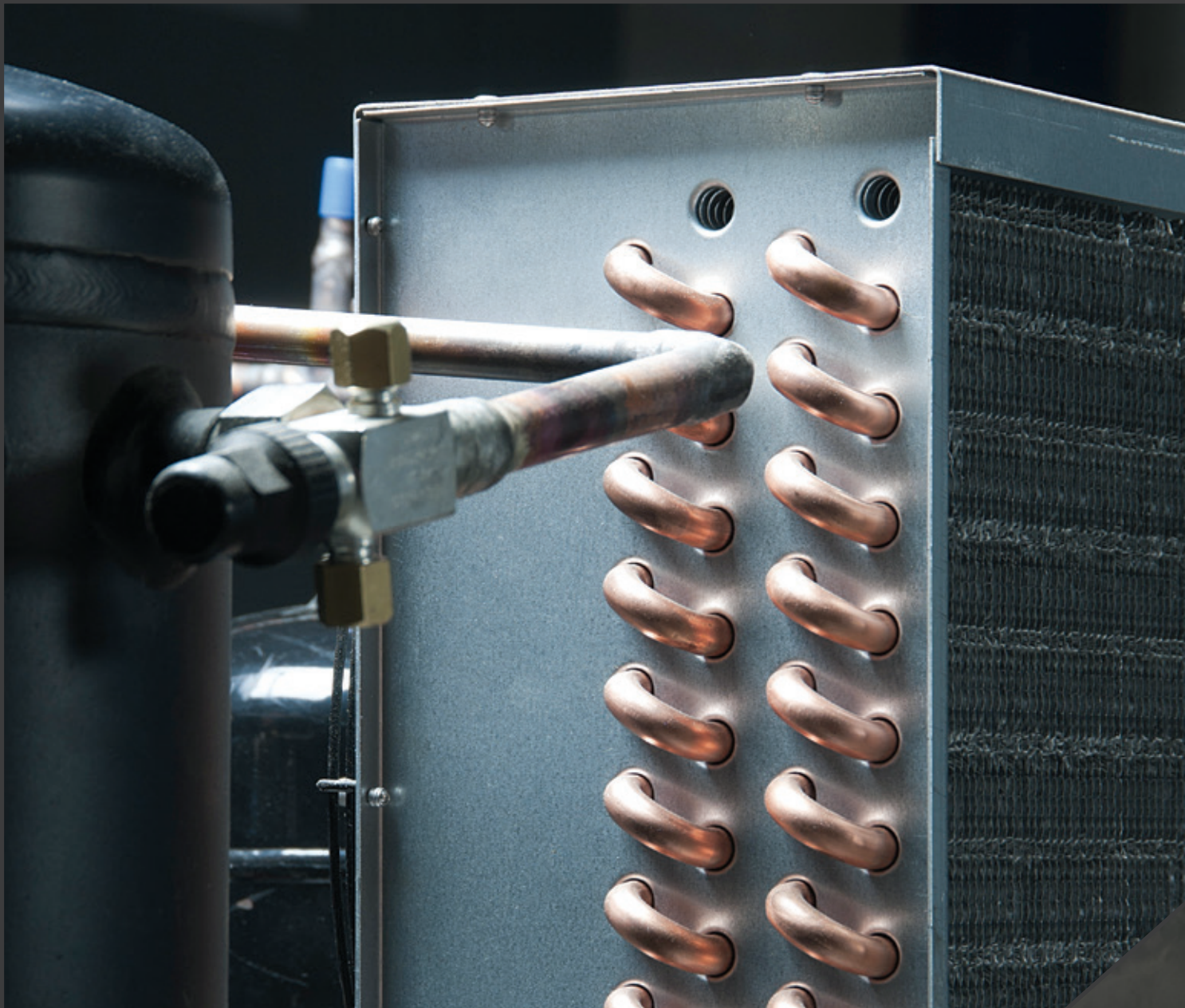


INNOVATIVE HVAC/R SOLUTIONS



FLARESEAL | ROTOLock VALVES & ADAPTERS | CHILLER BARREL GASKETS | & MUCH MORE

SIGMA ENGINEERING LLC

Sigma Engineering LLC is your source for quality HVAC/R parts and supplies. We are the proud supplier for Standard Refrigeration replacement parts for legacy and newly built products.

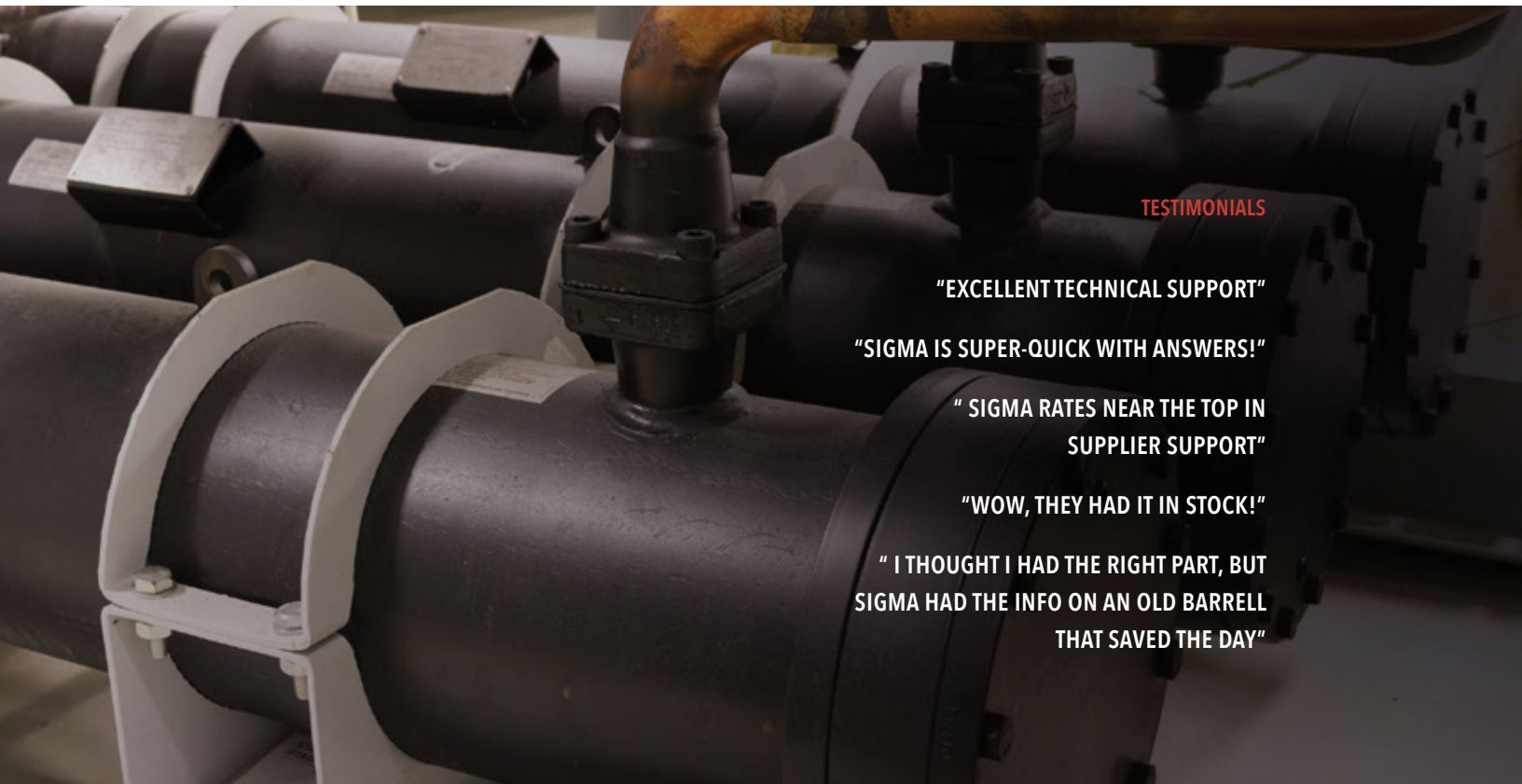
Sigma Engineering, LLC has been serving the HVAC/R industry since 2009 with specialty products that primarily serve the maintenance needs of the refrigeration technician. In 2017, Sigma took over the aftermarket requirements for the Standard Refrigeration products worldwide. These products included Liquid Level Indicators, Chiller Barrell and Condenser Gaskets, Zincs, and Rotolock Service Valves and Adapters.

