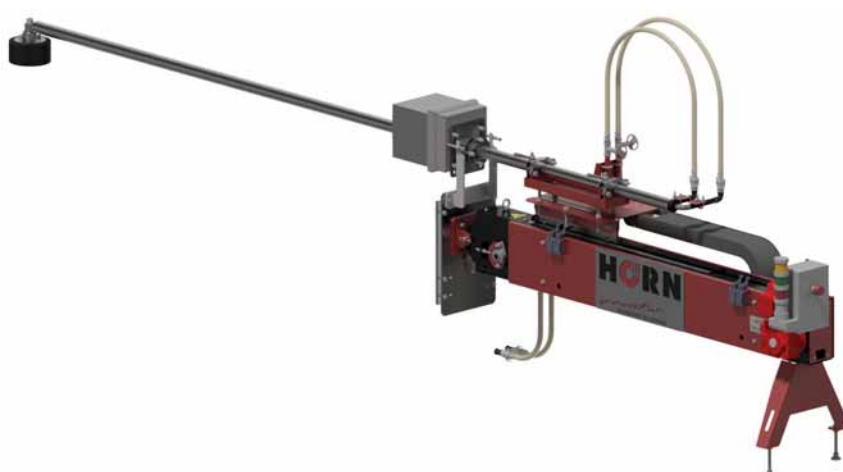
With its tin bath graphite equipment HORN offers powerful solutions for a wide variety of functions.

The fence guides the glass ribbon safely and smoothly through the tin bath. If the glass ribbon is too wide, the pusher folds the edges of the glass ribbon, thus protecting the subsequent equipment parts from any damage. The tin flows can be controlled by means of flags, thus creating optimum production conditions. Both machines consist of a motorised positioning unit, a water-cooled supporting tube made of stainless steel and a graphite working element.

#### HORN Glass Industries AG HORN PUSHER TYPE HMPUP



#### HORN Glass Industries AG HORN FENCE TYPE HMPUF





## Intermac

### Intermac AQUA

Intermac's Aqua range of washing machines can be fully integrated with vertical work centres, enabling processed glass to be washed and dried in accordance with the highest standards. Aqua guarantees extreme cleaning of all the impurities accumulated during processing operations carried out on the glass sheets, preparing them perfectly for subsequent processing or for leaving the machining cycle.

- Perfect in line integration with vertical machining centres;
- Dedicated technology for automatic management of all types of glass on the market;
- Long-term reliability thanks to a robust stainless steel structure;
- Ideal for infinite work cycles;
- Extremely user-friendly.

Aqua can be fully configured in accordance with varying production requirements thanks to the length-adjustable inbound and outbound conveyors, both for stand-alone and in-line installations. The solution offers maximum flexibility when it comes to glass loading and unloading widths, thanks to the 3-dimension types (1.0/1.5/2.0 m), which can be combined with one another. The processing direction, from right to left and from left to right can also be configured.



		2.2 V-4.2	2.2 V-6.2	2.6 V-4.2	2.6 V-6.2	2.8 V-4.2	2.8 V-6.2	3.3 V-4.2	3.3 V-6.2
Maximum height	mm	2.200	2.200	2.600	2.600	2.800	2.800	3.300	3.300
Minimum size	mm	400 x 200	400 x 200	400 x 200	400 x 200	400 x 200	400 x 200	400 x 200	400 x 200
Machinable thickness	mm	from 3 to 32	from 3 to 32	from 3 to 32	from 3 to 32	from 3 to 32	from 3 to 32	from 3 to 32	from 3 to 32
Advance speed	m/min	2 - 7	2 - 7	2 - 7	2 - 7	2 - 7	2 - 7	2 - 7	2 - 7
Work table height	mm	750	750	750	750	750	750	750	750
Buffing Unit		4	6	4	6	4	6	4	6
Blowers		2	2	2	2	2	2	2	2
Water tanks		4	5	4	5	4	5	4	5
Brush diameter	mm	150	150	150	150	150	150	150	150
Pre-washing		yes	yes	yes	yes	yes	yes	yes	yes

### Intermac MASTER ONE

Master One is a 3- or 4 axis machining centre (3-axis +C) for processing glass and is capable of performing a wide range of machining operations using the best technology, without compromises on performance. Master One boasts an unbeatable balance of quality and market competitiveness, making it a perfect investment. Featuring minimal and ergonomic design, while maintaining a complete range of functions, the Master One work centre is an especially good match for large industries that need elevated productivity, but is also suitable for small artisan glassmakers.

- Reliable and suitable for a wide range of machining operations;
- High performance and speed;
- Ultimate simplicity when tooling, with a wide range of tools;
- Safe and ergonomic;
- Reduced footprint;
- Simple and intuitive.



		Master One	Master One C
Maximum machinable piece size (3-axis grinding with tool of diameter 100 mm)	mm	3300x1500*	3300x1500*
Z axis stroke	mm	285	285
Overall machine dimensions	mm	L-7650 (doors open and vacuum tank) L-7050 (doors closed and vacuum tank) L-6200 (doors closed with-out vacuum tank) W: 4100 H: 2550	L-7650 (doors open and vacuum tank) L-7050 (doors closed and vacuum tank) L-6200 (doors closed with-out vacuum tank) W: 4100 H: 2550
C axis stroke		-	∞
Max axis speed (X - Y - Z)	m/min	70 -70 - 19	70 -70 - 19
Work table height	mm	740	740
Electrospindle power in S1	kW	9,2	9,2
Max electrospindle rotation	rpm	12000	12000
Tool coupling		ISO 40	ISO 40
Maximum tool diameter	mm	150	150
Fixed tool magazine	positions	23	23
Tool magazine on head (optional)	positions	8	6
Working air pressure	bar	7	7
Max air consumption	NI/min	200	200
Internal water consumption	l/min	10.5	10.5

\*The maximum size that can be machined changes on the basis of the optionals installed on the work table.

## Intermac VERTMAX

		Vertmax 2.2	Vertmax 2.6	Vertmax 3.3
Maximum machinable sheet size	mm	3500 x 2200	5000 x 2600	6000 x 3300
Minimum machinable sheet size (without the pilot system)	mm	500 x 300	500 x 300	500 x 300
Machinable glass thicknesses	mm	4 - 25	4 - 26	4 -26
Suction cup carriage speed	m/min	80	80	80
Y-axis speed	m/min	40	40	40
Speed of glass feed on input and output roller modules	m/min	30 (optional)	30	30
Electrospindle power	kW	2 x 6.5 (S1)	2 x 6.5 (S1)	1 x 14 (S1)   1 x 6.5 (S1)
Maximum spindle rotation	rpm	12000	12000	12000
Maximum diameter of the front head grinding wheel	mm	150	150	150
Maximum diameter of the rear head grinding wheel	mm	100	100	100
Maximum drill diameter	mm	80	80	80
Tool coupling		ISO 40	ISO 40	ISO 40
Tool magazine	positions	up to 18+19	up to 18+19	up to 18-19
Maximum power required	kW	63	63	63

Vertmax is Intermax's range of vertical machining centres based on the revolutionary concept of work piece movement: ideal both for single-batch production and large-scale manufacturing, it also enables less experienced operators to start producing immediately.

Vertmax is the perfect solution for the 'just-in-time' creation of doors, shower cubicles, display cases, cupboard doors, furnishing items, household appliances, windows for industrial vehicles, and structural façades.

- Maximum ergonomics and optimised space thanks to the vertical position of the glass;
- All machining operations in a single machine;



- Tooling times reduced to zero thanks to the automatic configuration of the suction cups which hold the glass in place;
- Extensive scope for machining sheets of both small and large dimensions;
- Maximum flexibility thanks to fully-automated machining and tool setting;
- Ideal for machining monolithic, laminated and low-E glass.



## Intermac GENIUS COMBY-H



GENERAL SPECIFICATIONS		
Work table height	mm	900 (-15 ÷ 45)
Maximum loadable glass sheet size	mm	6100 x 3300
Max unloadable finished piece size at line end	mm	see specifications
FLOAT GLASS		
Processable float glass thickness range	mm	2 ÷ 19 (25 opz)
X static breakout thickness range	mm	4 ÷ 10
Laminated glass		
Processable laminated glass thickness range	mm	22.1 ÷ 88.12
Fully automatic cycle glass thickness range	mm	22.1 ÷ 88.12
Maximum cutting speed	m/min	150
Cutting accuracy	mm	see specifications
Maximum cutting length L	mm	4860
Minimum automatic indexing X	mm	0 (zero, glass 22.1 ÷ 88.12)
Maximum automatic indexing X	mm	4800 (glass 22.1 ÷ 88.12)
Minimum automatic indexing L	mm	400 (glass 22.1 ÷ 88.12)
Maximum automatic indexing L	mm	4800 (glass 22.1 ÷ 88.12)
Minimum finished piece size L x X at line end	mm	400 x 250 (glass 22.1 ÷ 88.12)
Minimum breakout width X1	mm	20 (glass 22.1 ÷ 44.2)
Minimum separation width X1	mm	20 (glass 22.1 ÷ 44.2)

The Genius Comby-H is the response to the industry's demand for ever higher levels of automation that can combine efficiency with elevated production standards – combining technological solutions for cutting laminated and float glass. With the option of offering total automation in cutting processes, the Comby-H guarantees the possibility of executing multiple operations at the same time, limiting the need to expose operators to hazards. InterMac's innovative solution is top-of-the-range for the machining of large amounts of float glass and laminated glass, benefiting from the synergy of experience and cutting-edge technology.

- Ultimate automation of the process with delivery of finished items to the end of the line;
- Simultaneous operations (processes in hidden time);
- Possibility of operating with different sized finished pieces glass;
- Reduced cycle times;
- Fully automated glass handling;
- Minimal exposure for the operator;
- Integration with movetro automatic loading systems.



## ITALCARRELLI Srl

### ITALCARRELLI PTN 330 LGV

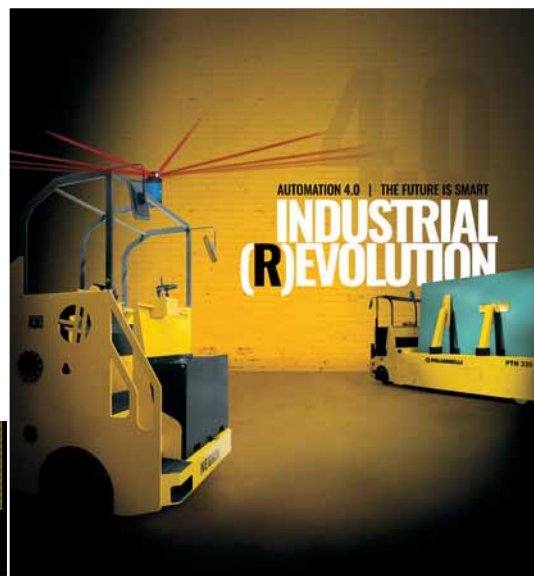
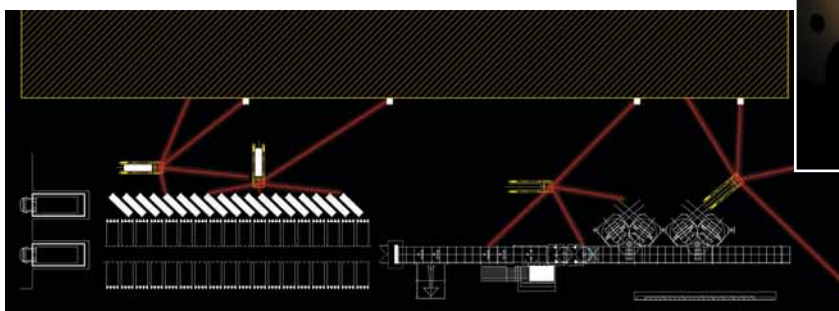
#### LASER GUIDED INLOADER TRANSPORTERS, THE GREAT REVOLUTION OF INDUSTRY 4.0

ITALCARRELLI® revolutionizes logistics in float glass factories by introducing Automated Guided Vehicles (AGV).

Italcarrelli, always oriented towards innovation and automation and with considerable experience in automated guided vehicles in a number of sectors, has applied its technology to its flat glass department.

Italcarrelli has developed various solutions to transform its machines into automated guided vehicles, featuring inductive and optical guidance systems, above all Laser Guided Vehicles (LGV). The laser guidance system is an innovative and smart system that can be installed on any machine to turn it into a self-driving vehicle.

Thanks to laser guiding, very high accuracy can be achieved – even greater than 5 mm in terms of positioning. It is a very flexible solution and the routes can be easily generated, modified or extended, without particular impact on facilities.



AGV machines by Italcarrelli provide optimizing logistics operations among production lines, warehouses, glass processing lines and shipping areas, thus increasing productivity and safety and, consequently, reducing production costs.



## Keraglass Industries Srl

### Keraglass VISION 800

#### OSCILLATING TEMPERING FURNACE TO TEMPER THE LATEST GENERATION GLASS SHEETS

Regarded as a revolutionary machine in the flat glass tempering sector due to its high quality and efficiency standards (particularly its ability to produce low-E and large panes with an emissivity of 0.01), combined with an aesthetic profile that ensures functionality, high performance and visual appeal all in one. This marvel of innovative technology is the result of long-term research backed up by ongoing dialogue and discussion with client companies. The heart of the machine is the Supervision Intelligent system with live-sight control, which allows the operator to clearly see and precisely monitor each stage of the process. The result is a glass end-product without any hidden defects that is made to measure and tailored to clients' requirements, with all the requisites needed to decorate the walls of modern buildings while ensuring energy saving and environmental sustainability. Numerous installations around the world confirm the immense success of this machine, which is recognised as a best-seller in the production of the latest generation tempered glass.

#### CHARACTERISTICS

- Big size low-E glass sheets E=0.01
- Tronik System: modular convection system based on blowing air preheated to 700°C
- Minimises optical distortion of the glass
- Dynamic heating cycle (DHC)
- Thermal insulation up to 1250°C
- Scanner control for constant monitoring of glass surface temperature, with storage of loads and product certification
- Supervision Intelligent: live-sight control system with large touchscreen monitor providing perfect visibility, plus a simple and intuitive user interface for fast and accurate diagnostics
- Kerasoft: software interface to control power consumption and scheduled maintenance
- Compatibility with RCK, an extremely precise roller cleaning machine with a rapid system of interchangeable pads





## Keraglass DELUXE

### THE AUTOMATIC PVB LAMINATING LINE FOR THE LATEST GENERATION GLASS

A complete, fully automated laminating line equipped with buffer-conveyors for high productivity. Can be configured to order with various PVB cutting systems. The Deluxe is suitable for glass of any type (including low-E) and size (up to jumbo size). The line is managed using Allen-Bradley controllers combined with a comprehensive software system, enabling the production of any type of laminated glass. The ideal tool for producers catering to the building and architecture sectors.

#### CHARACTERISTICS

- Customisable layouts
- Buffer-conveyor line to speed up productivity
- Roller press with 450 mm diameter and pressure power up to 41000 N
- Customised PVB cutting system and roll magazine
- Automatic assembly of glass sheets with very high accuracy
- Dual-function heating furnace: radiation + convection
- Double loading and unloading system for small, medium and glass sheets



## Mappi International S.r.l.

### Mappi International ATS 4.0 EXTREME CONVECTION

ATS 4.0 is the series of architectural glass tempering furnaces that include all Mappi International technology; their use guarantees great production and quality results thanks to innovative solutions that meet the most demanding market standards. Among these, GHBS Xtreme Profile Convection. GHBS allows to process all the latest generation coated glass types, including low-E with 0.01 Emissivity.

Some of the features that make each ATS 4.0 furnace unique:

- Minimizes the tempering cycle, and maximizes productivity.
- Precise control of convection air distribution in the upper and lower heating chamber separately.
- The removable heating chamber allows to carry out maintenance operations quickly and efficiently.
- First in the glass industry to be appointed "Powered by Siemens".



LOADING AREA	ATS SERIES 1500x3800	1800x3000	1800x3800	1800x4200	2200x3800	2200x4200	2500x4200	2500x5000
mm	1500x3800	1800x3000	1800x3800	1800x4200	2200x3800	2200x4200	2500x4200	2500x5000
inches	60x150	70x120	70x150	70x165	86x150	86x165	98x165	98x196
<b>PRODUCTIVITY   LOADS / HOUR</b>								
<b>CLEAR GLASS</b>								
3mm	26	26	26	26	26	26	26	26
4mm	25	25	25	25	25	25	25	25
6mm	17	17	17	17	17	17	17	17
10mm	10	10	10	10	10	10	10	10
19mm	5	5	5	5	5	5	5	5
<b>LOW-E</b>								
3mm	24	24	24	24	24	24	24	24
4mm	20	20	20	20	20	20	20	20
6mm	13	13	13	13	13	13	13	13
8mm	10	10	10	10	10	10	10	10
10mm	8	8	8	8	8	8	8	8
<b>AVERAGE CONSUMPTION</b>								
kWh	241	241	286	310	333	367	410	469

(1) The productivity is based on the 100% utilization of the loading area of clear float glass with EN / ANSI regulation.

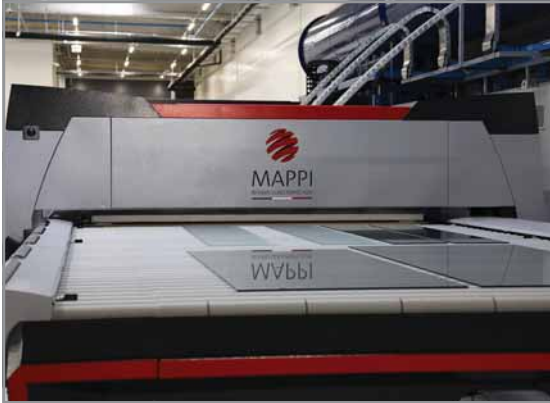
(2) The consumption is based on the glass thickness of 4 mm at 65% of the load.



## Mappi International **ATS J EXTREME CONVECTION**

ATS J Extreme Convection is the series of architectural jumbo glass tempering furnaces dedicated to those who need a large furnace maintaining all the quality and innovations of the ATS 4.0. Among these AC (Advanced Cooling), a special design of the blowing system that allows even more specific control while tempering, and substantially decreases anisotropy and iridescence of the glass.

Some of the features that make each ATS 4.0 furnace unique:



- Manages all types of low-E glass.
- Minimizes the tempering cycle, and maximizes productivity.
- Precise control of convection air distribution in the upper and lower heating chamber separately.
- Allows to modulate convection air pressure in specific areas.
- The removable heating chamber allows to carry out maintenance operations quickly and efficiently.
- First in the glass industry to be appointed "Powered by Siemens".

LOADING AREA	ATS J SERIES	3300x6000 J
mm	2700x6000	3300x6000
inches	106x236	130x236
PRODUCTIVITY <sup>1</sup>   LOADS / HOUR		
CLEAR GLASS		
3mm	-	-
4mm	25	23
6mm	17	16
10mm	10	9
19mm	5	5
LOW.E		
3mm	-	-
4mm	20	19
6mm	13	19
8mm	10	9
10mm	8	7
AV. CONSUMPTION (2)		
kWh	624	764

(1) The productivity is based on the 100% utilization of the loading area of clear float glass with EN / ANSI regulation.

(2) The consumption is based on the glass thickness of 4 mm at 65% of the load.

## Mappi International **FOX SERIES**

Fox is a series of compact tempering furnaces, with loading dimensions starting from 1050x2300 mm, designed for medium-small glass processors. The Fox series has the most advanced features offered by technology in the sector. Each furnace of the Fox series limits energy consumption through the use of numerous exclusive Mappi solutions such as MHS (Multizone Heating System) that automatically manages the temperature of the furnace through a network of electronically controlled sensors that allow temperatures to remain constant.

Some of the features that make each Fox series furnace unique:

- Minimizes the tempering cycle times, and therefore allows to maximize productivity.
- Checks the air distribution in the upper and lower heating chamber separately.
- Allows to modulate convection air pressure in specific areas.
- First in the glass industry to be appointed "Powered by Siemens".



LOADING AREA	1050x2300	1250x3200	1500x3200
mm	1050x2300	1250x3200	1500x3200
inches	41x90	49x126	60x126
PRODUCTIVITY (1)   LOADS / HOUR			
CLEAR GLASS			
3mm	26	26	26
4mm	25	25	25
6mm	17	17	17
10mm	10	10	10
19mm	5	5	5
LOW.E			
3mm	24	24	24
4mm	20	20	20
6mm	13	13	13
8mm	10	10	10
10mm	8	8	8
AV. CONSUMPTION (2)			
kWh	115	170	233

(1) The productivity is based on the 100% utilization of the loading area of clear float glass with EN / ANSI regulation.

(2) The consumption is based on the glass thickness of 4 mm at 65% of the load.

## Mappi International **LAMMIFLEX**

Lammiflex is Mappi's glass laminating machine with PVB and EVA capability.

There are five independent levels to load the glass, even with different thicknesses. Curved glass can also be processed.

The glass loading and unloading system works by extracting the individual levels thanks to the use of a hydraulic platform. An optional storage facility is provided on which to place five additional shelves to optimize glass loading and unloading, and increase productivity.

An integral part of the system is a dual circuit vacuum pump, connected to silicone bags on each single level. Inside the heating chamber the heating cycle required for lamination takes place through a convection system of hot air, which distributes the heat uniformly throughout the chamber. Lammiflex is available in sizes ranging from 1,500 × 2,500 up to 2,400 × 4,500 mm.





## Mappi International LAMINA

Lamina is Mappi laminating machine with EVA capability. The furnace consists of a heating chamber equipped with a single-level or multi-level storage system for increased production.

The glass loading and unloading system works by extracting the level of an outer rail or through the use of a hydraulic platform for the multi-storage system.

An integral part of the system is an oil vacuum pump, connected to the silicone bag on the level by means of high temperature resistant silicone tubing and related attachments to obtain the vacuum required for the lamination of glass.

Inside the heating chamber, the thermal cycle occurs through a hot air convection system which distributes the heat evenly throughout the chamber and across the surface of the glass. Available in sizes from 1500x3000 to 2200x4500 mm.



## Mazzaroppi Engineering Srl

### TEMPERING MACHINE COMPACT SERIES FOR FLAT GLASS

- Quick start (60 minutes for the first switch on, reaching set temperature in the following days in about 30 minutes)
- Possibility to switch the machine on/off EVERY DAY
- CNC multi-zone heating system
- Automatic switch-on only for areas where the glass is present
- Precision and optimum temperature control
- Energy is not used to heat the furnace but only the glass
- Maximum energy efficiency
- Waiting times for glass thickness changeover reduced to zero
- Flexibility and ease of use
- Convection system for low-E glass
- Staff training carried out by Mazzaroppi technicians



Model	Loading area	Minimum dimension	Thickness	Machine dimension m.	Consumption kWh	Load/hour
TP 130	1300x2600	Ø 200mm <> 140mm	4-19mm	14,5 x 4,2 x 3,2	≤100	≈20
TP 130L	1300x3200	Ø 200mm <> 140mm	4-19mm	17 x 4,2 x 3,2	≤130	≈20
TP 160	1600x3200	Ø 230mm <> 160mm	4-19mm	17 x 4,8 x 3,2	≤160	≈20



**glassOnline**  
The World's Leading Glass Industry Website

**glassonline**  
web service



**Mole Moreschi**  
Diamond Wheels since 1921

## Mole Moreschi

### Mole Moreschi TOOLS FOR GLASS ONLY

The company started its activities about 100 years ago, with artisan-based production, and now has more than 75,000 different items in its product range.

We are probably the only company that produces diamond wheels exclusively for the glass sector and so we can certainly be defined as 'specialists'! In fact, our entire R&D, production etc., are focussed totally on glass and – in some cases – materials very similar to glass, aiming at supplying the complete range of glass grinding tools.



## Movetro Srl

### Movetro STATIC STORAGE | AUTOMATIC CLASSIFIERS

Movetro automatic classifiers are the perfect solution for those wanting to gain more space on their business premises, ensuring safe and highly automated handling operations.

#### READY FOR AUTOMATIC LOADING OPENING WITH A SINGLE MOVEMENT

Automatic, high-tech magazines entirely managed and moved by a single command console with a touchscreen panel where the operator only needs to key in the number of the required element in order to have it available for loading or unloading operations.



## Movetro TELESCOPIC LOADING DEVICES

### ADVANCED DYNAMIC STORAGE FOR POWERFUL PRODUCTION

Movetro offers a wide range of single-direction or twin-direction telescopic loading devices for loading regular-, jumbo- or extra-jumbo sheets. The supervisor software shows the magazine situation in real time and receives the instructions for loading, moving and returning sheets in an entirely automatic manner thanks to its integration with the cutting line optimiser. This same information can be shared with the materials provisioning office.

R - REGULAR		
Maximum sheet size	mm	3660 x 2750
Minimum sheet size	mm	1500 x 1500

J - JUMBO		
Maximum sheet size	mm	6100 x 3355
Minimum sheet size	mm	1500 x 1500

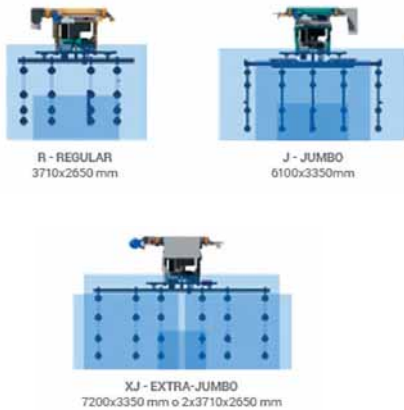
XJ - EXTRA-JUMBO		
Maximum sheet size	mm	6100 x 3355 2 x 3210 x 2750
Minimum sheet size	mm	1500 x 1500



## Movetro OVERHEAD LOADING DEVICES

### ADVANCED DYNAMIC STORAGE FOR FLEXIBLE PRODUCTION | OVERHEAD LOADING DEVICES | OVERHEAD LOADING DEVICES WITH FILTERS

The CAM single-beam and CAB twin-beam overhead loading devices are automatic solutions for the handling and overhead loading of single sheets. They have been designed for those looking not only for space savings, safety and automation but also top production flexibility, given that they need to load several cutting lines simultaneously.



The possibility to load several cutting lines: the perfect combination of productivity and flexibility.  
**FAST AND FLEXIBLE**  
**BOOSTED CUTTING CAPACITY**  
**ENHANCED SAFETY**



## Movetro SWIFT SHUTTLE

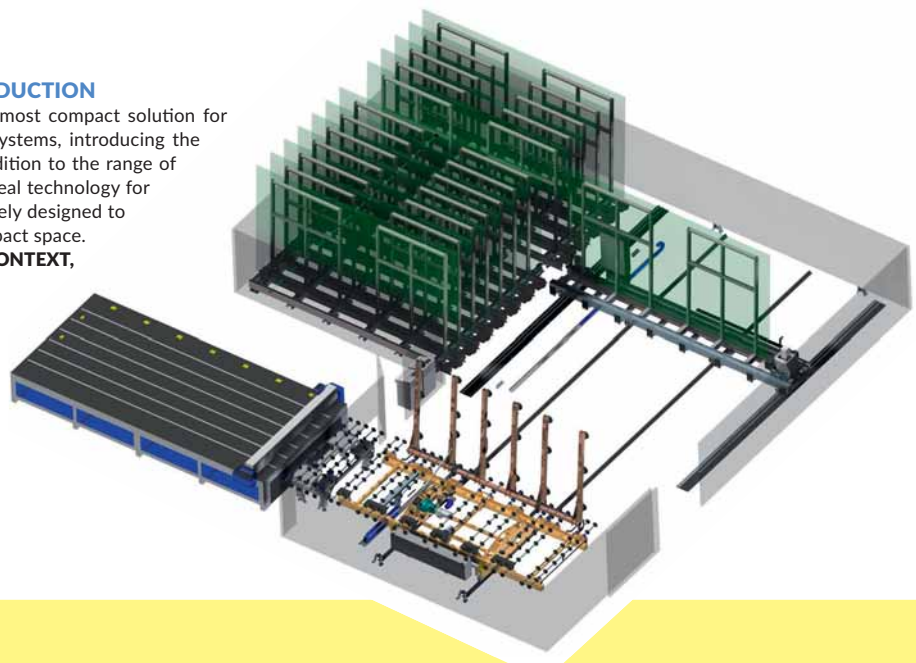
### ADVANCED DYNAMIC STORAGE FOR MASS PRODUCTION

The automatic Movetro SWIFT SHUTTLE magazine is the most compact solution for the perfect integration of automatic loading with cutting systems, introducing the new '3-part line' concept. SWIFT SHUTTLE is the latest addition to the range of integrated magazine solutions for cutting lines, and is the ideal technology for storing and handling jumbo and regular glass sheets, purposely designed to provide a higher number of cutting references in a very compact space.

**INSERTING THE SWIFT SHUTTLE IN THE PRODUCTION CONTEXT, THE ADVANTAGES CAN BE SEEN IMMEDIATELY:**

- Footprint reduction
- Increased productivity
- Greater safety

The design and construction modularity of Movetro shuttle systems ensures that customers can configure their own magazine to suit their production and logistics needs, always keeping abreast of company evolution, as the systems can be expanded at any time after installation.





## R.B.M. Italia Srl

In the continuous search of new formulations, R.B.M. ITALIA has recently been focusing on having a complete range of edge deletion wheels for low-E glass. It is important to find different products in terms of bonding and abrasive power depending on:

- The various coatings that producers can offer
- The hardness of these coatings
- The number of layers to remove

For this reason three product ranges have been developed:



### R.B.M. Italia **B WHEELS**

Synthetic rubber, rigid wheels with hard bonding  
Available grits: 46 - 80 - 100 - 150

### R.B.M. Italia **2) AA/AR WHEELS**

Non-woven convolute wheels with open structure, to be used with very low pressure. This range has two versions: a softer one (AA) and a harder one (AR).  
Available grits: 80 - 120 - 150 - 180 - 220 - 280

### R.B.M. Italia **3) CR80 / DR120**

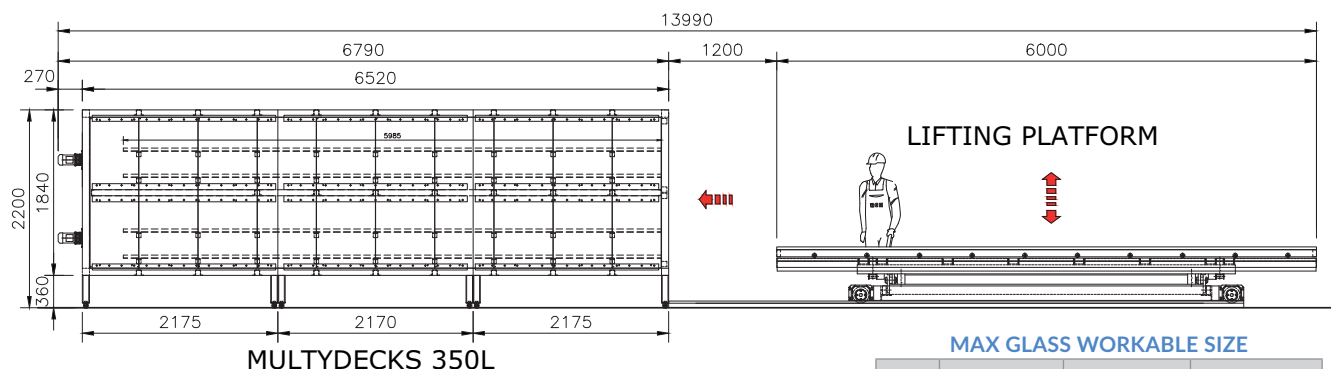
Foamed polyurethane wheels that have a long life and are suitable on hard coatings  
Available grits: 80 and 120



## R.C.N. Solutions Srl

### R.C.N. Solutions **MULTYDESKS 350L**

Laminating furnaces in multiple combinations, customization and oversized dimensions



### MAX GLASS WORKABLE SIZE

ELECTRICAL SUPPLY				UPPER CHAMBER	Shelf	Flat glass max. size	Curved glass max. h 150mm	Curved glass max. h 400mm
					Tension	V	400 trifase	4°
Frequency	Hz	50	3°	3500x6000	3500x6000	3500x6000		
Installed power	Kw	190	LOWER CHAMBER	2°	3500x6000	3500x6000	3500x6000	
			1°	3500x6000	3500x6000	3500x6000		

## R.C.N. Solutions RIVA BY RCN

### CHEMICAL TEMPERING FURNACES

"Riva by RCN" is a double winning solution if we consider the possibility of customizing the machines along with the technical expertise of Gianfranco Rivaroli who has, in fact, more than 40 years of top level professional activity

Model	Active Size (mm)	Handling	KW
CT 320	700 x 450	Manual	16+6
CT 330	700 x 450	Automatic	16+6
CT 331	1000 x 1000	Automatic	39+12
CT 900	2000 x 1000	Automatic	60+24
CT 950	3200 x 2200	Automatic	100+40



## R.C.N. Solutions REVA BF

### LAMINATION INTERLAYER

This project started up more than eight years ago with the (limited) introduction of an EVA interlayer combining adhesion quality, transparency, ease of use, characteristics that are no so guaranteed in today's range of EVA products.

Indeed, this balance of very sensitive and difficult to calibrate quality is reached only after years of experience and collaboration with important chemical companies.

REVA BF, which has been validated by international certification institutions, has had a constant development, along with the commitment to maintain high quality based on the targeted choice of raw materials, supplied by one of the most prestigious international chemical companies and capillary and professional production controls. Production has also increased thanks to an extension of the extruders range carried out in 2018.



Miami Dade County Approved  
SGCC List Approved  
AINSI Z 97.1-2009; CPSC 16 CFR 1201  
AINSI Z97.1-2015 Section 5.4.2

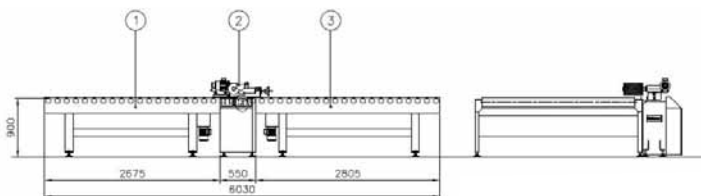
UNI EN ISO 12543-4:2011  
UNI EN 12600:2003



## ROLLMAC a division of Gemata SpA

### ROLLERCOATER MACHINE FOR THE ENAMELING OF FLOAT GLASS EDGES

GlassLine is a machine based on the technologies of enameling the edges of float glass sheets by means of a reverse roller.



Working Width	A	B
1300	1650	1415
1800	2150	1915
2200	2550	2315
2600	2950	2715

2	1	GlassLine
3	1	Outlet rollerconveyor
1	1	Entry rollerconveyor

It has been designed in response to a special need of glasses for building and interior decoration, i.e. the coating of a frame on the four edges of the sheet. Frame sizes: min. 5 mm max. 300 mm. This operation is performed in 4 passes with the return and 90° rotation of the sheet between one pass and the next. After all four sides have been processed, the sheet is sent to the oven for drying. The machines grant enable to enamel sheets with thicknesses from 2 mm. to 25 mm. and sizes up to 2,600 mm. A constant and uniform quantity of enamel can be applied up to 400 g/sq.m. in a single pass. It is possible to coat by ceramic enamels and organic paints.





## Off. Mecc. Schiatti Angelo Srl

After more than 50 years, we can say that Schiatti Angelo srl has a tradition as a manufacturer of machines for the glass processing. Over the years, it has acquired the necessary experience to manufacture innovative, reliable and quality machines.

The company's core business is the production of straight- and double edgers for the processing of the flat and pencil edges, as well as drilling machines.

### Off. Mecc. Schiatti Angelo EDGING MACHINES

The FPS range of vertical edgers is able to process the finest flat edges and arrisses. The most important part of these machines is the conveyor-track composed of rubber pads-bearings-chain that assure high performance in terms of glass holding and durability, without requiring continuous lubrication.

Some models are equipped with cerium oxide polishing on the edge and the arrisses for extra bright finishing, while all models are equipped with a PLC touch screen to adjust and display the machines' working parameters and diagnosis fault situation.



	Wheels number	Min workable dimension	Max workable thickness	Max speed
<b>Straight</b>	From 4 to 13	45x60mm	Up to 90mm	5 m/min
<b>45° miter</b>	From 8 to 14	50x100mm	Up to 55mm	5 m/min

A wide range of optional equipment is available for machine customizing, including the automatic adjustment of the diamond wheels and Industry 4.0 solutions as to interconnection to remote control and maintenance.

### Off. Mecc. Schiatti Angelo DOUBLE EDGING MACHINES



Since 1969, main improvements have been made both in mechanical and software developments in order to enhance the machine's performances. In this age of 'digital manufacturing', Schiatti Angelo srl would like to highlight its Industry 4.0 solutions with particular attention on the BFT and BFP ranges of double edging machines. Complete lines can be integrated in smart factories production process. The software offered by Schiatti provide smart solution in order to optimize the production cycle and increase customer satisfaction by reducing operational costs and increasing productivity; thanks to the continue technological improvements and digitalization in manufacturing, it has been developed to improve automation machine-to-machine and human-to-machine.

	Wheels number per side	Min /max workable dimension	Max workable thickness	Max speed
<b>BFT</b>	From 2 to 6	80 - 3000mm	Up to 12mm	10 m/min
<b>BFP</b>	From 5 to 11	100- 4500mm	Up to 35mm	10m/min

### Off. Mecc. Schiatti Angelo DRILLING MACHINES

	Max workable thickness	Max drilling Ø
<b>Horizontal</b>	28mm	3 - 200 mm
<b>Vertical</b>	19mm	3 - 40 mm

Also the drilling is an important part of the Schiatti's production. The offered solutions are various in order to satisfy any customer's need; from the small/medium to large glassworks of furnishing, construction and photovoltaic sectors. In the drilling range you find drillers with opposite heads, multi heads drillers, drilling centres and vertical drilling/milling machines.



## SPECIAL MACHINES

Schiatti's corporate organization enables us to be a one-stop-shop partner for any customer looking for glass processing machinery: from assessment of customer's specific needs to machine designing, machine manufacturing process, machine assembly and testing, up to aftersales service.

All machine designing and manufacturing stages are in house, painting, assembly, testing and shipping included. That makes us able to project and realize the most suitable and performing solution together with the customers, taking care also of the minute detail.



## Schiavo Srl

## Washing Machines

Customisation, long working life and high quality have always been the features that make Schiavo washing machines stand out in the market. The company's range of glass washing machines includes vertical and horizontal machines, those for straight linr grinders, as well machines for special applications.

### Schiavo VERTICAL WASHING MACHINES

EASY is Schiavo's entry-level series of vertical washing machines, with good quality and an affordable price. These machines are suitable for small glassworks or low production runs, and are available with from 4 to 6 brushes, and for maximum glass heights from 1,600 to 2,000 mm.

TOP is a high-quality range of vertical washing machines. These machines, made entirely in stainless steel, process glass thicknesses of from 3 to 40 mm, and glass heights from 1,600 to 3,300 mm.

HYDRO is a no-compromise series of full-option, vertical washing machines, made entirely of stainless steel, to process glass thickness of 3 to 40 mm, and heights of 1,600 to 3,300 mm. The HYDRO series is equipped with touchscreen, and can work in-line with vertical, work centres, drillers, as well as straight line millers and grinders. This machine adjust both speed and glass thickness automatically, depending on the previous machine. HYDRO washing machines are equipped with remote assistance and are Industry 4.0 ready.

HYDRO - Technical features

- High quality of materials
- High energy efficiency motors
- Long working life
- 24/7 intensive machine use

- Low maintenance
- Low noise levels
- Low water consumption
- High quality washing and drving



### Schiavo HORIZONTAL WASHING MACHINES

HTL is Schiavo's series of horizontal flat glass washing machines, with structure and casing entirely made of stainless steel. The HTL series has been designed for intense production runs, ensuring high washing quality. This machine can work stand-alone and inline, such as, for example, in-line bilateral grinding, lamination lines and digital printing.

HTL is available with from 4 to 8 brushes, glass width from 500 to 3,400 mm.





## Schiavo WASHING MACHINES FOR STRAIGHT-LINE EDGERS

The LVM400 washing machine can be installed on the output rack of any type of beveller or straight-line edger. This machine washes glass heights up to 400 mm, and is equipped with a fan to dry the glass sheets. This compact washing machine is the ideal solution to remove cerium from the glass immediately after polishing, without taking up extra space.