While the business initially satisfied the needs of the current customer base, Sigma quickly realized the need of proper packaging for the wholesaler/distributor customer base.

Sigma Engineering, LLC now offers this product in wholesaler friendly packaging and the response has been well received.

Our goal is to be your first source, with the best service, for the OEM and wholesale HVAC/R replacement parts in which we specialize.

We STOCK the products we sell. With a same day shipping rate of 99.8%, we look forward to serving you quickly as well.



TESTIMONIALS

"EXCELLENT TECHNICAL SUPPORT"

"SIGMA IS SUPER-QUICK WITH ANSWERS!"

"SIGMA RATES NEAR THE TOP IN SUPPLIER SUPPORT"

"WOW, THEY HAD IT IN STOCK!"

"I THOUGHT I HAD THE RIGHT PART, BUT SIGMA HAD THE INFO ON AN OLD BARRELL THAT SAVED THE DAY"

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Adapters & Rotolocks



Sigma Adapters & Rotolocks are the HVAC/R choice for new and replacement items.

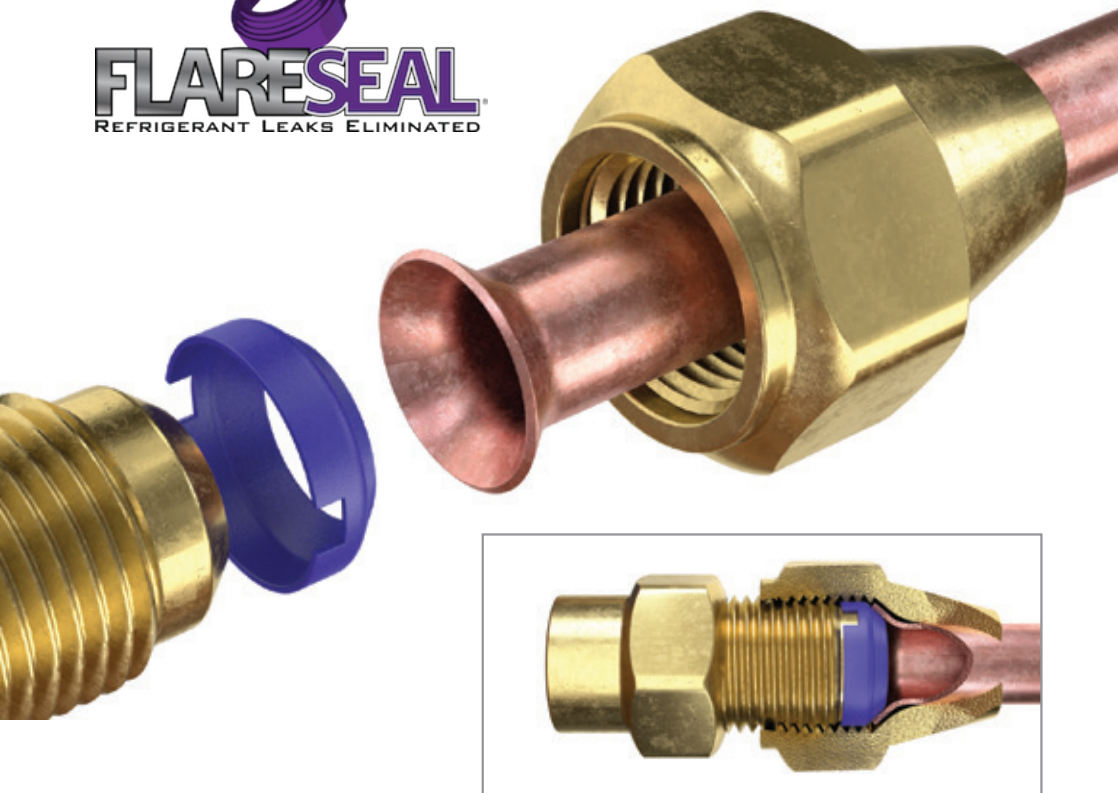
For more info check out pages 12-14

FlareSeal[®]



Once assembled, the FlareSeal[®] becomes the best long term leak-free flare connection in our industry.

For more info check out pages 4-5



FLARESEAL® DELIVERS A CONFIDENT, LEAK-FREE FLARE!

CHANGING THE HVAC/R INDUSTRY

The FlareSeal® was developed specifically for the HVAC/R industry. The seal protects against the primary area of flare leaks on the sealing surface. FlareSeal® fits all common SAE flare connections for the industry. It not only provides a long term leak-free connection on new installations or products, but it also can be used to stop weeping connections in existing systems.

There is a general industry push towards leak-free systems and the elimination of leaks on existing equipment. Currently, the weak links in the system are the flare connections ... *but no more!*

The flare connection is preferred for components for ease of service but has slowly gone the way of sweat connections due to the leak issues and liability associated with loss of refrigerant.

The Multi-Ring-Seal by FlareSeal® allows the best of both worlds in a flare connection, allowing for serviceable components while maintaining a permanent leak-free connection. FlareSeal® can even be used to repair a small existing leak!

ENDLESS APPLICATIONS!

Pilot Lines

Evaporator Pressure Regulators

Hi-Low Pressure Controls

Thermostatic Expansion Valves

Filter Driers

Oil Filters

HVAC Mini-Splits

LP Gas Lines

Why Flareseal®?

- Creates a confident leak-free flare connection
- Reduces annual cost of refrigerant
- Lowers cost to operate systems due to leak reductions
- Meets local codes or regulations
- Protection against weeping on new and existing equipment
- Allows for serviceable components to be installed
- Reduces service calls due to refrigerant leaks
- Protections for the environment
- Improves integrity of every flare connection

PROPRIETARY COATING IS COMPATIBLE WITH FULL RANGE OF REFRIGERANTS AND OILS, INCLUDING POE AND PVE OILS!

HOW TO INSTALL

STEP 1:

Open the fitting and snap the FlareSeal® onto the male end of the flare. The mounting tabs will hold the seal in place during installation.

STEP 2:

For best results, add a drop of oil to the threaded area and a drop of oil to the FlareSeal® prior to assembly.

STEP 3:

Tighten the fitting to suggested torque setting.

Once assembled, the FlareSeal® becomes the best long term leak-free flare connection in the industry.



BAG PACK

PART NUMBER	DESCRIPTION	QTY	BARCODE	SEALS/PACK
SEFT-BP-04	Sigma FlareSeal 1/4"	6	812181030000	6
SEFT-BP-06	Sigma FlareSeal 3/8"		812181030017	
SEFT-BP-08	Sigma FlareSeal 1/2"		812181030024	
SEFT-BP-10	Sigma FlareSeal 5/8"		812181030031	
SEFT-BP-12	Sigma FlareSeal 3/4"		812181030048	
SEFT-BPM	Sigma FlareSeal 1/4" thru 5/8"		2 each	

MINI-SPLIT KIT BAG PACK

PART NUMBER	DESCRIPTION	QTY	BARCODE	SEALS/PACK
SEFT-KIT-2X3	Sigma FlareSeal Kit 1/4"x3/8"	2 each	812181030055	4
SEFT-KIT-2X4	Sigma FlareSeal Kit 1/4"x1/2"		812181030062	
SEFT-KIT-2X5	Sigma FlareSeal Kit 1/4"x5/8"		812181030079	
SEFT-KIT-3X4	Sigma FlareSeal Kit 3/8"x1/2"		812181030086	
SEFT-KIT-3X5	Sigma FlareSeal Kit 3/8"x5/8"		812181030093	
SEFT-KIT-4X5	Sigma FlareSeal Kit 1/2"x5/8"		812181030109	

KEEPER KIT

PART NUMBER	DESCRIPTION	BARCODE	SEALS/PACK
SEFT-KIT-60PC	FlareSeal Keeper Kit 60 pc: 20pcs each: 1/4 & 1/2 and 10pcs each: 1/2 & 5/8. In plastic container.	812181030178	60

MAXIMUM TORQUE SETTINGS

PIPE	APPROX. TORQUE
Ø 1/4"	10-13 ft-lbs
Ø 3/8"	22-30 ft-lbs
Ø 1/2"	36-39 ft-lbs
Ø 5/8"	45-55 ft-lbs

BOX/BULK PACK

PART NUMBER	DESCRIPTION	QTY	BARCODE	SEALS/PACK
SEFT-BX-04	Sigma FlareSeal 1/4"	100	812181030123	100
SEFT-BX-06	Sigma FlareSeal 3/8"		812181030130	
SEFT-BX-08	Sigma FlareSeal 1/2"		812181030147	
SEFT-BX-10	Sigma FlareSeal 5/8"		812181030154	
SEFT-BX-12	Sigma FlareSeal 3/4"		812181030161	

LIQUID LEVEL INDICATORS & ALARMS



LIQUID LEVEL INDICATOR WITH ALARM

This indicator-alarm with selectable low-level point is designed for use in applications where low liquid level protection is desirable. It provides a relay circuit that closes at one of five user selectable levels from 10 to 50%. The relay circuit can be used to drive a variety of applications from alarms to pumps. The indicator-alarm also provides a direct, visual indication of the liquid level tank. Each indicator-alarm uses highly reliable and accurate, three wire, voltage divider technology to send the level signal to the level alarm, relay circuitry. The voltage divider uses thick film element in conjunction with a multi-fingered contact to ensure accuracy and reliability. The connector built into the indicator-alarm mates with a standard Packard automotive type, rubber sealed connector for easy installation and reliable connection.

- Temperature: -4°F to 185°F
- Power Rating: 5 amps, 240 VAC max
- Voltage Input: 110 or 220 VAC
- Gauge Mounting: Rochester Adapter

PART NUMBER	BARREL DIAMETER
INDIC210A-658	6-5/8"
INDIC210A-858	8-5/8"
INDIC210A-1034	10-3/4"
INDIC210A-1234	12-3/4"
INDIC210A-14	14"
INDIC210A-16	16"
INDIC210A-18	18"
INDIC210A-20	20"
INDIC210A-24	24"



LIQUID LEVEL ALARM

A liquid-level indicator is a single pole, single throw switch on which contacts close upon the decrease of the liquid level at 20% pumpdown. Movement of the seamless aluminum float rotates a magnet on the inner side of the solid aluminum alloy head. The indicator pointer, or switch contacts, are on the outer side and are operated by a small magnet which follows the position of the inner magnet. There is no connection, except the magnetic field, between the inside and outside. Internal gears and bearings are stainless steel. In case of external damage, the indicator dial or switch cartridge may be replaced from outside—the refrigerant charge is not disturbed.

- Switch Duty: AC
- Max. Volts: 120/240
- Max. Amps: 1 (inductive)
- Max. Watts: 75/150

PART NUMBER	BARREL DIAMETER
INDIC58A-658	6-5/8"
INDIC58A-858	8-5/8"
INDIC58A-1034	10-3/4"
INDIC58A-1234	12-3/4"
INDIC58A-14	14"
INDIC58A-16	16"
INDIC58A-18	18"
INDIC58A-20	20"
INDIC58A-24	24"



LIQUID LEVEL INDICATOR

Magnetic liquid level indicators are used for accurate gauging of refrigerant levels in a horizontal receiver. The dial reads percent of pump down capacity of the receiver: when the pointer indicates 100%, the receiver is 80% full of liquid.

Float, Gasket, Screws, and Assembly Dial are included.

PART NUMBER	BARREL DIAMETER
INDIC283A	6-5/8"
INDIC111A	8-5/8"
INDIC76A	10-3/4"
INDIC85A	12-3/4"
INDIC94A	14"
INDIC102A	16"
INDIC483A	18"
INDIC490A	20"
INDIC497A	24"

REPLACEMENT AND SERVICE PARTS

PART NUMBER	DESCRIPTION	PKG QTY
INDIC21A	Replacement Part, Indicator Magnetic Dial only for LL Indicators	1 dial + 2 screws
INDIC238A	Replacement Part, Indicator Electronic Dial only for INDIC210	1 dial + 2 screws
INDIC245A	Service Part, Indicator Bolting Pad/Block Off Plate	1 plate + 995-Kit
INDIC49A	Replacement Part, Alarm Traic Switch only for INDIC58	1 switch + 2 screws



INDIC21A



INDIC49A



INDIC238A



INDIC245A

PART NUMBER	DESCRIPTION	PKG QTY
SE-995-02	Gasket 995, Gasket for Liquid Level Indicators & Alarms - 2 Pack	2 pcs/pack
SE-995-05	Gasket 995, Gasket for Liquid Level Indicators & Alarms - 5 Pack	5 pcs/pack
SE-995-10	Gasket 995, Gasket for Liquid Level Indicators & Alarms - 10 Pack	10 pcs/pack
SE-995-KIT	Gasket 995, Gasket and Bolts Kit for Indicators & Alarms	1 gasket + 4 bolts
SE-995-BULK	Gasket 995, Gasket for Liquid Level Indicators & Alarms - Bulk	Any



SE-995-02



SE-995-05



SE-995-10



SE-995-KIT

SIGHT GLASSES

A SIGHT GLASS INDICATES THE LIQUID LEVEL INSIDE THE RECEIVER BY WAY OF A VIEW PORT.