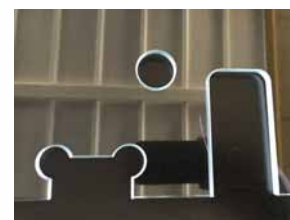
### SPECIAL WASHING MACHINES

FIRE is a series of washing machines designed especially for washing fire-resistant glass, which requires machines with special technical features. Schiavo is, and has always been, in the forefront in offering special machinery for all types of application.

## Vertical milling and drilling machines

### Schiavo FV1000

FV1000 is an NC-controlled vertical milling and drilling machine, equipped with four CNC-controlled axes that enable any type of drilling, milling and countersinking operation on glass sizes of 200x1000 mm. This machine is equipped with an automatic response system, and includes a memory base of editable shapes.



## Tecno-Glass Srl

### Tecno-Glass MFC - ROCKER

#### BI-COMPONENT EXTRUDER WITH ROTORS

Created for the extrusion of silicones sealants, MFC-ROCKER extruders are perfect for the production of insulating glass and for the sealing of structural and semi-structural glass sheets.

The MFC-ROCKER has two brushless motors connected to two pumping units which provide precise dosage for the extrusion of materials and a very accurate mixing ratio. The latest generation PLC is easy and intuitive and guarantees perfect management of each processing step.

The four speeds ensure easy operations on small and large glass-to-glass cavities, as well as on cellular glass.

The loading and fixing system has been specifically designed to allow great versatility in the loading of drums both manually and with trans-pallet, forklifts and overhead cranes, centring them in the right position to ensure maximum stability.

MFC-ROCKER also has an acoustic and luminous signal tower and a flag arm with 180° range of movement.



Compact dimensions (mm):	L(w) 1700 - H(h) 2300 - P(d) 1800
Extended dimensions (mm):	L(w) 3450 - H(h) 3100 - P(d) 1870
Weight:	710 kg) / (weight without drums)
Input power:	2,1 kW
Power supply:	380V Trifase + N 50Hz
Air pressure:	8 bar
Base component pump:	Double rotor
Catalyst pump:	Double rotor
Engine:	Siemens Brushless
Motor speed:	4 electronic speed
PLC:	Siemens
Flow rate:	1,9 kg/min (customizable upon request)
Mixing ratio:	All available
Gun:	Nordson electropneumatic
Mixer:	Disposable
Alarm system:	Max Pressure Line A-B + Engine Torque A-B + Catalyst Time + Empty Drum A-B + Pneumatic Input Power
Sample check:	Through PLC
Piping support arm:	Adjustable 180°
Gun balancing arm:	Available (OPTIONAL)

## TUROMAS

OUR PASSION, YOUR PROGRESS

## Tuomas

TUROMAS is a global reference in the manufacture of machinery for storing, loading and cutting glass, thanks to its continuous investment in R&D and its support to the customer during the whole purchase process. It is something that it has committed to since the first contact: trust to obtain a close relationship. No two factories are the same. For this reason, the Spanish company promises a tailor-made solution for every need, from semi-automatic equipment to fully automated cutting lines for all glass sizes.

### Tuomas FLOAT GLASS CUTTING



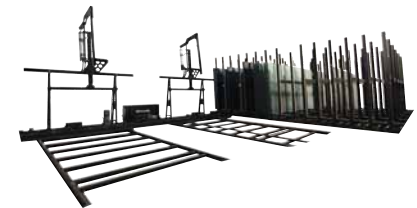
RUBI monolithic glass cutting tables are high-performance machines that offer exceptional cutting quality, meeting the requirements of low-emission glass manufacturers. There is a specific solution for each company, from independent and flexible cutting units to fully automated cutting lines.

### Tuomas LAMINATED GLASS CUTTING



LAM laminated glass cutting tables are autonomous machines that satisfy medium production needs or machines designed to be integrated into a mixed cutting line that responds to demand for maximum automation. Both types of machines are compatible with Low-E glass and guarantee a very high quality cut.

### Tuomas SMART STORAGE



TUROMAS smart storage systems can be ground-based, aerial or 'shuttle', for glass sheets of any size and thickness, supplying one or more cutting lines, depending on available space, current production needs and future projections.

### Tuomas SOFTWARE



Industry 4.0 is a new way of understanding the industry's operation based on the machines data. TUROMAS runs state-of-the-art software that guarantees the perfect interconnectivity of the machines and an optimum use of resources for manage production from a single control interface, monitoring and controlling the stock of glass in real time or managing non-automated glass warehouses.

AVAILABLE FREE FOR:



# FLATGLASS

## 2020 world directory



- > Suppliers' Profiles
- > Suppliers' Products & Yellow Pages
- > Suppliers Guide - Data Sheet
- > Suppliers Sales Network
- > Glassworks' Addresses

# FLAT GLASS WORLD DIRECTORY is on line in digital version

**July 27-29, 2020**  
**Expo Guadalajara**  
**Mexico**



**PARTICIPATION FEE**  
STANDARD BOOTH: 350USD/SQM | Minimum space: 9sqm.  
RAQ SPACE: 310USD/SQM | Minimum space 36sqm.

**Organized By:**



**Y T International  
Enterprise Inc**

**Supported By:**



**ASOCIACIÓN DE VIDRIO Y CRISTAL A.C.**

**Email: [info@glasstechmexico.com](mailto:info@glasstechmexico.com)**  
**[www.glasstechmexico.com](http://www.glasstechmexico.com)**

**Tel: +1 514 762 4588 English**  
**+1 438 525 5835 Spanish**

   
**GlasstechMexico**

# The complete and updated information about agents & sales offices worldwide

## ALPHABETICAL INDEX

Companies	State	Pag
A+W SOFTWARE AUSTRALIA	AUSTRALIA	141
A+W SOFTWARE FRANCE	FRANCE	145
A+W SOFTWARE LATIN AMERICA	MEXICO	148
A+W SOFTWARE POLSKA	POLAND	149
A+W SOFTWARE SWEDEN	SWEDEN	152
A+W SOFTWARE UK	UNITED KINGDOM	154
A+W SOFTWARE USA	USA	154
A. PALOJOKI OY	FINLAND	145
A.F.C. PEREIRA	PORTUGAL	149
ABITARE CG SRL	ROMANIA	150
AFAM IKE - FOREL AFRICA	REP. OF SOUTH AFRICA	150
ALPTECH CO. LTD.	SOUTH KOREA	151
ALUMNI SRL	ROMANIA	150
APPGLOSS SL	SPAIN	149, 151
ART MED SRL	TUNISIA	141, 147, 148, 153
ARVIS SH. P. K.	ALBANIA	141, 147, 148
AS CAM DESIGN - GLASS MACHINERY	TURKEY	153
ASHTON INDUSTRIAL SALES - USA	USA	154
AXEL LARSSON AB	SWEDEN	152
BELLUCCI	ITALY	141
BOTTERO GMBH	GERMANY	145
BOTTERO DO BRASIL	BRAZIL	142
BOTTERO FLAT GLASS INC.	USA	143, 154
BOTTERO FRANCE	FRANCE	145
BOTTERO GLASS INDUSTRY CO. LTD.	CHINA	143
BOTTERO UK LIMITED	UNITED KINGDOM	154
BOVONE MÁQUINAS E EQUIP. INDUSTRIAIS LTDA	BRAZIL	143
BOVONE NORTH AMERICA	USA	155
BWT LTD	REP. OF SOUTH AFRICA	150
CASA FIGINI	ARGENTINA	141
CASTRO GLASS SL	SPAIN	151
CERTECH IMPIANTI DE M XICO	MEXICO	148
CILPAK INFORMATIQUE	FRANCE	145
CM COMPANY	RUSSIA	150
CONCEPT SOLUTIONS	TURKEY	153
CORPOTRADE CYPRUS LTD.	CYPRUS	144
CORPOTRADE L.L.C. DUBAI	UAE - UNITED ARAB EMIRATES	153
CORPOTRADE S.A.R.L.	LEBANON	147
CORPOTRADE SAUDIA L.L.C.	SAUDI ARABIA	150
CORRENS CORPORATION	JAPAN	147
COVADIS SARL	FRANCE	145
CVMI SARL - CLAUDE VRIGNAUD	FRANCE	145
CY HANK INDUSTRIAL CO LTD	TAIWAN	152
D&S GLASS TECHNOLOGY SERVICES	SINGAPORE	146, 148, 151
DE GORTER INC.	USA	155
DG TECH GEORGE DIKAIOS	GREECE	146
DIAMANCHILE	CHILE	143
DIAMANT 2000	SPAIN	152
DIAMUT AMERICA	USA	155
DIAMUT AUSTRALIA	AUSTRALIA	141
DIAMUT BRASIL	BRAZIL	143
DIAMUT DEUTSCHLAND	GERMANY	145
DIAMUT FRANCE S.A.R.L.	FRANCE	145

Companies	State	Pag
DIAMUT UK	UNITED KINGDOM	154
DISTRIBUIDORA CADICOL SAS	COLOMBIA	144
DMT DIAMANT & MASKIN-TEKNIK APS	DENMARK	144, 152
DROLET EQUIPEMENT	CANADA	143
DTS HANDELSGESELLSCHAFT MBH	GERMANY	145
DUMATEK SARL	FRANCE	145
E. VILA PROJECTS & SUPPLIES	SPAIN	152
EASTWEST TRADING	SOUTH KOREA	151
EDGETECH EASTERN EUROPE	POLAND	141, 149, 150, 154
EDGETECH SOUTHERN EUROPE	FRANCE	145
EDGETECH SOUTHERN EUROPE	ITALY	147
EDGETECH UK	UNITED KINGDOM	154
ELEGANT I.G. SUPPLYLINE	AUSTRALIA	142
ELITE THAI MARKETING CO. LTD.	THAILAND	153
ELMAS KIMYA SAN. VE TIC. LTD STI.	TURKEY	153
ESTE TEAM D. O. O.	SERBIA	141, 142, 143, 144, 146, 148, 151
EUROTECHCORP	VIETNAM	143, 148, 149, 151, 153, 155
EVROFORMAT	UKRAINE	154
EWCOO S.R.O.	CZECH REPUBLIC	144, 151
FABIO ZUCAL	ITALY	147
FG TRADING (FRASER GLOBAL TRADING)	REP. OF SOUTH AFRICA	150
F LDNER MACHINES BV	THE NETHERLANDS	142
FOREL NORTH AMERICA	USA	155
FOREL RUSSIA	RUSSIA	150
FÜLDNER MACHINES BV	THE NETHERLAND	142, 145, 148, 152, 153
GENERAL TECHNICAL CO LTD	TAIWAN	152
GGTS - GLOBAL GLASS TECHNICAL SOLUTION	INDIA	146
GIL BARBARA SRL	ARGENTINA	141
GLAS X GLASTEKNIK	DENMARK	144, 152
GLASMIK DOO	SLOVENIA	142, 143, 144, 147, 148, 151
GLASS DESIGN (PTY) LTD	REP. OF SOUTH AFRICA	150
GLASS SPECIFICS	REP. OF SOUTH AFRICA	150
GLASSCORP LTD.	NEW ZEALAND	148
GLASSMAK	POLAND	149
GLASSTEK MAQUINARIA PARA VIDRIO	PERU	141, 143, 144, 149
GLASSTOOLS DE COLOMBIA LTDA	COLOMBIA	144
GLASTECHNIK HOLGER KRAMP GMBH	GERMANY	145
GMG VERTRIEBS GMBH	AUSTRIA	142
GRUPO ADA DISTRIBUCIONES TECNICAS SL	SPAIN	152
GULF STAR INTERNATIONAL	UAE - UNITED ARAB EMIRATES	142, 148, 150, 153
GUSMAO REPRESENTA ES	BRAZIL	143
HECMAQ SAC	PERU	142, 149
HEGLA CORP.	USA	155
HEGLA FRANCE S.A.R.L.	FRANCE	145
HEGLA MASCHINENBAU GMBH & CO.	GERMANY	145
HEGLA MASCHINERY (UK) LTD	UNITED KINGDOM	154
HEGLA TRADING & SERVICE GMBH	RUSSIA	150
HEGLA TRADING & SERVICE GMBH - INDIA BRANCH OFFICE	INDIA	146
HELIOS QUARTZ AMERICA INC.	USA	155
HELIOS QUARTZ ASIA LTD.	CHINA	144
HELIOS QUARTZ TURKEY	TURKEY	153
HIET - HUDA INDUSTRIAL EQUIPMENT TRADING	UAE - UNITED ARAB EMIRATES	147, 150, 151, 154
HMGLASS UNIPESOAAL LDA	PORTUGAL	149
IBA MIDDLE EAST FZE	UAE - UNITED ARAB EMIRATES	142, 147, 148, 150, 151, 154, 155
IDELIS UAB	LITHUANIA	142, 144, 147
IGP	USA	155
IMPRA SPOL SRO	CZECH REPUBLIC	144, 151
IMROGLASS SRL	ROMANIA	146, 148, 150
INTERMAC ASIA	MALAYSIA	148
INTERMAC AMERICA	USA	155
INTERMAC AUSTRALIA	AUSTRALIA	142
INTERMAC BRASIL	BRAZIL	143
INTERMAC CANADA	CANADA	143
INTERMAC CHINA	CHINA	144
INTERMAC DEUTSCHLAND	GERMANY	146

## ALPHABETICAL INDEX

Companies	State	Pag
INTERMAC FRANCE	FRANCE	145
INTERMAC INDIA	INDIA	146
INTERMAC NEW ZEALAND	NEW ZEALAND	148
INTERMAC UK	UNITED KINGDOM	154
IN-VENTO	POLAND	149
IOTA COMPANY	RUSSIA	150
ITALCOMMA SLOVAKIA	SLOVAKIA	144, 151
ITALOTEC - TECHNICAL ASSISTANCE	BRAZIL	143
ITALPOL	ITALY	149
JAHAN ATLAS TECH	IRAN	146
JEENNY TRADING CO. LTD	THAILAND	153
JLE - J. LEMOS ESTEVES LDA	PORTUGAL	141, 143, 146, 148, 149
JOLICO TRADING FZE	UAE - UNITED ARAB EMIRATES	142, 146, 147, 150, 151, 152, 154
K&K PROVITRUM GMBH	AUSTRIA	142, 146, 152
KERAGLASS SOUTH AMERICA DO BRASIL LTDA	BRAZIL	143
KERAGLASS USA INC.	USA	155
KMS E.K.	GERMANY	146
KPDT	RUSSIA	150
LANA INTERNATIONAL EST.	JORDAN	147, 152
LATTUADA NORTH AMERICA INC.	USA	155
LECHNER SRL	ITALY	142, 146, 147, 152
LISEC AMERICA, INC.	USA	155
ÛLISEC AUSTRALIA PTY LIMITED	AUSTRALIA	142
LISEC CIS	RUSSIA	150
LISEC DEUTSCHLAND GMBH	GERMANY	146
LISEC MIDDLE EAST LTD. FZE	UAE	154
LISEC SHANGHAI TRADING CO. LTD	CHINA	144
LUSPOL	POLAND	149
MAB EXPORT D.O.O.	SLOVENIA	151
MAPPI AMERICA	USA	155
MAQUIGLASS S.A.	SPAIN	152
MARBOLZ VETROSTILE SA DE CV	MEXICO	148
MATODI	USA	143, 150, 155
MAVHISA S.A.DE C.V.	MEXICO	148
MC DIAM SP.Z O.O.	POLAND	149
MCS TECHNO	POLAND	149
MD COAT SP. ZOO	POLAND	149
MEGA ENTERPRISE FZCO	IRAN	146
MEKANIKA SP. Z.O.O.	POLAND	149
MERAN	RUSSIA	150
MOTECH MACHINERY SERVICE	THAILAND	153
MPM - MARC PREVOST MACHINERY INC.	CANADA	143
MUNIZ REPRESENTACOES	BRAZIL	143
NFK GLAZING & INDUSTRIAL SUPPLIES	AUSTRALIA	142
NINH SERVICE & TRADING DIVISION - HOANG SON CO. LTD	VIETNAM	155
OMAN	UAE	149
OPTIMA NORTH AMERICA INC.	CANADA	143, 155
OPTIMA SOFTWARE S.L.	SPAIN	152
OPTIMA SOFTWARE (TIANJIN) CO. LTD.	CHINA	144
OSAMU EIRL	PERU	142, 149
OUFENG TRADING (HANGZHOU) CO LTD	CHINA	144
OVERSEAS GLASS AGENCIES	AUSTRALIA	142, 148
P.A.L. GLASS MACHINERY LTD	UNITED KINGDOM	147, 154
PACARD SAS	FRANCE	141, 145, 153
PER MORDT A/S	NORWAY	146, 148, 152
PETER HAWKINS LTD.	UNITED KINGDOM	147, 154
PIETERMAN GLASTECHNIEK / THE NETHERLANDS	THE NETHERLANDS	153
PIETERMAN GLASTECHNIEK NV - BELGIUM	BELGIUM	142
PRISMA SA	GREECE	146
PRO-GLAS	AUSTRIA	142, 146, 152
PROJECTA GROUP / GLASTECH	FINLAND	145

Companies	State	Pag
PROJECTA GROUP / GLASTECH	ESTONIA	145
PROMAC	UNITED KINGDOM	147, 154
PROTECH COLOMBIA	COLOMBIA	144, 148, 155
PROVIGLASS	MEXICO	148
QUANEX - INSULATING GLASS SYSTEMS	USA	155
R. MEYER SL	SPAIN	152
SALEM DISTRIBUTING COMPANY INC.	USA	155
SDC IC VE DIS TICARET LTD. STI.	TURKEY	153
SHENYANG HELIOS TECH. CO. LTD	CHINA	144
SINCHRIJO AGENTURER AB	SWEDEN	145, 146, 147, 149, 152
SOLUTEC GLASS	SPAIN	149, 152
SORGLAS LTD	TURKEY	153
STAR JET MIDDLE EAST	EGYPT	144
STEFANOS THEMELIS	GREECE	146
STONE AND GLASS GROUP	UNITED KINGDOM	154
TECNOCRISA SA - TECNOLOG A CRISTALERA AUSTRIACA	SPAIN	152
TEKNIKA	CZECH REPUBLIC	144
TEKVIMO	SPAIN	141, 149, 152
TGM CO. LTD - TOKYO GLASS MATERIALS	JAPAN	147
THE GLASS MACHINERY COMPANY LTD	UNITED KINGDOM	154
THORNGATE SALES	INDIA	146
USE ELECTRONICS CO. LTD. / HEADQUARTERS	TAIWAN	153
USE ELECTRONICS CO. LTD. / THAILAND	THAILAND	153
VETRO MÁQUINAS LTDA	BRAZIL	143
YICHEN INFORMATION TECHNOLOGY CO. LTD.	CHINA	144, 148, 151
YKC - YOUNG KYUNG CO. LTD.	SOUTH KOREA	151

## ALBANIA

### ARVIS SH. P. K.

Lagja N° 4, Rruga Skenderbej  
2001-2009 Durres  
Albania  
Tel.: +355-684097550  
E-mail: islam.isufaj@arvis.al  
[www.arvis.al](http://www.arvis.al)

Agent for: **Keraglass, Forel**

### BELLUCCI SRL

Via Umbria, 3  
Terni - Italy  
E-mail: belluccisrl@hotmail.it  
Agent for: **Schiatti**

### EDGETECH EASTERN EUROPE / MR. GEORG JANIK

Poland  
E-mail: g.janik@edgetech-europe.com  
Agent for: **Edgetech**

### ESTE TEAM D. O. O.

Dzona Kenedija 20  
11070 New Belgrade - Serbia  
E-mail: office@esteteam.net  
Agent for: **Adelio Lattuada**

## ALGERIA

### ART MED SRL

15, Rue Sadok Tebourski  
2073 Borj Louzir, Ariana - Tunisia

E-mail: artmed.tn@gmail.com

Agent for: **Keraglass**

### PACARD SAS

1200 Route des Lucioles  
Espace Beethoven B3 - Sophia Antipolis  
06560 Valbonne - France  
E-mail: pacard@pacard.fr  
Agent for: **Adelio Lattuada**

## ANDORRA

### TEKVIMO - PLADENEX S.L.

Avda Diagonal, 534, 1º-1ª  
08006 Barcelona - Spain  
E-mail: jacinto.mora@tekvimo.es  
Agent for: **Edgetech**

## ANGOLA

### JLE - J. LEMOS ESTEVES LDA

Rua Soprem - Estacao Apartado 79  
2430-132 Marinha Grande - Portugal  
E-mail: info@jlemosestev.es  
Agent for: **Adelio Lattuada**

## ARGENTINA

### CASA FIGINI

J. A. Cabrera 3183  
C.P.1186 - Buenos Aires - CAP. FED.  
Argentina

Tel.: +54-11-49619027

Fax: +54-11-49619027

E-mail: info@casafigini.com

[www.casafigini.com](http://www.casafigini.com)

Agent for: **Forel**

### GIL BARBARA SRL

Libertad 4362  
1604 Florida - Prov. Buenos Aires  
Argentina  
Tel.: +54-11-47618700  
Fax: +54-11-47618700  
E-mail: gilbarbara@gilbarbara.com.ar  
[www.gilbarbara.com.ar](http://www.gilbarbara.com.ar)

Agent for: **BDT - Bovone Diamond Tools, Bovone Elettromeccanica**

### GLASSTEK MAQUINARIA PARA TRABAJAR VIDRIO

Av. Lima 1048 - Barranco - Lima 4 - Perú  
E-mail: info@glasstek.org  
Agent for: **Adelio Lattuada**

## AUSTRALIA

### A+W SOFTWARE AUSTRALIA

Level 1 - 37 Brandl Street  
Eight Mile Plains QLD4113 - Australia  
[www.a-w.com](http://www.a-w.com)  
Agent for: **A+W Software**

### DIAMUT AUSTRALIA

3 Widemere Road  
2164 Wetherill Park - NSW  
Australia

Tel.: +61-2-96095355  
 Fax: +61-2-96094291  
 E-mail: andrea.camilloni@diamut.com  
 [www.diamut.com](http://www.diamut.com)  
**Agent for: Diamut**

## ELEGANT I.G. SUPPLYLINE

Unit T6 - 25 Narabang Way  
 Belrose NSW 2085 Sydney  
 Australia  
 Tel.: +61-2 94736500  
 Fax: +61-2-94736509  
 E-mail: office@elegantig.com.au  
 [www.elegantig.com.au](http://www.elegantig.com.au)  
**Agent for: Edgetech**

## INTERMAC AUSTRALIA

3 Widemere Road  
 Wetherill Park NSW 2164  
 Australia  
 Tel.: +61-2-96095355  
 Fax: +61-2-96094291  
 E-mail: nsw@biesseaustralia.com.au  
 [www.intermacaustralia.com.au](http://www.intermacaustralia.com.au)  
**Agent for: Intermac**

## LISEC AUSTRALIA PTY LIMITED

78-81/23 Narabang Way  
 2085 Belrose NSW  
 Australia  
 Tel.: +61-2-94858900  
 Fax: +61-2-94858909  
 E-mail: sales-australia@lisec.com  
 [www.lisec.com](http://www.lisec.com)  
**Agent for: Lisec**

## NFK GLAZING & INDUSTRIAL SUPPLIES

28 Devlan Street  
 Mansfield QLD 4122  
 Australia  
 Tel.: +61-7-33433377  
 Fax: +61-7-33436877  
 E-mail: sales@nfk.com.au  
 [www.nfk.com.au](http://www.nfk.com.au)  
**Agent for: BDT - Bovone Diamond Tools**

## OVERSEAS GLASS AGENCIES

138-140 Malcom Road  
 Braeside VIC 3195  
 Australia  
 Tel.: +61-3-95872488  
 Fax: +61-3-95872688  
 E-mail: enquires@oga.com.au  
 [www.oga.com.au](http://www.oga.com.au)  
**Agent for: Adelio Lattuada, Mappi, Forel**

## AUSTRIA

### FÜLDNER MACHINES BV

De Koumen 116  
 Parkstad 8781  
 6433 KE Heerlen - The Netherland  
 E-mail: info@fuldner.nl  
**Agent for: Adelio Lattuada**

## GMG VERTRIEBS GMBH

Anton-Reichel-Strasse 16  
 A-9300 St. Veit/Glan - Austria  
 Tel.: +43-4212-28311  
 Fax: +43-4212-283114  
 E-mail: office@gmg-austria.com  
 [www.gmg-austria.com](http://www.gmg-austria.com)  
**Agent for: Adi**

## K&K PROVITRUM GMBH

Färberstraße 8 - 2540 Bad Vöslau  
 Austria  
 Tel.: +43-2252-25121412  
 Fax: +43-2252-25121420  
 E-mail: harald.kraus@kkprovitrum.at  
 [www.kkprovitrum.at](http://www.kkprovitrum.at)  
**Agent for: Adi, Schiatti, Ashton Industrial Sales**

## LECHNER SRL

Piazza della Libertà, 7/15  
 Arquata Scrivia - Italy  
 E-mail: lechner@lechner-srl.com  
**Agent for: Mazzaroppi Engineering**

## PRO-GLAS

Kurstraße 6 - 6323 Bad Häring  
 Austria  
 Tel.: +43-699-12212232  
 E-mail: sales@pro-glas.at  
 [www.pro-glas.at](http://www.pro-glas.at)  
**Agent for: Forel**

## BAHRAIN

## GULF STAR INTERNATIONAL

P.O. BOX 8545 - SAIF Zone  
 SHARJAH, Q4-296 - UAE  
 Bahrain  
 E-mail: info@gulfstarintl.com  
**Agent for: Schiatti**

## IBA MIDDLE EAST FZE

PO BOX 261193 - Jebel Ali  
 Dubai - UAE  
 E-mail: sudip@iba-me.com  
**Agent for: Keraglass**

## JOLICO TRADING

PO Box 329455  
 AE Ras Al Khaimah - UAE  
**Agent for: Adelio Lattuada**

## BELARUS

## EDGETECH EASTERN EUROPE / MR. GEORG JANIK

Poland  
 E-mail: g.janik@edgetech-europe.com  
**Agent for: Edgetech**

## IDELIS UAB

Pelesos Str. 3 - 02115 Vilnius - Lithuania  
 E-mail: info@idelis.lt  
**Agent for: Forel**

## BELGIUM

### FÜLDNER MACHINES BV

De Koumen 116 - Parkstad 8781  
 6433 KE Heerlen - The Netherland  
 E-mail: info@fuldner.nl  
**Agent for: Adelio Lattuada, Mappi**

### PIETERMAN GLASTECHNIEK NV - BELGIUM

Schemkensstraat 1  
 3583 Paal-Beringen  
 Belgium  
 Tel.: +32-11-421775  
 Fax: +32-11-420792  
 E-mail: sales@pgv-be.com  
 [www.pieterman-glastechniek.be](http://www.pieterman-glastechniek.be)  
**Agent for: BDT - Bovone Diamond Tools, Bovone Elettromeccanica, Schiatti, Forel**

## BOLIVIA

### HECMAQ SAC

Calle Carlos Mellet 929  
 Chorrillos - Lima 09 - Perú  
 E-mail: hecmaq@hecmaq.com  
**Agent for: Schiatti**

### OSAMU - ORLANDO KHIARA

Merino 195 - San Isidro - Lima 27 - Perú  
 E-mail: osamukihara@hotmail.com  
**Agent for: Forel**

## BOSNIA AND HERZEGOVINA

### ESTE TEAM D. O. O.

Dzona Kenedija 20  
 11070 New Belgrade - Serbia  
 E-mail: office@esteteam.net  
**Agent for: Adelio Lattuada**

### GLASMIK DOO

Ulica 9 Septembra, 236A  
 5290 Sempeter pri Gorici - Slovenia  
**Agent for: Mappi, Schiatti, Edgetech, Forel**

## BRAZIL

### BOTTERO DO BRASIL

Rua George Rexroth, 609 Bi.f Cj.01  
 Jd. Padre Anchieta  
 09951-270 Diadema - Sao Paulo  
 Brazil  
 Tel.: +55-11-40723031  
 Fax: +55-11-40771619  
 E-mail: sales.br@bottero.com  
 [www.bottero.com](http://www.bottero.com)  
**Agent for: Bottero**



## BOVONE MÁQUINAS E EQUIP. INDUSTRIAIS LTDA

Rua Serra do Japi - Villa Nova  
Gomes Tuatapé  
Sao Paulo - SP 3309000 - Brazil  
Tel.: +55-11-20812995  
E-mail: wadih@bovonebrasil.com.br

**Agent for: BDT - Bovone Diamond Tools, Bovone Elettromeccanica**

## DIAMUT BRASIL

Rua Liege 122  
Vila Vermelha, Sao Paulo - Brazil  
Tel.: +55-11-23513939  
E-mail: diamutbrasil@diamut.com  
[www.diamut.com](http://www.diamut.com)

**Agent for: Diamut**

## GUSMAO REPRESENTAÇÕES

Rua dos Sifiantes, 241  
02737-000 Freguesia do O' - São Paulo  
Brazil  
Tel.: +55-11-39982025  
Fax: +55-11-39912020  
E-mail: gusmao@gusmao.com.br

[www.gusmao.com.br](http://www.gusmao.com.br)

**Agent for: Schiatti**

## INTERMAC BRASIL

Rua Liege 122  
Vila Vermelha, 04298-070 São Paulo - Brazil  
Tel.: +55-11-23513939  
Fax: +55-11-23513939  
E-mail: intermac.sales@intermac.com

**Agent for: Intermac**

## ITALOTEC - TECHNICAL ASSISTANCE

Rua Conde de Barca 19  
02840-080 Freguesia do O' - São Paulo  
Brazil  
Tel.: +55-11-30170930  
Fax: +55-11-39235519

**Agent for: Schiatti**

## KERAGLASS SOUTH AMERICA DO BRASIL LTDA

Rua Arturo Fogoso Nieves, 141  
Jardim Gumerindo - Guarulhos - SP  
Brazil  
Tel.: +55-11-55320743  
E-mail: southamerica@keraglass.com

[www.keraglass.com](http://www.keraglass.com)

**Agent for: Keraglass**

## MUNIZ REPRESENTACOES

Rua Quixeramobim, 15  
Bairro: Pq Uirapurú  
07230-440 - Guarulhos - SP  
Brazil  
Tel.: +55-119-64385588  
E-mail: genilson@munizrepresentacoes.com.br

**Agent for: Keraglass, Forel**

## VETRO MÁQUINAS LTDA

Rua Juquis 287, sala 04  
04081-010 Sao Paulo - SP - Brazil  
Tel.: +55-11-50416688

Fax: +55-11-40759026  
E-mail: vetromaquinas@vetromaquinas.com.br  
[www.vetromaquinas.com.br](http://www.vetromaquinas.com.br)  
**Agent for: Optima**

## BULGARIA

### ESTE TEAM D. O. O.

Dzona Kenedija 20  
11070 New Belgrade - Serbia  
E-mail: office@esteteam.net  
**Agent for: Adelio Lattuada**

### GLASMIK DOO

Ulica 9 Septembra, 236A  
Vrtojba  
5290 Sempeter pri Gorici - Slovenia  
**Agent for: Mappi, Schiatti, Edgetech**

## CAMBODIA

### BOTTERO GLASS INDUSTRY CO. LTD.

Room 501, B Block, No.568 Huaxu Road  
Qingpu District, Shanghai - China  
E-mail: sales.cn@bottero.com  
**Agent for: Bottero**

### EUROTECHCORP

No 192/8 Tam Trinh Street  
Yen so Ward, Hoang Mai District  
Hanoi City - Vietnam  
**Agent for: Adelio Lattuada, Mappi**

## CANADA

### BOTTERO FLAT GLASS INC.

257 Gretas Way Suite 100  
NC 27284 Kernersville - USA  
E-mail: sales.us@bottero.com  
**Agent for: Bottero**

### DROLET EQUIPEMENT

2665 Terra Jet  
St-Cyrille-De-Wendover - Qc J17 1b3  
Canada  
Tel.: +1-819-4742149  
Fax: +1-819-4747909  
E-mail: info@droletmachinerie.com  
[www.drolet-equipementcnc.com](http://www.drolet-equipementcnc.com)  
**Agent for: Schiatti**

### INTERMAC CANADA

18005 Rue Lapointe - Mirabel Qc J7j 0g2  
Canada  
Tel.: +1-877-8-BIESSE  
Fax: +1-450-4372859  
E-mail: sales@biessecanada.com  
[www.biessecanada.com](http://www.biessecanada.com)  
**Agent for: Intermac**

### MATODI

7206 Cessna Drive  
27409 Greensboro, NC - USA

E-mail: sales@matodiusa.com  
**Agent for: Keraglass**

## MPM - MARC PREVOST MACHINERY INC.

3875, Boulevard Saint Jean Baptiste  
Montreal Quebec H1B 5V4  
Canada  
Tel.: +1-514-6404040  
Fax: +1-514-6405454  
E-mail: info@mpm.ca  
[www.mpm.ca](http://www.mpm.ca)  
**Agent for: Adelio Lattuada**

## OPTIMA NORTH AMERICA INC.

7860 Grenache, suite 200  
Montreal, QC H1J 1C3  
Canada  
Tel.: +1-514-6458998  
Fax: +1-514-6458558  
E-mail: sales@optima-america.com  
**Agent for: Optima**

## CABO VERDE

### JLE - J. LEMOS ESTEVES LDA

Rua Soprem - Estacao Apartado 79  
2430-132 Marinha Grande - Portugal  
E-mail: info@jlemosestev.es  
**Agent for: Adelio Lattuada**

## CHILE

### DIAMANCHILE

22 Norte 1125 Depto. 502  
Viña del Mar  
Chile  
Tel.: +56-32-2974509  
Fax: +56-32-2974509  
E-mail: diamanchile@yahoo.es  
**Agent for: Forel**

## GLASSTEK MAQUINARIA PARA TRABAJAR VIDRIO

Av. Lima 1048 - Barranco  
Lima 4 - Perú  
E-mail: info@glasstek.org  
**Agent for: Adelio Lattuada**

## CHINA

### BOTTERO GLASS INDUSTRY CO. LTD.

Room 501, B Block, No.568 Huaxu Road  
Qingpu District, Shanghai  
China  
Tel.: +86-21-58682400  
Fax: +86-21-64274666  
E-mail: sales.cn@bottero.com  
[www.bottero.com](http://www.bottero.com)  
**Agent for: Bottero**

## HELIOS QUARTZ ASIA LTD.

Suite 3401, 34/F., One Taikoo Place  
979 King's Road - Quarry Bay,  
Hong Kong - China  
Tel.: +852-132-38830625  
E-mail: asia@heliosquartz.com  
 [www.heliosquartz.com](http://www.heliosquartz.com)  
Agent for: **Helios Quartz**

## INTERMAC CHINA

Zone E, Chashan Industrial Park  
Chashan Town - Dongguan City, Guangdong  
China  
Tel.: +86-769-88658999  
Fax: +86-769-88658993  
E-mail: intermac@biesse-china.com.cn  
Agent for: **Intermac**

## LISEC SHANGHAI TRADING CO. LTD

6th Floor, Building 8, No 928, Mingzhu Rd.  
Xujing Town, Qingpu District  
201702 Shanghai - China  
Tel.: +86-21-60730055  
Fax: +86-2169210077  
E-mail: officecn@lisc.com  
 [www.lisc.com](http://www.lisc.com)  
Agent for: **Lisc**

## OPTIMA SOFTWARE (TIANJIN) CO. LTD.

Building C12, Venture Headquarter Base Fuyuan  
Road, Wuqing develop. area  
301700 Tianjin - China  
Tel.: +86-22 82176860  
Fax: +862282176861  
E-mail: sales@optima-software.cn  
 [www.optima-software.cn](http://www.optima-software.cn)  
Agent for: **Optima**

## OUFENG TRADING (HANGZHOU) CO LTD

1-804, Twin Tower · 168 Chaohui Road  
310014 Hangzhou  
China  
Tel.: +86-571-85889539  
Fax: +86-571-85889539  
E-mail: qin.wang@dtmthz.cn  
Agent for: **HEGLA**

## SHENYANG HELIOS TECH. CO. LTD

Building A, 1506 Midland Tower. No.208  
Changjiang S.St.  
Huanggu District, Shenyang  
China  
Tel.: +86-24-31653319  
E-mail: china@heliosquartz.com  
 [www.heliosquartz.com](http://www.heliosquartz.com)  
Agent for: **Helios Quartz**

## YICHEN INFORMATION TECHNOLOGY CO. LTD.

Room 702 - No. 73 - 1028 XiuYan Road  
KangQiao  
Pudong - Shanghai  
China  
Agent for: **A+W Software**

## COLOMBIA

### DISTRIBUIDORA CADICOL SAS

Avenida Calle 145 No. 19 - 59 Edificio  
Tiquiza Oficina 71 - Bogotá  
Colombia  
Tel.: +57-3167531917  
E-mail: distribuidoracadicol@hotmail.com  
Agent for: **Schiatti**

### GLASSTOOLS DE COLOMBIA LTDA

Carrera 65 No. 94-14 - 111121 Bogotá DC  
Colombia  
Tel.: +57-1-6240122  
Fax: +57-1-6432940  
E-mail: administracion@glasstools.com.co  
 [www.glasstools.com.co](http://www.glasstools.com.co)  
Agent for: **Adelio Lattuada, Mappi**

### PROTECH COLOMBIA

Cr. 62 no.74-61 ap.14 - Baranquilla  
Colombia  
Tel.: +57-301-5412688  
Agent for: **Keraglass**

## CROATIA

### ESTE TEAM D. O. O.

Dzona Kenedija 20  
11070 New Belgrade - Serbia  
E-mail: office@esteteam.net  
Agent for: **Adelio Lattuada**

### GLASMIK DOO

Ulica 9 Septembra, 236° - Vrtojba  
5290 Sempeter pri Gorici - Slovenia  
Agent for: **Mappi, Schiatti Forel**

## CYPRUS

### CORPOTRADE CYPRUS LTD.

PO Box 42687 - 6501 Larnaca  
Cyprus  
Tel.: +357-24-822833  
Fax: +357-24-822800  
E-mail: charlesmaalouf@corptrade.com  
 [www.corptrade.com](http://www.corptrade.com)  
Agent for: **Bovone Elettromeccanica, A+W Software**

## CZECH REPUBLIC

### EWCOO S.R.O.

Svermova 268/76 - 460 10 Liberec  
Czech Republic  
Tel.: +420-603 480148  
E-mail: info@ewcoo.com  
 [www.ewcoo.com](http://www.ewcoo.com)  
Agent for: **Edgetech**

## IMPRA SPOL SRO

Reinerova 710/21 - 16300 Praha 6 - Repy  
Czech Republic  
Tel.: +420-2-35301504  
Fax: +420-2-35300976  
E-mail: info@impra.cz  
 [www.impra.cz](http://www.impra.cz)  
Agent for: **Schiatti**

## ITALCOMMA SLOVAKIA

Dolné Rudiny 1 - 01001 Zilina - Slovakia  
E-mail: italconma@italcomma.sk  
Agent for: **Adelio Lattuada**

## TEKNIKA

Jirankova 329/31  
618 00 Brno  
Czech Republic  
 [www.teknika-cz.cz](http://www.teknika-cz.cz)  
Agent for: **Bovone Elettromeccanica**

## DENMARK

### DMT DIAMANT & MASKIN-TEKNIK APS

Merkurvej 2B - 7430 - Ikast  
Denmark  
Tel.: +45-28512820  
E-mail: kontor@dm-t.dk  
 [dm-t.dk](http://dm-t.dk)  
Agent for: **Bovone Elettromeccanica**

### GLAS X GLASTEKNIK

Hulvejen 13 - 7500 Holstebro  
Denmark  
Tel.: +45-28921201  
E-mail: glasx@live.dk  
Agent for: **Schiatti**

## ECUADOR

### GLASSTEK MAQUINARIA PARA VIDRIO

Av. Lima 1048 - Barranco - Lima 4 - Perú  
E-mail: info@glasstek.org

Agent for: **Adelio Lattuada**

### PROTECH COLOMBIA

Cr. 62 no.74-61 ap.14  
Baranquilla - Colombia  
E-mail: paacol@hotmail.it  
Agent for: **Keraglass**

## EGYPT

### STAR JET MIDDLE EAST

City Syars Tower - Tower 4  
Floor 3 - Office 7 - Central Road  
6th of October City - Cairo - Egypt  
Tel.: +20-382-44533  
E-mail: khaled.salah@starjetme.com  
Agent for: **Keraglass**

## ESTONIA

### IDELIS UAB

Pelesos Str. 3 - 02115 Vilnius - Lithuania  
E-mail: info@idelis.lt  
**Agent for: Forel**