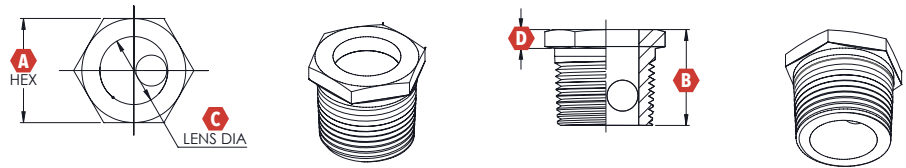


Features Include:

- Nickel plated steel body
- Hermetically sealed viewing lens
- American standard tapered pipe thread
- Maximum working pressure of 500 PSI
- Maximum temperature of 300° F (148°C)
- Suitable for most standard refrigerants
- Usable with most industrial fluids that are non-corrosive to glass + steel



DIMENSIONS IN INCHES REFERENCE



SIGHT GLASSES

SIGMA PART NUMBER	THREAD SIZE	DIMENSIONS IN INCHES			
		A	B	C	D
SG04	1/2" MPT	.938	.958	.563	.219
SG06	3/4" MPT	1.125	1.063	.750	.310
SG08	1" MPT	1.375	1.324	.938	.380
SG10	1-1/4" MPT	1.750	1.378	1.188	.410
SG16	2" MPT	2.50	1.423	1.630	.406
SG12	1-1/4"-123/4 ROTOLOCK Connection	N/A			

* SG12 w/ Rotolock Connection comes with Teflon Seal

FUSIBLE PLUGS AND FUSIBLE UNIONS

Our Fusible Plugs and Fusible Unions are the highest quality in the HVAC/R market. They are available in Bulk Pack quantities, but also available in single hanging packs which are popular with our Wholesale/Distributor customers.



FUSIBLE PLUGS

PART NUMBER	THREAD SIZE	MELTING TEMP	PKG QTY
PLUG-110	1/8 MPT	168°F	Single
PLUG-148	1/8 MPT	210°F	
PLUG-153	1/4 MPT	210°F	
PLUG-175	3/8 MPT	210°F	
PLUG-166	1/8 MPT	283°F	
PLUG-421	1/4 MPT	283°F	
PLUG-337	3/8 MPT	283°F	



FUSIBLE UNIONS

PART NUMBER	CONNECTIONS		MELTING TEMP	PKG QTY
UNION-154	1/4 SAE	1/4 MPT	210°F	Single
UNION-184	3/8 SAE	3/8 MPT	210°F	
UNION-58	3/8 SAE	1/2 MPT	210°F	
UNION-319	3/8 SAE	5/8-18 UNF	210°F	
UNION-44	1/4 SAE	1/4 MPT	283°F	
UNION-76	3/8 SAE	3/8 MPT	283°F	

RELIEF VALVES

PART NUMBER	CONNECTIONS		PRESSURE SETTING	BODY STYLE
VALVE-58	3/8 MPT	3/8 SAE	350 PSI	Angle
VALVE-67	3/8 MPT	3/8 SAE	400 PSI	
VALVE-771	3/8 MPT	3/8 SAE	450 PSI	
VALVE-5026	3/8 MPT	3/8 SAE	600 PSI	
VALVE-5033	3/8 MPT	3/8 SAE	675 PSA	
VALVE-94	1/2 MPT	5/8 SAE	350 PSI	Angle
VALVE-102	1/2 MPT	5/8 SAE	400 PSI	
VALVE-764	1/2 MPT	5/8 SAE	450 PSI	
VALVE-5057	1/2 MPT	5/8 SAE	675 PSI	
VALVE-5064	3/4 MPT	3/4 FPT	600 PSI	Angle
VALVE-5071	3/4 MPT	3/4 FPT	675 PSI	
VALVE-5040	1/2 MPT	5/8 SAE	600 PSI	Straight



PROTECTION NOTES

- Relief valves are installed in a refrigeration system primarily to protect the vessel in the event of fire or other emergency high pressure condition.
- Fusible unions and plugs protect only in the event of fire.
- The 5/8-18UNF union or plug seats in a special 3/8" coupling with a copper zinc coated flare gasket, exactly as an SAE flare fitting. A conventional 3/8" mpt pipe threaded union, plug, or safety valve will also seal on the dryseal pipe thread of the coupling if ever necessary. All systems must have a relief valve or fuse plug installed in order to comply with the ANSI B9.1 code.

SIGMA ENGINEERING ADAPTERS



The Sigma Engineering Adapters are of the highest quality and Made in the USA. They are supplied to both OEM and Wholesale customers around the world.

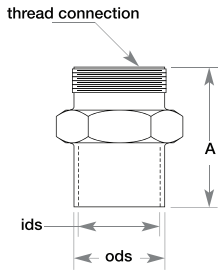
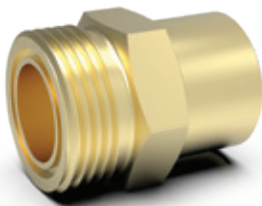
Our units are direct replacements for your Copeland or Tecumseh items, and our service and inventory are second to none.

FOR THE WHOLESALE/DISTRIBUTOR:

Each unit is individually boxed in high quality packaging and labeled for ease of identifying. Each label contains cross reference information to aid the sales people and customers alike. All units are shipped WITH a Teflon Seal.

FOR THE OEM CUSTOMER:

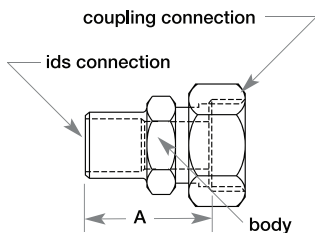
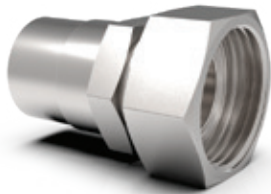
Each unit is shipped in production/bulk-pack style, to minimize production floor waste. Teflon Seals are included for each unit. Individually packaged units available at no additional cost upon request.



ROTOLOCK BRASS STUB ADAPTERS

SIGMA PART NUMBER	CONNECTIONS			DIMENSION "A"	TEFLON SEAL PART NO.	CASE QTY	COPELAND X-REF
	IDS	ODS	THREAD				
BA03X06A	3/8	1/2	3/4" - 16	1-5/16	TS-24590	18	
BA03X08A	3/8	1/2	1" - 14	1-5/16	TS-24591		998-0034-14
BA04X08A	1/2	5/8	1" - 14	1-5/16	TS-24591		998-0034-15
BA05X08A	5/8	7/8	1" - 14	1-5/16	TS-24591		998-0034-16
BA05X10A	5/8	7/8	1-1/4" - 12	1-9/16	TS-24592		
BA06X10A	3/4	1-1/8	1-1/4" - 12	1-9/16	TS-24592		998-0034-01
BA07X10A	7/8	1-1/8	1-1/4" - 12	1-9/16	TS-24592		998-0034-02
BA09X10A	1-1/8	1-3/8	1-1/4" - 12	1-9/16	TS-24592		
BA09X14A	1-1/8	1-3/8	1-3/4" - 12	1-11/16	TS-24593		998-0034-03
BA11X14A	1-3/8	1-5/8	1-3/4" - 12	1-11/16	TS-24593		998-0034-04
BA13X16A	1-5/8	1-7/8	2-1/4" - 12	2-1/8	TS-24594	9	998-0034-06

All items can be ordered individually or by case quantity.



ROTOLOCK STRAIGHT SWIVEL ADAPTERS

SIGMA PART NUMBER	CONNECTIONS		DIMENSION "A"	TEFLON SEAL PART NO.	CASE QTY	COPELAND X-REF	
	IDS	COUPLING					
SA03A	3/8	3/4" - 16	1-9/32	TS-24590	18		
SA04A	1/2	1" - 14	1-7/32	TS-24591		998-0034-18	
SA05A	5/8	1" - 14	1-9/32	TS-24591		998-0034-17	
SA06A	3/4	1-1/4" - 12	1-23/32	TS-24592		998-0034-07	
SA07A	7/8	1-1/4" - 12	1-23/32	TS-24592		998-0034-08	
SA09A	1-1/8	1-1/4" - 12	1-31/32	TS-24592		998-0034-09	
SA09X14A	1-1/8	1-3/4" - 12	2-7/16	TS-24593		998-0034-10	
SA11A	1-3/8	1-3/4" - 12	2-7/16	TS-24593		998-0034-13	
SA11X16A	1-3/8	2-1/4" - 12	3-1/8	TS24594		9	998-0034-11
SA13X16A	1-5/8	2-1/4" - 12	3-1/8	TS24594			998-0034-12

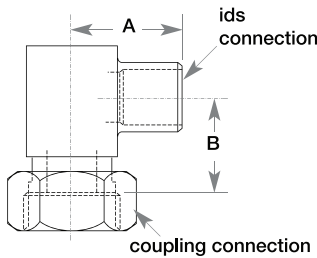
All items can be ordered individually or by case quantity.