### PROJECTA GROUP / GLASTECH

Kesk Tee 23 - Aaviku Küla  
75305 Harjumaa  
Estonia  
Tel.: +372-6381014  
Fax: +372-6381015  
E-mail: projecta@projecta.ee  
**www.projecta.ee**  
**Agent for: Adelio Lattuada, Keraglass**

### SINCHRIJO AGENTURER AB

Smaltaregatan 6 - Hoganas - Sweden  
E-mail: info@sinchrijo.com  
**Agent for: Edgetech**

## FINLAND

### A. PALOJOKI OY

Sienitie 17 - 00760 Helsinki  
Finland  
Tel.: +358-9-3508110  
Fax: +358-9-3508118  
E-mail: asiakaspalvelu@a-palojoki.fi  
**www.a-palojoki.fi**  
**Agent for: BDT-Bovone Diamond Tools**

### PROJECTA GROUP / GLASTECH

Lukkosepäntätkatu 14 - 20321 Turku  
Finland  
Tel.: +358-20-77130  
E-mail: glastech@glastech.fi  
**www.projecta.fi**  
**Agent for: Adelio Lattuada, Keraglass Forel**

### SINCHRIJO AGENTURER AB

Smaltaregatan 6 - Hoganas - Sweden  
E-mail: info@sinchrijo.com  
**Agent for: Edgetech**

## FRANCE

### A+W SOFTWARE FRANCE

62 Avenue des Frères Montgolfier  
69740 Genas  
France  
Tel.: +33-4-72236860  
**www.a-w.com**  
**Agent for: A+W Software**

### BOTTERO FRANCE

Route de la Baronne 218  
ZI du Fongéri Bât. B - 06640 St. Jeannet  
France  
Tel.: +33-4-93088760  
Fax: +33-4-93088759  
E-mail: sales.fr@bottero.com  
**Agent for: Bottero**

### CILPAK INFORMATIQUE

2, rue de Paris  
94100 Saint Maur des Fossés  
France  
Tel.: +33-1-48896016  
Fax: +33-1-48892693  
E-mail: paris@cilpak.com  
**www.cilpak.fr**  
**Agent for: Optima**

### COVADIS SARL

295 Rue Du Trident - Za Via Domitia  
34740 Vendargues  
France  
Tel.: +33-4-67594066  
Fax: +33-4-67591030  
E-mail: contact@covadis.eu  
**www.covadis.eu**  
**Agent for: Adi, Schiatti**

### CVMI SARL - CLAUDE VRIGNAUD

5 Chemin du Jubin - 69570 Dardilly  
France  
Tel.: +33-4-72163490  
Fax: +33-4-72163491  
E-mail: claudevignaud@wanadoo.fr  
**www.cvmifrance.fr**  
**Agent for: BDT - Bovone Diamond Tools, Bovone Elettromeccanica**

### DIAMUT FRANCE

4 chemin de Moninsable - Brignais  
France  
Tel.: +33-4-78967329  
Fax: +33-4-78967330  
E-mail: jean.muller@diamut.com  
**www.diamut.com**  
**Agent for: Diamut**

### DUMATEK SARL

1214, Avenue de Vaugrenier  
06270 Villeneuve Loubet  
France  
Tel.: +33-5-46880266  
Fax: +33-5-46415922  
E-mail: dumatek@dumatek.fr  
**www.dumatek.fr**  
**Agent for: Mappi, Forel**

### EDGETECH SOUTHERN EUROPE

France  
Tel.: +33-687-689654  
E-mail: a.monribot@edgetech-europe.com  
**Agent for: Edgetech**

### HEGLA FRANCE S.A.R.L.

Zone les Terrasses de la Sarre  
4 Terrasse Bretagne - 57400 Sarrebourg  
France  
Tel.: +33-3-88910101  
Fax: +33-3-88910505  
E-mail: hegla.france@heglafrance.com  
**Agent for: HEGLA**

### INTERMAC FRANCE

4 Chemin de Moninsable  
F-69530 Brignais - France  
Tel.: +33-4-78967329

Fax: +33-4-78967330  
E-mail: commercial@intermacfrance.com  
**Agent for: Intermac**

### PACARD SAS

1200 Route des Lucioles  
Espace Beethoven B3 - Sophia Antipolis  
06560 Valbonne - France  
Tel.: +33-4-92901368  
Fax: +33-545957477  
E-mail: pacard@pacard.fr  
**www.pacard.fr**  
**Agent for: Adelio Lattuada**

## GERMANY

### BOTTERO GMBH

Marie Curie Strasse 7 - D-41515 Grevenbroich  
Germany  
Tel.: +49-2181-81930  
Fax: +49-2181-819393  
E-mail: sales.de@bottero.com  
**Agent for: Bottero**

### DIAMUT DEUTSCHLAND

Gewerbestraße 6a - 89275 Elchingen  
Germany  
Tel.: +43-660-6180726  
Fax: +49-5731-7448711  
E-mail: martin.harucksteiner@diamut.com  
**Agent for: Diamut**

### DTS HANDELSGESELLSCHAFT MBH

Gingterkamp 86 - 41069 Mönchengladbach  
Germany  
Tel.: +49-2161-573180  
Fax: +49-2161-5731879  
E-mail: info@dts-diamantwerkzeuge.de  
**www.dts-diamantwerkzeuge.de**  
**Agent for: Adi, Schiatti**

### FÜLDNER MACHINES BV

De Koumen 116 - Parkstad 8781  
6433 KE Heerlen - The Netherland  
E-mail: info@fuldner.nl  
**Agent for: Adelio Lattuada**

### GLASTECHNIK HOLGER KRAMP GMBH

Albert-Einstein-Strasse 18  
D-23617 Stockelsdorf  
Germany  
Tel.: +49-451-499690  
Fax: +49-451-4996949  
E-mail: info@glastechnik.com  
**www.glastechnik.com**  
**Agent for: BDT - Bovone Diamond Tools, Bovone Elettromeccanica**

### HEGLA MASCHINENBAU GMBH & CO.

Industriering 5 - 06712 Kretzschau  
Germany  
Tel.: +49-34425-5010  
Fax: +49-34425-50129  
E-mail: info@kretzschau.hegla.de

 [www.hegla.de](http://www.hegla.de)  
Agent for: **HEGLA**

## INTERMAC DEUTSCHLAND

Brückenstraße 101 - 32584 Löhne  
Germany  
Tel.: +49-5731-744870  
E-mail: [info@intermacdeutschland.de](mailto:info@intermacdeutschland.de)  
Agent for: **Intermac**

## KMS E.K.

Schulze-Delitzsch-Weg 4  
21717 Fredenbeck  
Germany  
Tel.: +49-4149-9338011  
Fax: +49-4149-9339696  
E-mail: [info@kms-glas.de](mailto:info@kms-glas.de)  
 [kms-glas.de](http://kms-glas.de)  
Agent for: **Adi**

## LECHNER SRL

Piazza della Libertà, 7/15  
Arquata Scrivia - Italy  
E-mail: [lechner@lechner-srl.com](mailto:lechner@lechner-srl.com)  
Agent for: **Mazzaroppi Engineering**

## LISEC DEUTSCHLAND GMBH

Osterholzstrasse 124  
D-34123 Kassel  
Germany  
Tel.: +49-561-570570  
Fax: +49-561-5705740  
E-mail: [info-deutschland@lisc.com](mailto:info-deutschland@lisc.com)  
 [www.lisc.com](http://www.lisc.com)  
Agent for: **Lisc**

## PRO-GLAS

Kurstraße 6  
6323 Bad Häring - Austria  
E-mail: [sales@pro-glas.at](mailto:sales@pro-glas.at)  
Agent for: **Forel**

## GREECE

### DG TECH GEORGE DIKAIOS

Megalopoleos 11C - 15236 Penteli  
Greece  
Tel.: +30-210-8035751  
Fax: +30-210-8035753  
E-mail: [georgedikaios@dgtech.gr](mailto:georgedikaios@dgtech.gr)  
 [www.dgtech.gr](http://www.dgtech.gr)  
Agent for: **Bovone Elettromeccanica**

### PRISMA SA

Entrance C - Block 37, NB7 Road  
Industrial Area of Thessaloniki  
57400 Sindos - Thessaloniki  
Greece  
Tel.: +30-2310-777777  
Fax: +30-2310-777778  
E-mail: [sales@prismaglass.gr](mailto:sales@prismaglass.gr)  
Agent for: **Optima**

### STEFANOS THEMELIS

141D, Sof. Venizelou Str.  
15231 - Halandri - Athens  
Greece

Tel.: +30-213-0693067  
Fax: +30-210-672415  
E-mail: [stefanos.themelis@gmail.com](mailto:stefanos.themelis@gmail.com)  
Agent for: **Schiatti**

## GUINEA BISSAU

### JLE - J. LEMOS ESTEVES LDA

Rua Soprem - Estacao Apartado 79  
2430-132 Marinha Grande - Portugal  
Guinea Bissau  
E-mail: [info@jlemosestev.es](mailto:info@jlemosestev.es)  
Agent for: **Adelio Lattuada**

## HUNGARY

### ESTE TEAM D. O. O.

Dzona Kenedija 20  
11070 New Belgrade - Serbia  
E-mail: [office@esteteam.net](mailto:office@esteteam.net)  
Agent for: **Adelio Lattuada**

### IMROGLASS SRL

Str. Alexandru Ioan Cuza 50  
510193 Alba Iulia - Jud Alba - Romania  
E-mail: [info@imroglass.ro](mailto:info@imroglass.ro)  
Agent for: **Edgetech, Forel**

### K&K PROVITRUM GMBH

Färberstraße 8 - 2540 Bad Vöslau - Austria  
E-mail: [info@kkprovitrum.at](mailto:info@kkprovitrum.at)  
Agent for: **Schiatti**

## ICELAND

### PER MORDT A/S

Oestensjoeveien 18  
0661 Oslo - Norway  
E-mail: [post@permordt.no](mailto:post@permordt.no)  
Agent for: **Adelio Lattuada**

### SINCHRIJO AGENTURER AB

Smaltaregatan 6  
Hoganas - Sweden  
E-mail: [info@sinchrijo.com](mailto:info@sinchrijo.com)  
Agent for: **Edgetech**

## INDIA

### GGTS - GLOBAL GLASS TECHNICAL SOLUTION

50, First Floor - Bharat Nagar  
New Friends Colony  
110025 - New Delhi  
India  
Tel.: +91-11-32658762  
E-mail: [rashid.khan@ggts.in](mailto:rashid.khan@ggts.in)  
 [www.ggts.in](http://www.ggts.in)  
Agent for: **Adelio Lattuada**

## HEGLA TRADING & SERVICE GMBH - INDIA BRANCH OFFICE

44 Veerabadrán Street, Nungambakkam  
600034 Chennai - India  
Tel.: +91-80-56133113  
E-mail: [naresh.kumar@hegla.in](mailto:naresh.kumar@hegla.in)  
Agent for: **Hegla**

## INTERMAC INDIA

Survey No. 32, No. 469, Jakkasandra Village  
Sondekoppa Road, Nelamangala  
562 123 Bangalore - India  
Tel.: +91-80-49489801  
Fax: +91-80-49489810  
E-mail: [sales@biessemnfg.com](mailto:sales@biessemnfg.com)  
Agent for: **Intermac**

## THORNGATE SALES

05-117, WeWork, Zenia Building,  
Hiranandani Circle, Hiranandani Business  
400607 Thane - Mumbai  
India  
Tel.: +91-98201-59819  
Fax: +91-  
E-mail: [sales@thorngate.in](mailto:sales@thorngate.in)  
 <https://thorngate.in>  
Agent for: **Forel**

## INDONESIA

### D&S GLASS TECHNOLOGY SERVICES

Blk 3007 Ubi Road 1  
#02-446 Singapore 408701  
Indonesia  
E-mail: [seekksin@singnet.com.sg](mailto:seekksin@singnet.com.sg)  
Agent for: **Schiatti**

## IRAN

### JAHAN ATLAS TECH

No. 16 Yazdan Panah St.  
Resalat Highway - Teheran  
Iran  
Tel.: +98-21-26312912  
E-mail: [jahanatlass@yahoo.com](mailto:jahanatlass@yahoo.com)  
Agent for: **BDT - Bovone Diamond Tools**

### MEGA ENTERPRISE FZCO

No.5 Parvin St., Fatemi Ave. - Tehran  
Iran  
Tel.: +98-21-66941321  
Fax: +98-21-66941324  
E-mail: [hanieh@megafzco.com](mailto:hanieh@megafzco.com)  
Agent for: **Ashton Industrial Sales**

## IRAQ

### JOLICO TRADING

PO Box 329455  
AE Ras Al Khaimah - UAE  
Agent for: **Adelio Lattuada**

## IRELAND

### P.A.L. GLASS MACHINERY LTD

33 Hornsby Square  
Southfields Business Park  
Basildon Essex SS15 6SD - UK  
E-mail: sales@palmachinery.co.uk  
**Agent for: Adelio Lattuada, Mappi**

### PETER HAWKINS LTD.

Castle Lane  
Melbourne Derbyshire DE73 8JB - UK  
Ireland  
E-mail: info@phawkins.co.uk  
**Agent for: Schiatti**

### PROMAC

Unit 3b & 3c Hadrians Way  
Glebe Farm Ind. Estate  
Rugby Warwickshire CV21 1ST - UK  
E-mail: sales@promac.co.uk  
**Agent for: Mappi, Forel**

## ITALY

### EDGETECH SOUTHERN EUROPE - TOMMASO PASCUCCI

Via D. Minzoni 27 - 31022 Preganziol (TV)  
Italy  
Tel.: +39-320-6322008  
E-mail: t.pascucci@edgetech-europe.com  
**Agent for: Edgetech**

### FABIO ZUCAL

Via Roma 3 - 22070 Bregnano (CO)  
Italy  
Tel.: +39-334-5956212  
Fax: +39-031-772362  
E-mail: zucal.hegla@vodafone.it  
**Agent for: HEGLA**

### LECHNER SRL

Piazza della Libertà, 7/15  
15061 Arquata Scrivia (AL)  
Italy  
Tel.: +39-0143-637054  
Fax: +39-0143-700444555  
E-mail: lechner@lechner-srl.com  
[www.lechner-srl.com](http://www.lechner-srl.com)  
**Agent for: Mazzaroppi Engineering**

## JAPAN

### CORRENS CORPORATION

8-7 Roppongi 1- Chome  
MFPR Roppongi Azabudai building 3F  
Minato-ku - Tokyo 106-0032  
Japan  
Tel.: +81-3-51140711  
Fax: +81-3-35893234  
E-mail: sales@correns.co.jp  
[www.correns.co.jp](http://www.correns.co.jp)  
**Agent for: Bovone Elettromeccanica, A+W Software, Edgetech**

### TGM CO. LTD - TOKYO GLASS MATERIALS

5F Metlife Sanbancho Bldg.  
7-14 Sanbancho Chiyoda-ku  
102-0075 Tokyo  
Japan  
Tel.: +81-3-62611260  
Fax: +81-3-62611261  
E-mail: general@tgm-japan.com  
[www.tgm-japan.com](http://www.tgm-japan.com)  
**Agent for: Mappi, Optima, Forel**

## JORDAN

### HIET - HUDA INDUSTRIAL EQUIPMENT TRADING

Dubai Investment Park 2  
PO Box 73204 - Dubai - UAE  
E-mail: info@hiet-me.com  
**Agent for: Ashton Industrial Sales**

### JOLICO TRADING

PO Box 329455  
AE Ras Al Khaimah - UAE  
**Agent for: Adelio Lattuada**

### LANA INTERNATIONAL EST.

Sweifiyah- Alwakalat, St. Building no.13, 1st  
Floor - PO. Box 346 Marj Aihamam  
11732 Amman  
Jordan  
Tel.: +962-6-5810487  
Fax: +962-6-5810497  
E-mail: lanaco@orange.jo  
[www.facebook.com/pages/lana-international-est/1560190010871129?sk=info&tab=page\\_info](https://www.facebook.com/pages/lana-international-est/1560190010871129?sk=info&tab=page_info)  
**Agent for: Schiatti**

## KOSOVO

### ARVIS SH.P.K.

Lagja n° 4, Rruga Skenderbej  
2001-2009 Durrës - Albania  
Kosovo  
E-mail: islam.isufaj@arvis.al  
**Agent for: Keraglass**

### GLASMIK DOO

Ulica 9 Septembra, 236A  
Vrtojba  
5290 Sempeter pri Gorici - Slovenia  
**Agent for: Mappi, Schiatti, Edgetech, Forel**

## KUWAIT

### IBA MIDDLE EAST FZE

PO BOX 261193  
Jebel Ali - Dubai - UAE  
E-mail: sudip@iba-me.com  
**Agent for: Keraglass**

### JOLICO TRADING

PO Box 329455  
AE Ras Al Khaimah - UAE  
**Agent for: Adelio Lattuada**

## LATVIA

### IDELIS UAB

Pelesos Str. 3 - 02115 Vilnius - Lithuania  
Latvia  
E-mail: info@idelis.lt  
**Agent for: Forel**

### SINCHRIJO AGENTURER AB

Smaltaregatan 6  
Hoganas - Sweden  
E-mail: info@sinchrijo.com  
**Agent for: Edgetech**

## LEBANON

### CORPOTRADE S.A.R.L.

P.O. Box 50385 - Mekalles - Beirut  
Lebanon  
Tel.: +961-1-685999  
Fax: +961-1-684099  
E-mail: info@corpotrade.com  
[www.corpotrade.com](http://www.corpotrade.com)  
**Agent for: Mappi**

### JOLICO TRADING

PO Box 329455 - AE Ras Al Khaimah - UAE  
Tel.: +961-3-696311  
[jolicotrading.com](http://jolicotrading.com)  
**Agent for: Adelio Lattuada**

## LYBIA

### ART MED SRL

15, Rue Sadok Tebourski  
2073 Borj Louzir, Ariana - Tunisia  
E-mail: artmed.tn@gmail.com  
**Agent for: Keraglass**

## LITHUANIA

### IDELIS UAB

Pelesos Str. 3  
02115 Vilnius  
Lithuania  
Tel.: +370-5-2383391  
Fax: +370-5-2384009  
E-mail: info@idelis.lt  
[idelis.lt](http://idelis.lt)  
**Agent for: A+W Software, Forel**

### SINCHRIJO AGENTURER AB

Smaltaregatan 6  
Hoganas - Sweden  
Lithuania  
E-mail: info@sinchrijo.com  
**Agent for: Edgetech**

## LUXEMBOURG

### FÜLDNER MACHINES BV

De Koumen 116 - Parkstad 8781  
6433 KE Heerlen - The Netherland  
E-mail: info@fuldner.nl

Agent for: **Adelio Lattuada**

## MACEDONIA

### ARVIS SH.P.K.

Lagja n° 4, Rruga Skenderbej  
2001-2009 Durres - Albania  
E-mail: islam.isufaj@arvis.al

Agent for: **Keraglass**

### ESTE TEAM D. O. O.

Dzona Kenedija 20  
11070 New Belgrade - Serbia  
E-mail: office@esteteam.net

Agent for: **Adelio Lattuada**

### GLASMIK DOO

Ulica 9 Septembra, 236A - Vrtojba  
5290 Sempeter pri Gorici - Slovenia

Agent for: **Mappi, Schiatti, Edgetech, Forel**

## MALAYSIA

### D&S GLASS TECHNOLOGY SERVICES

Blk 3007 Ubi Road 1  
#02-446 Singapore 408701  
E-mail: seekksin@singnet.com.sg

Agent for: **Schiatti**

### EUROTECHCORP

No 192/8 Tam Trinh Street  
Yen so Ward, Hoang Mai District  
Hanoi City - Vietnam

Agent for: **Adelio Lattuada, Mappi**

### INTERMAC ASIA

No. 5 Jalan TPP3 - Taman Perindustrian Putra  
47130 Puchong Selangor  
Malaysia

Tel.: +60-3-40214843  
Fax: +60-3-80840056

Agent for: **Intermac**

### YICHEN INFORMATION TECHNOLOGY CO. LTD.

Room 702 - No.73 - 1028 XiuYan Road  
KangQiao - Pudong, Shanghai - China

Agent for: **A+W Software**

## MEXICO

### A+W SOFTWARE LATIN AMERICA

Calle 18, 315 - Col. Camara de Comercio Norte

97133 Merida  
Mexico  
Tel.: +52-9993713050

Agent for: **A+W Software**

### CERTECH IMPIANTI DE MÉXICO

Raúl Chapa Zarate #3234  
Colonia Buócratas Municipales  
64769 Monterrey, Nuevo León  
Mexico

Tel.: +52-81-83876270

Fax: +52-81-83876272

E-mail: ventas@certechmexico.com

 [www.certechmexico.com](http://www.certechmexico.com)

Agent for: **Keraglass**

### MARBOLZ VETROSTILE SA DE CV

Av. Lazaro Cardenas 1200  
Col. Alamo Industrial  
44490 Guadalajara - Jalisco  
Mexico

Tel.: +52-33-36662415

Fax: +52-33-36662630

E-mail: info@vetrostile.com

 [www.vetrostile.com](http://www.vetrostile.com)

Agent for: **Adi, Mappi**

### MAVHISA S.A.DE C.V.

Gabino Barreda 927  
Col. San Carlos  
Guadalajara - Jalisco  
Mexico

Tel.: +52-33-36192590

Fax: +52-33-36195747

E-mail: ventasint@mavhisa.com.mx

 [www.mavhisa.com.mx](http://www.mavhisa.com.mx)

Agent for: **Adelio Lattuada**

### PROVIGLASS

Calle 30 N° 2646 - Zona Industrial  
44940 Guadalajara - Jalisco  
Mexico

Tel.: +52-33-34418063

Fax: +52-33-31450028

E-mail: proviglass@yahoo.com.mx

Agent for: **Forel**

## MOLDAVIA

### IMROGLASS SRL

Str. Alexandru Ioan Cuza 50  
510193 Alba Iulia - Jud Alba - Romania  
E-mail: info@imroglass.ro

Agent for: **Edgetech, Forel**

## MONTENEGRO

### ESTE TEAM D. O. O.

Dzona Kenedija 20  
11070 New Belgrade - Serbia  
E-mail: office@esteteam.net

Agent for: **Adelio Lattuada**

## MOROCCO

### ART MED SRL

15, Rue Sadok Tebourski  
2073 Borj Louzir, Ariana - Tunisia  
E-mail: artmed.tn@gmail.com

Agent for: **Keraglass**

### PACARD SAS

1200 Route des Lucioles  
Espace Beethoven B3 - Sophia Antipolis  
06560 Valbonne - France  
E-mail: pacard@pacard.fr

Agent for: **Adelio Lattuada**

## MOZAMBIQUE

### JLE - J. LEMOS ESTEVES LDA

Rua Soprem - Estacao Apartado 79  
2430-132 Marinha Grande - Portugal  
Mozambique

E-mail: info@jlemosestev.es.pt

Agent for: **Adelio Lattuada**

## NEW ZEALAND

### GLASSCORP LTD.

124 Bush Road  
North Harbour Industrial Estate  
Albany, Auckland  
New Zealand

Tel.: +64-9-4156338

Fax: +64-9-4156339

E-mail: sales@glasscorp.co.nz

 [www.glasscorp.co.nz](http://www.glasscorp.co.nz)

Agent for: **Schiatti, Edgetech**

### INTERMAC NEW ZEALAND

7/519 Rosebank Road  
Avondale Auckland  
New Zealand

Tel.: +64-9-8200534

Fax: +64-9-8200968

E-mail: sales@biessennewzealand.co.nz

Agent for: **Intermac**

### OVERSEAS GLASS AGENCIES

138-140 Malcom Road  
Braeside VIC 3195 - Australia  
E-mail: enquires@oga.com.au

Agent for: **Mappi, Forel**

## NORWAY

### PER MORDT A/S

Oestensjoeveien 18  
0661 Oslo - Norway  
Tel.: +47-22-071770  
Fax: +47-22-649423  
E-mail: post@permordt.no

 [www.permordt.no](http://www.permordt.no)

Agent for: **Adelio Lattuada**

## SINCHRIJO AGENTURER AB

Småttaregatan 6 - Hoganas - Sweden  
E-mail: info@sinchrijo.com  
Agent for: **Edgetech**

## OMAN

### GULF STAR INTERNATIONAL

PO. BOX 8545- SAIF Zone  
Sharjah, Q4-296 - UAE  
E-mail: info@gulfstarintl.com  
Agent for: **Schiatti**

### IBA MIDDLE EAST FZE

PO BOX 261193  
Jebel Ali  
Dubai - UAE  
E-mail: sudip@iba-me.com  
Agent for: **Keraglass**

## OMAN

Jolico Trading  
PO Box 329455  
AE Ras Al Khaimah - UAE  
Agent for: **Adelio Lattuada**

## PANAMA

### PROTECH COLOMBIA

Cr. 62 no.74-61 ap.14  
Baranquilla - Colombia  
E-mail: paocol@hotmail.it  
Agent for: **Keraglass**

## PERU

### GLASSTEK MAQUINARIA PARA VIDRIO

Av. Lima 1048 - Barranco  
Lima 4  
Peru  
Tel.: +51-1-4770528  
E-mail: info@glasstek.org  
www.glasstek.org  
Agent for: **Adelio Lattuada**

### HECMAQ SAC

Calle Carlos Mellet 929  
Chorrillos - Lima 09  
Peru  
Tel.: +51-1-2510699  
Fax: +51-1-2510657  
E-mail: hecmaq@hecmaq.com  
www.hecmaq.com  
Agent for: **Schiatti**

### OSAMU EIRL

Merino 195  
San Isidro - Lima 27  
Peru  
Tel.: +51-1-4216412  
E-mail: osamukihara@hotmail.com  
Agent for: **Forel**

## PHILIPPINES

### EUROTECHCORP

No 192/8 Tam Trinh Street  
Yen so Ward, Hoang Mai District  
Hanoi City - Vietnam  
Philippines  
Agent for: **Adelio Lattuada, Mappi**

## POLAND

### A+W SOFTWARE POLSKA

ul. Lesna 10 - 62300 Wrzesnia  
Poland  
Tel.: +48-506-533418  
E-mail: support.pl@a-w.com  
www.a-w.com  
Agent for: **A+W Software**

### EDGETECH EASTERN EUROPE / MR. GEORG JANIK

Poland  
Tel.: +48-503-035605  
E-mail: g.janik@edgetech-europe.com  
Agent for: **Edgetech**

### GLASSMAK

Ul. Lisieckiego 31 - 40-070 Katowice  
Poland  
Tel.: +48-32-2050814  
E-mail: glassmak@vp.pl  
Agent for: **Forel**

### IN-VENTO

Wola Rzedzinska 612  
33150 Wola Rzedzinska  
Tel.: +48-14-6563577  
Fax: +48-14-6563578  
E-mail: in-vento@in-vento.eu  
www.in-vento.eu  
Agent for: **Adelio Lattuada, ADI**

### ITALPOL

Via Versilia 374 - Cesena - Italy  
E-mail: italpol@italpolglass.it  
Agent for: **BDT - Bovone Diamond Tools, Bovone Elettromeccanica, Mazzaroppi**

### LUSPOL

Ul. Syrokomi 3  
30-102 Krakow  
Poland  
Tel.: +48-602-334745  
E-mail: luspol@poczta.onet.pl  
Agent for: **Optima**

### MC DIAM SP.Z O.O.

Al. Lotników 12  
02-668 Warszawa  
Poland  
Tel.: +48-22-8434847  
Fax: +48-22-8478131  
E-mail: mcdiam@mcdiam.com.pl  
www.mcdiam.com.pl  
Agent for: **Hegla**

## MCS TECHNO

Ul. Bursztynowa 5 - 31-213 Krakow  
Poland  
Tel.: +48-61 8143569  
E-mail: danilo.f@mcs-techno.pl  
Agent for: **Schiatti**

### MD COAT SP. ZOO

Drwinia 67 - 32-709 Drwinia  
Poland  
Tel.: +48-12-2817262  
E-mail: biuro@mdcoat.pl  
www.mdcoat.pl  
Agent for: **Helios Quartz**

### MEKANIKA SP. Z.O.O.

ul. Krakowska 42 - 38-300 Gorlice  
Poland  
Tel.: +48-18-3530669  
Fax: +48-18-3535148  
E-mail: biuro@mekanika.pl  
mekanika.pl  
Agent for: **Mappi**

## PORTUGAL

### A.F.C. PEREIRA

Rua Do Bom Pastor, 800  
4825-075 Agua Longa - Santo Tirso  
Portugal  
Tel.: +351-22-9689900  
Fax: +351-22-9689900  
E-mail: afc@afcpereira.com  
www.afcpereira.com  
Agent for: **Mappi**

### APPGLOSS SL

Diputació 279, 1ª - 08007 Barcelona - Spain  
Agent for: **A+W Software**

### HMGLOSS UNIPessoal LDA

Av. Dr. António Mota 89 2 dr  
4505-221 Fiães VFR  
Portugal  
Tel.: +351-918-468865  
E-mail: hugogoncalves1977@gmail.com  
Agent for: **Keraglass**

### JLE - J. LEMOS ESTEVES LDA

Rua Soprem - Estacao Apartado 79  
2431-901 Marinha Grande - Portugal  
Tel.: +351-244-573480  
Fax: +351-244-573489  
E-mail: info@jlemosestev.es.pt  
www.jlemosestev.es.pt  
Agent for: **Adelio Lattuada, Adi**

### SOLUTEC GLASS

Paseo Landabarri, 3  
Ed. Artaza Etxea La Avanzada Of. 1ºB  
48940 Leioa (Vizcaya) - Spain  
E-mail: info@solutecglass.com  
Agent for: **Forel**

### TEKVIMO - PLADENEX S.L.

Avda Diagonal, 534, 1ª-1ª  
08006 Barcelona - Spain

E-mail: jacinto.mora@tekvimo.es  
**Agent for: Schiatti, Edgetech**

## PUERTO RICO

### MATODI

7206 Cessna Drive  
 27409 Greensboro, NC - USA  
 Puerto Rico  
 E-mail: sales@matodiusa.com  
**Agent for: Keraglass**

## QATAR

### GULF STAR INTERNATIONAL

P.O. BOX 8545 - SAIF Zone  
 SHARJAH, Q4-296 - UAE  
 E-mail: info@gulfstarintl.com  
**Agent for: Schiatti**

### HIET - HUDA INDUSTRIAL EQUIPMENT TRADING

Dubai Investment Park 2  
 PO Box 73204 - Dubai - UAE  
 E-mail: info@hiet-me.com  
**Agent for: Forel**

### IBA MIDDLE EAST FZE

PO BOX 261193  
 Jebel Ali - Dubai - UAE  
 E-mail: sudip@iba-me.com  
**Agent for: Keraglass**

### JOLICO TRADING

PO Box 329455  
 AE Ras Al Khaimah - UAE  
**Agent for: Adelio Lattuada**

## REP. OF SOUTH AFRICA

### AFAM IKE - FOREL AFRICA

111 Bagley Terrace, Valeriedene  
 2195 Johannesburg Gauteng  
 Rep. Of South Africa  
 Tel.: +27-83-2510417  
 E-mail: ike.afam@gmail.com  
**Agent for: Forel**

### BWT LTD

Northcliff - PO Box 1158  
 Johannesburg  
 Rep. Of South Africa  
 Tel.: +27-11-4311361  
 E-mail: bwtltd@global.co.za  
**Agent for: Schiatti**

### FG TRADING (FRASER GLOBAL TRADING)

Unit 1 Meadowbrook Park  
 110A North Reef Road  
 Wilbarf, Germiston

Rep. Of South Africa  
 Tel.: +27-11-4500263  
 Fax: +27-11-4500306  
 E-mail: sfraser@fgtrading.co.za  
 www.fgtrading.co.za  
**Agent for: Edgetech**

### GLASS DESIGN (PTY) LTD

1 Eugene Street  
 2196 Malanshof, Randburg  
 Rep. Of South Africa  
 Tel.: +27-11-7925004  
 Fax: +27-11-7927450  
 E-mail: carl@glassdesign.co.za  
 www.glassdesign.co.za  
**Agent for: A+W Software**

### GLASS SPECIFICS

293 Magareit Hunt Street,  
 Gars Fontein - 0042 Pretoria  
 Rep. Of South Africa  
 Tel.: +27-12-3616664  
 Fax: +27-12-3616865  
 E-mail: sales@glass-specifcs.co.za  
 www.glass-specifcs.co.za  
**Agent for: Keraglass**

## ROMANIA

### ABITARE CG SRL

Str. Brazilor Nr. 55  
 500313 Brasov  
 Romania  
 Tel.: +40-268-412600  
 Fax: +40-268-476044  
 E-mail: office@abitare.ro  
 www.abitare.ro  
**Agent for: Adelio Lattuada**

### ALUMNI SRL

Albatrosului Str. Bl.2 Ap.3  
 500461 Brasov  
 Romania  
 Tel.: +40-26-8416448  
 Fax: +40-268416448  
 E-mail: office@alm.ro  
 www.alm.ro  
**Agent for: Optima**

### IMROGLASS SRL

Str. Alexandru Ioan Cuza 50  
 510193 Alba Iulia - Jud Alba  
 Romania  
 Tel.: +40-258-839397  
 Fax: +40-258-815840  
 E-mail: info@imroglass.ro  
 www.imroglass.ro  
**Agent for: Mappi, Schiatti, Edgetech, Forel**

## RUSSIA

### CM COMPANY

Zhuravleva Sq. 2, p. 1  
 107023 Moscow  
 Russia

Tel.: +7-964-2505388  
 E-mail: steklo-m@mail.ru  
 www.stankimira.ru  
**Agent for: Mappi**

### EDGETECH EASTERN EUROPE

Poland  
 E-mail: g.janik@edgetech-europe.com  
**Agent for: Edgetech**

### FOREL RUSSIA

Sovetskaya str. 23A - Taldom - Moscow Region  
 Russia  
 E-mail: e.kovacic@forelspa.ru  
 www.forelspa.com  
**Agent for: Forel**

### HEGLA TRADING & SERVICE GMBH

8/1, Bibirevskaja str. Office 401  
 127549 Moscow  
 Russia  
 Tel.: +7-903-7242709  
 E-mail: hegla.rus@gmail.com  
 www.hegla.de  
**Agent for: HEGLA**

### IOTA COMPANY

4th Street, Trunk 5, p. 1 - 123007, Moscow  
 Russia  
 Tel.: +7-495-5189638  
 E-mail: stanki@yta.ru  
 www.yta.ru  
**Agent for: Bovone Elettromeccanica**

### KPDT

4th Krasnogorsk Travel, 2/4,  
 Building 1 - 123182 Moscow  
 Russia  
 Tel.: +7-495-9425375  
 E-mail: hp@kpd.ru  
 www.kpd-techno.ru  
**Agent for: Adelio Lattuada**

### LISEC CIS

Myasnitzkaya ul. 48 - 107078 Moscow  
 Russia  
 Tel.: +7-495-9332968  
 Fax: +7-495-9332969  
 E-mail: info-ru@lisec.ru  
**Agent for: Lisec**

### MERAN

Kotlaykovskaya Str. 6 - 115201 Moscow  
 Russia  
 Tel.: +7-495-9219872  
 E-mail: info@meran.ru  
 www.meran.ru  
**Agent for: BDT - Bovone Diamond Tools, Optima**

## SAUDI ARABIA

### CORPOTRADE SAUDIA L.L.C.

Dabbab Street - P.O.Box 69239  
 Iskan al Maazar - Riyadh  
 Saudi Arabia



Tel.: +966-1-2145230  
 Fax: +966-1-2143240  
 E-mail: riyadh@corptrade.com  
 [www.corptrade.com](http://www.corptrade.com)  
**Agent for: Mappi**

## HIET - HUDA INDUSTRIAL EQUIPMENT TRADING

Dubai Investment Park 2  
 PO Box 73204  
 Dubai - UAE  
 E-mail: info@hiet-me.com  
**Agent for: Forel**

## IBA MIDDLE EAST FZE

PO BOX 261193  
 Jebel Ali  
 Dubai - UAE  
 E-mail: sudip@iba-me.com  
**Agent for: Keraglass**

## JOLICO TRADING

PO Box 329455  
 AE Ras Al Khaimah - UAE  
**Agent for: Adelio Lattuada**

## SERBIA

### ESTE TEAM D. O. O.

Dzona Kenedija 20  
 11070 New Belgrade  
 Serbia  
 Tel.: +381-11-2601774  
 Fax: +381-11-3196764  
 E-mail: office@esteteam.net  
 [www.esteteam.net](http://www.esteteam.net)  
**Agent for: Adelio Lattuada**

### GLASMIK DOO

Ulica 9 Septembra, 236A  
 Vrtojba  
 5290 Sempeter pri Gorici - Slovenia  
**Agent for: Mappi, Schiatti, Edgetech, Forel**

### MAB EXPORT D.O.O.

Vodovodna Pot 3  
 Kromberk  
 5000 Nova Gorica - Slovenia  
 E-mail: mab@mab-export.si  
**Agent for: A+W Software**

## SINGAPORE

### D&S GLASS TECHNOLOGY SERVICES

Blk 3007 Ubi Road 1  
 #02-446 Singapore 408701  
 Singapore  
 Tel.: +65-63827355  
 Fax: +65-62864100  
 E-mail: seekksin@singnet.com.sg  
**Agent for: Schiatti**

### EUROTECHCORP

No 192/8 Tam Trinh Street  
 Yen so Ward, Hoang Mai District  
 Hanoi City - Vietnam  
**Agent for: Adelio Lattuada, Mappi**

### YICHEN INFORMATION TECHNOLOGY CO. LTD.

Room 702 - No. 73 - 1028 XiuYan Road  
 KangQiao  
 Pudong, Shanghai - China  
**Agent for: A+W Software**

## SLOVAKIA

### EWCOO S.R.O.

Svermova 268/76  
 460 10 Liberec - Czech Republic  
 E-mail: info@ewcoo.com  
**Agent for: Edgetech**

### GLASMIK DOO

Ulica 9 Septembra, 236A  
 Vrtojba  
 5290 Sempeter pri Gorici - Slovenia  
**Agent for: Mappi**

### IMPRA SPOL SRO

Reinerova 710/21  
 16300 Praha 6, Repy - Czech Republic  
 E-mail: info@impra.cz  
**Agent for: Schiatti**

### ITALCOMMA SLOVAKIA


Dolné Rudiny 1  
 01001 Zilina  
 Slovakia  
 Tel.: +421-41-5006224  
 E-mail: italcomma@italcomma.sk  
 [www.italcomma.sk](http://www.italcomma.sk)  
**Agent for: Adelio Lattuada**

## SLOVENIA

### ESTE TEAM D. O. O.

Dzona Kenedija 20  
 11070 New Belgrade - Serbia  
 E-mail: office@esteteam.net  
**Agent for: Adelio Lattuada**

### GLASMIK DOO

Ulica 9 Septembra, 236A  
 Vrtojba  
 5290 Sempeter pri Gorici  
 Slovenia  
 Tel.: +386-5-3359714  
 Fax: +386-5-3359721  
 [www.glasmik.si](http://www.glasmik.si)  
**Agent for: Mappi, Schiatti, Edgetech, Forel**

### MAB EXPORT D.O.O.

Vodovodna Pot 3  
 Kromberk  
 5000 Nova Gorica

Slovenia  
 Tel.: +386-5-3313850  
 Fax: +386-5-3313854  
 E-mail: mab@mab-export.si  
 [www.mab-export.si](http://www.mab-export.si)  
**Agent for: A+W Software**

## SOUTH KOREA

### ALPTECH CO. LTD.

Digital Empire II 102  
 703, Sin-Dong # 486 - Yeongtong-Gu  
 Suwon-si 443-734 GYEONGGT-DO  
 South Korea  
 Tel.: +82-31-6957201  
 E-mail: ymh@alptech.co.kr  
**Agent for: Keraglass**

### EASTWEST TRADING

Hanil Bldg. 1716  
 #815 Munhyun 4-dong  
 Nam-ku, Pusan 608-044  
 South Korea  
 E-mail: eastwest-glass@hanmail.net  
**Agent for: Schiatti**

### YICHEN INFORMATION TECHNOLOGY CO. LTD.

Room 702 - No. 73 - 1028 XiuYan Road  
 KangQiao  
 Pudong, Shanghai - China  
**Agent for: A+W Software**

### YKC - YOUNG KYUNG CO. LTD.

1439-5 Chunsuk Bldg 4fl  
 Seocho-dong, Seocho-ku, Seoul  
 South Korea  
 Tel.: +82-2-34618428  
 Fax: +82-2-34615298  
 E-mail: ykcltd@ykc.co.kr  
 [www.ykc.co.kr](http://www.ykc.co.kr)  
**Agent for: BDT - Bovone Diamond Tools, Bovone Elettromeccanica**

## SPAIN

### APPGLOSS SL

Calle Mogoda 1, Despacho 111  
 Pol.Ind.Can Salvatella  
 08210 Barbera de Valles - Barcelona  
 Spain  
 Tel.: +34-930330157  
 E-mail: carlos.alvarez@app-glass.com  
**Agent for: A+W Software**

### CASTRO GLASS SL

C/ Benito Castro, 10 - 28028 Madrid  
 Spain  
 Tel.: +34-91-7131510  
 Fax: +34-91-7260006  
 E-mail: castroglass@castroglass.es  
 [www.castroglass.es](http://www.castroglass.es)  
**Agent for: BDT - Bovone Diamond Tools, Bovone Elettromeccanica**

## DIAMANT 2000

Calle Minas, 43  
Pol. Industrial Urtinsa II  
28923 Alcorcon - Madrid  
Spain  
Tel.: +34-91-6192229  
Fax: +34-91-6101609  
E-mail: diamant2000@  
diamant2000.e.telefonica.net  
**Agent for: Adi**

## E. VILA PROJECTS & SUPPLIES

C/Castellfollat Nave 8-B  
Poligono Industrial Els Dolors  
08243 Manresa (Barcelona)  
Spain  
Tel.: +34-93-1131301  
Fax: +34-93-8762744  
E-mail: vilavilaro@gmail.com  
**www.evila.com**  
**Agent for: Helios Quartz**

## GRUPO ADA DISTRIBUCIONES TECNICAS SL

Poligono Industrial Platea  
Parcela Li-2 Nave 9  
44195 Teruel  
Spain  
Tel.: +34-97-8619469  
Fax: +34-97-8619644  
E-mail: info@ada-distribuciones.com  
**www.ada-distribuciones.com**  
**Agent for: Adelio Lattuada, Keraglass**

## MAQUIGLASS S.A.

Avenida Diagonal 324  
08013 Barcelona  
Spain  
Tel.: +34-93-2077862  
Fax: +34-93-2077368  
E-mail: maquiglass@maquiglass.es  
**www.maquiglass.es/**  
**Agent for: Mazzaroppi Engineering**

## OPTIMA SOFTWARE S.L.

Av. Puig i Ferrer 22  
La Selva del Camp - Tarragona  
Spain  
Tel.: +34-977-845994  
Fax: +34-977845703  
E-mail: oscar@optimaiberica.es  
**www.optimaiberica.es**  
**Agent for: Optima**

## R. MEYER SL

c/ Lluís 70-72, 3º 3a  
08005 Barcelona  
Spain  
Tel.: +34-93-3010525  
Fax: +34-93-4120576  
E-mail: rolf.meyer@rmeyersl.com  
**www.rmeyersl.com**  
**Agent for: HEGLA**

## SOLUTEK GLASS

Paseo Landabari, 3  
Ed. Artaza Etxea La Avanzada Of. 1ºB  
48940 Leioa (Vizcaya)  
Spain

Tel.: +34-94-6002211  
Fax: +34-94-4668855  
E-mail: info@solutekglass.com  
**Agent for: Forel**

## TECNOCRISA SA - TECNOLOGÍA CRISTALERA AUSTRIACA

C/. Gabriel Ramos Bejarano - Parcela 67  
Pol. Ind. Las Quemadas  
14014 Cordoba  
Spain  
Tel.: +34-957-325550  
Fax: +34-957-326061  
E-mail: informacion@tecnocrisasa.com  
**tecnocrisasa.es/**  
**Agent for: Ashton Industrial Sales**

## TEKVIMO

Avda Diagonal, 534, 1º-1ª  
08006 Barcelona  
Spain  
Tel.: +34-649-905410  
E-mail: jacinto.mora@tekvimo.es  
**www.tekvimo.es**  
**Agent for: Mappi, Schiatti, Edgetech**

## SWEDEN

A+W Software Sweden  
Industrivagen 17  
302 41 Halmstad  
Sweden  
Tel.: +46-35-175417  
**Agent for: A+W Software**

## AXEL LARSSON AB

Truckvagen, 12  
19428 Upplands Vasby  
Sweden  
Tel.: +46-10-4559716  
Fax: +46-10-4559790  
E-mail: karl.larsson@axel-larsson.se  
**www.axel-larsson.se**  
**Agent for: Adi**

## DMT DIAMANT & MASKIN-TEKNIK APS

Merkurvej 2B  
7430 Ikast - Denmark  
E-mail: kontor@dm-t.dk  
**Agent for: Bovone Elettromeccanica**

## GLAS X GLASTEKNIK

Hulvejen 13  
7500 Holstebro - Denmark  
E-mail: glasx@live.dk  
**Agent for: Schiatti**

## PER MORDT A/S

Oestensjoeveien 18  
0661 Oslo - Norway  
E-mail: post@permordt.no  
**Agent for: Adelio Lattuada**

## SINCHRIJO AGENTURER AB

Smaltaregatan 6  
Hoganas - Sweden

Tel.: +46-42-237601  
Fax: +46-42-342550  
E-mail: info@sinchrijo.com  
**sinchrijo.se**  
**Agent for: Edgetech**

## SWITZERLAND

### FÜLDNER MACHINES BV

De Koumen 116  
Parkstad 8781  
6433 KE Heerlen - The Netherland  
E-mail: info@fuldner.nl  
**Agent for: Mappi**

### K&K PROVITRUM GMBH

Färberstraße 8  
2540 Bad Vöslau - Austria  
E-mail: info@kkprovitrum.at  
**Agent for: Schiatti**

### LECHNER SRL

Piazza della Libertà, 7/15  
Arquata Scrivia - Italy  
E-mail: lechner@lechner-srl.com  
**Agent for: Mazzaroppi Engineering**

### PRO-GLAS

Kurstraße 6  
6323 Bad Häring - Austria  
E-mail: sales@pro-glas.at  
**Agent for: Forel**

## SYRIA

### JOLICO TRADING

PO Box 329455  
AE Ras Al Khaimah - UAE  
**Agent for: Adelio Lattuada**

### LANA INTERNATIONAL EST.

Sweifiyah- Alwakalat, St. Building no.13, 1st  
Floor  
P.O. Box 346 Marj Aihamam  
11732 Amman - Jordan  
E-mail: lanaco@orange.jo  
**Agent for: Schiatti**

## TAIWAN

### CY HANK INDUSTRIAL CO LTD

Rm 1001, San Chin Bldg, 31-1, Sec 2  
Hsin Sheng N. Rd.  
Taipei 67-541 - Taiwan  
Tel.: +886-2-25318190  
Fax: +886-2-25715571  
E-mail: cyhank@ms45.hinet.net  
**cyhank.glass.com.cn**  
**Agent for: Adelio Lattuada**

### GENERAL TECHNICAL CO LTD

Nò Lane 497, C. Cheng Rd.  
Hsin-Tien  
103 Taipei

Taiwan  
Tel.: +886-2-22191223  
E-mail: jack@gtc-tekdesign.com  
**Agent for: Helios Quartz**

## USE ELECTRONICS CO. LTD. / HEADQUARTERS

20fl, no.85, Sec.1, Chung Hsiao E. Road  
Taipei R. o. c.  
Taiwan  
Tel.: +886-2-23934825  
Fax: +886-2-23414900  
E-mail: glass@use.com.tw  
**www.use.com.tw**

**Agent for: Bovone Elettromeccanica, Schiatti, Forel**

## THAILAND

### ELITE THAI MARKETING CO. LTD.

8/106 Trendy Tara, Soi Anamai  
Ngamcharoen 11 - Rama 2 Road,  
Thakham, Bangkhuntian, 10150 Bangkok  
Thailand  
Tel.: +66-90-9921293  
E-mail: elitethaimktg@gmail.com  
**www.facebook.com/elitethai/**  
**Agent for: Ashton Industrial Sales**

### EUROTECHCORP

No 192/8 Tam Trinh Street  
Yen so Ward, Hoang Mai District  
Hanoi City - Vietnam  
**Agent for: Adelio Lattuada, Mappi**

### JEENNY TRADING CO. LTD

50/57 Soi Wuttakard 36/2 Wuttakard Rd.  
Bangkiao Chomthong  
10150 Bangkok  
Thailand  
Tel.: +66-2-8763684  
Fax: +66-2-8763688  
E-mail: info@mptmac.co.th  
**www.mptmac.co.th**  
**Agent for: BDT - Bovone Diamond Tools, Bovone Elettromeccanica**

### MOTECH MACHINERY SERVICE

225/71 Moo, Lumlukka Rd., Kukot  
12130 Lumlukka, Patumthani  
Thailand  
Tel.: +66-298-72440  
Fax: +66-298-72440  
E-mail: p.huailai1@yahoo.co.th  
**Agent for: Keraglass, Forel**

### USE ELECTRONICS CO. LTD. / THAILAND

No.66 3rd Fl., Soi Ramintra 99  
Kannayao, Bangkok 10230  
Thailand  
Tel.: +66-2-9383300  
Fax: +66-2-5130245  
E-mail: usehai@asianet.co.th  
**www.use.com.tw**  
**Agent for: Schiatti**

## THE NETHERLANDS

### FÜLDNER MACHINES BV

De Koumen 116  
Parkstad 8781  
6433 KE Heerlen  
The Netherlands  
Tel.: +31-45-5217757  
Fax: +31-45-5231292  
E-mail: info@fuldner.nl  
**www.fuldner.com**

**Agent for: Adelio Lattuada, Mappi**

### PIETERMAN GLASTECHNIEK / THE NETHERLANDS

Industrieweg 28  
3133 EE Vlaardingen  
The Netherlands  
Tel.: +31-10-4451060  
Fax: +31-10-4353481  
E-mail: info@pgv-nl.com  
**www.pieterman-glastechniek.be**  
**Agent for: Bovone Elettromeccanica, Schiatti, Forel**

## TUNISIA

### ART MED SRL

15, Rue Sadok Tebourski  
2073 Borj Louzir, Ariana  
Tunisia  
Tel.: +216-70688062  
Fax: +216-70696464  
E-mail: artmed.tn@gmail.com  
**Agent for: Keraglass**

### PACARD SAS

1200 Route des Lucioles  
Espace Beethoven B3 - Sophia Antipolis  
06560 Valbonne - France  
E-mail: pacard@pacard.fr  
**Agent for: Adelio Lattuada**

## TURKEY

### AS CAM DESIGN - GLASS MACHINERY

Tantavi Mh. Estergon Cd.  
Suryapi Exen stanbul Sitesi No : 20 F  
Ümraniye / Istanbul - Turkey  
Tel.: +90-216-4102747  
Fax: +90-216-4102748  
E-mail: info@ascam.com.tr  
**make.ascam.com.tr/en/**  
**Agent for: Mappi**

### CONCEPT SOLUTIONS

Batikoy Mh. Mustafa Kemal Bulvari, M102/13  
Mimaroba Buyukcekmece - 34500 Istanbul  
Turkey  
Tel.: +90-212-8643881  
E-mail: info@glassinks.eu

**www.glassinks.eu**  
**Agent for: Adelio Lattuada, Keraglass, Ashton Industrial Sales**

### ELMAS KIMYA SAN. VE TIC. LTD STI.

Topcu Cesme Sok. No: 1  
34055 Topcular/ Eyupsultan - Istanbul  
Turkey  
Tel.: +90-212-5447172  
Fax: +90-212-5010073  
E-mail: elmaskimya@ttmail.com  
**www.elmaskimya.com**  
**Agent for: Adi**

### HELIOS QUARTZ TURKEY

Mimaroba Mh. Mustafa Kemal Bulvar  
Colorist A Blok. Kat 3 D.50  
Mimaroba, Buyukcekmece - Istanbul  
Tel.: +90-8502281908  
E-mail: turkey@heliosquartz.com  
**www.heliosquartz.com**  
**Agent for: Helios Quartz**

### SDC IC VE DIS TICARET LTD. STI.

Varyap Meridian Grand Tower  
Al Zambak Sok. No:2 - A Blok D:142  
34746 Ata Ehir - Istanbul  
Turkey  
Tel.: +90-216-5040434  
Fax: +90-216-5040430  
E-mail: sdc@sdctr.com  
**www.sdctr.com**  
**Agent for: Optima**

### SORGLAS LTD

Halaskargazi Mh  
Safak Sk. Dede Han 15/4 Nisantasi  
34371 Istanbul  
Turkey  
Tel.: +90-212-2414533  
Fax: +90-212-2414536  
E-mail: info@sorglas.com  
**www.sorglas.com**  
**Agent for: Bovone Elettromeccanica**

## U.A.E.

### CORPOTRADE L.L.C. DUBAI

Po. Box 21532 - Dubai  
UAE - United Arab Emirates  
Tel.: 00971-4-3337725  
Fax: 00971-4-3337723  
E-mail: dubai@corptrade.com  
**www.corptrade.com**  
**Agent for: Mappi**

### GULF STAR INTERNATIONAL

Po. Box 8545 - Saif Zone  
Sharjah, Q4-296  
UAE - United Arab Emirates  
Tel.: 00971-6-5571977  
Fax: 00971-6-5571922  
E-mail: info@gulfstarintl.com  
**www.gulfstarintl.com**  
**Agent for: Adi, Schiatti**

## HIET - HUDA INDUSTRIAL EQUIPMENT TRADING

Dubai Investment Park 2  
PO Box 73204

Dubai  
UAE - United Arab Emirates  
Tel.: 00971-4-8849020  
Fax: 00971-4-8849021  
E-mail: info@hiet-me.com  
[www.hiet-me.com](http://www.hiet-me.com)

Agent for: **Ashton Industrial Sales, Forel**

## IBA MIDDLE EAST FZE

PO BOX 261193 - Jebel Ali  
Dubai

UAE - United Arab Emirates  
Tel.: 00971-48819454  
Fax: 00971-48812467  
E-mail: sudip@iba-me.com

Agent for: **Keraglass**

## JOLICO TRADING FZE

PO Box 329455

AE Ras Al Khaimah  
UAE - United Arab Emirates  
Tel.: 00971-12 6432429  
Fax: 00971-126432429  
E-mail: info@jolicotrading.com  
[jolicotrading.com](http://jolicotrading.com)

Agent for: **Adelio Lattuada**

## LISEC MIDDLE EAST LTD. FZE

Light Industrial Unit B1, Road WB-21  
Po Box 54290

Dubai Airport Free Zone  
UAE - United Arab Emirates  
Tel.: 00971-4-2994596  
Fax: 00971-4-2994740  
E-mail: sales.middleeast@lisc.com  
[www.lisc.com](http://www.lisc.com)

Agent for: **Lisec**

## UKRAINE

## EDGETECH EASTERN EUROPE

Poland  
E-mail: g.janik@edgetech-europe.com  
**Edgetech**

## EVROFORMAT

St. Ostrovskogo 19/1 - 33000 Rivne  
Ukraine  
Tel.: 00380-673631100  
E-mail: evroformat.ua@gmail.com  
Agent for: **Schiatti**

## UNITED KINGDOM

## A+W SOFTWARE UK

Northbridge Rd, Hardy House  
Berkhamsted, Hertfordshire HP4 1EF  
United Kingdom

Tel.: 0044-56 03488606

[www.a-w.de](http://www.a-w.de)  
Agent for: **A+W Software**

## BOTTERO UK LIMITED

Unit P1 Bay  
15 Heywood Distribution Park  
Heywood - Lancashire OL10 2TT  
United Kingdom  
Tel.: 0044-1706-655440  
Fax: 0044-1706-718899  
E-mail: sales.uk@bottero.com

Agent for: **Bottero**

## DIAMUT UK

Lampport Drive  
Heartlands Business Park  
Daventry - Northamptonshire, NN11 8YZ  
United Kingdom  
Tel.: 0044-1327-307311  
Fax: 0044-1327-705150  
E-mail: diamutuk@diamut.com

[www.diamut.com](http://www.diamut.com)

Agent for: **Diamut**

## EDGETECH UK

Stonebridge House, Rowley Drive  
Stonebridge Trading Estate  
Coventry CV3 4FG  
United Kingdom  
Tel.: 0044-2476-639931  
Fax: 0044-2476-639727  
E-mail: ukenquiries@edgetechig.com

[www.superspacer.co.uk](http://www.superspacer.co.uk)

Agent for: **Edgetech**

## HEGLA MACHINERY (UK) LTD

11 Cochran Close  
Crownhill Industrial Estate  
Milton Keynes, Buckinghamshire MK8 0AJ  
United Kingdom  
Tel.: 0044-1908-261933  
Fax: 0044-1908-261950  
E-mail: info@hegla.co.uk  
[www.hegla.de](http://www.hegla.de)

Agent for: **HEGLA**

## INTERMAC UK

Lampport Drive  
Daventry Northamptonshire NN11 5YZ  
United Kingdom  
Tel.: 0044-1327-307311  
Fax: 0044-1327-705150  
E-mail: info@intermacuk.com

Agent for: **Intermac**

## P.A.L. GLASS MACHINERY LTD

33 Hornsby Square  
Southfields Business Park  
Basildon Essex SS15 6SD  
United Kingdom  
Tel.: 0044-1268-493382  
Fax: 0044-1268-493385  
E-mail: sales@palmachinery.co.uk  
[www.palmachinery.co.uk](http://www.palmachinery.co.uk)

Agent for: **Adelio Lattuada, Mappi**

## PETER HAWKINS LTD.

Castle Lane  
Melbourne Derbyshire DE73 8JB

United Kingdom  
Tel.: 0044-1332-864747  
Fax: 0044-1332-864748  
E-mail: info@phawkins.co.uk  
[www.phawkins.co.uk](http://www.phawkins.co.uk)

Agent for: **Schiatti**

## PROMAC

Unit 3b & 3c Hadrians Way  
Glebe Farm Ind. Estate  
Rugby Warwickshire CV21 1ST  
United Kingdom  
Tel.: 0044-1788-577577  
Fax: 0044-1788-567938  
E-mail: sales@promac.co.uk

[www.promac.co.uk](http://www.promac.co.uk)

Agent for: **Mappi, Forel**

## STONE AND GLASS GROUP

Wherley Rough, Lower Heath  
Whitchurch, Shropshire SY13 2BH  
United Kingdom  
Tel.: 0044-1948-841574  
E-mail: sales@stoneandglassgroup.co.uk  
[www.stoneandglassgroup.co.uk](http://www.stoneandglassgroup.co.uk)

Agent for: **Bovone Elettromeccanica, Keraglass**

## THE GLASS MACHINERY COMPANY LTD

Wherley Rough  
Lower Heath  
Whitchurch SY13 2BH  
United Kingdom  
Tel.: 0044-1948 841574  
E-mail: sales@theglassmachinerycompany.co.uk

[www.theglassmachinerycompany.co.uk](http://www.theglassmachinerycompany.co.uk)

Agent for: **BDT - Bovone Diamond Tools, Bovone Elettromeccanica**

## UNITED STATES

## A+W SOFTWARE USA

One Parkway Drive 400S  
Deerfield  
USA  
Tel.: 001-3124706645  
E-mail: usa@a-w.com  
[www.a-w.de/us](http://www.a-w.de/us)

Agent for: **A+W Software**

## ASHTON INDUSTRIAL SALES - USA

Pittsburgh - Pennsylvania  
USA  
Tel.: 001-724-3232718  
E-mail: jsantelli@ashton-industrial.com  
[www.ashton-industrial.com](http://www.ashton-industrial.com)

Agent for: **Ashton Industrial Sales**

## BOTTERO FLAT GLASS INC.

257 Gretas Way Suite 100  
NC 27284 Kernersville  
USA

Tel.: 001-336-9925623  
 Fax: 001-336-9925624  
 E-mail: sales.us@bottero.com  
**Agent for: Bottero**

## BOVONE NORTH AMERICA

2018 Barnes Street  
 Reidsville, NC 27320  
 USA  
 Tel.: 001-336-894067  
 E-mail: dmangus@bovone.com  
 ● [bovone.com/en/north-america](http://bovone.com/en/north-america)  
**Agent for: Bovone Elettromeccanica**

## DE GORTER INC.

5623 Cannon Drive  
 Monroe, NC 28110  
 USA  
 Tel.: 001-704-2822055  
 Fax: 001-704-2258290  
 E-mail: sales@degortier.com  
 ● [www.degortier.com](http://www.degortier.com)  
**Agent for: Schiatti**

## DIAMUT AMERICA

4110 Meadow Oak Dr.  
 Charlotte  
 USA  
 Tel.: 001-704-3573131  
 Fax: 001-704-5833094  
 E-mail: michele.ragno@diamut.com  
 ● [www.diamut.com](http://www.diamut.com)  
**Agent for: Diamut**

## FOREL NORTH AMERICA

1819 Buerkle Road  
 St. Paul - Minnesota  
 USA  
 Tel.: 001-651-4934378  
 E-mail: sales@na.forelspa.com  
 ● [www.forelspa.com](http://www.forelspa.com)  
**Agent for: Forel**

## HEGLA CORP.

277 Southfield Pkwy. - Suite 170  
 Forest Park, GA 30297  
 USA  
 Tel.: 001-404-7639700  
 Fax: 001-404-7630901  
 E-mail: info@heglacorp.com  
 ● [www.hegla.de](http://www.hegla.de)  
**Agent for: HEGLA**

## HELIOS QUARTZ AMERICA INC.

8444 W. Central Ave., # 2  
 Sylvania, OH 43560  
 USA  
 Tel.: 001-419-8823377  
 Fax: 001-419-7878307  
 E-mail: swiss@heliosquartz.com  
 ● [www.heliosquartz.com](http://www.heliosquartz.com)  
**Agent for: Helios Quartz**

## IGP

1477 Connelly Springs Road  
 Lenoir, NC 28645  
 USA  
 Tel.: 001-828-7285338

Fax: 001-828-7289613  
 E-mail: sales@igptools.com  
 ● [www.igptools.com](http://www.igptools.com)  
**Agent for: Adi**

## INTERMAC AMERICA

4110 Meadow Oak Dr  
 Charlotte, Nc 28208 Usa  
 USA  
 Tel.: 001-704-3573131  
 Fax: 001-704-5833094  
 E-mail: marketing@biesseamerica.com  
 ● [intermacamerica.com](http://intermacamerica.com)  
**Agent for: Intermac**

## KERAGLASS USA INC.

20 Murray Hill Parkway, Unit 120  
 East Rutherford - NJ 07073  
 USA  
 Tel.: 001-201-5612191  
 E-mail: info.usa@keraglass.com  
**Agent for: Keraglass**

## LATTUADA NORTH AMERICA INC

6967 Wales Road, Suite F  
 43619 Northwood (OH)  
 USA  
 Tel.: 001-567-2494486  
 E-mail: info@lattuada-na.com  
 ● [www.lattuada-na.com](http://www.lattuada-na.com)  
**Agent for: Adelio Lattuada**

## LISEC AMERICA, INC.

12571 Oliver Avenue South - Suite 100  
 55337 Burnsville, MN  
 USA  
 Tel.: 001-952-6419900  
 Fax: 001-952-6419933  
 E-mail: lisec@liseccamerica.com  
 ● [www.lisec.com](http://www.lisec.com)  
**Agent for: Lisec**

## MAPPI AMERICA

3888 Mannix Drive #314  
 Naples, FL 34114  
 USA  
 Tel.: 001-336 878 7460  
 E-mail: sales@mappi-na.com  
 ● [www.mappi.us](http://www.mappi.us)  
**Agent for: Mappi**

## MATODI

7206 Cessna Drive  
 27409 Greensboro, NC  
 USA  
 Tel.: 001-336-6682300  
 E-mail: sales@matodiusa.com  
 ● [www.matodiusa.com](http://www.matodiusa.com)  
**Agent for: Keraglass**

## OPTIMA NORTH AMERICA INC.

7860 Grenache, suite 200  
 Montreal, QC H1J 1C3 - Canada  
 USA  
 E-mail: sales@optima-america.com  
**Agent for: Optima**

## QUANEX - INSULATING GLASS SYSTEMS

800 Cochran Avenue - Cambridge, OH 43725  
 USA  
 Tel.: 001-740-4392338  
 Fax: 001-740-4390121  
 E-mail: igsales@quanex.com  
 ● [www.quanex.com](http://www.quanex.com)  
**Agent for: Edgetech**

## SALEM DISTRIBUTING COMPANY INC.

Gun Club Road 5901 - Winston Salem NC  
 27103 - USA  
 Tel.: 001-336-7661104  
 Fax: 001-336-7661119  
 E-mail: sales@salemDIST.com  
 ● [www.salemDIST.com](http://www.salemDIST.com)  
**Agent for: BDT - Bovone Diamond Tools, Bovone Elettromeccanica**

## VENEZUELA

### PROTECH COLOMBIA

Cr. 62 no.74-61 ap.14  
 Baranquilla - Colombia  
 E-mail: paocol@hotmail.it  
**Agent for: Keraglass**

## VIETNAM

### EUROTECHCORP

No 192/8 Tam Trinh Street  
 Yen so Ward, Hoang Mai District  
 Hanoi City - Vietnam  
 Tel.: 0084-24-32336210  
 Fax: 0084-24-32336211  
 E-mail: eurotechline@gmail.com  
 ● [www.eurotechcorp.vn](http://www.eurotechcorp.vn)  
**Agent for: Adelio Lattuada, Mappi, Forel**

### NINH SERVICE & TRADING DIVISION - HOANG SON CO. LTD

20/20B Tan Long Zone  
 Tan Dong Hiep Ward  
 Di An District, Binh Duong Province  
 Vietnam  
 Tel.: 0084-650-3-731636  
 E-mail: n.ninh@keraglass.com  
 ● [www.ninh.net.vn](http://www.ninh.net.vn)  
**Agent for: Keraglass**

## YEMEN

### IBA MIDDLE EAST FZE

PO BOX 261193  
 Jebel Ali  
 Dubai - UAE  
 E-mail: sudip@iba-me.com  
**Agent for: Keraglass**

# SUBSCRIBE NOW TO THE WORLD'S LEADING

Glass Magazines



1988

**glass machinery world plants & accessories**  
BI-MONTHLY INTERNATIONAL MAGAZINE FOR GLASS MANUFACTURING

**GLASS MACHINERY PLANTS & ACCESSORIES** is the leading international magazine for glass manufacturing, and is targeted at glassworks involved in the production and processing of hollowware and special glass (bottles, containers, household, lighting, technical, scientific, industrial and medical glassware).

**GLASS MACHINERY PLANTS & ACCESSORIES** is a bi-monthly periodical with about 100 pages of product news, current world news, focus on..., technical articles and dossiers, worldwide exhibitions, glassworks in the world, Yellow Pages, etc.



1989

**Glass-Technology International**

**GLASS-TECHNOLOGY INTERNATIONAL** is the leading international magazine for professionals involved in the flat and bent glass industry, from building to automotive, and from furniture to household appliances. **G-TI** is useful for those working in float glass plants as well as glass processors/fabricators, glazing contractors, automotive glass installers, window and door manufacturers, glass merchants, wholesalers, etc. With about 100 pages per issue, it is the bi-monthly tool for keeping abreast of new technology, new products, company life and all innovations in the world of flat and bent glass.

Annual Guides



1990

**Glass Industry Directory 2020**

The **GLASS INDUSTRY DIRECTORY** is a unique international annual guide which gives a complete overview of international glassworks and suppliers involved in hollowware and special glass manufacturing. About 300 pages of complete company profiles: addresses, management, sister companies, plants, number of employees, turnover, banks, year of company foundation, capital, trademarks, areas of activity, innovations, product-by-product and country-by-country breakdowns. The **GLASS INDUSTRY DIRECTORY** is the annual reference point for the international glass manufacturing industry comprising bottles and containers, domestic glassware, tubing, vials and ampoules, lighting glassware, technical and industrial glassware, scientific, laboratory and medical glassware and much more.



2013

**FLATGLASS 2020 world directory**

The **FLAT GLASS WORLD DIRECTORY** is a unique international annual guide providing a complete overview of glassworks and suppliers for the flat glass sector. More than 150 pages of company profiles and information about worldwide glassmakers, glass processors and suppliers, including addresses, management, sister companies, plants, number of employees, turnover, banks, year of company foundation, capital, trademarks, areas of activity, innovations, sales network, exhibitions, and, of course, interactivity in digital format, make the **FLAT GLASS WORLD DIRECTORY** the annual reference point for the international flat glass industry.

**10% DISCOUNT**

FOR MULTIPLE SUBSCRIPTIONS

Digital Media

1996

**glassOnline**

The World's Leading Glass Industry Website

[WWW.GLASSONLINE.COM](http://WWW.GLASSONLINE.COM)



PRINT & DIGITAL

VIDEO INTERVIEWS

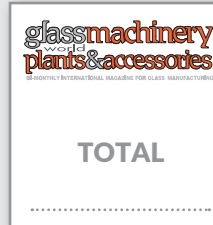


# SECTOR PUBLICATIONS

Subscription order form

ALL OF OUR PUBLICATIONS ARE ALSO AVAILABLE IN DIGITAL FORMAT FREE-OF-CHARGE

- wish to subscribe for **ONE YEAR** (6 issues) at € **130,00**, air mail included
- wish to subscribe for **TWO YEARS** (12 issues) at € **220,00**, air mail included
- Please **SEND ME** no. .... back copy/ies of issue no. .... year ..... (single copy € **29,00** post free)



TOTAL

## PAYMENT

FOR ORDERS SENT BY EMAIL,  
PLEASE COMPLETE THE FORM BELOW  
PAYMENT BY BANK CREDIT TRANSFER ONLY

**BANK CREDIT TRANSFER** payable to  
A151 srl has been sent to  
A/c No. 100000067167  
BANCA INTESA SANPAOLO SPA, Agenzia 353  
Milano (MI), Italy  
Bank coordinates:  
ABI 03069 - CAB 01603 - CIN N  
Swift code: BCITITMM  
IBAN code: IT 43 N 03069 01603 100000067167

- wish to subscribe for **ONE YEAR** (6 issues) at € **130,00**, air mail included
- wish to subscribe for **TWO YEARS** (12 issues) at € **220,00**, air mail included
- Please **SEND ME** no. .... back copy/ies of issue no. .... year ..... (single copy € **29,00** post free)



TOTAL

Name .....

Job Title .....

Company .....

Street .....

Post Code ..... City .....

Country .....

Tel. (int. + ..... / ..... ) .....

Fax .....

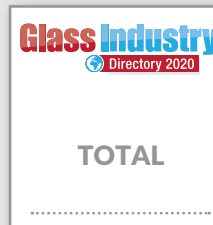
E-mail .....

www. ....

**ALL COMPANIES MUST ENTER: VAT OR UST ID / FISCAL ID / TAX ENROL / FEDERAL IDENTIFICATION / COMPANY REGISTRATION NUMBER**  
NUMBER: .....

PLEASE TYPE OR PRINT IN CAPITAL LETTERS

- Please **SEND ME** no. .... back copy/ies of this year's edition at the price of € **30,00** each, air mail included



TOTAL

**N.B. AFTER RECEIPT OF PAYMENT WE WILL SEND YOU AN INVOICE. ALL BANK TRANSFERS MUST INCLUDE YOUR COMPLETE COMPANY ADDRESS AND THE MAGAZINE TITLES OR THE SERVICES REQUESTED. PLEASE ALSO NOTE THAT A151 SRL IS NOT RESPONSIBLE FOR ANY BANK EXPENSES, COMMISSION OR OTHER COSTS.**

- Please **SEND ME** no. .... back copy/ies of this year's edition at the price of € **30,00** each, air mail included



TOTAL

Date ..... Signature .....

**SEND BY FAX OR EMAIL TO:**  
**+39 - 02 - 66305510**  
**publications@glassonline.com**

TOTAL € .....

**TOTAL PRINTED GLASS PUBLICATIONS** € .....

**TOTAL, LESS 10% DISCOUNT (FOR MULTIPLE SUBSCRIPTIONS)** € .....



## DEM

- Direct E-mail Marketing

## SOCIAL MEDIA



**A151 Srl** - Via Antonio Gramsci, 57  
20032 Cormano (Milano) - Italy  
Tel.: +39 - 02 - 66306866  
E-mail: publications@glassonline.com  
**www.glassonline.com**

# FLOAT PLANTS

BY GEOGRAPHIC AREA AND COUNTRY





Europe ..... 161 - 171  
Middle East + Africa ... 173 - 185  
Asia + Australia ..... 186 - 211  
Americas ..... 212 - 221





**GlassBuild**  
**A M E R I C A**  
THE GLASS, WINDOW & DOOR EXPO

**NGA**  
NATIONAL GLASS ASSOCIATION with GANA

# FORWARD FOCUS: WHAT'S NOW, WHAT'S NEXT IN GLASS & FENESTRATION

The entire industry supply chain will be gathering for the largest glass and fenestration event in all of North America this year to address and explore the latest in product technologies, building and energy codes, economic forecasts, and business-building tools and strategies.

**Learn and see what's now, and what lies ahead at GlassBuild America.**

.....  
**Registration Opens May 5 | [GlassBuildAmerica.com](http://GlassBuildAmerica.com)**

➔ For exhibiting opportunities contact  
Jonathan Watson [jwatson@glass.org](mailto:jwatson@glass.org)  
For brand engagement opportunities contact  
Andrew Haring [aharing@glass.org](mailto:aharing@glass.org)

SEPT  
**15-17**  
2020  
Las Vegas, NV



# FLOAT PLANTS

# EUROPE



## BELGIUM

See complete company profile on page 166

### AGC LAMINATED GLASS MOUSTIER

Rue De La Glacerie 167  
5190 Moustier-Sur-Sambre - **Belgium**  
Tel.: +32-71-755211  
Fax: +32-71-786598  
☎ [www.agc-glass.eu](http://www.agc-glass.eu)  
Number of Lines: 4

### AGC KEMPENGLAS

Voortstraat, 27 - 2400 Mol - **Belgium**  
Tel.: +32-14-819704  
Fax: +32-14-811561  
☎ [www.agc-kempenglas.be](http://www.agc-kempenglas.be)  
☎ [www.agc-glass.eu](http://www.agc-glass.eu)  
Number of Lines: 1

## BULGARIA

### TRAKYA GLASS BULGARIA / FLAT & AUTOMOTIVE GLASS

Vabel District Industrial Area  
7700 Targovishte - **Bulgaria**  
Tel.: +359-601-47925  
Fax: +359-601-47926  
☎ [www.sisecamduzcam.com](http://www.sisecamduzcam.com)  
Number of Lines: 1

## CZECH REPUBLIC

### AGC FLAT GLASS CZECH A.S

Sklarska 450 - 416 74 Teplice  
**Czech Republic**  
Tel.: +420-417-501111  
Fax: +420-417-502777  
☎ [www.agc-glass.eu](http://www.agc-glass.eu)  
Number of Lines: 3

## FRANCE

### AGC GLASS FRANCE / BOUSSOIS

100, Rue Léon Gambetta  
Bp1 - 59168 Boussois - **France**  
Tel.: +33-3-27694175

Fax: +33-3-27694075  
☎ [www.agc-glass.eu](http://www.agc-glass.eu)  
Number of Lines: 2

### AGC INTERPANE GLASS - FRANCE

Mégazone De Moselle Est  
Parc D'Activité De Farébersviller  
57455 Seingbouse - **France**  
Tel.: +33-3-87002050  
Fax: +33-3-87002051  
☎ [www.interpane.com](http://www.interpane.com)  
Number of Lines: 1

### EUROGLAS - GLAS TRÖSCH GROUP

Z.I. De Hombourg  
68490 Hombourg - **France**  
Tel.: +33-3-89833500  
Fax: +33-3-89260808  
☎ [www.euroglas.com](http://www.euroglas.com)  
Number of Lines: 1

### EUROFLOAT - SAINT-GOBAIN GLASS

312 Rue Des Balmes - Zi Et Portuaire  
38150 Salaise-sur-sanne - **France**  
Tel.: +33-4-74293075  
Fax: +33-4-74293086  
☎ [www.saint-gobain.com/fr/eurofloat](http://www.saint-gobain.com/fr/eurofloat)  
Type: float  
Number of Lines: 1

### SAINT-GOBAIN GLASS FRANCE

Les Miroirs 18, avenue d'Alsace  
92400 Courbevoie - **France**  
Tel.: +33 - 1 - 47 62 34 58  
☎ [www.saint-gobain.com](http://www.saint-gobain.com)

### SAINT-GOBAIN GLASS ANICHE

249 Boulevard Drion  
59580 Aniche - **France**  
Tel.: +33 3-27934330  
Fax: +3-3-27934319  
☎ [www.saint-gobain.com/en/france](http://www.saint-gobain.com/en/france)  
Number of Lines: 1

### SAINT-GOBAIN GLASS - CENTRE DE RECHERCHE

Rue De Maréchal Joffre

B.P. 15 - F-60150 Thourotte  
**France**

Tel.: +33-3-44923793  
Fax: +33-3-44923790  
☎ [www.saint-gobain.com/en/france](http://www.saint-gobain.com/en/france)  
Number of Lines: 1

## GERMANY

### EUROGLAS GMBH

Dammühlenweg 60  
D-39340 Haldensleben  
**Germany**  
Tel.: +49 - 3904 63 80  
☎ [www.euroglas.com](http://www.euroglas.com)

### EUROGLAS - GLAS TRÖSCH GROUP / HALDENSLEBEN

Dammühlenweg 60  
39340 Haldensleben  
**Germany**  
Tel.: +49-3904-6380  
Fax: +49-3904-638100  
☎ [www.euroglas.com](http://www.euroglas.com)  
Number of Lines: 1

### EUROGLAS - GLAS TRÖSCH GROUP / OSTERWEDDINGEN

Euroglas Straße 101  
39171 Osterweddingen  
**Germany**  
Tel.: +49-3904-6380  
Fax: +49-3904-6384150  
☎ [www.euroglas.com](http://www.euroglas.com)  
Type: float  
Number of Lines: 1

### GUARDIAN FLACHGLAS GMBH

Guardianstrasse 1  
06766 Thalheim  
**Germany**  
Tel.: +49-3494-361741  
Fax: +49-3494-361501  
☎ [www.guardianglass.com](http://www.guardianglass.com)  
Number of Lines: 1

**PILKINGTON - NSG DEUTSCHLAND / GLADBECK**  
Hegestrasse

D-45966 Gladbeck-Rentfort  
**Germany**  
 Tel.: +49-2043-4050  
 Fax: +49-2043-405204  
 ☛ [www.pilkington.com](http://www.pilkington.com)  
 ☛ [www.nsg.com/en](http://www.nsg.com/en)  
 Number of Lines: 2

## PILKINGTON - NSG DEUTSCHLAND / WEIHERHAMMER

Flachglasstrasse 3  
 D-92729 Weiherhammer  
**Germany**  
 Tel.: +49-9605-180  
 Fax: +49-9605-18232  
 ☛ [www.pilkington.com](http://www.pilkington.com)  
 ☛ [www.nsg.com/en](http://www.nsg.com/en)  
 Number of Lines: 2

## SAINT-GOBAIN SEKURIT DEUTSCHLAND

Concordiaplatz 3  
 51143 Köln - Porz  
**Germany**  
 Tel.: +49-2203-9560  
 Fax: +49-2203-  
 ☛ [www.saint-gobain-sekurit-transport.com](http://www.saint-gobain-sekurit-transport.com)  
 Type: float  
 Number of Lines: 1

## SAINT-GOBAIN SEKURIT / HERZOGENRATH PLANT

Glasstrasse 1  
 52134 Herzogenrath  
**Germany**  
 Tel.: +49-2406-820  
 Fax: +49-2406-822320  
 ☛ [www.saint-gobain-sekurit-transport.com](http://www.saint-gobain-sekurit-transport.com)  
 Number of Lines: 1

## SAINT-GOBAIN - FLACHGLAS / TORGAU

Solarstrasse 1  
 04860 Torgau  
**Germany**  
 Tel.: +49-3421-7510  
 Fax: +49-3421-75190364  
 ☛ [www.saint-gobain-glass.com](http://www.saint-gobain-glass.com)

Number of Lines: 1

## SAINT-GOBAIN SEKURIT / STOLBERG PLANT

Nikolausstr. 1  
 D-52222 Stolberg  
**Germany**  
 Tel.: +49-2402-9600  
 Fax: +49-2402-960389  
 ☛ [www.saint-gobain-sekurit-transport.com](http://www.saint-gobain-sekurit-transport.com)  
 Number of Lines: 1