ROTOLOCK ANGLE SWIVEL ADAPTERS

The Sigma Engineering Angle Adapters are of the highest quality and Made in the USA. They are supplied to both OEM and Wholesale customers around the world.

- This type of Adapter is commonly used in Tandem Compressor piping kits. They can also be used in general refrigeration piping to allow quick removal of components.
- For the Wholesale/Distributor; each unit is individually boxed in high quality packaging and labeled for ease of identifying. Each label contains cross reference information to aid the sales people and customers alike. All units are shipped WITH a Teflon Seal.
- For the OEM customer; each unit is shipped in production/bulk-pack style, to minimize production floor waste. Teflon Seals are included for each unit. Individually packaged units available at no additional cost upon request.

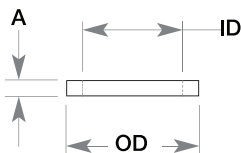


SIGMA PART NUMBER	CONNECTIONS		DIMENSION "A"	DIMENSION "B"	TEFLON SEAL PART NO.	CASE QTY
	IDS	COUPLING				
AA03A	3/8	3/4" - 16	1-5/16	1/2	TS-24590	18
AA04A	1/2	1" - 14	1-3/32	17/32	TS-24591	
AA05A	5/8	1" - 14	1-3/32	19/32	TS-24591	
AA07A	7/8	1-1/4" - 12	1-9/16	5/8	TS-24592	
AA09A	1-1/8	1-1/4" - 12	1-13/16	1	TS-24592	
AA11A	1-3/8	1-3/4" - 12	2-3/16	1	TS-24593	

All items can be ordered individually or by case quantity.

TEFLON SEALS

Teflon seals are provided with each valve. The Teflon Seal should be installed only after all soldering is completed. Teflon Seals can be ordered separately. Convenient kits are pictured below, but they can also be bulk/single pack ordered.

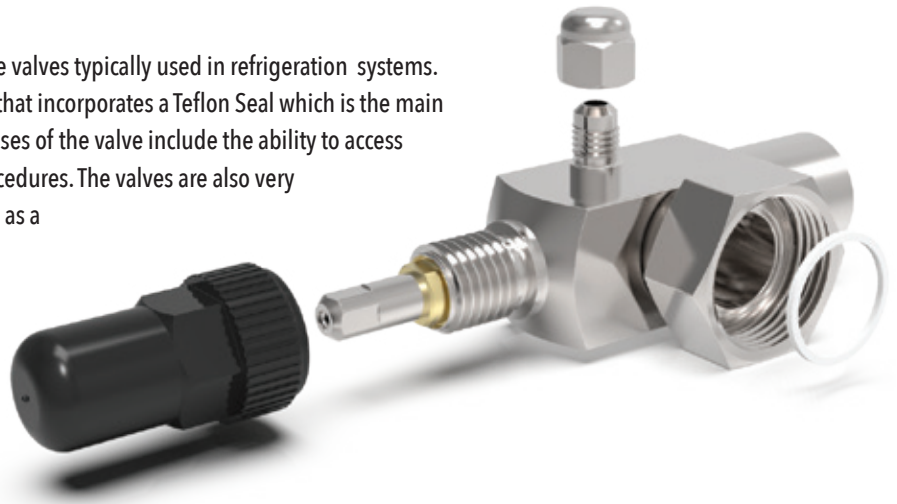


SIGMA PART NUMBER	DIMENSIONS (INCHES)				PKG QTY	COPELAND PART NUMBER
	IDS	OD	A	THREAD USE		
SE-24590	7/16	9/16	1/16	3/4"-16 ROTOLOCK	6	020-0028-01
SE-24591	5/8	3/4	1/16	1"-14 ROTOLOCK	6	020-0028-00
SE-24592	7/8	1	1/16	1-1/4"-12 ROTOLOCK	6	020-0028-02
SE-24593	1-3/8	1-1/2	1/16	1-3/4"-12 ROTOLOCK	6	020-0028-03
SE-24294	1-7/8	2	1/16	2-1/4"-12 ROTOLOCK	4	020-0941-00
SE-TSKIT	Multi-Pack Kit, Contains 3 of each 24590, 24591, 24592, 23593				12	



ROTOLOCK VALVES

Rotolock Valves, sometimes spelled "Rotalock" are service valves typically used in refrigeration systems. The actual Rotolock connection is a threaded connection that incorporates a Teflon Seal which is the main seal in preventing leaks in the connection. The primary uses of the valve include the ability to access the refrigeration system for charging and evacuation procedures. The valves are also very handy as they provide ease of removing equipment such as a compressor due to the threaded connection.



ROTOLOCK SELECTION PROCEDURE

BODY TYPE

Rotolock Valves are classified as Horizontal Rotolocks (Fig 1) or as Vertical Rotolocks (Fig 2). The primary difference is the location of the threaded Rotolock connection on the valve itself. The Horizontal Rotolock is typically mounted on a compressor, or vertical receiver or accumulator. The typical use for a Vertical Rotolock is on a horizontal receiver.



Fig 1-Horizontal



Fig 2-Vertical

CONNECTIONS

Rotolock connections are available in multiple sizes and are determined by the inside diameter of the connection for refrigerant flow. When replacing a Rotolock Valve, it is important to replace with the exact thread size of the old valve to properly fit the threaded adapter fitting. The second connection on the valve is typically a flare (SAE) connection or a solder (IDS) connection.

PRIMARY GAUGE PORTS

All valves are supplied with at least one 1/4" SAE gauge port. This single port is primarily used for charging and evacuation and its location can vary. (Fig T, Fig L, Fig R, & Fig D) This single location does not effect performance and is interchangeable with the others. This port is typically not intended for pressure controls although many use it for that purpose.

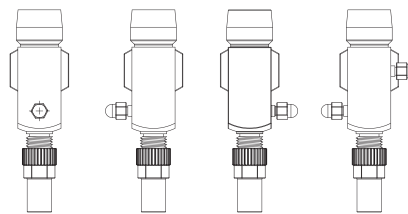


Fig T

Fig L

Fig R

Fig D

SECONDARY GAUGE PORTS



Many Rotolock Valves are supplied with a secondary 1/4" SAE gauge port and the configuration most commonly seen is in Figure D. This gauge port is most commonly connected via a copper line or flexible hose to pressure control device or monitor. Due

to this use, it is common for this gauge port to have either a Schrader Valve or a small diameter machined hole to prevent stress/wear on the external device. When replacing a valve with two

gauge ports, always replace like-for-like to ensure the control is operational. If the system does not have this secondary port connected, it can be replaced with a single gauge port valve.