See complete company profile on page 170

## SCHOTT AG

Hattenbergstrasse 10  
 D-55122 Mainz  
**Germany**  
 Tel.: +49-6131-664094  
 Fax: +49-6131-664041  
 E-mail: [info@schott.com](mailto:info@schott.com)  
 ☛ [www.schott.com](http://www.schott.com)

## HUNGARY

See complete company profile on page 168

## OROSHAZA GLAS - GUARDIAN HUNGARY

Csorvasi U. 39 - 5900 Oroshaza  
**Hungary**  
 Tel.: +36-68-419419  
 Fax: +36-68-419429  
 ☛ [www.oroshazaglas.hu](http://www.oroshazaglas.hu)  
 ☛ [www.guardianglass.com/](http://www.guardianglass.com/)  
 Number of Lines: 1

## ITALY

## AGC FLAT GLASS ITALY

Via Genova, 31  
 12100 Cuneo (CN)  
**Italy**  
 Tel.: 0171 3401  
 Fax: 0171-340349  
 ☛ [www.agc-glass.eu](http://www.agc-glass.eu)  
 Number of Lines: 1

## PILKINGTON - NSG GROUP ITALY

Zona Industriale  
 66050 San Salvo (CH)  
**Italy**  
 Tel.: 0873-3481  
 Fax: 0873-549998  
 ☛ [www.pilkington.com](http://www.pilkington.com)  
 ☛ [www.nsg.com/en](http://www.nsg.com/en)  
 Number of Lines: 2

## PILKINGTON - NSG GROUP ITALY

Via Delle Industrie 46  
 30175 Porto Marghera (VE)  
**Italy**  
 Tel.: 041-5334911  
 Fax: 041-5317687  
 ☛ [www.pilkington.com](http://www.pilkington.com)  
 Number of Lines: 1

## SAINT-GOBAIN GLASS ITALY SPA

Via Ponte a Piglieri 2  
 56121 Pisa (PI)  
**Italy**  
 Tel.: 050-516111  
 Fax: 050-48266  
 ☛ [it.saint-gobain-building-glass.com](http://it.saint-gobain-building-glass.com)  
 Number of Lines: 1

## SISECAM FLAT GLASS ITALY

Via Jacopo Linussio, 2  
 33058 San Giorgio di Nogaro (UD)  
**Italy**  
 Tel.: 0431-621761  
 ☛ [www.sisecamduzcam.com](http://www.sisecamduzcam.com)  
 Number of Lines: 1

## SISECAM FLAT GLASS SOUTH ITALY

Strada Statale 89, Km 162,50  
 Loc. Chiusa Barone  
 Fraz. Macchia  
 71037 Monte Sant'Angelo (FG)  
**Italy**  
 Tel.: 0884-580548  
 Fax: 0884-580531  
 ☛ [www.sisecamduzcam.com](http://www.sisecamduzcam.com)  
 Number of Lines: 1

## LUXEMBOURG

### **GUARDIAN LUXGUARD II, SA**

Zone Industrielle Wolser  
Dudelange, 3452

**Luxembourg**

Tel.: 352 - 52 - 1111

 [www.guardianglass.com/europe/aboutguardian/plantlocations/dudelange/index.htm](http://www.guardianglass.com/europe/aboutguardian/plantlocations/dudelange/index.htm)

### **GUARDIAN EUROPE S.A. / LUXGUARD 1**

Route De Luxembourg  
Zone Industrielle Bommelscheuer  
L-4940 Bascharage

**Luxembourg**

Tel.: +352-50301

Fax: +352-503745

 [www.guardianglass.com](http://www.guardianglass.com)

Number of Lines: 1

### **GUARDIAN EUROPE S.A. - LUXGUARD 2**

Z.I. Wolser - L-3452 Dudelange

**Luxembourg**

Tel.: +352-521111

Fax: +352-516958

 [www.guardianglass.com](http://www.guardianglass.com)

Number of Lines: 1

## POLAND

### **EUROGLAS POLSKA - GLAS TRÖSCH GROUP**

Osiedle Niewiadow 65  
97-225 Ujazd

**Poland**

Tel.: +48-44-7194000

Fax: +48-44-7194999

 [www.euroglas.com](http://www.euroglas.com)

Number of Lines: 1

### **GUARDIAN GLASS CZESTOCHOWA SP. Z O.O.**

Korfantego 31/35  
Pl-42200 Czestochowa

**Poland**

Tel.: +48-343239200

Fax: +48-343239200

 [www.guardianglass.com](http://www.guardianglass.com)

Number of Lines: 1

### **PILKINGTON - NSG GROUP POLSKA**

Ul. Portowa 24 - ZNL Sandomierz  
27600 Sandomierz

**Poland**

Tel.: +48-15-8323041

Fax: +48-15-8323925

 [www.pilkington.com](http://www.pilkington.com)

 [www.nsg.com/en](http://www.nsg.com/en)

Number of Lines: 1

### **SAINT-GOBAIN GLASS POLSKA SP. ZO.O.**

Ul. Szklanych Domów 1  
42-530 Dabrowa Gornicza

**Poland**

Tel.: +48-32-2954000

Fax: +48-32-2954108

 [pl.saint-gobain-building-glass.com](http://pl.saint-gobain-building-glass.com)

Number of Lines: 2

## PORTUGAL

### **SAINT-GOBAIN GLASS PORTUGAL**

Estrada Nacional 10 - Apartado 1713  
2691-652 Santa Iria de Azoia

**Portugal**

Tel.: +351-21-9534600

Fax: +351-21-9534642

 [pt.saint-gobain-glass.com](http://pt.saint-gobain-glass.com)

Number of Lines: 1

## ROMANIA

### **SAINT-GOBAIN GLASS ROMANIA SRL**

Str. VARIANTA NORD, nr. 61  
910053 CALARASI - Jud. CALARASI

**Romania**

Tel.: +40-242-305164

Fax: +40-242-305109

 [www.saint-gobain-glass.com](http://www.saint-gobain-glass.com)

Number of Lines: 1

## RUSSIA

### **AGC FLAT GLASS / BOR PLANT**

Steklozavodskoe Shosse 1  
606443 Bor Nizhny  
Novgorod Region

**Russia**

Tel.: +7-831-2200207

Fax: +7-831-2369513

 [www.agc-glass.eu](http://www.agc-glass.eu)

Number of Lines: 2

### **AGC FLAT GLASS / KLIN PLANT**

Sosnovy bor str. 36  
141667 Klin District Moscow Regio

**Russia**

Tel.: +7-495-7839571

Fax: +7-495-7839569

 [www.agc-glass.eu](http://www.agc-glass.eu)

Number of Lines: 2

### **CASPIAN FLAT GLASS**

Tyube Settlement, Kumtorkalinskiy  
District, 368085,

Republic of Dagestan

**Russia**

Tel.: +7 - 800 - 770 02 08

 [flatglass.ru/en](http://flatglass.ru/en)

### **CASPIAN FLAT GLASS**

Tube settlement

Kumtorkalinsky Rayon

Republic of Dagestan 368085

**Russia**

Tel.: +7-8722-518501

 [www.flatglass.ru](http://www.flatglass.ru)

Number of Lines: 1

### **GUARDIAN STEKLO RYAZAN LLC**

Uzhniy Promuzel district 17a  
390011 Ryazan

**Russia**

Tel.: +7-4912-956600

Fax: +7-4912-956601

 [www.guardian-russia.ru](http://www.guardian-russia.ru)

Number of Lines: 1

## GUARDIAN STEKLO ROSTOV LLC

Sodruzhestva 1 - 346353 Krasny  
Sulin

**Russia**

Tel.: +7-863-6750900

Fax: +7-863-675090

**Web:** <http://www.guardian-russia.ru>

Number of Lines: 1

## JSC SALAVATSTEKLO

Industrialnaya Str. 18 Salavat  
453253

**Russia**

Tel.: +7 - 3476 - 33 49 52

☎ [www.salstek.ru](http://www.salstek.ru)

## SALAVATSTEKLO PJSC

St.Industrialnaya, 18  
Republic of Bashkortostan  
53253 Salavat City

**Russia**

Tel.: +7-3476-335251

Fax: +7-3476-335270

☎ [www.salstek.ru](http://www.salstek.ru)

Number of Lines: 1

## SP GLASS - PILKINGTON RUSSIA / NSG GROUP

1, Stekolnaya str.  
Zhukovo village, Ramensky district  
140125 Moscow region

**Russia**

Tel.: +7-495-3699500

Fax: +7-495-3699501

☎ [www.spglass.ru](http://www.spglass.ru)

☎ [www.nsg.com](http://www.nsg.com)

Number of Lines: 1

## TRAKYA GLASS RUS – SISECAM GROUP

Sh-2 Street, Building 4/1  
Special Economic Zone (SEZ)  
"Alabuga" - 423600 Elabuga  
Municipal Dis. - Tatarstant

**Russia**

Tel.: +7-85557-53301

☎ [www.sisecamduzcam.com](http://www.sisecamduzcam.com)

Number of Lines: 1

## SPAIN

### AGC FLAT GLASS IBERICA

Vial IV Planta KM 2,8  
Apartado de correos 119  
46500 Sagunto (Valencia)

**Spain**

Tel.: +34-96-2654217

☎ [www.agc-glass.eu](http://www.agc-glass.eu)

Number of Lines: 1

### GUARDIAN GLASS LLODIO

Cl. José Matia, 36  
Apartado De Correos 2  
E-01400 Llodio (Alava)

**Spain**

Tel.: +34-94-6719509

Fax: +34-94-6719508

☎ [www.guardianglass.com](http://www.guardianglass.com)

Number of Lines: 1

### GUARDIAN GLASS NAVARRA

Pol. Ind. Montes De Cierzo S/n  
CTRA. NACIONAL 232, KM. 86  
31500 Tudela (Navarra)

**Spain**

Tel.: +34-94-8817209

Fax: +34-94-8817207

☎ [www.guardianglass.com](http://www.guardianglass.com)

Number of Lines: 1

### SAINT-GOBAIN FÁBRICA DE AVILÉS

Avda. De Lugo 110. Apdo 88  
33408 Avilés - Asturias

**Spain**

Tel.: +34-985-127128

Fax: +34-985-127101

☎ [www.saint-gobain.com](http://www.saint-gobain.com)

Number of Lines: 1

### SAINT-GOBAIN FÁBRICA DE ARBÓÇ

Apartado 1 - Carretera N. 340 Km  
1199  
43720 L'Arboç (Tarragona)

**Spain**

Tel.: +34-977-166207

Fax: +34-977-166115

☎ [www.saint-gobain.com](http://www.saint-gobain.com)

Number of Lines: 1

## THE NETHERLANDS

### AGC FLAT GLASS NEDERLAND B.V.

Panovenweg 20  
PB 6025  
4000 HA Tiel

**The Netherlands**

Tel.: +31-344-679922

Fax: +31-344-679724

☎ [www.agc-glass.eu](http://www.agc-glass.eu)

Number of Lines: 1

## TURKEY

### ŞİŞECAM

İçmeler Mahallesi D-100 Karayolu  
Cad. No - 44<sup>a</sup> İstanbul, 34947

**Turkey**

Tel.: +90 - 850 - 206 50 50

☎ [www.sisecam.com.tr](http://www.sisecam.com.tr)

### TRAKYA CAM - SISECAM GROUP / FLAT & AUTOMOTIVE PLANT

Buyukkaristiran Mevkii Pk 28  
39780 Luleburgaz - Kirlareli

**Turkey**

Tel.: +90-288-4008531

Fax: +90-288-4368358

☎ [www.sisecamduzcam.com](http://www.sisecamduzcam.com)

Number of Lines: 2

(see also the Middle East list)

## UNITED KINGDOM

### PILKINGTON GROUP

European Technical Centre Hall Lane  
Lathom Near Ormskirk  
Lancashire, L40 5UF

**United Kingdom**

Tel.: +44 - 0169 - 550 000

☎ [www.pilkington.com](http://www.pilkington.com)



# AGC Glass Europe

Enabling better vision,  
clearer communications and  
greater comfort and safety for  
drivers and passengers

*“AGC Automotive has been a worldwide leader  
in automotive glazing for over 50 years.”*

AGC Glass Europe is the European branch of AGC (Japan), a world-leading supplier of flat, automotive and display glass, chemicals and other high-

tech materials and components. AGC Glass Europe supplies most of the world's major vehicle manufacturers, offering a complete range of windows

(windscreen, side windows, roofs and backlites) in standard colors (green, grey, clear, extraclear), transparencies (light or dark) and thicknesses.







Its latest technological accomplishments include: panoramic windscreens with complex shapes, heated windscreens, head-up display, variable light transmission and much more. The company also supplies the automotive industry with OEM and replacement glass, and serves the wider transport industry with train, tram and bus glass.

### Head-up for safety

A wide range of windscreen solutions are available to enhance driver visibility in all weather conditions, such as water repelling glass and technologies to remove fog or frost from the windows. Head-up displays help the driver stay focused on the road. AGC's automotive glass also protects vehicle occupants

and possessions through laminated glazing applied to the windscreen or filters integrated in the glass to block ultraviolet (UV) rays.

### Control glass for sunroofs

Its Wonderlite light control glass for sunroofs allows on-demand control of the amount of light and heat entering the vehicle, at the touch of a button. In a few moments, the glass switches from dark to clear, also blocking ultraviolet (UV) rays.

### Connectivity and privacy - in style

Designing and incorporating high performance antennas into vehicle glazing ensures that advanced technology does not spoil the lines of the vehicle.

Dark tinted glass gives an elegant, stylish look while giving privacy, as well as maintaining comfortable temperatures in summer by preventing heat from entering the vehicle.

### Side windows add to passenger well-being

Laminated or glass incorporating filters improves passenger comfort by reducing both noise and heat, while tempered glazing offers greater protection.

### Value-added technology

AGC Automotive provides ready-to-assemble systems (fixation devices), higher value-added functional systems (antennas, sensors, heating elements) and enhanced property glazing to improve safety and comfort for drivers and passengers.

AGC Europe has more than 100 sites throughout Europe from Spain to Russia, and around 16,500 employees.



AGC Glass Europe

Avenue Jean Monnet

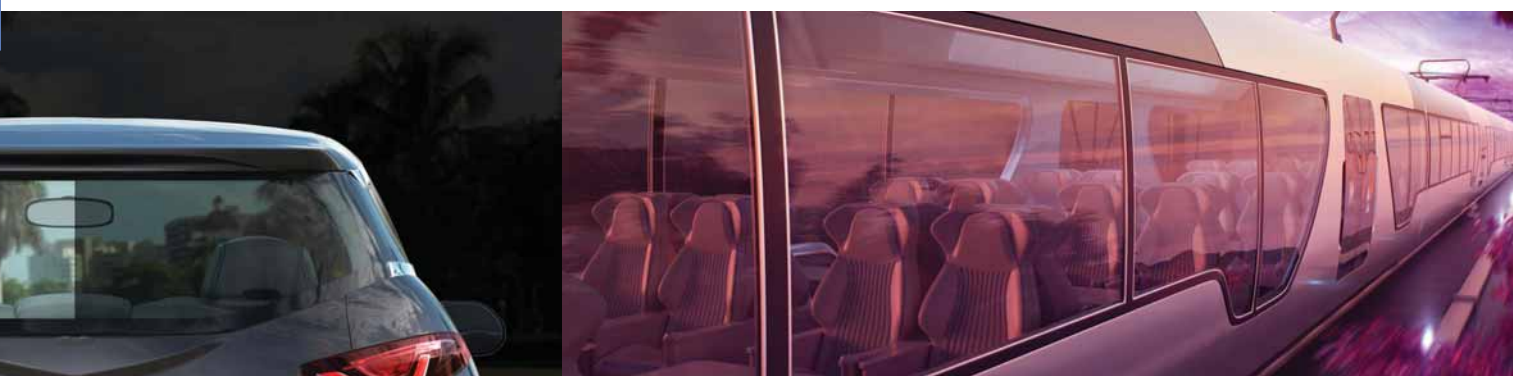
41348 Louvain-la-Neuve - Belgium

Tel.: +32-2-4093000

Fax: +32-2-6724462

E-mail: [comauto@eu.agc.com](mailto:comauto@eu.agc.com)

[WWW.AGC-GLASS.EU/EN/PRODUCTS/AUTOMOTIVE](http://WWW.AGC-GLASS.EU/EN/PRODUCTS/AUTOMOTIVE)



# OROSHÁZA GLAS

Hungary's award-winning  
glass construction  
company: since 1995

*“ Continuous development and upgrading  
of technology and production lines keeps  
OROSHÁZA GLAS at the forefront of architectural  
glass capability. ”*



OROSHÁZA GLAS has been producing flat glass in Budapest, Hungary, since 1995, for the construction, vehicle and other industrial sectors. It offers a range of architectural glasses, for both indoor and outdoor use, including sun protection, fire and safety glass with the following traits:

- Thickness: 2 to 19 mm
- Maximum size (single-layered glass):  
3.210 mm x 6.000 mm
- Maximum dimensions (laminated glass):  
3.210 mm x 4.500 mm



As well as grinding, drilling, milling, cutting etc, OROSházaGLAS offers a range of painting processes, including tailor-made solutions. RAL colours can also be ordered. The paints used are harmless to the environment, being free from heavy metals. The processes include cylindrical printing, (giving an uninterrupted effect, suitable for parapet glass) raster painting (suitable for vehicle glasses) and decor painting of individual or standard patterns in one or more colors (eg glass shielding elements).

The company also produces small and medium series of

monolithic and insulating glass structures for the vehicle industry, supplying both vehicle OEMs and automotive glass frame manufacturers. They are certified to supply road, railway and tramway vehicle industries in several European countries as well as in US and Canada.

### Special products for building applications

With the ongoing advances in glass processing technology, OROSházaGLAS has developed a wide range of special products for industrial and home applications. There are new colours, improved light

transmittance in clear glasses, and crystal clear glass with reduced vas-oxide. Glass partitions, information boards, escalators, elevators, home appliances, furniture, refrigerator and other special appliances have become a part of the company's range. Wall coverings for both interior and exterior surfaces can be custom made.

### Production Plant Overview

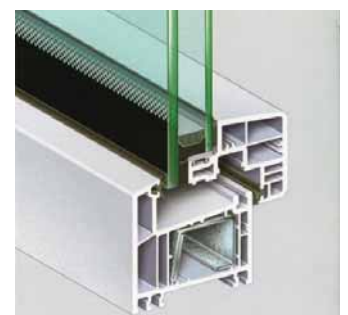
#### Glassware Processing

- cutting jumbo size (6000 \* 3210) from raw material into automatic machine lines
- Polishing straight and shaped glass on CNC machines

- drilling, milling, water cutting tasks on CNC plants
- Ceramic painting on partially or completely surface, on screen and cylindrical paint lines
- Training and heat strengthening on air-blast furnaces
- heat insulating glass manufacturing on automated production lines, custom sizes with manual production
- production of laminated glass with safety foil with low pressure autoclave system
- heat soak testing of tempered products

#### Product composition

- architectural facade glasses
- interior decoration products
- cabinet booths
- glasses of public transport vehicles
- other industrial use products



Oroshaza Glas

Csorvasi U. 39  
5900 Oroshaza - Hungary

Tel.: +36-68-419419 - Fax: +36-68-419429

E-mail: ohg@oroshazaglas.hu

[WWW.ROSHAZAGLAS.HU](http://WWW.ROSHAZAGLAS.HU)

# Schott Ag

From ultra thin folding glass  
for mobile devices to  
tough architectural glasses



*“Whether for the home, the health sector or digital world, or right out into space, Schott continues to exceed technological and creative boundaries for glass.”*

SCHOTT is a leading international technology group in the areas of specialty glass and glass-ceramics its headquarters in Mainz (Germany) and is solely owned by the Carl Zeiss Foundation. With over 130 years of

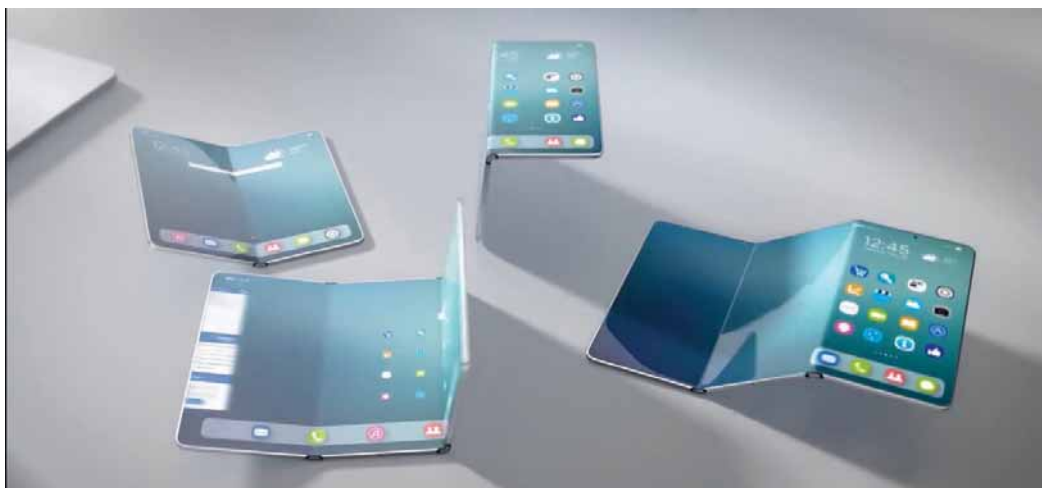
materials and technology expertise, they offer a wide range of high-quality products and intelligent solutions to many industries, including building glasses, home appliance, pharmaceutical, electronics, optics, life

sciences, automotive and aviation industries.

#### **Focus on Architecture**

Schott's architectural glasses for both exterior and interior applications have been a part of its story since the

beginning. From fire resistant and protective glazing, windows, glass for historic facades and protecting cultural treasures and artworks, to glass for furniture and shower screens, the range is almost endless. An interesting addition to the



### Consumer electronics - Ultra thin glass applications

Another area of the company's specialist knowledge and research is in the consumer electronics field. It is at the forefront of glass for camera components, display technologies and for mobile devices including cover, folding, optical and sensor glass.

Schott's proprietary down-draw technology can deliver mass volume, high strength, scratch resistant, ultra-thin glass with no need for slimming. SCHOTT AS 87 eco is an aluminosilicate glass (100 - 350  $\mu\text{m}$ ), suitable for chemical strengthening, which offers a high level of mechanical impact resistance and bending strength, as well as high resistance to scratches, making it perfect for many applications such as screen protectors, fingerprint sensor covers etc.

This is just one of the plethora of innovative products from Schott's special flat glass and wafer thin ranges.

architectural range is coloured glass which produces iridescent color effects in six different variations. It can be used for both interior and exterior applications alike, making it ideal for architects, artists, and designers.

SCHOTT MIRONA® glass is unique due to its combination of specific reflection and transmission. When the space behind the glass is dark, SCHOTT MIRONA® glass is a

mirror, while light transforms it into a transparent window, enabling sophisticated staging of spaces and objects. Unlike switchable glass products, this effect results solely from the coatings applied to the glass. Known for its research and innovation, Schott's interior glass range also includes highly-specialised museum glasses, such as for protective picture glazing and high-transparency, scratch resistant glass tubing

and rods for display cases. Security glass and anti-vandalism glass (up to P6B, P8B) are also available in very thin certified configurations, and many lines are available with specific coating characteristics (best performance for non-tempered, tempered, bent applications). Since 2014 Schott has worked with a group of partner companies known as Schott Architectural partners, in Europe and the Middle East which act as distributors, processors and refiners, to enable fast, efficient and specialised local customer service.



**SCHOTT**  
glass made of ideas

#### Schott Ag

Hattenbergstrasse 10  
D-55122 Mainz  
Germany

Tel.: 0049-6131-664094

Fax: 0049-6131-664041 - E-mail: [info@schott.com](mailto:info@schott.com)

[WWW.SCHOTT.COM](http://WWW.SCHOTT.COM)



**GLASS**  
TECHNOLOGY EXPO2020

# GLANCE INTO A WORLD OF INNOVATION

Zak returns to Mumbai with the 18<sup>th</sup> edition of India's leading expo on Glass processing and its allied technologies. Be a part of the grand display of latest advancements in the field by industry pioneers.

**03-06** | BOMBAY EXHIBITION CENTRE (BEC)  
**DEC** | NESCO CENTER, GOREGAON EAST  
**2020** | **MUMBAI**

CONCURRENT  
SHOWS



**DOORS &  
WINDOWS**

EXPO2020



**ALUMINIUM  
EXTRUSIONS**

EXPO2020



Organised by: **ZAK TRADE FAIRS & EXHIBITIONS PVT. LTD.**

2A, Second Floor, 40, Murrays Gate Road, Alwarpet, Chennai-18. Tel : +91 44 4295 9595 | [www.zakgroup.com](http://www.zakgroup.com)  
For enquiries contact: Sulaiman Khan | +91 98999 52189 | [skhan@zakgroup.com](mailto:skhan@zakgroup.com) | [www.zakglasstech.com](http://www.zakglasstech.com)

# FLOAT PLANTS MIDDLE EAST + AFRICA

**MFG - MEDITERRANEAN FLOAT  
GLASS / GROUPE CEVITAL**

**PHOENICIA FLAT GLASS  
INDUSTRIES**

**ARDAKAN FLOAT GLASS**

**GUARDIAN ZOUJAJ  
INTERNATIONAL FLOAT GLASS**

**ARABIAN UNITED FLOAT  
GLASS COMPANY**



## ALGERIA

See complete company profile on page 176

### **MFG - MEDITERRANEAN FLOAT GLASS / GROUPE CEVITAL**

29, Route De Meffah  
L'Arbaa - 09300 Blida

#### **Algeria**

Tel.: +213-21-448644

 [www.mfg.dz](http://www.mfg.dz)

Number of Lines: 1

## EGYPT

### **EGYPTIAN GLASS - GUARDIAN GLASS FLOAT PLANT**

1st Industrial Area A1  
Po Box 216  
10th Of Ramadan, Elsharkja

#### **Egypt**

Tel.: +20-15-410464

Fax: +20-15-410830

 [www.guardianglass.com](http://www.guardianglass.com)

Number of Lines: 1

### **SAINT-GOBAIN GLASS & SISECAM GROUP**

66 Cornish El Nile,  
Elzahraa Building  
Maadi - Cairo

#### **Egypt**

Tel.: +20-212-3503534

Fax: +20-212-3505080

 [eg.saint-gobain-glass.com](http://eg.saint-gobain-glass.com)

 [www.sisecam.com.tr/en](http://www.sisecam.com.tr/en)

Number of Lines: 1

### **SPHINX GLASS LTD.**

52 Corniche El-nil  
Al-Sharifayn Tower - 10th Floor  
Maadi - Cairo - Egypt

Tel.: +20-2-25258005

Fax: +20-2-25260506

 [www.sphinxglass.com](http://www.sphinxglass.com)

Number of Lines: 1

## IRAN

See complete company profile on page 178

### **ARDAKAN FLOAT GLASS CO. / PLANT**

Km 9, Riasat Jomhoori Highway  
P.O.Box 89515/371  
89515-371 Ardakan City, Yazd

#### **Iran**

Tel.: +98-35-32243200

Fax: +98-35-32243201

 [www.ardakanglass.com](http://www.ardakanglass.com)

Number of Lines: 1

### **ASA FLOAT GLASS & MIRROR / KAVEH GROUP**

Maragheh - Tabriz Province

#### **Iran**

Tel.: +98--21-29490

 [www.kavehglass.com](http://www.kavehglass.com)

Number of Lines: 1

### **AZAR GLASS CO. / SAHAND INDUSTRIAL GROUP**

Akhola Road - 15 Km of Tabriz-  
Khosroshahr Road - Tabriz

#### **Iran**

Tel.: +98-41-32446776

Fax: +98-41-32447861

 [www.sig.co.ir](http://www.sig.co.ir)

 [www.sig.co.ir/en/Home/Index](http://www.sig.co.ir/en/Home/Index)

Number of Lines: 1

### **KAVEH GLASS GROUP**

KAVEH Building, No.4 , Majdi BLVD ,  
Oshan BLVD., End of Northern Imam  
Ali - HWY., Tehran

#### **Iran**

Tel.: +98 - 21 - 29100 / 29490

 [www.kavehglass.com](http://www.kavehglass.com)

### **KAVEH FLOAT GLASS / KAVEH GROUP**

3rd Alley - Kaveh Industrial city  
Saveh County

#### **Iran**

Tel.: +98-256234-3111

Fax: +98-256234-3744

 [www.kavehglass.com](http://www.kavehglass.com)

Number of Lines: 1

### **IRAN FLOAT GLASS CO. / KAVEH GROUP**

Kaveh industrial City  
20th Alley

Saveh County

#### **Iran**

Tel.: +98-256234-3271

Fax: +98-256234-3272

 [www.kavehglass.com](http://www.kavehglass.com)

Number of Lines: 1

### **LIYA GLASS CO.**

No. 161, Mirdamad St  
Tehran 19116

#### **Iran**

Tel.: +98-21-22256615

Fax: +98-21-22227384

 [www.liyaglass.com](http://www.liyaglass.com)

Number of Lines: 1

### **SAVEH JAM FACTORY / KAVEH GROUP**

Kaveh Industrial City  
Saveh County

#### **Iran**

 [www.kavehglass.com](http://www.kavehglass.com)

Number of Lines: 1

### **SHISHEH TABAN CO. / KAVEH GROUP**

Kaveh Industrial City  
Saveh County - Iran

Tel.: +98-256234-3871

Fax: +98-256234-2776

 [www.kavehglass.com](http://www.kavehglass.com)

Number of Lines: 1

## ISRAEL

See complete company profile on page 182

### **PHOENICIA FLAT GLASS INDUSTRIES LTD**

P.O. Box 703  
Zipporit Industrial Zone

1710601 Nazareth Illit

#### **Israel**

Tel.: +972-4-6410200

 [www.phoenicia-ltd.com](http://www.phoenicia-ltd.com)

Number of Lines: 1





## REP. OF SOUTH AFRICA


### PFG BUILDING GLASS

.o. Box 111  
216 Industry Road, New Era  
Springs 1559  
**Rep. Of South Africa**  
Tel.: +27-11-3601000  
Fax: +27-11-3601111  
 [www.pfg.co.za](http://www.pfg.co.za)  
Number of Lines: 2

## SAUDI ARABIA

See complete company profile on page 184

### ARABIAN UNITED FLOAT GLASS COMPANY

P.O.Box: 31561  
Light Industrial City  
41912 Yanbu  
**Saudi Arabia**  
Tel.: +966-14-3255444  
Fax: +966-14-3250444  
E-mail: [info@aufgc.com](mailto:info@aufgc.com)  
 [www.aufgc.com](http://www.aufgc.com)

### OBEIKAN GLASS COMPANY

P.O. Box 355023,  
Riyadh 11383  
**Saudi Arabia**  
Tel.: +966 - (11) - 2839400  
 [www.obaikan.com.sa](http://www.obaikan.com.sa)

### OBEIKAN GLASS

Al Razi Street, Light Industries Zone  
41912 Yanbu al Sinayiah  
**Saudi Arabia**  
Tel.: +966-5-55845536  
Fax: +966-14-3931071  
 [www.obaikan.com.sa/glass-factory](http://www.obaikan.com.sa/glass-factory)  
Number of Lines: 1

### SAUDI GUARDIAN INTERNATIONAL FLOAT GLASS CO.

Tareeq 251 - P.O. Box 11963  
Al - Jubail 31961 Eastern  
**Saudi Arabia**  
Tel.: +966-3-3588888  
Fax: +966-3-3588899  
 [www.guardianglass.com](http://www.guardianglass.com)  
Number of Lines: 1

## SYRIA

### FIRST GLASS - KAVEH GROUP

Adra Industrial City  
Damascus  
**Syria**  
Tel.: +963-11-5850815  
Fax: +963-11-5850814  
 [www.kavehglass.com](http://www.kavehglass.com)  
Number of Lines: 1

## TURKEY

### TRAKYA CAM - SISECAM GROUP / FLAT & AUTOMOTIVE PLANT

Buyukkaristiran Mevkii Pk 28  
39780 Luleburgaz - Kirklareli  
**Turkey**  
Tel.: +90-288-4008531  
Fax: +90-288-4368358  
 [www.sisecamduzcam.com/en](http://www.sisecamduzcam.com/en)  
Number of Lines: 1

### TRAKYA CAM – SISECAM GROUP / MERSIN PLANT

Mersin Tarsus Organize Sanayi Bölgesi  
Atatürk Caddesi No.1  
33400 Akdeniz - Mersin  
**Turkey**  
Tel.: +90-324-6764070  
Fax: +90-324-6764073  
 [www.sisecamduzcam.com/en](http://www.sisecamduzcam.com/en)  
Number of Lines: 2

### TRAKYA CAM – SISECAM GROUP / POLATLI PLANT

Polatli Organize Sanayi Bölgesi  
Polatli Ankara  
**Turkey**  
Tel.: +90-212-3503106  
Fax: +90-224-7732755  
 [www.sisecamduzcam.com/en](http://www.sisecamduzcam.com/en)  
 [www.sisecam.com.tr/en/](http://www.sisecam.com.tr/en/)  
Number of Lines: 1

### TRAKYA CAM - SISECAM GROUP / YENISEHIR PLANT

Atatürk Organize Sanayi Bölgesi  
16900 Yenisehir  
Bursa  
**Turkey**  
Tel.: +90-224-2801205  
Fax: +90-224-7732755  
 [www.sisecamduzcam.com/en](http://www.sisecamduzcam.com/en)  
Number of Lines: 2

## U.A.E.

### EMIRATES FLOAT GLASS LLC

353MR2-ICAD-2 Musaffa  
8869 Abu Dhabi  
**UAE - United Arab Emirates**  
Tel.: +971-2-5994000  
Fax: +971-2-5502682  
 [www.efgme.com](http://www.efgme.com)  
Number of Lines: 1

See complete company profile on page 180

### GUARDIAN ZOUJAJ INTERNATIONAL FLOAT GLASS CO.

Al-Jazeera Al-Hamra  
Ras Al Khaimah,  
P.O. Box 6297  
**UAE - United Arab Emirates**  
Tel.: +971-7-2058000  
Fax: +971-7-2058001  
 [www.guardianglass.com](http://www.guardianglass.com)  
Number of Lines: 1

WELCOME TO

 glassOnline

[www.glassonline.com](http://www.glassonline.com)  
+39 02 66306866 • +39 02 66305510  
[publications@glassonline.com](mailto:publications@glassonline.com)

# Mediterranean Float Glass

MFG's prescription service  
assists contractors and  
clients in choosing  
the right glazing for projects.

*“One of Africa's largest producers,  
MFG covers more than 90% of local demand.”*



Mediterranean Float Glass (MFG SPA), a subsidiary of the Cevital group, was established in 2007 and has become one of Africa's leading flat glass producers. Its headquarters and factory are located in Larbaâ, Province of Blida, 32 km from the port of Algiers, covering an area of 30 hectares. MFG has quickly established itself in the world of glass, changing Algeria from flat glass importer to exporter. Focusing on two major areas, construction and household

applications, MFG is today considered one of the largest producers of flat glass in Africa. Products include clear, laminated, screen-printed, tempered, lacquered and enamelled glasses. The company has grown rapidly over the last several years, with a workforce of over 1000. Its export business has boomed since 2017 with the launch of a second float line. It currently operates four glass production lines:

- 2009 laminated glass line

235T/D

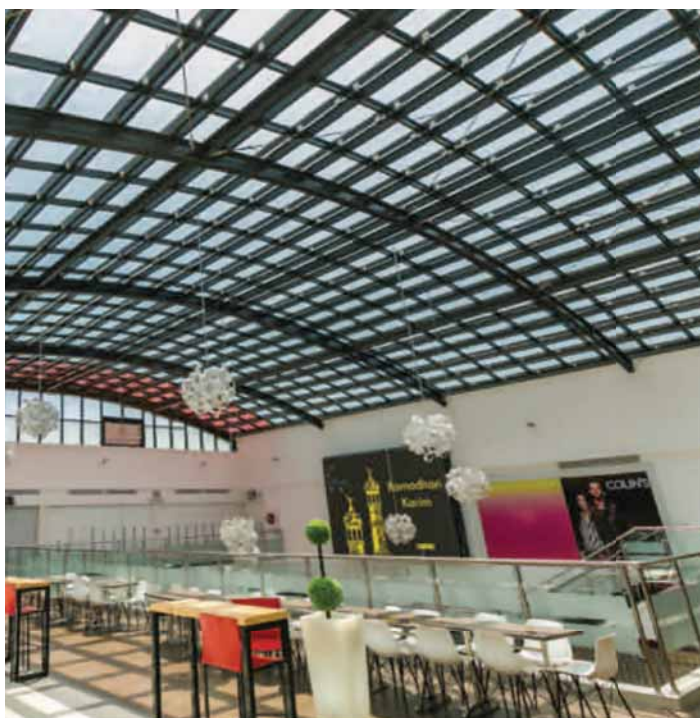
- 2010 flat glass processing unit;
- 2011 coated glass line 6 millions m<sup>2</sup>;
- In 2016 MFG inaugurated the second float line 800T/D, with the first line overall production of float glass reaching 1400T/J.

The MFG factory is equipped with latest generation production facilities, integrating the entire manufacturing process and ensuring total mastery of advanced technologies in this field. It has a power plant of 17 MW, which guarantees 100% autonomy in electricity, 5 lines of hydrogen with a capacity of 670m<sup>3</sup> / hr and 6 lines of nitrogen with a capacity of 6600m<sup>3</sup> / hr. MFG offers a technical

prescription service, to assist with architectural projects. It sets up the technical descriptions necessary to ensure the proper construction of the building, and also to meet technical and regulatory requirements.

Comprising mainly architects, the service assists contractors and clients in recommending and choosing the adequate glazing for projects, taking into consideration both the ambitions of the architect and the technical constraints of the project.

While meeting the local demand of which it covers more than 90%, MFG is present internationally, notably in the Maghreb (Morocco, Tunisia, Libya) and in Southern Europe (Spain, Italy, France, Portugal).



**MFG - Mediterranean Float Glass /  
Groupe Cevital**

29, Route De Meftah - L'Arbaa - 09300 Blida

Algeria - Tel.: +213-21-448644

E-mail: commercial.mfg@cevitaz.dz

[WWW.MFG.DZ/EN/](http://WWW.MFG.DZ/EN/)

# Ardakan Float Glass Company

**The vibrant construction industry in the Middle East and neighbouring markets is creating a growing demand for high quality float glass**

*“From raw material to finished product, Ardakan maintains complete control over the production of its glass products.”*

The Ardakan Float Glass Company (AFGC) in Iran was established in 2011. With its state-of-the-art float plant, and on-site crushing and dressing plant, it produces a range of high-quality clear and tinted glasses, as well as reflective, laminated, double glazing and decorative glass products for the architectural and automotive industries.

Using advanced technology and equipment selected from well-known international manufacturers such as SEPR, RHI, CNUD, Merkel and Bottero, the float glass line produces 220,000 tons per year with the following attributes:

Gross ribbon width 5.2 m

Thickness range 1.9 - 19mm  
Size: 1.350 x 2 - 4.88 x 7.2m  
All AFGC products are designed to meet the global quality standards for Architectural and Automotive applications through all secondary processes like spray and sputtering coating, bending and laminating, heat treatment etc. as specified for the end application.

Its extensive range of architectural glass includes finely decorated silk screened or etched (Satina range) glasses, as well as lacquered glass in a stunning array of designs and colours. Mirror glass comes in both silvered or decorated styles.

Ardakan also owns four mines

in the region which provide the raw materials for its production, allowing complete control over quality and reliability. The crushing and dressing plant is located in the immediate vicinity of the float glass factory. It consists of three workshops for producing silica, feldspar, dolomite and limestone powders. The nominal capacity of the plant is 1500 tons per day of washed, dressed and graded silica powder, 300 tons per day dolomite powder and 240 tons per day limestone powder and is the largest dressing plant in the Middle East.

Ardakan exports across Europe, Asia, Africa and South America, as well as the Middle East.



**Ardakan Float Glass Co.**

Km 9, Riasat Jomhoori Highway - P.O.Box 89515/371

89515-371 Ardakan City, Yazd - Iran

Tel.: +98-35-32243200 - Fax: +98-35-32243201

E-mail: [info@ardakanglass.com](mailto:info@ardakanglass.com)

[WWW.ARDAKANGLOSS.COM](http://WWW.ARDAKANGLOSS.COM)

# Guardian Glass

Constantly launching new products and advancing glass technologies, working closely with architects and partners on groundbreaking projects.

*“Guardian produces over 500 kilometres of float glass every day.”*

Guardian Glass produces float, high-performance glass and fabricated glass products for use in exterior (both commercial and residential) and interior architectural applications, transportation and technical glass applications.

As one of the world's largest producers of magnetron sputter coated glass and one of the largest float-glass producers,

Guardian produces 500km of float glass every day across 26 float glass plants world-wide - North America, South America, Asia, Africa and the Middle East, and Europe.

With over 700 products in its global portfolio its focus is on assisting architects, glaziers and building specialists create successful projects in absolutely every climate and situation.

## Architectural Hub

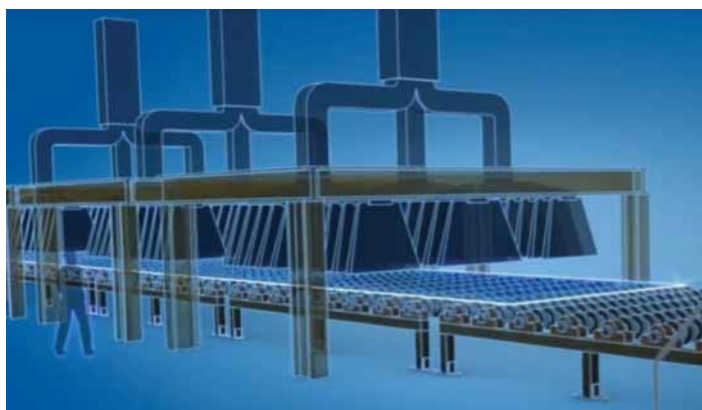
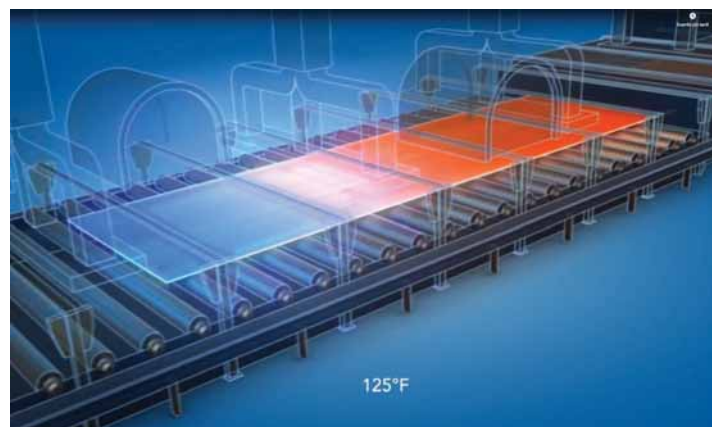
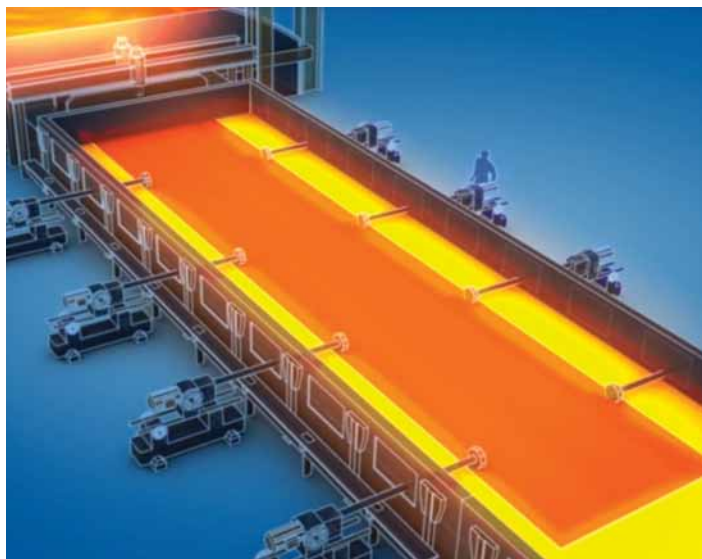
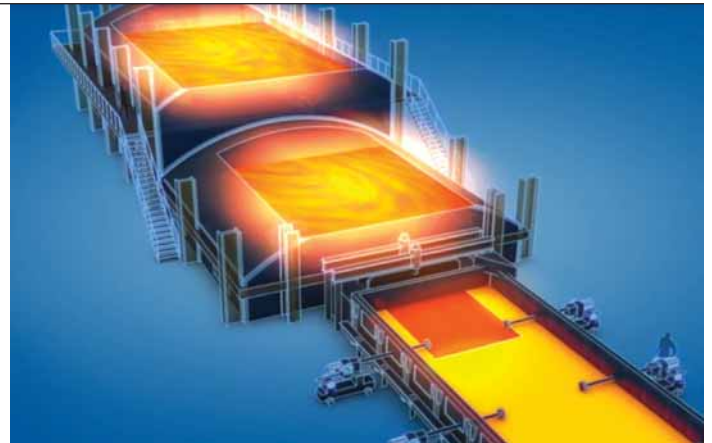
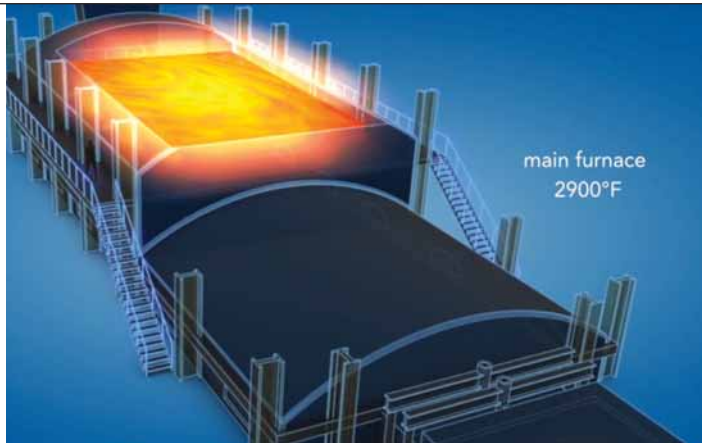
Guardian has a specialist architectural design team which provides diverse glass resources and industry-leading tools to both new customers and longtime clients, with everything from glass samples to project leads, specifications and LEED documentation.

Guardian Glass has developed easy-to-use, advanced

software for glass and glazing system analysis. Its Glass Analytics online tools offer a comprehensive suite of engineering and analytical reports that demonstrate the advantages of high-performance glass in building facades. These include:

- Performance Calculator
- Glass Visualizer
- Sustainability Calculator





- Building Information Modeling (BIM) Generator
  - Building Energy Calculator
- Architects can also access product selectors to help make the best choices, and the company offers specialised training seminars. The specialist architectural team has a great understanding

of the huge range of Guardian glass products, and can help architects, glass fabricators and glaziers make even the most advanced architectural glass project successful.

**Focus on Middle East**

One of Guardian's priorities in recent years has been to

develop a range of products that meet the complex building needs of the Middle East and Asia in terms of climate, regulations and architectural and aesthetic requirements. These include high colour durability, solar protection properties and neutral looking glass.

Saudi Guardian International Float Glass Ltd. (GulfGuard) is a joint venture between Guardian Industries and the National Company for Glass Industries "Zoujaj". It has one of

the newest and most advanced sputter coaters in the region for the production of high performance, energy-efficient glass products. In addition to GulfGuard, the companies also operate a plant in Ras Al Khaimah, UAE.

With float glass plants in Nong Khae and Rayong, Thailand, as well as Gujarat, India, and offices and warehouses in India and Japan, Guardian Glass, also serves customers throughout the Asia Pacific region.

**Guardian Zoujaj International Float Glass Co.**

Al-Jazeera Al-Hamra - Ras Al Khaimah, P.O. Box 6297



UAE - United Arab Emirates

Tel.: +971-7-2058000

Fax: +971-7-2058001

[WWW.GUARDIANGLOSS.COM](http://WWW.GUARDIANGLOSS.COM)

# Phoenicia Flat Glass

As the sole float glass manufacturer in Israel, a country proud of its pioneering technology, Phoenicia offers experience and knowledge for optimal solutions to any glass requirement.

*“ Phoenicia’s unique ultra-clear, low-iron glass offers high transparency and is practically void of color or shade. ”*

Phoenicia Flat Glass Industries has been a mass producer of glass in Israel since 1934, focusing on both architectural and interior sectors. Its float line was built for the production of the highest quality low-iron float glass and specialty glass products, and runs 24/7, 365 days a year, producing about 3,300 tons of laminated glass monthly.

In-house fabrication lines include grinding, drilling, and two laminating lines







clarity and very high light transmission. The company's laminated products, (safety glass), are composed of two

or more layers of highest quality float glass laminated with an interlayer of Polyvinyl butyral (PVB) to provide ultimate security, making them virtually indistinguishable from monolithic glass of the same thickness. Phoenicia's high-quality clear glass is available from 1.8 - 12 mm, and can be bent, tempered and processed. Phoenicia has customers in more than 30 different destinations, globally.



dedicated to the production of safety and security glass in commercial buildings and in homes. Phoenicia's TrueColour, laminated glass and clear float glass can be produced at varying thicknesses and sizes according to standard global

measurements and clients' specifications. Phoenicia Ultra Clear, branded worldwide under the True Color® brand, is extremely transparent glass, colorless and neutral. These properties give the glass more than 96%



**Phoenicia Flat Glass Industries Ltd**

P.O. Box 703  
Zipporit Industrial Zone

1710601 Nazareth Illit - Israel  
Tel.: +972-4-6410200 - E-mail: sales@phoenicia.co.il

[WWW.PHOENICIA-LTD.COM](http://WWW.PHOENICIA-LTD.COM)

# United Arab Flat Glass Company

From quality structures to stylish home interiors

*“Commencing production in 2009, UFG has become a key player in the Middle East flat glass market.”*



The United Arab Flat Glass Company (UFG) established in 2006 and starting production in 2009, was the first independent flat glass manufacturer in the

Middle East and North Africa. The company worked with well-known technology providers in Europe, USA and the Far East to build a 350,000 square meter

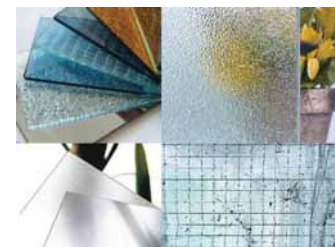


factory in a strategic location in Yanbu City on the Red Sea. Its manufacturing capability is 600 tons per day of glass products in a wide range of thicknesses, colors and sizes for the the automotive and architectural sectors.

Products include clear float glass from 2mm - 15mm, tinted light green (French) glass, silver mirror (lead and copper free), and patterned a variety of designs and colors.

ARALUX Light Green AU (Automotive Quality) is CE Certified for Optical/Thermal performance in accordance with European Norm (EN 572) in 2mm - 5mm range of various thicknesses, for customers such as Tata, Hyundai, Mahindra and Maruti.

UFG's products ARALUX® clear and ARALUX® LG are sold in more than 80 countries around the world.



**Arabian United Float Glass Company**

P.O.Box: 31561

Light Industrial City

41912 Yanbu - Saudi Arabia

Tel.: 00966-14-3255444 - Fax: 00966-14-3250444

E-mail: [info@aufgc.com](mailto:info@aufgc.com)

[WWW.AUFGC.COM](http://WWW.AUFGC.COM)

# FLOAT PLANTS

# ASIA +

# AUSTRALIA



**CHINA GLASS HOLDINGS**  
**FUYAU GROUP - AUTOMOTIVE GLASS CO. LTD.**  
**KIBING GLASS GROUP / ZHUZHOU**  
**TONGTANWAN**  
**XINYI GLASS HOLDINGS LTD.**

**PHP FLOAT GLASS**  
**INDUSTRIES**

**NSG GROUP - VIETNAM**  
**FLOAT GLASS**  
**VIGLACERA DAP CAU**

## AUSTRALIA

### **VIRIDIAN - FLOAT GLASS MANUFACTURER**

95 Greens Road  
Dandenong VIC 3175

**Australia**

Tel.: +61-3-9212222

 [www.viridianglass.com](http://www.viridianglass.com)

Number of Lines: 1

## BANGLADESH

### **NASIR GLASS INDUSTRIES / GAZIPUR PLANT**

Mymensingh Hwy - Joinabazar  
Sreepur - Gazipur - **Bangladesh**

Tel.: +880-2-8832690

 [nasirgroup.com.bd](http://nasirgroup.com.bd)

Number of Lines: 2

See complete company profile on page 200

### **PHP FLOAT GLASS INDUSTRIES LTD**

40/1, Zakir Hossain Road  
South Khulsh - Chittagong 4100

**Bangladesh**

Tel.: +880-31-632316

Fax: +880-31-2854036

 [phpfamily.co](http://phpfamily.co)

Number of Lines: 1

## CHINA

### **AGC AUTOMOTIVE CO. LTD. - SUZHOU**

No.158 Wang- Jiang Road  
Suzhou Industrial Park  
215121 Suzhou

**China**

Tel.: +86-512-62852501

Fax: +86-512-6285250

 [www.agc-automotive.com](http://www.agc-automotive.com)

Number of Lines: 1

### **AVIC SPECIAL GLASS - HAINAN FLOAT PLANT**

South First Road,  
Economic Development Zone of

Laocheng - 571924 Hainan Province  
**China**

Tel.: +86-898-67480512

Fax: +86-898-67480149

 [www.sanxinglass.com](http://www.sanxinglass.com)

 [www.avicglass.com](http://www.avicglass.com)

Number of Lines: 4

See complete company profile on page 204

### **CHINA GLASS HOLDINGS**

21 Floor, A Tower Ziguang Building  
No.11 Huixin Dongjie, Chaoyang  
District

100029 Beijing

**China**

Tel.: +86-10-69781056

Fax: +86-10-69781273

E-mail: [office@chinaglassholdings.com](mailto:office@chinaglassholdings.com)

 [www.chinaglassholdings.com/en/index.aspx](http://www.chinaglassholdings.com/en/index.aspx)

### **CHINA GLASS HOLDINGS / DONGTAI**

Weijiu Road  
Economic Development Zone  
Dongtai, Jiangsu Province

**China**

Tel.: +86-515-8503006:

 [www.chinaglassholdings.com](http://www.chinaglassholdings.com)

Number of Lines: 1

### **CHINA GLASS HOLDINGS / INNER MONGOLIA**

Qianli Mountain Industrial Zone  
Haibo Wan District  
Wuhai, Inner Mongolia

**China**

Tel.: +86-473-2093050

Fax: +86-473-2029943

 [www.chinaglassholdings.com](http://www.chinaglassholdings.com)

Number of Lines: 2

### **CHINA GLASS HOLDINGS / SHAANXI**

Xianhong Road - Dongjiao Weicheng  
Town - Xianyang, Shaanxi

**China**

Tel.: +86-29-32865086

 [www.chinaglassholdings.com](http://www.chinaglassholdings.com)

Number of Lines: 2

### **CHINA GLASS HOLDINGS / SUQIAN**

No. 288, Yunhe Beilu - Suqian, Jiangsu  
**China**

Tel.: +86-527-84212875

 [www.chinaglassholdings.com](http://www.chinaglassholdings.com)

Number of Lines: 3

### **CHINA GLASS HOLDINGS / WEIHAI**

No. 516 Qishan Road  
Lingang Economic and Technological  
Development Zone  
Weihai, Shandong Province

**China**

Tel.: +86-631-5921731

 [www.chinaglassholdings.com](http://www.chinaglassholdings.com)

Number of Lines: 1

### **CSG HOLDING CO**

CSG Building  
No.1, 6th Industrial Road  
Shekou - Shenzhen, 518067

**China**

Tel.: +86 - 755 - 2686 06660

 [www.csgholding.com](http://www.csgholding.com)

### **CSG HOLDING / CHENGDU PLANT**

No.16,Huanglong Avenue  
Shuangliu County  
Chengdu, Sichuan

**China**

Tel.: +86-28-85689218

Fax: +86-28-85689966

 [www.csgholding.com](http://www.csgholding.com)

Number of Lines: 3

### **CSG HOLDING / HEBEI PLANT**

No.28 Baihe Road  
Yongqing Industrial Zone  
Langfang - Hebei

**China**

Tel.: +86-316-5698691

Fax: +86-316-5698633

 [www.csgholding.com](http://www.csgholding.com)Type: float

Number of Lines: 2

### **CSG HOLDING / WUJIANG PLANT**

No. 88 Panlong Road  
Economic Development Zone  
Wujiang - Jiangsu

## China

Tel.: +86-512-63193333

Fax: +86-512-63193003

☎ [www.csgholding.com](http://www.csgholding.com)

Number of Lines: 2

## CSG HOLDING / XIANNING PLANT

No. 1 Heng Er Road  
Xianning High Tech Zone  
Xianning, Hubei

## China

Tel.: +86-715-8909759

Fax: +86-715-8909979

☎ [www.csgholding.com](http://www.csgholding.com)

Number of Lines: 2

## DALIAN KANGLIDA YAOHUA GLASS CORP

A3909, 27 Mingze Street,  
Zhongshan District  
116001 Dalian City,  
Liaoning, Dalian

## China

Tel.: +86-411-82500181

Fax: +86-411-82500085

☎ [www.glassofcn.com](http://www.glassofcn.com)

Type: float

Number of Lines: 3

Details: China Dalian reports 3 float lines. The precise locations of the lines have yet to be confirmed.

## DEZHOU ZHENHUA GLASS / JINGHUA GROUP

55 Hubin South Road  
253007 Dezhou Shandong

## China

Tel.: +86-534-2612177

Fax: +86-534-2613055

☎ [www.jinghuagroup.com](http://www.jinghuagroup.com)

Number of Lines: 2

## FREDDY GLASS CO. LTD.

No.137 Ningxia Road  
266000 Qingdao - China  
Tel.: +86-532-85625601

☎ [www.freddyglass.com](http://www.freddyglass.com)

Number of Lines: 2

Details: Freddy Industries reports 2 float lines. The precise locations of the lines have yet to be confirmed

## FUYAO GROUP - CHONGQING FLOAT GLASS

101 Industrial Park Road  
Wansheng Industrial  
Development Zone - Wansheng,  
Chongqing Province - 400802

## China

☎ [www.fuyaogroup.com](http://www.fuyaogroup.com)

Number of Lines: 2

## FUYAO GROUP - FUQING FLOAT GLASS

Fuyao Industrial Park  
Fuqing City, Fujian Province 350301

## China

Tel.: +86-591-85363966

Fax: +86-591-85363666

E-mail: [ffg@fuaygroup.com](mailto:ffg@fuaygroup.com)

☎ [www.fuyaogroup.com](http://www.fuyaogroup.com)

Number of Lines: 3

See complete company profile on page 206

## FUYAO GROUP - AUTOMOTIVE GLASS CO. LTD.

588 Yuanfu Road - Anting Town  
201814 Jiading Dist. - Shanghai

## China

Tel.: +86-21-69573333

Fax: +86-21-69573380

E-mail: [ysales@fuyaogroup.com](mailto:ysales@fuyaogroup.com)

☎ [www.fuyaogroup.com](http://www.fuyaogroup.com)

Number of Lines: 2

## FUYAO GROUP - SHUANGLIAO FLOAT GLASS

833 Fuyao Road - Siping - 136400  
Jilin Province - Shuangliao

## China

Tel.: +86-434-7223966

Fax: +86-434-7242249

☎ [www.fuyaogroup.com](http://www.fuyaogroup.com)

Number of Lines: 2

## FUYAO GROUP - TONGLIAO FLOAT GLASS

Mingren Street No. 160  
Fuan Town Liaohe  
Tongliao 028036 Inner Mongolia

## China

☎ [www.fuyaogroup.com](http://www.fuyaogroup.com) Type: float

Number of Lines: 2

## HEBEI YINGXIN GLASS GROUP CO. LTD.

Road West, Middle of Donghuan Road  
054100 Shahe City,  
Hebei Province

## China

Tel.: +86-319-8983297

☎ [www.yxbljt.com](http://www.yxbljt.com)

Number of Lines: 8

## HENAN BENYUE FLOAT GLASS CO. LTD.

No.388, West Section of Jishui  
Avenue - Tiantan District  
Jiyuan, Henan, 450000

## China

Tel.: +86-391-6675789

Fax: +86-391-6675921

☎ [hnbyjt.glass.com.cn](http://hnbyjt.glass.com.cn)

Number of Lines: 0

## INTEX GLASS (XIAMEN) CO LTD

8 Xingxi Road - Xinglin, Jimei  
361022 Xiamen, Fujian

## China

Tel.: +86-592-6241669

Fax: +86-592-6218061

☎ [www.intexglass.net](http://www.intexglass.net)

Number of Lines: 6

## JIANGMEN ISN FLOAT GLASS CO. LTD.

No. 39 Jianghai Road 3  
Jiangmen, Guangdong

## China

Tel.: +86-750-3792113

Fax: +86-750-3792133

☎ [www.jisnglass.com.cn](http://www.jisnglass.com.cn)

Number of Lines: 2

## JIANGSU FARUN GLASS CO. LTD.

No. 1 Huarun Rd. - Jinfeng Town,  
Zhangjiagang City - 215625 Jiangsu

## China

Tel.: +86-512-58550960

Fax: +86-512-58560630

☎ [farun.en.glass.cn](http://farun.en.glass.cn)

Number of Lines: 9

## JINJING GROUP / G-CRYSTAL

Baoshi Town, High-New Technology

Zone, Zibo City  
255086 Zibo City, Shandong  
**China**

Tel.: +86-533 3584609

☛ [www.cnggg.cn](http://www.cnggg.cn)

Number of Lines: 13

Details: Jinjing Group / G-Crystal reports 13 float lines. The precise locations of the lines have yet to be confirmed.

## KIBING GLASS GROUP / CHANGXING

Li Jiexiang Town - Changxing County  
313100 Huzhou City, Zhejiang  
Province

**China**

Tel.: +86-572-6298009

Fax: +86-572-6298009

☛ [www.kibing-glass.com](http://www.kibing-glass.com)

Number of Lines: 4

## KIBING GLASS GROUP / GUANGDONG

Dongyuan County Blue Town  
517564 Heyuan City, Guangdong  
Province

**China**

Tel.: +86-762-8687554

Fax: +86-762-8807995

☛ [www.kibing-glass.com](http://www.kibing-glass.com)

Number of Lines: 2

## KIBING GLASS GROUP / GUANGDONG

345 Xinggong Road - Dushan Town  
314204 Pinghu City, Zhejiang  
Province

**China**

Tel.: +86-573-85629736

Fax: +86-573-85722006

☛ [www.kibing-glass.com](http://www.kibing-glass.com)

Type: float

Number of Lines: 2

## KIBING GLASS GROUP / SHAOXING

Tao Yanzhen Baita Hill  
312036 Shaoxing City,  
Zhejiang Province

**China**

Tel.: +86-575-88739819

Fax: +86-575-88739819

☛ [www.kibing-glass.com](http://www.kibing-glass.com)

Type: float

Number of Lines: 2

See complete company profile on page 208

## KIBING GLASS GROUP / ZHUZHOU

Tongtanwan  
Shifeng District, Zhuzhou City, Hunan  
412005 Zhuzhou City, Hunan

**China**

Tel.: +86-731-28370033

Fax: +86-731-28370066

☛ [www.kibing-glass.com](http://www.kibing-glass.com)

Number of Lines: 3

## KIBING GLASS GROUP / ZHANGZHOU

Kang Mei Town Road  
Dongshan County  
363401 Zhangzhou City, Fujian  
Province

**China**

Tel.: +86-596-3910709

Fax: +86-596-3910702

☛ [www.kibing-glass.com](http://www.kibing-glass.com)

Number of Lines: 8

## LINK GLASS CO. LTD

No. 1555, Caobao Road  
200000 Shanghai

**China**

Tel.: +86-21-54868552

Fax: +86-21-54868553

☛ [www.link-glass.com](http://www.link-glass.com)

Number of Lines: 3

<http://link-glass.com>

Details: Link Glass reports 3 float lines. The precise locations of the lines have yet to be confirmed.

## LUOYANG GLASS GROUP

No. 9 Tanggong Zhong Lu  
Lu Xigong District  
471009 Luoyang City, Henan Province

**China**

Tel.: +86-379-63908695

Fax: +86-379-63908771

☛ [www.zhglb.com](http://www.zhglb.com)

Type: float

Number of Lines: 9

## NANNING FLOAT GLASS CO. LTD

No.8 Hantangling, Wuyi road  
Guangxi Province  
530031 Nanning City

**China**

Tel.: +86-771-4834408

Fax: +86-771-4834413

☛ [www.nfg.com.cn](http://www.nfg.com.cn)

Number of Lines: 2

## NINGBO SHUANGNING

Zhenhai Yufanxi Road 66 , Ningbo  
**China**

Tel.: +86-574-86366117

☛ [www.nbkglglass.com](http://www.nbkglglass.com)

## NINGBO KANGLI GLASS CO. LTD

Zhenhai Yufanxi Road 66 - Ningbo  
**China**

Tel.: +86-574-86366117

Fax: +86-574-86458830

☛ [www.nbkglglass.com](http://www.nbkglglass.com)

Number of Lines: 2

## SAINT-GOBAIN GLASS CHINA

21 Xishanqiao - Zhonghuamenwai  
Nanjing, 210041

**China**

Tel.: +86-25-6857-4326

☛ [cn.saint-gobain-glass.com](http://cn.saint-gobain-glass.com)

## SAINT-GOBAIN QINGDAO

254, Qian Shan Rd  
266500 Huangdao - Qingdao

**China**

Tel.: +86-532-86908520

Fax: +86-532-86907887

☛ [cn.saint-gobain-glass.com](http://cn.saint-gobain-glass.com)

Number of Lines: 1

## SHANGHAI YAOHUA PILKINGTON GROUP

Building 4-5  
No. 1388 Zhangdong Road  
Pudong New District Shanghai, 201203

**China**

Tel.: +86-21-6163 3599

☛ [www.sypglass.com](http://www.sypglass.com)

## SHANXI LIHU GLASS INDUSTRY CO. LTD

No.8 Guanghua Street  
030024 Taiyuan, Shanxi

**China**

Tel.: +86-351-6526615  
Fax: +86-351-6526489

☎ [www.lhglass.com.cn](http://www.lhglass.com.cn)

Number of Lines: 2

## SHENZHEN SUN GLOBAL GLASS CO. LTD

Room 3F, Floor 3, Qihang Building,  
Shenfeng Road, Liuye, Henggang  
518115 Loknggang Distric -  
Shenzhen

**China**

Tel.: +86-755-84725742  
Fax: +86-755-89340850

☎ [www.sggglassmanufacturer.com](http://www.sggglassmanufacturer.com)

Number of Lines: 1

## SYP GLASS - SHANGHAI YAOHUA PILKINGTON CO. LTD

NO.1 Huatai Road, Hi-Tech Industrial  
Park - Beichen, Tianjin 300409

**China**

Tel.: +86-22-86880202  
Fax: +86-22-86880210

☎ [www.sypglass.com](http://www.sypglass.com)

Number of Lines: 1

## SYP GLASS - SHANGHAI YAOHUA PILKINGTON CO. LTD

Building 4-5,  
1388 Zhangdong Road  
Pudong New District  
201203 Shanghai

**China**

Tel.: +86-21-61633599  
Fax: +86-21-61633500

☎ [www.sypglass.com](http://www.sypglass.com)

Number of Lines: 2

## TAIWAN GLASS GROUP / CHENGDU

501 Huajin Avenue - Qingbaijiang  
District - 610000 Chengdu

**China**

Tel.: +86-28-83667100  
Fax: +86-28-83667300

☎ [www.taiwanglass.com](http://www.taiwanglass.com)

Number of Lines: 1

## TAIWAN GLASS GROUP / DONGHAI

Gangtie West Road - s222300  
Donghai County, Lianyungang

**China**

Tel.: +86-518-87266866  
Fax: +86-518-87266766

☎ [www.taiwanglass.com](http://www.taiwanglass.com)

Number of Lines: 1

## TAIWAN GLASS GROUP / HUANAN

Taiying Industrial Park  
Hongmei Town  
523160 Dongguan, Guangdong

**China**

Tel.: +86-769-88841000  
Fax: +86-769-88840000

☎ [www.taiwanglass.com](http://www.taiwanglass.com)

Number of Lines: 3

## TAIWAN GLASS GROUP / QINGDAO FLOAT

Technology Development Park  
Dayao, Jiaonan,  
Shantung, 264432 Qingdao

**China**

Tel.: +86-532-3161177  
Fax: +86-532-3161203

☎ [www.taiwanglass.com](http://www.taiwanglass.com)

Number of Lines: 7

## TAIWAN GLASS GROUP / TAIBO CHANGJIANG

No.1, Taibo Road - Zhangpu Town  
215321 Kunshan, Jiangsu

**China**

Tel.: +86-512-57440001  
Fax: +86-512-57440666

☎ [www.taiwanglass.com](http://www.taiwanglass.com)

Number of Lines: 3

## TAIWAN GLASS GROUP / TIANJIN

Tianyu Technology Park  
Jinghai County - 301609 Tianjin

**China**

Tel.: +86-22-68660077

Fax: +86-22-68660088

☎ [www.taiwanglass.com](http://www.taiwanglass.com)

Number of Lines: 1

## TENGZHOU JINMING GLASS CO. LTD.

China Modern Glass Base  
Baogou Town  
277500 Tengzhou, Shandong

**China**

Tel.: +86-632-2666766  
Fax: +86-632-2666866

☎ [www.tzjmglass.com](http://www.tzjmglass.com)

Number of Lines: 4

## WUHAN CHANGLI GLASS CO. LTD.

21 Zhangjiawan Street  
Baishazhou Ave Hongshan District  
Wuhan, Hubei 430065

**China**

Tel.: +86-27-88110531  
Fax: +86-27-88114307

☎ [www.changliglass.com](http://www.changliglass.com)

Number of Lines: 4

## XINYI ENERGY-SAVING GLASS - SICHUAN

Minshan South Road  
Deyang Economic and Technical Zone  
Sichuan - **China**

Tel.: +86-838-2696100

☎ [www.xinyiglass.com](http://www.xinyiglass.com) Type: float

Number of Lines: 1

## XINYI ENERGY-SAVING GLASS

Xinyi Glass Ind. Park  
No.2 Xinyi Road - Wuhu Economic  
and Technical Zone 241000 Anhui

**China**

Tel.: +86-553-5899999  
Fax: +86-553-5906888

☎ [www.xinyiglass.com](http://www.xinyiglass.com) Type: float

Number of Lines: 4

See complete company profile on page 210

## XINYI GLASS HOLDINGS LTD.

Xinyi Glass Industrial Zone  
Ludong District, Humen Town  
Dongguan, Guangdong 523935

**China**



Tel.: +86-769-85266666  
 Fax: +86-769-85268888  
 📞 [www.xinyiglass.com](http://www.xinyiglass.com) Type: float  
 Number of Lines: 4

## XINYI SPECIAL GLASS - JIANGMEN

Xinyi Glass Industrial Park,  
 No.1 Xinyi Road - High-tech Industrial  
 Development Zone  
 Jiangmen, Guangdong  
**China**  
 Tel.: +86-750-3779999  
 Fax: +86-750-3798888  
 📞 [www.xinyiglass.com](http://www.xinyiglass.com) Type: float  
 Number of Lines: 3

## XINYI GLASS LIAONING

Xinyi Glass Industrial Park,  
 Binhai Industrial Park,  
 Yingkou Economic and Technical  
 Development Zone - Liaoning  
**China**  
 Tel.: +86-417-8205178  
 Fax: +86-417-8203355  
 📞 [www.xinyiglass.com](http://www.xinyiglass.com)  
 Number of Lines: 2

## XINYI GLASS TIANJIN

North of Guangyuan Road  
 Wuqing Development Zone  
 301700 Tianjin  
**China**  
 Tel.: +86-22-82159888  
 Fax: +86-22-82177773  
 📞 [www.xinyiglass.com](http://www.xinyiglass.com)  
 Number of Lines: 3

## YAOHUA GLASS GROUP CO.

No.61 Xianfeng Road,  
 Haigang District,  
 066004 Qinhuangdao, Hebei  
**China**  
 Tel.: +86-335-7683777  
 Fax: +86-335-7966551  
 📞 [www.yaohuachina.com](http://www.yaohuachina.com)  
 Number of Lines: 15

## ZHEJIANG DAMING GLASS CO., LTD.

No. 789 of XingGang Road

DuShan Harbour Area,  
 Pinghu, JianXing -  
 314200 Zhejiang - **China**  
 Tel.: +86-10-52365885  
 📞 [www.damingglas.com](http://www.damingglas.com)  
 Number of Lines: 2

## KYRGYZSTAN

### INTERGLASS

128, Isanova's str. - Bishkek  
**Kyrgyzstan**  
 Tel.: +996-312-323144  
 Fax: +996-312-323802  
 📞 [www.interglass.kg](http://www.interglass.kg)  
 Number of Lines: 1

### INTERGLASS

551, Frunze street  
 Bishkek, 720001  
**Kyrgyzstan**  
 Tel.: 996 312 902 649  
 📞 [www.interglass.kg](http://www.interglass.kg)

## INDIA

See complete company profile on page 198

### AIS - ASAHI INDIA GLASS LTD

5th Floor, Tower B, Global Business  
 Park - Mehrauli-Gurgaon Road,  
 122002 Gurgaon - Haryana - **India**  
 Tel.: 0091-124-4062212  
 📞 [www.aisglass.com](http://www.aisglass.com)

### AIS - ASAHI GLASS / BAWAL PLANT

94.4Kms. Stone, Delhi-Jaipur  
 Highway - Village Jaliawas - Tehsil  
 Bawal - - Dist. Rewari 123501  
 (Haryana) - **India**  
 Tel.: +91-1284-268600  
 Fax: +91-1284-264185  
 📞 [www.aisglass.com](http://www.aisglass.com)  
 Number of Lines: 1

### AIS - ASAHI GLASS / TALOJA PLANT

Plot No. T - 7, MIDC Industrial Area

Taloja - Dist. Raigad - 410208  
**India**  
 Tel.: +91-22-39256000  
 Fax: +91-22-27410449  
 📞 [www.aisglass.com](http://www.aisglass.com)  
 Number of Lines: 1

### AIS - ASAHI GLASS / TAMIL NADU PLANT

Plot No.F - 76 to 81, SIPCOT Ind.  
 Park, - Irungattukottai, Sriperumbudur  
 602 117 - Tamil Nadu -  
 Kancheepuram - **India**  
 Tel.: +91-44-47103442  
 Fax: +91-44-47103441  
 📞 [www.aisglass.com](http://www.aisglass.com)  
 Number of Lines: 1

### AIS - ASAHI GLASS / ROORKEE PLANT

Plot - A, AIS Industrial Estater  
 Village Latherdeva Hoon - Tehsil-  
 Roorkee - Uttaranchal - 247 667  
**India**  
 Tel.: +91-1332-224010  
 Fax: +91-1332-224114  
 📞 [www.aisglass.com](http://www.aisglass.com)

### GOLD PLUS GLASS

Laksar Road Opposite Indian Oil Depot  
 Khempur - Roorkee - Uttarakhand  
**India**  
 Tel.: +91-9917093611  
 📞 [www.goldplusgroup.com](http://www.goldplusgroup.com)  
 Number of Lines: 1

### GOLD PLUS GLASS

Kings Mall- 4th Floor, Rohini Sector-10  
 New Delhi, 110 085 - **India**  
 Tel.: +91 11 6637 6000  
 📞 [www.goldplusgroup.com](http://www.goldplusgroup.com)

### GUJARAT GUARDIAN / MODIGUARD

State Highway - 13, Valia Road  
 Village Kondh - Ankleshwar, Dist.  
 Bharuch, Gujarat 393001  
**India**  
 Tel.: +91-2643-257200  
 Fax: +91-2643-257264  
 📞 [www.modiguard.co.in](http://www.modiguard.co.in)  
 Number of Lines: 1

## HNG FLOAT GLASS / SISECAM GROUP

GIDC Phase III, Champaner Road  
Dist Panchmahal  
389351 Halol, Gujarat - **India**  
Tel.: +91-2676-226400  
Fax: +91-2676-226401  
☎ [www.hngfloat.com](http://www.hngfloat.com)  
Number of Lines: 1

## SAINT-GOBAIN GLASS INDIA LTD

Plot No. SP1, Kaharani, Bhiwadi  
Extension - RIICO Industrial Area  
Bhiwadi, Rajasthan 301019 - **India**  
Tel.: +91-1493-301301  
☎ [www.saint-gobain.co.in](http://www.saint-gobain.co.in)  
Number of Lines: 1

## SAINT-GOBAIN GLASS INDIA LTD.

GIDC, Zaghadia - Gujarat 393110  
**India**  
Tel.: +91-26-45619511  
☎ [www.saint-gobain.co.in](http://www.saint-gobain.co.in)  
Number of Lines: 1

## SAINT-GOBAIN GLASS INDIA LTD.

Level 7, Chettinad Sigapi Achi Building  
18/3 - Rukmani Lakshmipathi Road  
Egmore, Chennai - 600 008, Tamil  
Nadu - **India**  
Tel.: +91-44-45936000  
☎ [www.saint-gobain.co.in](http://www.saint-gobain.co.in)  
Number of Lines: 3

## SAINT-GOBAIN GLASS INDIA LTD.

Plot NO. A-1, Sipcot Industrial Park  
Sriperumbudur, Tamil Nadu 602105  
**India**  
Tel.: +91- 44 2716 0000  
☎ [www.saint-gobain.co.in](http://www.saint-gobain.co.in)  
Number of Lines: 1

## INDONESIA

### ASAHIMAS FLAT GLASS

Jalan Ancol IX/5  
Ancol Barat - 14430 Jakarta  
**Indonesia**  
Tel.: +62-21-6904041  
Fax: +62-21-6918709

E-mail: [amfg.marketing@agc.com](mailto:amfg.marketing@agc.com)

☎ [www.amfg.co.id](http://www.amfg.co.id)

Number of Lines: 2

### ASAHIMAS FLAT GLASS

Kawasan Industri Indotaisei  
Sektor 1A Blok J-L,  
Cikampek 41373 - Jawa Barat  
**Indonesia**  
Tel.: +62-264-351711  
Fax: +62-264-351710  
☎ [www.amfg.co.id/](http://www.amfg.co.id/)  
Number of Lines: 2

### MULIAGLASS - FLOAT GLASS DIVISION

Jalan Raya Tegal Gede No 1  
Lemahabang  
Cikarang - Bekasi 17550 - **Indonesia**  
Tel.: +62-21-8935728  
Fax: +62-21-8935129  
☎ [www.mulaiindustrindo.com](http://www.mulaiindustrindo.com)  
Number of Lines: 3

## JAPAN

### AGC - ASAHI GLASS / KASHIMA PLANT

25, Touwada  
Kamisu City Ibaraki 314-0195  
**Japan**  
Tel.: +81-299-962215  
☎ [www.agc.com](http://www.agc.com)

Number of Lines: 1

### ASAHI GLASS CO

151, Marunouchi Chiyoda-ku Tokyo,  
100-8405  
**Japan**  
Tel.: +81 3 3218 5603  
☎ [www.agc.com](http://www.agc.com)

### CENTRAL GLASS

Kowa-Hitotsubashi Building, 7-1  
Kanda-Nishikicho 3-chome,  
Chiyoda-ku, Tokyo 101-0054  
**Japan**  
Tel.: +81-3-3259-7111  
☎ [www.cgc-jp.com](http://www.cgc-jp.com)

### CENTRAL GLASS / MATSUSAKA PLANT

1521-2 Okuchi-cho  
Matsusaka City, Mie 515-0001  
**Japan**  
Tel.: +81-598-533131  
Fax: +81-598-533131  
☎ [www.cgc-jp.com](http://www.cgc-jp.com)  
Number of Lines: 2

### CENTRAL GLASS / SAKAI PLANT

6 Minami-machi - Chikkou, Sakai-ku  
Sakai City, Osaka 590-0987  
**Japan**  
Tel.: +81-72-2213541  
Fax: +81-72-2213550  
☎ [www.cgc-jp.com](http://www.cgc-jp.com)  
Number of Lines: 1