VALVE REPLACEMENT

Replacing like-for-like is the best practice, but here are a few tips when availability is not your friend. You must ALWAYS match the Rotolock fitting, but the second valve connection when IDS can be adapted in the field if necessary. Gauge ports are often questioned but all valves will have a "lower" gauge located on the body closer to the service cap. The actual position of this cap on the valve is only for your convenience and can be interchanged with others.

REPLACEMENT PARTS

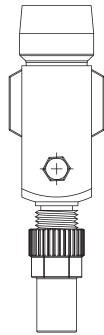
Rotolock Valves are not meant to be rebuilt and must be replaced if leaking occurs typically at stem. The caps are a service item and are available for replacement. The plastic caps typically used on suction lines are a replacement item and should be changed out annually. The metal caps, while more robust, use crush washers and should be replaced on a maintenance schedule if they are accessed with frequency. These too are available replacement parts. The Teflon Seals should be replaced every time a Rotolock Connection is compromised and are available as a replacement part.



HORIZONTAL ROTOLOCK VALVES



TOP PORT

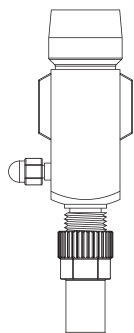


- Aluminum or Brass Service Port Caps; Aluminum is standard.
- Plastic Stem Caps are standard. Steel Stem Caps with copper seal are available as separate item.
- All valves include a 1/4" SAE service port. Secondary ports or Gauge ports are available. This port is typically used on a pressure control.
- The secondary gauge ports are supplied with a standard small diameter vent hole but can be supplied with a Schrader valve.

SIGMA PART NUMBER	CONN SIZE	ROTOLOCK CONNECTION	BODY SIZE	TEFLON SEAL PART NO.	BOTTOM CAP PART NO.	CASE QTY	BEST MATCH BRASS ADAPTER
H03FTA	3/8 SAE	3/4" - 16	3/4 hex	TS-24590	SE-RCAP-01P	18	BA03X06A
H04FTA	1/2 SAE	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA04X08A
H05FTA	5/8 SAE	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA05X08A
H03STA	3/8 IDS	3/4" - 16	3/4 hex	TS-24590	SE-RCAP-01P	18	BA03X06A
H04STA	1/2 IDS	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA04X08A
H05STA	5/8 IDS	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA05X08A
H06STA	3/4 IDS	1-1/4" - 12	1-1/8 sq	TS-24592	SE-RCAP-02P	9	BA07X10A
H07STA	7/8 IDS	1-1/4" - 12	1-1/8 sq	TS-24592	SE-RCAP-02P	9	BA07X10A
H09STA	1-1/8 IDS	1-1/4" - 12	1-1/8 sq	TS-24592	SE-RCAP-02P	9	BA09X10A
H11STA	1-3/8 IDS	1-3/4" - 12	1-3/8 sq	TS-24593	SE-RCAP-03P	4	BA11X14A
H13STA	1-5/8 IDS	1-3/4" - 12	1-5/8 sq	TS-24593	SE-RCAP-03P	4	BA11X14A
H13X16STA	1-5/8 IDS	2-1/4" - 12	1-5/8 sq	TS-24594	SE-RCAP-03P	4	BA13X16A
H17STA	2-1/8 IDS	2-1/4" - 12	1-5/8 sq	TS-24594	SE-RCAP-03P	4	BA17X16A

All items can be ordered individually or by case quantity.

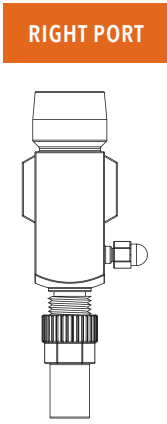
LEFT PORT



SIGMA PART NUMBER	CONN SIZE	ROTOLOCK CONNECTION	BODY SIZE	TEFLON SEAL PART NO.	BOTTOM CAP PART NO.	CASE QTY	BEST MATCH BRASS ADAPTER
H03FLA	3/8 SAE	3/4" - 16	3/4 hex	TS-24590	SE-RCAP-01P	18	BA03X06A
H04FLA	1/2 SAE	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA04X08A
H05FLA	5/8 SAE	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA05X08A
H03SLA	3/8 IDS	3/4" - 16	3/4 hex	TS-24590	SE-RCAP-01P	18	BA03X06A
H04SLA	1/2 IDS	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA04X08A
H05SLA	5/8 IDS	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA05X08A
H06SLA	3/4 IDS	1-1/4" - 12	1-1/8 sq	TS-24592	SE-RCAP-02P	9	BA07X10A
H07SLA	7/8 IDS	1-1/4" - 12	1-1/8 sq	TS-24592	SE-RCAP-02P	9	BA07X10A
H09SLA	1-1/8 IDS	1-1/4" - 12	1-1/8 sq	TS-24592	SE-RCAP-02P	9	BA09X10A
H11SLA	1-3/8 IDS	1-3/4" - 12	1-3/8 sq	TS-24593	SE-RCAP-03P	4	BA11X14A

All items can be ordered individually or by case quantity.

HORIZONTAL ROTOLOCK VALVES (CONTINUED)

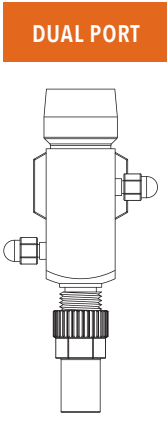


RIGHT PORT

- Aluminum or Brass Service Port Caps; Aluminum is standard.
- Plastic Stem Caps are standard. Steel Stem Caps with copper seal are available as separate item.
- All valves include a 1/4" SAE service port. Secondary ports or Gauge ports are available. This port is typically used on a pressure control.
- The secondary gauge ports are supplied with a standard small diameter vent hole but can be supplied with a Schrader valve.

SIGMA PART NUMBER	CONN SIZE	ROTOLOCK CONNECTION	BODY SIZE	TEFLON SEAL PART NO.	BOTTOM CAP PART NO.	CASE QTY	BEST MATCH BRASS ADAPTER
H03FRA	3/8 SAE	3/4" - 16	3/4 hex	TS-24590	SE-RCAP-01P	18	BA03X06A
H04FRA	1/2 SAE	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA04X08A
H05FRA	5/8 SAE	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA05X08A
H03SRA	3/8 IDS	3/4" - 16	3/4 hex	TS-24590	SE-RCAP-01P	18	BA03X06A
H04SRA	1/2 IDS	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA04X08A
H05SRA	5/8 IDS	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA05X08A
H05X10SRA	5/8 IDS	1-1/4" - 12	1-1/8 sq	TS-24592	SE-RCAP-02P	9	BA05X10A
H07SRA	7/8 IDS	1-1/4" - 12	1-1/8 sq	TS-24592	SE-RCAP-02P	9	BA07X10A
H07X14SRA	7/8 IDS	1-3/4" - 12	1-1/8 sq	TS-24593	SE-RCAP-02P	9	BA09X14A
H09SRA	1-1/8 IDS	1-1/4" - 12	1-1/8 sq	TS-24592	SE-RCAP-02P	9	BA09X10A
H09X14SRA	1-1/8 IDS	1-3/4" - 12	1-1/8 sq	TS-24593	SE-RCAP-02P	9	BA09X14A
H11SRA	1-3/8 IDS	1-3/4" - 12	1-3/8 sq	TS-24593	SE-RCAP-03P	4	BA11X14A
H11X16SRA	1-3/8 IDS	2-1/4" - 12	1-5/8 sq	TS-24594	SE-RCAP-03P	4	BA11X16A

All items can be ordered individually or by case quantity.