### NIPPON SHEET GLASS CO

Sumitomo Fudosan Mita Twin Bldg.  
West - Wing, 5-27, Mita 3-Chome,  
Minato-ku, Tokyo 108-6321  
**Japan**  
Te.: +81 3 5443 9500  
☎ [www.nsg.com](http://www.nsg.com)

### NIPPON SHEET GLASS / ICHIHARA

6 Anegasaki Kaigan  
Ichihara Chiba 299-0107  
**Japan**  
Tel.: +81-436-613080  
☎ [www.nsg.com](http://www.nsg.com) Type: float  
Number of Lines: 2

### NIPPON SHEET GLASS - MAIZURU

255-13 Hamada Obashimo  
Maizuru 625-0007 - **Japan**  
☎ [www.nsg.com](http://www.nsg.com)  
Number of Lines: 2

## MALAYSIA

### MALAYSIAN SHEET GLASS / NSG GROUP

Plot 435, Jalan Keluli  
Kawasan Perindustrian - Pasir Gudang

Johor, 81700 Pasir Gudang  
**Malaysia**  
 Tel.: +60-7-2510217  
 Fax: +60-7-2510535  
 📧 [www.nsg.com](http://www.nsg.com)  
 Number of Lines: 2

## TURKMENISTAN

**TURKMENISTAN GLASS**  
 Near M37 and Kemine Kocesi  
 Ashgabat  
**Turkmenistan**  
 📧 [www.tepe.com.tr](http://www.tepe.com.tr)  
 Number of Lines: 1

## PAKISTAN

**KHAWAJA GLASS INDUSTRIES**  
 Grand Trunk Road  
 District Attock - Punjab - Hassanabdal  
**Pakistan**  
 Tel.: +92-57-2520318  
 Fax: +92-57-2520219  
 📧 [khawajafloat.com](http://khawajafloat.com)  
 Number of Lines: 1

## PHILIPPINES

**TQMP GLASS MANUFACTURING CORP.**  
 730 MH Del Pilar Street  
 Barrio Pinagbuhatan - 1602 Pasig City  
**Philippines**  
 Tel.: +63-2-641-1981  
 Fax: +63-2-641-1988  
 📧 [tqmpph.wixsite.com/tqmpph/home](http://tqmpph.wixsite.com/tqmpph/home)  
 Number of Lines: 1

## SINGAPORE

**KIBING GROUP**  
 7 Temasek Boulevard #12-02B  
 Suntec Tower One Singapore, 038987

**Singapore**  
 Tel.: +65 6884 6401  
 📧 [kibing-glass.com](http://kibing-glass.com)

## SOUTH KOREA

**BUSAN PLANT**  
 345 Ichon-ri, Ilgwang-myeon  
 Gijang-gun, Busan  
**South Korea**  
 Tel.: +82 51-7204214  
 Fax: +82-51-7215697  
 📧 [www.hanglas.co.kr/eng](http://www.hanglas.co.kr/eng)  
 Number of Lines: 1

**HANKUK GLASS INDUSTRIES**  
 10th Floor Teheran 211,  
 Gangnam-gu Seoul  
**South Korea**  
 Tel.: +82 2 3706 9114  
 📧 [www.hanglas.co.kr](http://www.hanglas.co.kr)

**HANKUK GLASS - SAINT-GOBAIN / GUNSAN PLANT**  
 77, Soryong-dong,  
 Gunsan, Jeollabuk-do  
**South Korea**  
 Tel.: +82 63-4604114  
 Fax: +82-63-4622151  
 📧 [www.hanglas.co.kr/eng](http://www.hanglas.co.kr/eng)  
 Number of Lines: 3

**HANKUK GLASS INDUSTRIES - KCC FLOAT GLASS - YEOJU PLANT**  
 541, Yeojunamro, Ganam-eup,  
 Yeosu-si - Gyeonggi-do  
**South Korea**  
 Tel.: +82-31-8803000  
 📧 [www.kccworld.co.kr](http://www.kccworld.co.kr)  
 Number of Lines: 7

## THAILAND

**AGC FLAT GLASS THAILAND / CHON BURI PLANT**  
 700/22 Moo 6 - Amata Nakorn Ind.  
 Estate - Nong Mai Daeng, Mueang

Chon Buri - Chon Buri 20000  
**Thailand**  
 Tel.: +66-38-21306372  
 Fax: +66-38-213-066  
 📧 [www.agc-flatglass.co.th](http://www.agc-flatglass.co.th)  
 Number of Lines: 1

**AGC FLAT GLASS THAILAND / RAYONG PLANT**  
 Amata City Ind.Estate, 7/104 Moo4,  
 Highway No. 331, Map Yap Phon,  
 Pluak Daeng - Rayong 21140  
**Thailand**  
 Tel.: +66-38-95607084  
 Fax: +66-38-956061  
 📧 [www.agc-flatglass.co.th](http://www.agc-flatglass.co.th)

**AGC FLAT GLASS THAILAND / SAMUTPRAKAN PLANT**  
 200 Moo1, Suksawad Road  
 Pak Khlong Bang Pla Kod - Phra  
 Samut Chedi,  
 Samut Prakan 10290  
**Thailand**  
 Tel.: +66-28155000  
 Fax: +66-28155415  
 📧 [www.agc-flatglass.co.th](http://www.agc-flatglass.co.th)  
 Number of Lines: 1  
 Number of Lines: 1

**BANGKOK FLOAT GLASS COMPANY**  
 Rojana Industrial Park, 166 Moo 13,  
 Huawa, Si Maha Phot  
 Prachinburi - 25140  
**Thailand**  
 Tel.: +66-26486100  
 Fax: +66-28347021  
 📧 [www.bgiglass.com](http://www.bgiglass.com)  
 Number of Lines: 1

**GUARDIAN GLASS - RAYONG PLANT**  
 116 Moo 3, Tambon Nonglalo  
 P.O. Box 6, Bankhai 21120  
 Amphur Bankhai, Rayong  
**Thailand**  
 Tel.: +66-38-892111  
 Fax: +66-38-892129  
 📧 [www.guardianglass.com](http://www.guardianglass.com)  
 Number of Lines: 1

## GUARDIAN GLASS - SARABURI PLANT

42 Moo 7 Nongplamoh Sub-District  
Nongkhae, Saraburi 18140

**Thailand**

Tel.: +66-36-373373

Fax: +66-36-373350

[www.guardianglass.com](http://www.guardianglass.com)

Number of Lines: 1

## TAIWAN

### TAIWAN GLASS

no. 261, Nanjing East Road  
Section 3 Songshan District  
Taipei City, 10550

**Taiwan**

Tel.: +886 - 2 - 2713 0333

Fax: +886 - 2 - 2715 0333

[www.taiwanglass.com](http://www.taiwanglass.com)

### TAIWAN GLASS INDUSTRY CORP. / HEADQUARTERS

11th Floor-261 Nanking E Rd,  
Section 3 - Songshan District  
Taipei, 105-50

**Taiwan**

Tel.: +886-2-27130333

Fax: +886-2-27150333

[www.taiwanglass.com](http://www.taiwanglass.com)

Number of Lines: 14

Details: Taiwan Glass Ind. Corp.  
reports 14 float lines. The precise

locations of the lines have yet to be confirmed.

### TAIWAN GLASS - LUKANG FACTORY

Changpin Industrial Park - Lukang

**Taiwan**

Tel.: +886-2-27130333

Fax: +886-2-27150333

[www.taiwanglass.com](http://www.taiwanglass.com)

Number of Lines: 1

### TAIWAN GLASS - TAICHUNG FACTORY

377 Tzu Chiang Rd. - Kwan-lien li

District - Taichung Harbour

Taichung 43504

**Taiwan**

Tel.: +886-2-27130333

Fax: +886-2-27150333

[www.taiwanglass.com](http://www.taiwanglass.com)

Number of Lines: 3

## VIETNAM

### INDEVCO - CHU LAI FLOAT

North Chu Lai Industrial Zone - Tam

Hiep Commune -

Nui Thanh District

Quang Nam Province

**Vietnam**

Tel.: +84-5102-240288

Fax: +84-5102-226345

[www.cfg.com.vn/lang-en/home.html](http://www.cfg.com.vn/lang-en/home.html)

Number of Lines: 1

See complete company profile on page 195

### NSG GROUP - VIETNAM FLOAT GLASS

Que Vo IP (Expanded area), Phuong  
Lieu Commune - Que Vo District  
Bac Ninh Province - 820238

**Vietnam**

Tel.: 0084-241-3863701

Fax: 0084-241-3863710

E-mail: toshihiro.tanihara@nsg.com

[www.vfg.vn](http://www.vfg.vn)

Number of Lines: 2

See complete company profile on page 202

### VIGLACERA DAPCAU GLASS HEADQUARTERS

Vu Ninh Ward

Bac Ninh City, Bac Ninh Province

**Vietnam**

Tel.: +84-241-3821369

Fax: +84-241-3821507

E-mail: info@kinhdapcau.vn

[www.kinhdapcau.vn](http://www.kinhdapcau.vn)

### VIGLACERA FLOAT GLASS

Khu San Xuat Tan Dong Hiep,

Di An - Binh Duong Prov. - **Vietnam**

Tel.: +84-274-3740902

[www.viglacera.com.vn](http://www.viglacera.com.vn)

Number of Lines: 1

## NEW FREE-OF-CHARGE WEB SERVICE:

Read our glass publications online,  
easy to navigate, with **INTERACTIVE SUPPORT**,  
slide shows, movies and more.  
Available also for tablets and smartphones.



This issue is also available on:



[www.glassOnline.com](http://www.glassOnline.com)

# NSG Group

Tailor-made glass solutions  
for all types of vehicles,  
from micro cars to maxi trucks,  
buses, boats and trains.



Japan's NSG Group, founded in 1918, has become one of the world's largest glass manufacturers, with manufacturing operations in

29 countries and sales in 130 countries, employing around 28,000 people worldwide. The group operates or has interests in 51 float lines worldwide.

NSG operates in three main sectors:

- architectural: supplies glass for buildings and solar energy applications.

- automotive: serves the original equipment, aftermarket replacement and specialised transport glazing markets.

- technical glass: produces thin glass for display and various applications and optical devices for office machinery and glass fibre for battery separators and timing belts.

## Specialised Transport

Pilkington Automotive became part of the NSG Group in 2006, and a large part of the company's automotive business is the production of glass for specialised transport vehicles including commercial, off-road, bus and coach, marine and rail vehicles. Products range from flat glass to large, complex and even curved elements that can include various types of assemblies, such as integrated sliders, hopper windows, etc

## Bus and Coach

Advanced shaping technologies means NSG can produce the largest and most complex bus and coach windshields. Glass solutions are often provided

in individual bus sets. These include complex laminated windscreens and lighter-weight 3-mm-thick side glazings, which are usually integrated into insulating double-glazed units. A wide variety of glass can be utilised to enhance both visual appearance and passenger comfort, including solar-control, privacy, infrared-protection, body-tinted, integral absorptive and reflective interlayer glass.

## Off-Road

The Off-Road market also covers a wide range of vehicles used in specific applications such as mining and agricultural equipment.



NSG specialises in integrating bespoke vehicle components to deliver complete glass solutions to customers, including solar-control products – absorbing

to reflective, in both tempered and laminated glass, anti-reflective glazing, and even glass with noise insulation qualities.

*“Specialised Transport is part of the Automotive business line of the NSG Group, creating glass solutions and value-added products for the Original Equipment manufacturers of specialised transport and utility vehicles.”*



### Marine and Rail

Glass for marine and rail vehicles requires the highest quality and safety accreditation to meet exacting glass standards. Pilkington Marine, a part of the NSG Group, has extensive experience across the marine industry from leisure craft to shipbuilding. Its train windscreens have been UIC651-impact-tested, by the EBA-certified Finnish Defence Forces Technical Research Centre, using a 94-caliber air cannon.

### Micro Cars

Pilkington Specialised Transport (part of NSG Group) has been at the forefront of developing products for the rapidly-growing micro car market. Golf carts, mopeds and small-engine cars, electric vehicles, and even low-volume sport cars are examples of micro cars that use specialised Pilkington products. The common features of glass products for this sector are that the glazing area is extensive and the design is double-curved, which helps to create a feeling of space in a small vehicle.



### Company History Highlights

#### TCO FLOAT FURNACE UPGRADE - VIETNAM

NSG continues to expand its business, recently re-starting its upgraded float furnace in Vietnam. The upgrade was to expand the production capacity of TCO glass to support the growing solar market, and to fulfil a long-term supply agreement with First Solar, the world's leading provider of comprehensive photovoltaic (PV) solar system. Manufactured with online coating technology, in which a conductive oxide on the glass surface is formed during its passage through the float line, NSG's TCO glass is very durable and has a wide range of applications. Online coating also enables cost effective production of coated glass in high volume.



#### NSG Group - Vietnam Float Glass

Phuong Lieu Commune - Que Vo District  
Bac Ninh Province - 820238 - Vietnam  
Tel.: +84-241-3863701  
Fax: +84-241-3863710  
E-mail: toshihito.tanihara@nsg.com

[WWW.VFG.VN](http://WWW.VFG.VN)

# Asahi India Glass Ltd. (AIS)

AIS is a ‘sand-to-solutions’ organization offering services for both institutional buyers as well as retail customers across four main sectors.

*“AIS’ production spans the entire spectrum of the automotive and architectural glass value chains.”*

One of India’s largest manufacturers of Float Glass, Asahi India Glass Ltd. (AIS) provides end-to-end solutions from manufacturing to processing, fabrication and installation services for both architectural and automotive glass. Its state-of-the-art float glass manufacturing plants have a total production capacity of 1200 tons per day. Across its 13 plants and sub-assembly units, the company produces a wide-range of float glass for every architectural and

building need: float glass (clear and tinted), high-quality heat reflective glass manufactured by superior CVD technology, world class environment-friendly copper and lead-free mirror and lacquered and frosted glass for interior decoration.

#### **Architectural Glass**

AIS Float Glass commands almost 24% share in the Indian float glass market, and also exports its products to various countries in Asia, Europe, and Latin America. It produces a





glass products and services, has 3 state-of-the-art glass processing facilities across India. The AIS Architectural Glass SBU is also India's commercial agent for a range of glass products for AGC.

### Automotive Glass

AIS Auto Glass holds over 70% of the market in the automotive segments, ranging from passenger cars and commercial vehicles to HCVs, railways, and Earth-moving vehicles. Its wide range of products includes laminated windshields, tempered glass for sidelites and backlites and value-added products like solar control, acoustic, head-up display, defogger glasses, heated and rain sensor windshields.

AIS Windshield Experts, India's largest car windscreen repair and replacement network, has presence across 42 cities with 88 service centers.

wide range of value-added varieties of glass such as heat reflective glass, heat absorbing glass, solar control glass, coloured glass, mirrors, frosted and back painted glass, along with a range of value added solutions in privacy, safety and acoustics for the architectural market.

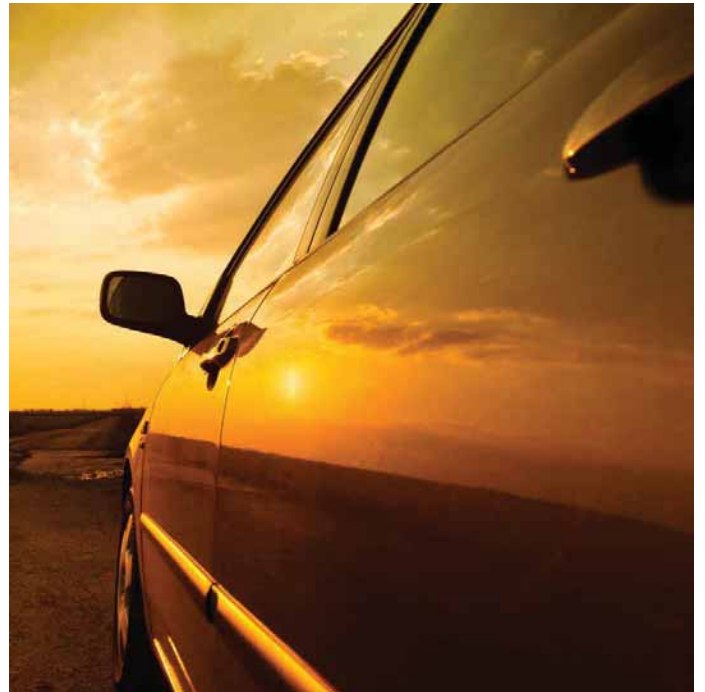
AIS Glass Solutions, established in 2004 as a subsidiary of AIS with the objective of growing AIS's presence in the manufacture of architectural glass solutions and value-added

### Consumer Glass

AIS established its Consumer Glass SBU to be its primary interface with end-consumers across its range of both automotive and architectural glass offerings. As part of this unit, AIS Glasxperts offers lifestyle solutions in glass spanning privacy, aesthetics, security, acoustic, energy-efficiency and door and window solutions. AIS Windows has a range of high performance uPVC, wood and aluminium

door and window solutions that include acoustic, privacy, energy efficiency, and safety and security.

AIS sells to customers across both domestic and international markets, and collaborates with Japan's AGC.



Asahi India Glass Ltd.

**AIS - Asahi India Glass Ltd**

5th Floor, Tower B, Global Business Park  
Mehrauli-Gurgaon Road,  
122002 Gurgaon - Haryana - India  
Tel.: +91-124-4062212

[WWW.AISGLASS.COM](http://WWW.AISGLASS.COM)

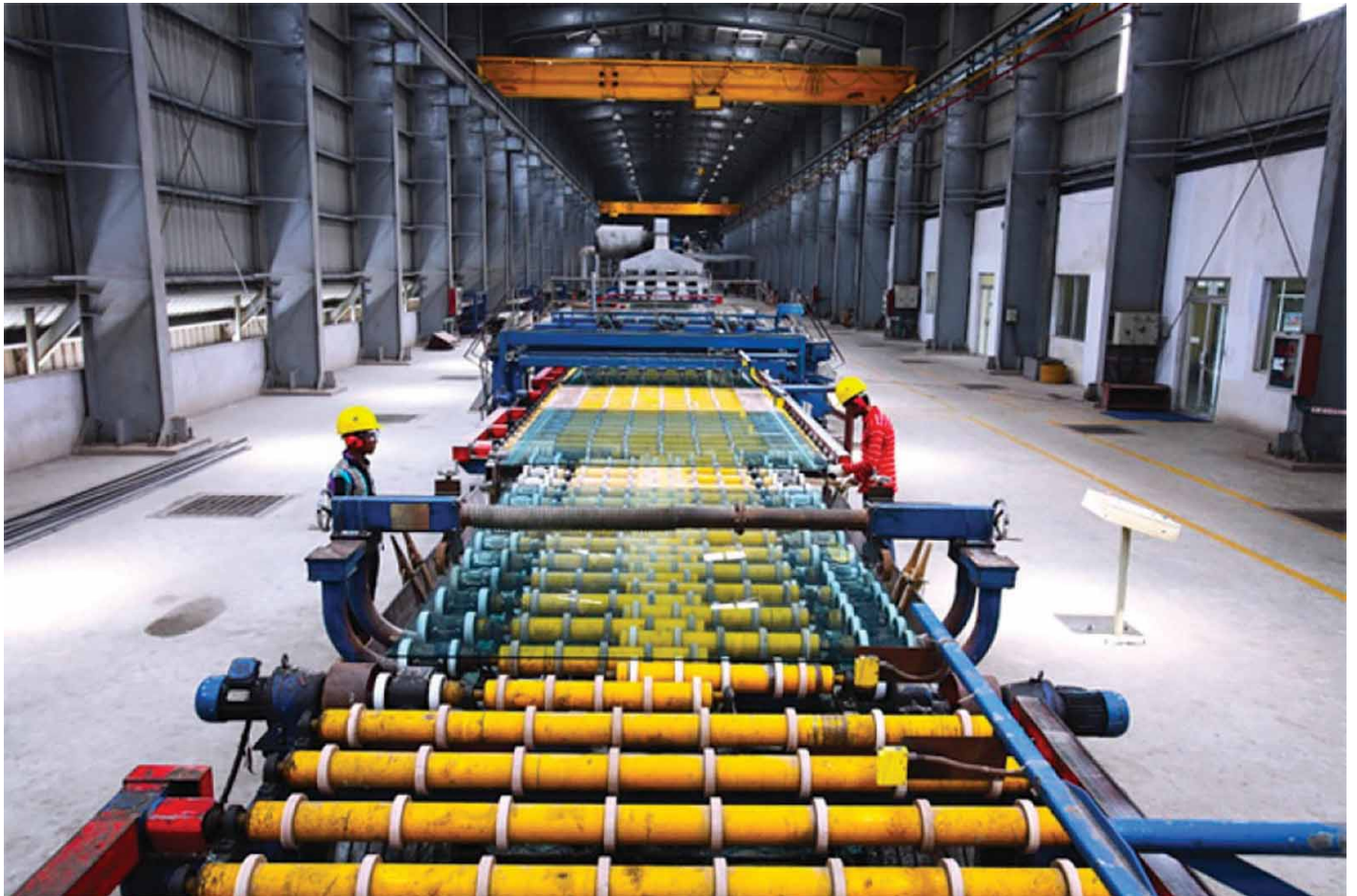
# PHP Float Glass Industries

PHP Family group  
of companies: dedicated  
to enhancing the  
country's economy

*“The first float plant in Bangladesh, producing high-quality, environmentally friendly clear and float glass for the construction industry.”*

In 2004 PHP established its new endeavor PHP Float Glass Industries Ltd. in the port city of Chittagong, Bangladesh, with an annual production capacity of 40,000 MT (approximately 4.0 million square meters at an average thickness of 4mm). PHP FGIL was set up with technical assistance from Luoyang Float





Glass Technology of China. In 2008 PHP FGIL set up its high quality silver mirror plant, which produces mirror glass of different sizes and thickness (3mm to 8mm) following the Chinese Industrial Standard P.R.C JC / T871 - 2000. The capacity of the plant is 700,000 square metres, based on single shift operation. PHP FGIL then inaugurated a glass processing line and started production of glass edging, beveling, OG molding, drilling and tempered glass in 2012. PHP tempered glass is produced using the latest European Oscillating Tempering furnace

with a unit production capacity of 74 m<sup>2</sup> / hour with 100% loading surface for 10mm glass. PHP FGIL uses Luoyang Float Glass Technology and produces float glass with different thicknesses and sizes as per Japanese Industrial Standard JIS R3202-1996. Its main production machinery is provided by CNHDI and CNTIC of China and major operation control equipment and software is from USA, Germany and others. PHP Float Glass produces the following:

**Clear and Coloured Float Glass**

- Thickness: 2mm 12mm

- Width of ribbon: 2400 mm
- Net width of the glass: max. 2130 mm

Maximum size of finished sheet:  
2130 mm X 3600 mm

#### Silver Coated Mirror

- Thickness: 3mm 8mm
- Max glass size: 2400 mm X 3600mm

- Min glass: size: 900 mm X 600mm
- Max size of finished sheet: 2130 mm X 3600 mm

#### Tempered Glass

- Thickness: 4 mm to 19 mm
- Maximum size: 2300mm X 3600mm
- Minimum size: 80 mm X 250 mm



#### PHP FLOAT GLASS INDUSTRIES LTD.

Headquaters

40/1, Zakir Hossain Road

South Khulshi - Chittagong - Bangladesh

Tel:- +880-31-632316-21 - Fax:- +880-31-2854036

Email:- info@phpfamily.co

[PHPFAMILY.CO/BUSINESSES/FLOAT-GLASS/](http://PHPFAMILY.CO/BUSINESSES/FLOAT-GLASS/)

# Viglacera DapCau Sheet Glass

From manufacturing  
and design consultancy,  
to installation

*“New energy-efficient factory sees Viglacera become a leader in Vietnam’s glass and construction market.”*





Viglacera DapCau Sheet Glass Joint-Stock Company, a member of Glass and Ceramics for Construction Corporation (Viglacera), founded in 1990 in Bac Ninh, Vietnam, manufactures glass products including rolled, laminated, safety tempered, opaque glasses, as well as mirror, glazing

products, mosaic and insulating glass.

Currently in Vietnam there are very few plants that process energy-saving glass, especially Low-e. Viglacera Glass has recently invested in an Energy Efficiency Glass Processing Factory in Yen Phong Industrial Zone, Bac Ninh Province. The



plant consists of full convection tempering glass processing line and high speed automation box glass processing line.

Viglacera Glass Erection One Member Limited Liability Company has now become one of the leaders in providing overall solutions: Design consultancy, product supply, glass processing, complete installation in Vietnam's construction market.

### Tempered safety glass

Used in the construction and interior decoration such as: construction of large windows, facades, partitions, hydraulic glass doors, railings, balconies, railings and stairs, bathrooms.

### Glass mosaic

The company's mosaic glass is produced on modern production lines and equipment, and is ISO 9001: 2008 certified. Viglacera Dap Cau mosaic glass products are of high quality, in accordance with the TCCS 17: 2008 / KĐC standards.

### Decorative mirrors

Mirror glass is produced with

a metal coating method in the vacuum chamber (not less than 0.1 mm), then covered with a special paint to protect and dried in a stable temperature environment, creating a strong bond between the glass and the protective coating thus ensuring a sustainable image over time.

### Patterned glass

Phuc Loc flower glass is produced on modern production lines and technology, the floral pattern roller imported from Germany. Phuc Loc flower glass is used to make partitions, windows, glass doors and interior and exterior space decoration.

### Laminated Safety Glass

With modern production lines and equipment from GlassRobots (Finland), laminated safety glass is made of two or more layers of glass (depending on usage), linked together by specialized PVB film. It is used to make windshields for cars, trains, ships and special doors that require anti-theft and bulletproof protection.



**Viglacera Dap Cau**

Headquarters

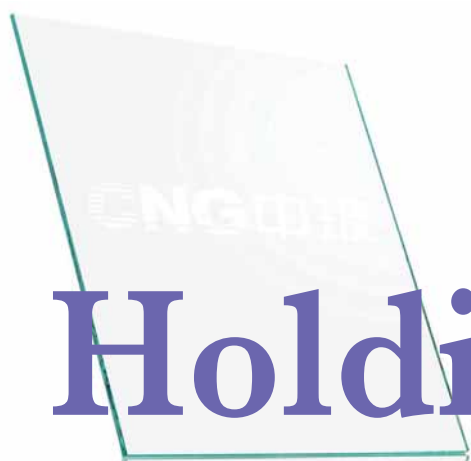
Vu Ninh Ward

Bac Ninh City, Bac Ninh Province

Vietnam - Tel.: 0084-241-3821369

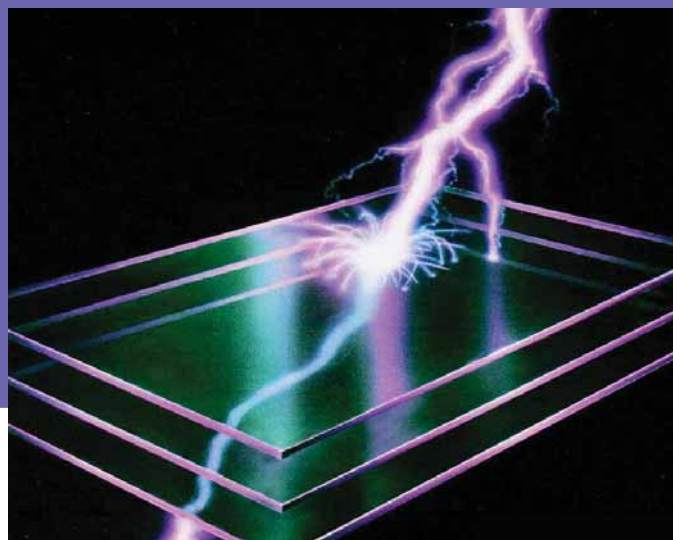
Fax: +84-241-3821507 - E-mail: info@kinhdapcau.vn

[WWW.KINHDAUCAU.VN](http://WWW.KINHDAUCAU.VN)



# China Glass Holdings Limited

Total production of over 7,000 tons daily



*“Member companies across China cover a wide range of products.”*

China Glass Holdings Limited (CNG) is China's leading float glass and the major reflective glass manufacturer. It was established in 2004 and listed on the Hong Kong Stock Exchange in 2005. It produces a variety of products ranging from float glass, reflective glass,

energy-saving glass, PV product to deep processed glass and more.

CNG has nearly 5,000 employees throughout China. It has eight production bases and a R&D centre, with a total of fourteen production lines and daily melting capacity of

7,050 tons. The company's off-line Low-E glass line has an annual production capacity of 5 million square meters, and its amorphous silicon thin film cell production line boasts an annual production capacity of 12MW. CNG is comprised of the following member companies:

**Dongtai CNG Special Glass Co Ltd.**

- Two on-line low-e reflective glass production lines each with a melting capacity of 600T/Day.
- Coke oven gas, saving 95,000 tons of standard coal per year.
- 6MW heat recovery and



generation system which provides 2/3 of the electricity used in the factory, saving 13,000 tons of standard coal per year and reducing 49,000 tons of CO<sub>2</sub> emissions.

- Full set of flue gas desulfurization, denitration, dust elimination systems reducing 450 tons of SO<sub>2</sub>, 101 tons of soot, 577 tons of NO<sub>2</sub> per year.

#### Linyi CNG Glass Co Ltd

- Two high-tech coated glass lines each with daily meting

capacity of 500t/d and 600t/d

- Coke oven gas.
- 6MW heat recovery and regeneration system and has completed grid connection

#### Wuhai CNG Special Glass Limited

- One on-line low-e reflective glass production line with a melting capacity of 800t/d.
- 4.5MW heat recovery and regeneration system and a full set of environmental protection facilities.

#### Shanxi CNG New Technology Co Ltd and Xianyang CNG Coated Glass Co Lt

- Two online coated glass production lines with daily meting capacity of 400t/d and 500t/d respectively.
- 6MW heat recovery and regeneration system which provides more than 80% of electricity used in the factory.

#### Weihai CNG Coated Glass Co Ltd, Weihai CNG New Technology Glass Ltd, Zhong BO Technology Co Ltd, Weihai China Glass Solar Co Ltd

- Three on-line coated glass production lines, each with a

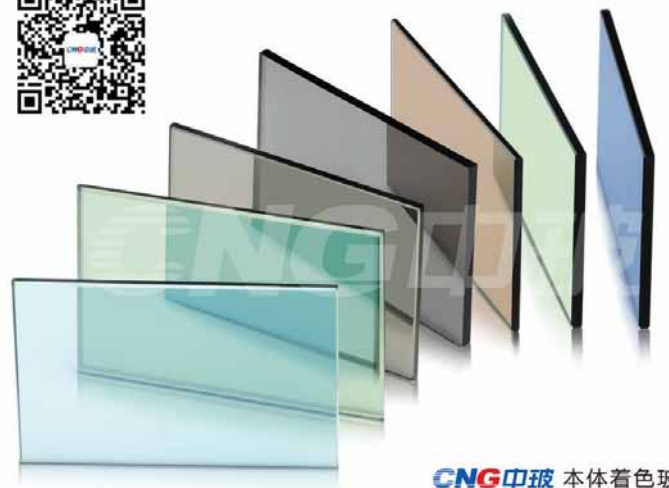
melting capacity of 500t/d

- One off-line low-e reflective glass line with an annual production capacity of 5 million square meters, and one amorphous silicon thin film cell production line with an annual production capacity of 15MW.

#### Suqian CNG New Materials Co Ltd

- Three float glass production lines with melting capacity of 400ton/day, 500ton/day and 600ton/day.

CNG's products are exported to more than 100 countries and regions.



CNG中玻 本体着色玻璃



CNG中玻控股

#### China Glass Holdings

21 Floor, A Tower Ziguang Building  
No.11 Huixin Dongjie, Chaoyang District  
100029 Beijing - China

Tel.: +86-10-69781056 - Fax: +86-10-69781273

E-mail: office@chinaglassholdings.com

[WWW.CHINAGLASSHOLDINGS.COM/EN/INDEX.ASPX](http://WWW.CHINAGLASSHOLDINGS.COM/EN/INDEX.ASPX)

# Fuyao Group

The Fuyao America plant will expand in 2020, increasing production of aftermarket glass



*“Fuyao Group has always been committed to manufacturing quality glass both for China and foreign markets.”*

Fuyao Glass Industry Group Co. is a large multinational manufacturer of both industrial and automobile glass. Headquartered in Fuzhou, China, Fuyao boasts a number of modern production bases in 16 provinces and cities in China and nine foreign countries, including United States, Russia, Germany, Japan, and South Korea; it has six R&D centers located in China, United States and Germany, and over 26,000 employees worldwide. Fuyao specialises in automotive







- Heating glass
- Hydrophobic glass
- Soundproof glass
- Electrochromic glass
- Coated glass
- Solar glass
- Integrated assembly

The company's American subsidiary Fuyao Glass America began production in 2015.

It now plans to increase production capacity at its Dayton plant starting in 2020. \$46 million will be spent on purchasing new manufacturing equipment, increasing floor space by 161,000 square feet, and adding at least 100 new jobs. The investment will allow the company to produce more after-market auto glass.

Current production capacity at the Dayton plant is 4 million car sets and 4 million windshields annually for the ARG market.

glass for the OEM & ARG markets, and has grown into one of the world's largest automotive glass suppliers. Its products are recognized and purchased by top automobile manufacturers and major OEMs, such as Bentley, Mercedes-Benz, BMW, Audi, GM, Toyota, Volkswagen, Ford, and Chrysler. It also provides support services and customized solution packages for automobile glass to OEMs globally.

Products and services include:

- Head-Up Driver windshield



**Fuyao Group - Automotive Glass Co. Ltd.**

588 Yuanfu Road - Anting Town  
201814 Jiading Dist. - Shanghai - China  
Tel.: +86-21-69573333  
Fax: +86-21-69573380  
E-mail: ysales@fuyaoigroup.com

[WWW.FUYAOGROUP.COM](http://WWW.FUYAOGROUP.COM)

# Kibing Glass Group

Providing solutions for  
architects and consumers across  
China and South-East Asia



*“Kibing currently runs 25 float glass lines,  
and has plans for expansion.”*

Kibing Group was founded in 1988 and has grown into one of the leading glass manufacturers in China and South-East Asia. It currently has eight production plants, with 25 float glass lines, located across China and in Malaysia. They offer a wide range of glass products, services and architecture solutions from high-grade float glass, energy-saving eco glass, photovoltaic, solar energy glazing to extra-thin electronic glass. Information on some of Kibing's subsidiaries includes:

### Zhangzhou Kibing Glass Co Ltd

8 high-end glass production lines with a yield of 5,700 tons/day. The company has three loading docks with a total 38,000 tons, to match the production line, and three quartz sand mines with an annual production of 500,000 tons.

### Heyuan Kibing Silicon Industry Co Ltd

Covering an area of 900 acres, the company has two production lines with a daily melting capacity of 1,400 tons. High-quality, low-iron quartz sand can be found in the local area, giving an annual yield of 280 thousand tons. There is also an output of 200 thousand tons of ultra-white sand, and 300 thousand tons of high-quality white sand. Heyuan



Qibin Silicon has become the base from which Kibing develops high-tech photovoltaic products as well as low-iron quartz industrial sand.

Shaoxing Kibing Glass Co Ltd Shaoxing Kibing Glass has two production lines of high end float glass with a total production of 1200 tons/day.

### Kibing Group (Malaysia) Limited

Kibing Group (Malaysia) Limited is a wholly-owned subsidiary of Zhuzhou Kibing Group and Zhangzhou Kibing Glass. In 2015 the company

invested 1.175 billion yuan in Sullivan, Malaysia to build a 600 ton/day Low-E coated glass production line and a 600 ton/day high-grade diversified glass production line to become Kibing's first overseas production plant. Kibing Group (Singapore) Ltd is the first step in the

group's strategy to expand its business to Singapore. Its main functions involve seeking foreign trade financing channels, developing networks with international traders of glass and bulk raw materials, as well as expanding sales networks, and developing its international brand.



**Kibing Glass Group / Zhuzhou**

Tongtanwan - Shifeng District, Zhuzhou City, Hunan - 412005 Zhuzhou City, Hunan

China - Tel.: 0086-731-28370033

Fax: 0086-731-28370066 - E-mail: info@kibing-glass.com

**WWW.KIBING-GLASS.COM**

# Xinyi Glass

Over 30 years experience  
in the glass market  
gives specialist knowledge  
of products suited  
to harsh climates

*“From float glass to automotive glass,  
construction glass and solar glass – Xinyi Glass  
is a globally-recognized manufacturer.”*



Xinyi Glass Holdings Limited, founded in 1988 and headquartered in Hong Kong, has a sales network covering over 140 countries and regions around the world. It produces high-quality float glass,

automobile glass and energy-saving architectural glass. Its current total melting capacity of 18,400 T/D makes it one of the leaders in China and throughout Asia. Xinyi Glass has nine domestic



manufacturing bases in China's most active economy zones: Pearl River Delta, Yangtze River Delta, Bohai Economic Rim, Chengdu-Chongqing Economic Zone and Beibu Gulf Economic Zone. It has also recently established a manufacturing base in Malacca, Malaysia. Xinyi has a total industrial area of over 6.83 million sqm and over 12,000 employees.

**Automobile Glass - safety and protection from the elements**

Xinyi Glass produces Solar-X

heat-reflective automobile glass, HUD (head-up display) glass, laminated front windshield, tempered glass, heating glass, etc. It has a leading position in the global automobile glass replacement market. The products have been accredited by global quality certifications including China Compulsory Certification (3C), the US DOT, the European ECE and Japan JIS.

Xinyi Glass North America (XYG) based in Canada, is a significant subsidiary of Xinyi Glass Holdings Limited, operates

across the Americas, its focus being to maintain the global brand positioning. It currently holds around 40% market share of aftermarket automotive glass in North America. It offers a complete range of auto glass products, some particularly suited to the harsh winter elements, such as fully-heated windshields. XYG pickup truck sliders were recently re-launched after years of re-development and improvements. These specialty full-assembly glass panels provide weather-tight fitting at the rear of the cab along with a functional, smooth sliding center window. Various glass color options are available including privacy grey to provide additional comfort and aesthetic appeal.

To complement their

automobile glass products, the company offers its own range of rubber moldings and other accessories. These are specifically engineered for the North American markets and are produced with premium grade raw materials, allowing them to perform as well under harsh winter weather conditions with excellent flexibility and corner retention. XYG advanced production equipment is also capable of custom-making a wide variety of safety glass products for use in specialty vehicles such as buses, coaches, RVs, off-road vehicles, trains and ships. Xinyi's customers include large international automobile corporations such as Ford, General Motors and Volkswagen of Germany.



**Xinyi Glass Holdings Ltd.**

Xinyi Glass Industrial Zone

Ludong District, Humen Town

Dongguan, Guangdong 523935 - China

Tel.: +86-769-85266666 - Fax: +86-769-85268888

E-mail: [marketing@xinyiglass.com](mailto:marketing@xinyiglass.com)

[WWW.XINYIGLASS.COM](http://WWW.XINYIGLASS.COM)

# FLOAT PLANTS

# AMERICAS



**VIDRIO ANDINO**

**CEBRACE LTDA /  
JACAREI PLANT**

**VASA - VIDRIERIA  
ARGENTINA**

## ARGENTINA

See complete company profile on page 216

### VASA - VIDRIERIA ARGENTINA S.A.

Av. Antartida Argentina  
y Vias del T.M. Roca  
BA1836AON Llavallol - Prov. Buenos  
Aires

#### Argentina

Tel.: +54-11-42395000

Fax: +54-11-42395005

 [www.vasa.com.ar/](http://www.vasa.com.ar/)

Number of Lines: 1

## BRAZIL

### AGC VIDROS DO BRASIL

Rua Vereador Octavio,  
Nascimento Monteiro 321  
Guaratingueta, SP 12522-150

#### Brazil

Tel.: +55 - 12 - 3122-0646

 [www.agcbrasil.com](http://www.agcbrasil.com)

### CEBRACE

Avenida do Cristal, 540, Jardim das  
Indústrias - Jacareí/SP - Brasil  
CEP 12311-900

#### Brazil

Tel.: +55 - 0800 -7284376

 [www.cebrace.com.br](http://www.cebrace.com.br)

### CEBRACE LTDA / AUTOMOTIVE - CAÇAPAVA PLANT

Rodovia Presidente Dutra km133,5  
Santa Luzia - 12286-160 Caçapava, SP

#### Brazil

Tel.: +55-12-32215000

Fax: +55-12-32214434

 [www.cebrace.com.br](http://www.cebrace.com.br)

Number of Lines: 1

### CEBRACE LTDA / BARRA VELHA PLANT

Rodovia BR-101 km 84/85  
São Cristóvão  
88290-000 Barra Velha, SC

#### Brazil

Tel.: +55-47-34467000

Fax: +55-47-34467011

 [www.cebrace.com.br](http://www.cebrace.com.br)

Number of Lines: 1

See complete company profile on page 218

### CEBRACE LTDA / JACAREÍ PLANT

Rua Do Cristal, 540 - Jardim Das  
Indústrias - 12311-900 -  
Jacareí - SP

#### Brazil

Tel.: +55-12-21279000

 [www.cebrace.com.br](http://www.cebrace.com.br)

Number of Lines: 3

### GUARDIAN BRASIL VIDROS PLANOS / PORTO REAL

Rua Fernando Bernadelli, 2000  
27570-000 Porto Real / RJ

#### Brazil

Tel.: +55-24 3355 9000

Fax: +55-24-3355-9001

 [www.guardianbrasil.com.br](http://www.guardianbrasil.com.br)

Number of Lines: 1

## CHILE

### VIDRIOS LIRQUÉN

Camino Publico / frente Estacio  
Puerto Lirquen Penco, Lirquén  
Conception

#### Chile

Tel.: +56-41--2201101

 [www.vidrioslirquen.cl](http://www.vidrioslirquen.cl)

Number of Lines: 1

## COLOMBIA

### SAINT-GOBAIN DE COLOMBIA - PLANTA USME

Km. 9 Vía Usme -  
Santa Fe de Bogotá

#### Colombia

Tel.: +57-1-7700777

Fax: +57-1-7672613

 [www.saint-gobain.com.mx/colombia](http://www.saint-gobain.com.mx/colombia)

Number of Lines: 1

See complete company profile on page 220

### VIDRIO ANDINO

Km 6.5 Vía Soacha - Mondoñedo  
Vereda Canoas - Soacha

#### Colombia

Tel.: +57-1-5978999

E-mail: [marketing.vidrioandino@saint-gobain.com](mailto:marketing.vidrioandino@saint-gobain.com)

[vidrioandino.com](http://vidrioandino.com)

## MEXICO

### SAINT-GOBAIN

Av. Nicolas Bravo, Parque Industrial  
Cuautla - Estado de Morelos

#### Mexico

Tel.: +52-17 7716 26373

 [mx.saint-gobain-glass.com](http://mx.saint-gobain-glass.com)

Number of Lines: 3

### GUARDIAN GLASS

Carretera a Chichimequillas, KM 9.6  
La Griega, El Marques, Queretaro CP  
76249

#### Mexico

Tel.: +52- 442-2781700

Fax: +52-442-2781776

 [www.guardianmexico.com.mx](http://www.guardianmexico.com.mx)

Number of Lines: 1

### VITRO S. A. B. DE C. V.

Ricardo Margáin 400,  
Valle del Campestre,  
San Pedro Garza García, Nuevo León

#### Mexico

Tel.: +52 - 81 - 8863.1600

 [www.vitro.com](http://www.vitro.com)

### VITRO FLOTADO

Gral. Mariano Escobedo Norte 1735  
64570 Monterrey, N.L.

#### Mexico

Tel.: +52-81-88633900

 [www.vitro.com](http://www.vitro.com)

Number of Lines: 3

### VITRO ARCHITECTURAL GLASS

Calzada. Industrial Palaco #2150  
21399 Mexicali, Baja California Norte

#### Mexico

Tel.: +52-686-5615600

☎ [www.vitro.com/](http://www.vitro.com/)  
Number of Lines: 1

 **UNITED STATES**

## **AGC - ASAHI GLASS CO. / GREENLAND PLANT**

600 AFG Road, HWY 11  
Church Hill, TN 37642  
**USA**

Tel.: +1-423-3572400  
Fax: +1-423-3572476

☎ [www.agcglass.com](http://www.agcglass.com)  
Number of Lines: 2

## **AGC - ASAHI GLASS CO. / RICHMOND PLANT**

201 Duncannon Lane  
Richmond, KY 40475  
**USA**

Tel.: +1-859-6259002  
☎ [www.agcglass.com](http://www.agcglass.com)  
Number of Lines: 1

## **AGC MANUFACTURING & COATING / SPRING HILL**

20400 N. Webster St.  
Spring Hill, KS 66083  
**USA**

Tel.: +1-913-5926100  
Fax: +1-913-5926110  
☎ [www.agcglass.com](http://www.agcglass.com)  
Number of Lines: 1

## **CARDINAL GLASS INDUSTRIES**

775 Prairie Center Dr # 200 - Eden  
Prairie, Minnesota 55344  
**USA**

Tel.: +1 - 952 - 229-2600  
☎ [www.cardinalcorp.com](http://www.cardinalcorp.com)

## **CARDINAL FLOAT GLASS / DURANT**

515 Cardinal Parkway  
Durant, OK 74701  
**USA**

Tel.: +1-580-9242142  
Fax: +1-580-9241522

☎ [www.cardinalcorp.com](http://www.cardinalcorp.com)  
Number of Lines: 1

## **CARDINAL FLOAT GLASS / MENOMONIE**

2200 Stokke Parkway  
Menomonie, WI 54751  
**USA**

Tel.: +1-715-2326500  
Fax: +1-715-2329505  
E-mail: [info@cardinalcorp.com](mailto:info@cardinalcorp.com)  
☎ [www.cardinalcorp.com](http://www.cardinalcorp.com)  
Number of Lines: 1

## **CARDINAL FLOAT GLASS / MOORESVILLE**

342 Mooresville Blvd.  
Mooresville, NC 28115  
**USA**

Tel.: +1-704-6600900  
Fax: +1-704-6600941  
☎ [www.cardinalcorp.com](http://www.cardinalcorp.com)  
Number of Lines: 1

## **CARDINAL FLOAT GLASS / PORTAGE**

1650 Mohr Road  
Portage, WI 53901  
**USA**

Tel.: +1-608-7421966  
Fax: +1-608-7423688  
☎ [www.cardinalcorp.com](http://www.cardinalcorp.com)  
Number of Lines: 1

## **CARDINAL FLOAT GLASS / WINLOCK**

545 Avery Road W.  
Winlock, WA 98596  
**USA**

Tel.: +1-360-2424300  
Fax: +1-360-2660047  
☎ [www.cardinalcorp.com](http://www.cardinalcorp.com)  
Number of Lines: 1

## **CARLEX GLASS COMPANY**

7200 Centennial Boulevard  
Nashville, TN 37209  
**USA**

Tel.: +1 - 615 - 350-7500  
☎ [www.carlex.com](http://www.carlex.com)

## **CARLEX GLASS AMERICA / NASHVILLE PLANT**

7200 Centennial Boulevard  
Nashville, TN 37209 - **USA**  
Tel.: +1-615-3507000

☎ [www.carlex.com](http://www.carlex.com)  
Number of Lines: 1

## **FUYAO GLASS AMERICA INC. / MOUNT ZION GLASS PLANT**

Elwin - Mt. Zion Road  
P O Box R - Mount Zion, IL 62549  
**USA**

Tel.: +1-217-8642392  
Fax: +1-217-8646253  
☎ [www.fuyaousa.com](http://www.fuyaousa.com)  
Number of Lines: 2

## **GUARDIAN GLASS / CARLETON**

14511 Romine Road  
Carleton, MI 48117  
**USA**

Tel.: +1-734-6546264  
Fax: +1-734-6544386  
☎ [www.guardianglass.com](http://www.guardianglass.com)  
Number of Lines: 2

## **GUARDIAN GLASS / CORSICANA**

3801 S. Highway 287  
Box 1001 - Corsicana, TX 751109  
**USA**

Tel.: +1-903-8724871  
Fax: +1-903-8748647  
☎ [www.guardianglass.com](http://www.guardianglass.com)  
Number of Lines: 1

## **GUARDIAN GLASS / DEWITT**

300 South 5th Ave., E.  
DeWitt, IA 52742  
**USA**

Tel.: +1-563-6594000  
Fax: +1-563-6594035  
☎ [www.guardianglass.com](http://www.guardianglass.com)  
Number of Lines: 1

## **GUARDIAN GLASS / GENEVA**

50 Forge Avenue - Geneva, NY 14456  
**USA**

Tel.: +1-315-7877000  
Fax: +1-315-7877065  
☎ [www.guardianglass.com](http://www.guardianglass.com)  
Number of Lines: 1



## GUARDIAN GLASS / KINGSBURG

11535 East Mountain View  
Kingsburg, Ca 93631 - USA  
Tel.: +1-559-8966400  
Fax: +1-559-8966479  
☛ [www.guardianglass.com](http://www.guardianglass.com)  
Number of Lines: 1

## GUARDIAN GLASS / RICHBURG

610 L & C Railway  
Dist. Park State Highway 9  
Richburg, SC 29729 - USA  
Tel.: +1-800.569.4262  
Fax: +1-803-7896859  
☛ [www.guardianglass.com](http://www.guardianglass.com)  
Number of Lines: 1

## PILKINGTON - NSG NORTH AMERICA / LAURINBURG

P.O. Box 969 - Highway 74 East  
Laurinburg, NC 28352 - USA  
Tel.: +1-910-2765630  
Fax: +1-910-2772229  
☛ [www.pilkington.com](http://www.pilkington.com)  
☛ [www.nsg.com/en](http://www.nsg.com/en)  
Number of Lines: 2

## PILKINGTON - NSG NORTH AMERICA / OTTAWA

300 20th Avenue - P.O. Box 578

Ottawa, IL 61350 - USA  
Tel.: +1-815-4338048  
Fax: +1-815-4348009  
☛ [www.pilkington.com](http://www.pilkington.com)  
☛ [www.nsg.com/en](http://www.nsg.com/en)  
Number of Lines: 1

## PILKINGTON - NSG NORTH AMERICA / ROSSFORD

140 Dixie Highway - Rossford OH 43460  
USA  
Tel.: +1-419-2473201  
Fax: +1-419-2473257  
☛ [www.pilkington.com](http://www.pilkington.com)  
☛ [www.nsg.com/en](http://www.nsg.com/en)  
Number of Lines: 2

## VITRO ARCHITECTURAL GLASS

3333 South Peach Avenue  
Fresno CA 93725  
USA  
Tel.: +1-559-44854660  
☛ [www.vitroglazings.com](http://www.vitroglazings.com)  
Number of Lines: 1

## VITRO ARCHITECTURAL GLASS

400 Park Drive - Carlisle, PA 17013  
USA  
Tel.: +1-717-4863366  
Fax: +1-717-4860101

☛ [www.vitroglazings.com](http://www.vitroglazings.com)  
Number of Lines: 2

## VITRO ARCHITECTURAL GLASS

7400 Central Freeway North  
Us 277 & 281 N  
Wichita Falls, TX 76305-6656 - USA  
Tel.: +1-940-8553804  
Fax: +1-940-8514213  
☛ [www.vitroglazings.com](http://www.vitroglazings.com)  
Number of Lines: 2

## VITRO AUTOMOTIVE GLASS / MEADVILLE PLANT

5123 Victory Boulevard  
Cochranon, PA 16314 - USA  
Tel.: +1-814-3364411  
☛ [www.vitroglazings.com](http://www.vitroglazings.com)  
Number of Lines: 2

## VENEZUELA

## GUARDIAN DE VENEZUELA SA

Zona Industrial de Maturín  
Manzana, 50 - Via San Jaime  
Maturin Edo, Monagas - Venezuela  
Tel.: +58-291-3005200  
Fax: +58-291-3005251  
☛ [www.guardianvenezuela.com](http://www.guardianvenezuela.com)  
Number of Lines: 1

- Bottles and containers • Domestic glassware • Tubing, vials and ampoules • Lighting glassware • Technical, TV & Industrial glassware • Scientific, laboratory and medical glassware • Miscellaneous

# glassmachinery world plants&accessories

BI-MONTHLY INTERNATIONAL MAGAZINE FOR GLASS MANUFACTURING

PRODUCT NEWS, BUSINESS NEWS, FOCUS ON...,  
EXHIBITIONS AND MEETINGS, FORTHCOMING EVENTS  
THE LATEST TECHNICAL INNOVATIONS AND... MUCH MORE

THE BEST WAY TO KEEP IN TOUCH WITH  
WHAT'S GOING ON IN THE  
GLASS MANUFACTURING INDUSTRY

# glassmachinery world plants&accessories

BI-MONTHLY INTERNATIONAL MAGAZINE FOR GLASS MANUFACTURING

YEAR 33 • ISSUE NO. 1/2020

WE ARE GLASS PEOPLE



RANGER 2  
CAMERA CHECK DETECTION



THE ULTIMATE HIGH-SPEED AND HIGH-RESOLUTION  
CAMERA CHECK DETECTION SYSTEM



FUTRONIC  
SUPPORTING OPERATIONS  
OF GPS MACHINES  
WORLDWIDE

MSK  
SUSTAINABLE MACHINE  
CONCEPTS FOR LOAD SECURING

AGR  
INTERNATIONAL  
INTRODUCES AUTOMATED  
VOLUMETRIC MEASUREMENT  
SYSTEM FOR THE PLANT FLOOR

ATLAS  
SMART CAMERA CHECK  
DETECTION BEYOND  
EXPECTATIONS

OCMI GROUP  
ACQUIRES SPANISH  
KYP ACCESSORIES

EUROMATIC  
HIGH LEVEL SPECIALIZATION  
IN A KEY SEGMENT OF THE  
PHARMACEUTICAL INDUSTRY

[www.glassonline.com](http://www.glassonline.com)



FOR MORE INFORMATION, PLEASE CONTACT: A151 SRL • Via Antonio Gramsci 57, 20032 Cormano (MI) - Italy  
Tel.: +39-02-66306866 • E-mail: [publications@glassonline.com](mailto:publications@glassonline.com) • [www.glassonline.com](http://www.glassonline.com)

# Vasa - Vidrieria Argentina S.a.

New float glass plant  
in Los Cardales in 2020  
to cover the rising demand  
across architectural  
and auto glass sectors

*“The leading glass production company for the construction, architecture, design and automotive industries in Latin America.”*



Vasa - Vidrieria Argentina S.a. is a leading float glass manufacturer for the construction, architecture, design and automotive industries in Latin America. It currently has around 500 employees and operations in

4 countries: Argentina, Bolivia, Paraguay and Uruguay. Founded in 1938 as the result of the association of two of the world's largest glass manufacturers: NSG Group - Pilkington and Saint Gobain, Vasa implements the



new plant is due to the rapid increase in demand across the architecture and autoglass sectors in Argentina, and will also support the market growth in the neighboring markets, including Paraguay, Uruguay and Bolivia. It will be the second float line to be operated by Vidriería Argentina S.A. (VASA), a joint venture subsidiary in Argentina. The new facility will provide around 200 jobs for the local area.



most advanced technology in the manufacture of a wide range of products. It produces float glass, a range of solar, acoustic and security glasses, ecological mirror glass and more. Specialty glasses include black glass and Pyrostop as well as the Ekoglass, Blindex and mirror glass ranges.

### New Float Oven - 2020

2020 will see the inauguration of a new 220,000,000 USD float oven in Los Cardales, Argentina. The oven will have a production capacity of 900 tons per day, with glass thickness ranging from 1.8mm up to 19mm, and length from 2.8 - 4m. Construction of the



#### Vasa - Vidriería Argentina S.a.

Av. Antartida Argentina y Vías del T.M. Roca  
BA1836AON Llavallol - Prov. Buenos Aires  
Argentina

Tel.: 0054-11-42395000 - Fax: 0054-11-42395005

E-mail: [vasamloc@vasa.com.ar](mailto:vasamloc@vasa.com.ar)

[WWW.VASA.COM.AR](http://WWW.VASA.COM.AR)

# Cebrace

## 45 years of flat glass expertise

*“An established market leader in the Brazilian flat glass sector, Cebrace is also the largest producer of windows and mirrors in South America.”*



Founded in Brazil in 1974, Cebrace is the result of a joint venture between two of the largest flat glass producing groups in the world: Saint-Gobain (France) and NSG (Japan). With three units spread across Brazil and five production lines, the company manufactures a range of products from float glass for commercial and domestic architecture, to self-cleaning and industrial refrigeration glass, and across the air, road and sea transport industries.

### Keeping it cool

Low-e glasses for commercial refrigeration and household appliances are among its specialties. Cebrace Reflecta





helps to conserve internal heat when applied to oven doors, thus improving performance of the appliance. Cebrace Tec low-e glass is used for applications that need good thermal performance and low emissivity. The glasses can be applied for temperatures ranging from + 7 ° C to -25 ° C. Cebrace Planitherm 1.3 T is suitable for use in freezer and refrigerator doors. It provides high optical quality, conserves food and drinks inside the equipment without fogging up, and helps to save energy.

### Building solutions - keeping it clean

Cebrates Glass also offers an extensive range of solutions for commercial enterprises, such as buildings, shopping malls, hotels, etc including laminate,

safety, anti-reflection, solar protection, Low-E and self-cleaning glasses.

Bioclean is visually identical to normal glass, but has an integrated cleaning layer so therefore has a high level of durability, without the need for constant cleaning. This glass takes advantage of the strength of UV Rays and rain water to combat the dirt and waste that accumulate.

### Home and interior architecture

Mirrors, extraclear, painted, extravagance, mirrored and anti-reflection glass make up the range of products for interior spaces, and solar and mirrored glasses for outside the home.

Cebrace exports throughout South America, Central America and Africa.



### Cebrace Ltda / Jacareí Plant

Rua Do Cristal, 540  
Jardim Das Industrias  
12311-900 - Jacareí - SP - Brazil  
Tel.: +55-12-21279000



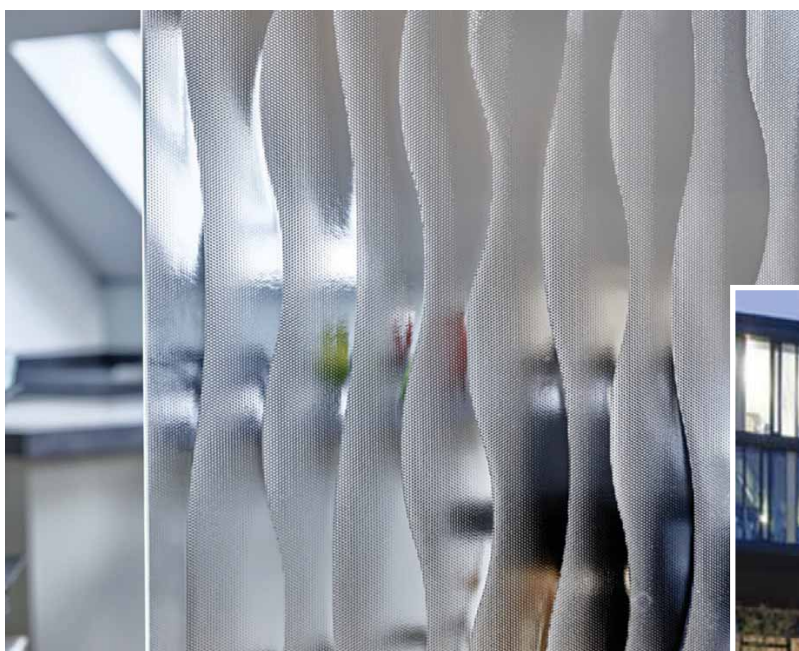
[WWW.CEBRACE.COM.BR](http://WWW.CEBRACE.COM.BR)

# Vidrio Andino

## Colombia's first float glass plant

*“The company’s innovation and service in the flat glass market has seen its facade glass used in a large number of construction projects across three Latin American countries.”*





pollution and waste. Its design principles can be applied to any type of building, both residential and non-residential in any climate and situation. These principles cover:

- Optimal temperature
- Maximising daylight to aid productivity and alertness
- Active acoustic protection for well-balanced sound
- Indoor air is always kept fresh and clean

### Facade Glass

Vidrio Andino facade glass products are energy saving, environmentally sustainable, ensure privacy and security as well as fire protection, and of course aesthetically well-designed. They have been used in many projects in the cities of Ecuador, Colombia and Venezuela, both in private homes and commercial constructions. Products include self-cleaning, thermal comfort, safety, acoustic comfort glasses and double glazing.



Vidrio Andino is a Colombian-based float glass plant serving Ecuador, Colombia and Venezuela. It works with strategic allies across the architectural segment (both commercial and residential construction), in the automotive, interior decoration and home appliances segments. The company is a joint venture between Saint-Gobain and NSG Pilkington established for over 20 years, with local production

since 2013. Current production at the plant is around 600 tons of float glass per month. A major focus of the company is innovation to discover new solutions for a more sustainable and comfortable lifestyle and future. This focus has seen the development of the MULTICOMFORT program, a system to create buildings which use less energy and resources, and generate less



#### Vidrio Andino

Km 6.5 Vía Soacha - Mondoñedo  
Vereda Canoas - Soacha  
Colombia

Tel.: +57-1-5978999

E-mail: [marketing.vidrioandino@saint-gobain.com](mailto:marketing.vidrioandino@saint-gobain.com)

[VIDRIOANDINO.COM](http://VIDRIOANDINO.COM)



# associations



DIR E C T L I N K S

## FLATGLASS 2020 world directory

### ARGENTINA

#### CAVIPLAN - CAMARA DEL VIDRIO PLANO

Av. Santa Fe 3312 - Piso 14°  
1425 Buenos Aires  
Argentina  
Tel.: +54-11-48263348  
Fax: +54-11-48257999  
E-mail: [caviplan@caviplan.org.ar](mailto:caviplan@caviplan.org.ar)  
[www.caviplan.org.ar](http://www.caviplan.org.ar)

### AUSTRALIA

#### AUSTRALIAN GLASS & GLAZING ASSOCIATION

105 Gardenvale Road  
Gardenvale Vic 3185  
Australia  
Tel.: +61-3-86690170  
E-mail: [agga@agga.asn.au](mailto:agga@agga.asn.au)  
[www.agga.org.au](http://www.agga.org.au)

### AUSTRIA

#### WKO - AUSTRIAN ECONOMIC CHAMBERS

Stubenring 8-10  
1010 Wien  
Austria  
Tel.: +43-1-514500  
Fax: +43-1-5137787  
E-mail: [info@wko.at](mailto:info@wko.at)  
[www.wko.at](http://www.wko.at)

### BELGIUM

#### ESMA

Sint-Jorisveld 44  
3390 Sint-Joris-Winge  
Belgium  
Tel.: +32-16-894353  
Fax: +32-16-434971  
E-mail: [info@esma.com](mailto:info@esma.com)  
[www.esma.com](http://www.esma.com)

#### EWFA EUROPEAN WINDOW FILM ASSOCIATION

Saint-Lambert 22, Boite 3  
1200 Brussels  
Belgium  
E-mail: [info@ewfa.org](mailto:info@ewfa.org)  
[www.ewfa.org](http://www.ewfa.org)

### GLASS FOR EUROPE

Rue Belliard 199/33  
1040 Brussels  
Belgium  
Tel.: +32-2-5384377  
Fax: +32-2-2800281  
E-mail: [info@glassforeurope.com](mailto:info@glassforeurope.com)  
[www.glassforeurope.com](http://www.glassforeurope.com)

### BRAZIL

#### ABIVIDRO - ASSOCIACAO TECNICA BRASILEIRA

Comercial Casa Das Caldeiras  
Av. Francisco Matarazzo, 1752,  
Sala 615  
Água Branca, São Paulo, Sp -  
05001-200  
Brazil  
Tel.: +55-11-38739908  
E-mail: [abividro@abividro.org.br](mailto:abividro@abividro.org.br)  
[abividro.org.br/vidros/abividro/](http://abividro.org.br/vidros/abividro/)

### CANADA

#### IGMA - INSULATING GLASS MANUFACTURERS ALLIANCE

1500 Bank Street, Suite 300  
Ottawa, On K1H 1B8  
Canada  
Tel.: +1-613-2331510  
Fax: +1-613-4829436  
E-mail: [enquiries@igmaonline.org](mailto:enquiries@igmaonline.org)  
[www.igmaonline.org](http://www.igmaonline.org)

### CHILE

#### ACHIVAL A.G. - ASOCIACIÓN GREMIAL CHILENA DEL VIDRIO

Avenida Providencia 1998  
Oficina 202  
Providencia  
Chile  
Tel.: +56-2-8699010  
E-mail: [gsilva@achival.cl](mailto:gsilva@achival.cl)  
[achival.cl](http://achival.cl)

### FRANCE

#### CERFAV - POLE VERRIER

Rue De La Liberté  
54112 Vannes-Le-Chatel



### DEUTSCHE GLASERHANDLUNG

An Der Glasfachschule  
D-65589 Hadamar  
Germany  
Tel.: +49-6433-91330  
Fax: +49-6433-5702  
E-mail: [biv@glasserhandlung.de](mailto:biv@glasserhandlung.de)  
[www.glasserhandlung.de](http://www.glasserhandlung.de)

### BUNDESVERBAND FLACHGLAS E.V.

Mülheimer Straße 1  
53840 Troisdorf  
Germany  
Tel.: +49-2241-87110  
Fax: +49-2241-87110  
E-mail: [info@bundesverband-flachglas.de](mailto:info@bundesverband-flachglas.de)  
[www.bundesverband-flachglas.de](http://www.bundesverband-flachglas.de)

### BV GLAS - BUNDESVERBAND GLASINDUSTRIE E.V.

Am Bonneshof 5  
Postfach 10 17 53

Tel.: +49-69-66031259  
Fax: +49-69-66031511  
E-mail: [info@vdma.org](mailto:info@vdma.org)  
[glas.vdma.org/en/home](http://glas.vdma.org/en/home)

### ITALY

#### ASSOVETRO

Via Barberini, 67  
00187 Roma (Rm)  
Italy  
Tel.: 06-4871130  
Fax: 06-42011162  
E-mail: [ossovetro@ossovetro.it](mailto:ossovetro@ossovetro.it)  
[www.ossovetro.it](http://www.ossovetro.it)

#### GIMAV

Via Pelitti 16  
20149 Milano (MI)  
Italy  
Tel.: 02-33007032  
Fax: 02-33005630  
E-mail: [vifrum@vifrum-milano.it](mailto:vifrum@vifrum-milano.it)  
[www.gimav.it/www.vifrum-milano.it](http://www.gimav.it/www.vifrum-milano.it)

FLAT GLASS 2020 WORLD DIRECTORY 2020 223

THE PERFECT WAY OF FINDING  
COMPLETE AND UPDATED INFORMATION ABOUT  
ASSOCIATIONS THE WORLD OVER  
WITH **direct links**





### ARGENTINA

#### CAVIPLAN - CAMARA DEL VIDRIO PLANO

Av. Santa Fe 3312 - Piso 14°  
1425 Buenos Aires

Argentina

Tel.: +54-11-48263348

Fax: +54-11-48257999

E-mail: [caviplan@caviplan.org.ar](mailto:caviplan@caviplan.org.ar)

[www.caviplan.org.ar](http://www.caviplan.org.ar)

### AUSTRALIA

#### AUSTRALIAN GLASS & GLAZING ASSOCIATION

105 Gardenvale Road  
Gardenvale Vic 3185

Australia

Tel.: +61-3-86690170

E-mail: [agga@agga.asn.au](mailto:agga@agga.asn.au)

[www.agga.org.au](http://www.agga.org.au)

### AUSTRIA

#### WKO - AUSTRIAN ECONOMIC CHAMBERS

Stubenring 8-10  
1010 Wien

Austria

Tel.: +43-1-514500

Fax: +43-1-5137787

E-mail: [info@wko.at](mailto:info@wko.at)

[www.wko.at](http://www.wko.at)

### BELGIUM

#### ESMA

Sint-Jorisveld 44  
3390 Sint-Joris-Winge

Belgium

Tel.: +32-16-894353

Fax: +32-16-434971

E-mail: [info@esma.com](mailto:info@esma.com)

[www.esma.com](http://www.esma.com)

#### EWFA EUROPEAN WINDOW FILM ASSOCIATION

Saint-Lambert 22, Boîte 3  
1200 Brussels

Belgium

E-mail: [info@ewfa.org](mailto:info@ewfa.org)

[www.ewfa.org](http://www.ewfa.org)

### GLASS FOR EUROPE

Rue Belliard 199/33

1040 Brussels

Belgium

Tel.: +32-2-5384377

Fax: +32-2-2800281

E-mail: [info@glassforeurope.com](mailto:info@glassforeurope.com)

[www.glassforeurope.com](http://www.glassforeurope.com)

### BRAZIL

#### ABIVIDRO - ASSOCIACAO TECNICA BRASILEIRA

Comercial Casa Das Caldeiras  
Av. Francisco Matarazzo, 1752,  
Sala 615

Água Branca, São Paulo, Sp –  
05001-200

Brazil

Tel.: +55-11-38739908

E-mail: [abividro@abividro.org.br](mailto:abividro@abividro.org.br)

[abraavidro.org.br/vidros/abividro/](http://abraavidro.org.br/vidros/abividro/)

### CANADA

#### IGMA - INSULATING GLASS MANUFACTURERS ALLIANCE

1500 Bank Street, Suite 300  
Ottawa, On K1h 1B8

Canada

Tel.: +1-613-2331510

Fax: +1-613-4829436

E-mail: [enquiries@igmaonline.org](mailto:enquiries@igmaonline.org)

[www.igmaonline.org](http://www.igmaonline.org)

### CHILE

#### ACHIVAL A.G. - ASOCIACIÓN GREMIAL CHILENA DEL VIDRIO

Avenida Providencia 1998  
Oficina 202

Providencia

Chile

Tel.: +56-2-8699010

E-mail: [gsilva@achival.cl](mailto:gsilva@achival.cl)

[achival.cl](http://achival.cl)

### FRANCE

#### CERFAV - POLE VERRIER

Rue De La Liberté  
54112 Vannes-Le-Chatel

France

Tel.: +33-3-83368312

Fax: +33-3-83254999

E-mail: [contact@cerfav.fr](mailto:contact@cerfav.fr)

[www.cervav.fr](http://www.cervav.fr)

#### FFPV - FÉDÉRATION FRANÇAISE DES PROFESSIONNELS DU VERRE

10, Rue Du Débarcadère  
75852 Paris Cedex 17

France

Tel.: +33-1-40551355

Fax: +33-1-40551356

E-mail: [info@ffpv.org](mailto:info@ffpv.org)

[www.ffpv.org](http://www.ffpv.org)

#### INSTITUT DU VERRE - VEILLE STRATÉGIQUE & INFORMATION

Information Service  
112-114 Rue La Boétie  
75008 Paris

France

Tel.: +33-1-42656002

Fax: +33-1-42662388

E-mail: [info@institutduverre.fr](mailto:info@institutduverre.fr)

[www.institutduverre.fr](http://www.institutduverre.fr)

### GERMANY

#### BUNDESINNUNGSVERBAND DES GLASERHANDWERKS

An Der Glasfachschule 6  
D-65589 Hadamar

Germany

Tel.: +49-6433-91330

Fax: +49-6433-5702

E-mail: [biv@glaserhandwerk.de](mailto:biv@glaserhandwerk.de)

[www.glaserhandwerk.de](http://www.glaserhandwerk.de)

#### BUNDESVERBAND FLACHGLAS E. V.

Mülheimer Straße 1  
53840 Troisdorf

Germany

Tel.: +49-2241-87270

Fax: +49-2241-872710

E-mail: [info@bundesverband-flachglas.de](mailto:info@bundesverband-flachglas.de)

[www.bundesverband-flachglas.de](http://www.bundesverband-flachglas.de)

#### BV GLAS - BUNDESVERBAND GLASINDUSTRIE E.V.

Am Bonneshof 5  
Postfach 10 17 53

40474 Düsseldorf

Germany

Tel.: +49-211-4796134

Fax: +49-211-9513751

E-mail: [info@bvglas.de](mailto:info@bvglas.de)

[www.bvglas.de](http://www.bvglas.de)

#### DEUTSCHE GLASTECHNISCHE GESELLSCHAFT

Siemenstrasse 45  
63071 Offenbach Am Main

Germany

Tel.: +49-69-9758610

Fax: +49-69-97586199

E-mail: [info@hvg-dgg.de](mailto:info@hvg-dgg.de)

[www.hvg-dgg.de](http://www.hvg-dgg.de)

#### FRAUNHOFER-ISC INSTITUT FÜR SILICATFORSCHUNG

Neunerplatz 2  
97082 Würzburg

Germany

Tel.: +49-931-41000

Fax: +49-931-4100199

E-mail: [info@isc.fraunhofer.de](mailto:info@isc.fraunhofer.de)

[www.isc.fraunhofer.de](http://www.isc.fraunhofer.de)

#### VDMA - FORUM GLASTECHNIK

Lyoner Strasse 18  
60528 Frankfurt Am Main

Germany

Tel.: +49-69-66031259

Fax: +49-69-66031511

E-mail: [info@vdm.org](mailto:info@vdm.org)

[glas.vdma.org/en/home](http://glas.vdma.org/en/home)

### ITALY

#### ASSOVETRO

Via Barberini, 67  
00187 Roma (Rm)

Italy

Tel.: 06-4871130

Fax: 06-42011162

E-mail: [assovetro@assovetro.it](mailto:assovetro@assovetro.it)

[www.assovetro.it](http://www.assovetro.it)

#### GIMAV

Via Petitti 16  
20149 Milano (Mi)

Italy

Tel.: 02-33007032

Fax: 02-33005630

E-mail: [vitrum@vitrum-milano.it](mailto:vitrum@vitrum-milano.it)

[www.gimav.it/www.vitrum-milano.it](http://www.gimav.it/www.vitrum-milano.it)

### STAZIONE SPERIMENTALE DEL VETRO

Via Briati 10  
30141 Murano - Venezia (Ve)

#### Italy

Tel.: 041-2737011  
Fax: 041-2737048  
E-mail: mail@spevetro.it  
www.spevetro.it

### MALAYSIA

#### MALAYSIA GLASS ASSOCIATION (MGA) - PERSATUAN KACA MALAYSIA

72A, Jalan Tampoi  
Johor Bahru  
Johor 80700

#### Malaysia

Tel.: +60-07-2371701  
Fax: +60-07-2371705  
E-mail: malaysiaglassassociation.com

### PHILIPPINES

#### FEDERATION OF PHILIPPINE INDUSTRIES INC. / FLAT GLASS ALLIANCE

Unit 701 Atlanta Centre  
Condominium  
#31 Annapolis St.  
Greenhills, San Juan City

#### Philippines

Tel.: +63-722-3409  
Fax: +63-722-9737  
E-mail: fpi@philonline.com  
www.fpi.ph

### POLAND

#### POLISH GLASS MANUFACTURERS FEDERATION

Ul. Pasteura 6A/16  
02-093 Warsaw

#### Poland

Tel.: +48-22-8287091  
Fax: +48-22-8287091  
E-mail: biuro@zpps.pl  
www.polish-glass.pl

### REP. OF SOUTH AFRICA

#### SOUTH AFRICAN GLASS AND GLAZING ASSOCIATION (SAGGA)

Aaamsa Group  
P.O. Box 7861  
Halfway House, 1685  
Rep. Of South Africa  
Tel.: +27-11-8055002  
Fax: +27-11-8055033  
E-mail: elize@aaamsa.co.za  
aaamsa.co.za/index.php

### RUSSIA

#### STEKLOSOUZ - NATIONAL UNITED COUNCIL OF GLASS INDUSTRY

Square Zhuravlev D. 2/1  
234234 Moscow, N/A  
Russia  
Tel.: +7-495-4116840  
E-mail: presscenter@steklosouz.ru  
www.steklosouz.ru

### SPAIN

#### UNFEAC - UNIÓN DE FABRICANTES DE ESPEJO Y ALMACENISTAS DE CRISTAL

C/ Juan Bravo, 3  
28006 Madrid  
Spain  
Tel.: +34-914-367348  
E-mail: gestor@unfeac.es  
www.unfeac.es

### SWITZERLAND

#### SCHWEIZERISCHER FLACHGLASVERBAND SFV

Rütistrasse 16  
8952 Schlieren  
Switzerland  
Tel.: +41-44-7555040  
Fax: +41-44-7555041  
E-mail: info@sfv-asvp.ch  
www.sfv-asvp.ch

### THAILAND

#### GLASS MANUFACTURERS INDUSTRY - THE FEDERATION OF THAI INDUSTRIES (GMFTI)

4Th Floor Zone C Queen Sirikit  
National Convention Center  
60 New Rachadapisek Rd.  
Klongtoey  
Bangkok 10110  
Thailand  
Tel.: +66-2-3451169  
Fax: +66-2-3451281  
E-mail: chartchayl@off.fti.or.th  
ftiweb.off.fti.or.th

### THE NETHERLANDS

#### GBO - GLAS BRANCHE ORGANISATIE

Zilverstraat 69  
Postbus 340  
2718 Rp Zoetermeer  
The Netherlands  
Tel.: +31-79-3252220  
Fax: +31-182-531239  
E-mail: vakgroepglas@bouwendnederland.nl  
www.glasbrancheorganisatie.nl

#### TNO - SCIENCE & INDUSTRY GLASS GROUP / ICCG

High Tech Campus 25  
Po Box 6235  
5600 He Eindhoven  
The Netherlands  
Tel.: +31-88-8665000  
Fax: +31-88-8668819  
E-mail: info-lent@tno.nl  
www.tno.nl

### UNITED KINGDOM

#### BRITISH GLASS

9 Churchill Way  
Chapeltown  
Sheffield - South Yorkshire S35 2Py  
United Kingdom  
Tel.: +44-114-2901850  
Fax: +44-114-2901851

E-mail: information@britglass.co.uk  
www.britglass.org.uk

#### GGF - GLASS AND GLAZING FEDERATION

40 Rushworth Street  
London, Se1 0Rb  
United Kingdom  
Tel.: +44-207-9399101  
E-mail: info@ggf.org.uk  
www.ggf.org.uk

### UNITED STATES

#### NATIONAL GLASS ASSOCIATION - NGA

1945 Old Gallows Rd., Suite 750  
Vienna, Va 22182  
Usa  
Tel.: +1-703-4424890  
Fax: +1-703-4420630  
E-mail: info@glass.org  
www.glass.org

### VENEZUELA

#### CINVICRE - CÁMARA INDUSTRIA DEL VIDRIO

Calle Los Laboratorios  
Torre Beta, Piso 3, Oficina 301  
1070 Los Ruices, Caracas  
Venezuela  
Tel.: +58-212-2329563  
Fax: +58-212-2329563  
E-mail: cinvicre@cantv.net  
www.cinvicre.com

### VIETNAM

#### VIETNAM GLASS ASSOCIATION

No. 66-68 Mai Hac De  
Hai Ba Trung District  
Ha Noi  
Vietnam  
Tel.: +84-4-39743570  
Fax: +84-4-39743571  
E-mail: vieglass@yahoo.com  
www.vieglass.com.vn



## GLASSONLINE DAILY NEWS



### FORGLASS moves into new headquarters in Krakow, Poland

17 March 2020  
FORGLASS, a major technology provider for glass manufacturers worldwide, has recently moved to new headquarters in Krakow, Poland. Expansion of the company's engineering and R&D...



### The uber-sustainable Olinda House

17 March 2020  
BENT Architecture worked with Matt on his previous house, so when the couple decided on a tree change in the stunning Dandenong Ranges, they...



### GLASS SERVICE celebrates 30 years servicing the glass industry

17 March 2020  
GLASS SERVICE (GS) Czechia and its affiliated companies FlammaTec spol. s r.o., FlammaTec Germany GmbH, F.I.C. (UK) Limited, F.I.C. Germany GmbH, Augmented Sensors and...



### FEVE: the furnace of the future

17 March 2020  
We received from FEVE the following press release. For the first time ever, European container glass manufacturers have come together to build the world's first...



### HORN Glass Industries hands over donation to Ploessberg museum

17 March 2020  
HORN Glass supports the redesign and supervision of the glass melting furnace construction and glass exhibits museum in Ploessberg with a generous donation of...

### FOCUS ON



### GRUPO PUJOL acquires the EVASA production unit for the expansion of...

9 March 2020

## COMPANY VIDEOS



- NEWS
- ARTICLES
- VIDEOS
- COMPANY UPDATE
- YELLOW PAGES
- AND MORE...

# FOREL

## EDGING MACHINE ART. EM



The **Art. EM vertical edging machine**, one of the most appreciated of the Forel range, is a solution for the edge processing of monolithic and laminated glass sheets. It can perform three different operations: **arrissing, grinding and polishing**, with total stability and high processing speed.

[www.forelspa.com](http://www.forelspa.com)