DUAL PORT

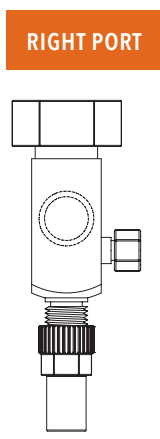
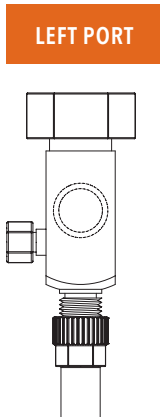
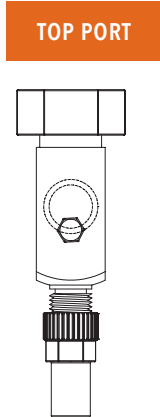
SIGMA PART NUMBER	CONN SIZE	ROTOLOCK CONNECTION	BODY SIZE	TEFLON SEAL PART NO.	BOTTOM CAP PART NO.	CASE QTY	BEST MATCH BRASS ADAPTER
H03FDA	3/8 SAE	1" - 14	3/4 hex	TS-24591	SE-RCAP-01P	18	BA03X08A
H04FDA	1/2 SAE	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA04X08A
H05FDA	5/8 SAE	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA05X08A
H03SDA	3/8 IDS	1" - 14	3/4 hex	TS-24591	SE-RCAP-01P	18	BA03X08A
H04SDA	1/2 IDS	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA04X08A
H05SDA	5/8 IDS	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA05X08A
H05X10SDA	5/8 IDS	1-1/4" - 12	1-1/8 sq	TS-24592	SE-RCAP-02P	9	BA05X10A
H06X08SDA	3/4 IDS	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA05X08A
H06SDA	3/4 IDS	1-1/4" - 12	1-1/8 sq	TS-24592	SE-RCAP-02P	9	BA07X10A
H07X08SDA	7/8 IDS	1" - 14	1-1/8 sq	TS-24591	SE-RCAP-01P	9	BA05X08A
H07SDA	7/8 IDS	1-1/4" - 12	1-1/8 sq	TS-24592	SE-RCAP-02P	9	BA07X10A
H09SDA	1-1/8 IDS	1-1/4" - 12	1-1/8 sq	TS-24592	SE-RCAP-02P	9	BA09X10A

All items can be ordered individually or by case quantity.

VERTICAL ROTOLOCK VALVES



- Aluminum or Brass Service Port Caps; Aluminum is standard.
- Plastic Stem Caps are standard. Steel Stem Caps with copper seal are available as separate item.
- All valves include a 1/4" SAE service port. Secondary ports or Gauge ports are available. This port is typically used on a pressure control.
- The secondary gauge ports are supplied with a standard small diameter vent hole but can be supplied with a Schrader valve.



SIGMA PART NUMBER	CONN SIZE	ROTOLOCK CONNECTION	BODY SIZE	TEFLON SEAL PART NO.	BOTTOM CAP PART NO.	CASE QTY	BEST MATCH BRASS ADAPTER
V03FTA	3/8 SAE	3/4" - 16	3/4 hex	TS-24590	SE-RCAP-01P	18	BA03X06A
V04FTA	1/2 SAE	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA04X08A
V05FTA	5/8 SAE	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA05X08A
V03STA	3/8 IDS	3/4"-16	3/4 hex	TS-24590	SE-RCAP-01P	18	BA03X06A
V04STA	1/2 IDS	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA04X08A
V05STA	5/8 IDS	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA05X08A
V06STA	3/4 IDS	1-1/4" - 12	7/8 sq	TS-24592	SE-RCAP-02P	9	BA07X10A
V07STA	7/8 IDS	1-1/4" - 12	1 1/8 sq	TS-24592	SE-RCAP-02P	9	BA07X10A
V09STA	1 1/8 IDS	1-1/4" - 12	1 1/8 sq	TS-24592	SE-RCAP-02P	4	BA09X10A
V11STA	1 3/8 IDS	1-3/4" - 12	1 3/8 sq	TS-24593	SE-RCAP-03P	4	BA11X14A

SIGMA PART NUMBER	CONN SIZE	ROTOLOCK CONNECTION	BODY SIZE	TEFLON SEAL PART NO.	BOTTOM CAP PART NO.	CASE QTY	BEST MATCH BRASS ADAPTER
V03FLA	3/8 SAE	3/4" - 16	3/4 hex	TS-24590	SE-RCAP-01P	18	BA03X06A
V04FLA	1/2 SAE	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA04X08A
V05FLA	5/8 SAE	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA05X08A
V03SLA	3/8 IDS	3/4"-16	3/4 hex	TS-24590	SE-RCAP-01P	18	BA03X06A
V04SLA	1/2 IDS	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA04X08A
V05SLA	5/8 IDS	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA05X08A
V06SLA	3/4 IDS	1-1/4" - 12	7/8 sq	TS-24592	SE-RCAP-02P	9	BA07X10A
V07SLA	7/8 IDS	1-1/4" - 12	1 1/8 sq	TS-24592	SE-RCAP-02P	9	BA07X10A
V09SLA	1 1/8 IDS	1-1/4" - 12	1 1/8 sq	TS-24592	SE-RCAP-02P	4	BA09X10A
V11SLA	1 3/8 IDS	1-3/4" - 12	1 3/8 sq	TS-24593	SE-RCAP-03P	4	BA11X14A

SIGMA PART NUMBER	CONN SIZE	ROTOLOCK CONNECTION	BODY SIZE	TEFLON SEAL PART NO.	BOTTOM CAP PART NO.	CASE QTY	BEST MATCH BRASS ADAPTER
V03FRA	3/8 SAE	3/4" - 16	3/4 hex	TS-24590	SE-RCAP-01P	18	BA03X06A
V04FRA	1/2 SAE	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA04X08A
V05FRA	5/8 SAE	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA05X08A
V03SRA	3/8 IDS	3/4" - 16	3/4 hex	TS-24590	SE-RCAP-01P	18	BA03X06A
V04SRA	1/2 IDS	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA04X08A
V05SRA	5/8 IDS	1" - 14	7/8 sq	TS-24591	SE-RCAP-01P	18	BA05X08A
V06SRA	3/4 IDS	1-1/4" - 12	7/8 sq	TS-24592	SE-RCAP-02P	9	BA07X10A
V07SRA	7/8 IDS	1-1/4" - 12	1 1/8 sq	TS-24592	SE-RCAP-02P	9	BA07X10A
V09SRA	1 1/8 IDS	1-1/4" - 12	1 1/8 sq	TS-24592	SE-RCAP-02P	4	BA09X10A
V11SRA	1 3/8 IDS	1-3/4" - 12	1 3/8 sq	TS-24593	SE-RCAP-03P	4	BA11X14A

All items on this page can be ordered individually or by case quantity

SERVICE VALVES FLANGE STYLE



SIGMA PART NUMBER	CONN SIZE	FLANGE SIZE BOLT CENTER	BODYTYPE BODY SIZE	ACCESS PORTS QTY/POS	GASKET NUMBER	BOTTOM CAP PLASTIC
2F03FLA-SB	3/8 SAE	2 Bolt 1-5/8	Steel 3/4 Hex	1 - Left	GASKE02-158-01	SE-RCAP-01P
2F03FRA-SB	3/8 SAE		Steel 3/4 Hex	1 - Right		
2F04FLA-SB	1/2 SAE		Steel 7/8 Sq	1 - Left		
2F04FRA-SB	1/2 SAE		Steel 7/8 Sq	1 - Right		
2F05FLA-SB	5/8 SAE		Steel 7/8 Sq	1 - Left		
2F05FRA-SB	5/8 SAE		Steel 7/8 Sq	1 - Right		
2F03SLA-SB	3/8 IDS		Steel 3/4 Hex	1 - Left		
2F03SRA-SB	3/8 IDS		Steel 3/4 Hex	1 - Right		
2F04SLA-SB	1/2 IDS		Steel 7/8 Sq	1 - Left		
2F04SRA-SB	1/2 IDS		Steel 7/8 Sq	1 - Right		
2F05SLA-SB	5/8 IDS		Steel 7/8 Sq	1 - Left		
2F05SRA-SB	5/8 IDS		Steel 7/8 Sq	1 - Right		



SIGMA PART NUMBER	CONN SIZE	FLANGE SIZE BOLT CENTER	BODYTYPE BODY SIZE	ACCESS PORTS QTY/POS	GASKET NUMBER	BOTTOM CAP STEEL
2F03FDA-BB	3/8 SAE	2 Bolt 1-5/8	Cast Brass	Left & Right	GASKE02-158-01	SE-RCAP-01S
2F04FDA-BB	1/2 SAE					
2F05FDA-BB	5/8 SAE					
2F03SDA-BB	3/8 IDS					
2F04SDA-BB	1/2 IDS					
2F05SDA-BB	5/8 IDS					



SIGMA PART NUMBER	CONN SIZE	FLANGE SIZE BOLT CENTER	BODYTYPE BODY SIZE	ACCESS PORTS QTY/POS	GASKET NUMBER	BOTTOM CAP PLASTIC
2F06STA-BB	3/4 IDS	2 Bolt 1-5/8	Brass Solder	1 - Top	GASKE02-158-00	SE-RCAP-04P
2F07STA-BB	7/8 IDS					
2F09STA-BB	1-1/8 IDS					

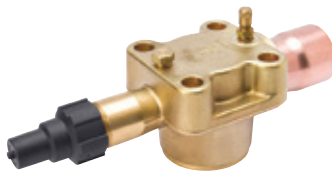
SERVICE VALVES FLANGE STYLE



SIGMA PART NUMBER	CONN SIZE	FLANGE SIZE BOLT CENTER	BODYTYPE BODY SIZE	ACCESS PORTS QTY/POS	GASKET NUMBER	BOTTOM CAP PLASTIC
2FU07STA-FU	7/8 IDS		Brass Flange Union	1 - Top	GASKE02-234-00	SE-RCAP-04P
2FU09STA-FU	1-1/8 IDS	2 Bolt 2-3/4				
2FU11STA-FU	1-3/8 IDS					



SIGMA PART NUMBER	CONN SIZE	FLANGE SIZE BOLT CENTER	BODYTYPE BODY SIZE	ACCESS PORTS QTY/POS	GASKET NUMBER	BOTTOM CAP PLASTIC
4F09SDA-BB	1-1/8 IDS		Brass Solder	2 - Top	GASKE001831	SE-RCAP-04P
4F11SDA-BB	1-3/8 IDS	4 Bolt 2-1/2				
4F13SDA-BB	1-5/8 IDS					
4F17SDA-BB	2-1/8 IDS	4 Bolt 3-1/16			GASKE000634	SE-RCAP-06P

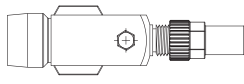


SIGMA PART NUMBER	CONN SIZE	FLANGE SIZE BOLT CENTER	BODYTYPE BODY SIZE	ACCESS PORTS QTY/POS	GASKET NUMBER	BOTTOM CAP PLASTIC
4F13SDA-CI	1-5/8 IDS	4 Bolt 2-1/2	Cast Iron	2 - Top	GASKE001831	SE-RCAP-06P*
4F17SDA-CI	2-1/8 IDS	4 Bolt 3-1/16			GASKE002672	
4F21SDA-CI	2-5/8 IDS	4 Bolt 3-7/8			GASKE000637	SE-RCAP-08P*
4F25SDA-CI	3-1/8 IDS					

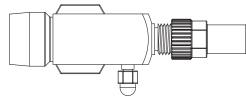


* See Cap Chart for cross reference to ensure correct replacement. Cast Iron Caps obsolete.

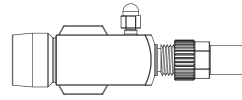
CROSS REFERENCE ROTOLOCK VALVES



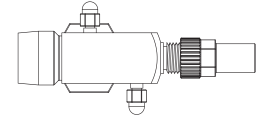
STYLE 1



STYLE 2



STYLE 3



STYLE 4

COPELAND KIT NUMBER	SIGMA PART NO.	ALTERNATE SIGMA PN	BODY STYLE	TEFLON SEAL PART NO.	BOTTOM CAP PLASTIC	BOTTOM CAP STEEL	BEST MATCH BRASS ADAPTER
998-0510-02	H09X14SRA		Style 3	TS-24593	SE-RCAP-02P	SE-RCAP-02S	BA09X14A
998-0510-37	H07X14SRA		Style 3	TS-24593	SE-RCAP-02P	SE-RCAP-02S	BA09X14A
998-0510-38	H06SLA		Style 2	TS-24592	SE-RCAP-02P	SE-RCAP-02S	BA07X10A
998-0510-39	H07SLA	H07STA or H07SRA	Style 2	TS-24592	SE-RCAP-02P	SE-RCAP-02S	BA07X10A
998-0510-40	H04FDA		Style 4	TS-24591	SE-RCAP-01P	SE-RCAP-01S	BA04X08A
998-0510-41	H05FDA		Style 4	TS-24591	SE-RCAP-01P	SE-RCAP-01S	BA05X08A
998-0510-42	H03FDA		Style 4	TS-24591	SE-RCAP-01P	SE-RCAP-01S	BA03X08A
998-0510-43	H03SDA		Style 4	TS-24591	SE-RCAP-01P	SE-RCAP-01S	BA03X08A
998-0510-44	H04SDA		Style 4	TS-24591	SE-RCAP-01P	SE-RCAP-01S	BA04X08A
998-0510-45	H05SDA		Style 4	TS-24591	SE-RCAP-01P	SE-RCAP-01S	BA05X08A
998-0510-46	H11SRA	H11STA or H11SLA	Style 3	TS-24593	SE-RCAP-03P	SE-RCAP-03S	BA11X14A
998-0510-47	H09SLA		Style 2	TS-24592	SE-RCAP-02P	SE-RCAP-02S	BA09X10A
998-0510-49	V07STA	V07SRA or V07SLA	Style 1	TS-24592	SE-RCAP-02P	SE-RCAP-02S	BA07X10A
998-0510-51	H09SDA		Style 4	TS-24592	SE-RCAP-02P	SE-RCAP-02S	BA09X10A
998-0510-52	H07X08SDA		Style 4	TS-24591	SE-RCAP-02P	SE-RCAP-02S	BA05X08A
998-0510-56	H05FRA	H05FTA or H05FLA	Style 3	TS-24591	SE-RCAP-01P	SE-RCAP-01S	BA05X08A
998-0510-58	H03X08FLA	H04FLA	Style 2	TS-24591	SE-RCAP-01P	SE-RCAP-01S	BA03X08A
998-0510-66	H13STA		Style 1	TS-24593	SE-RCAP-03P	SE-RCAP-03S	BA11X14A
998-0510-67	H11X16SRA		Style 3	TS-24594	SE-RCAP-03P	SE-RCAP-03S	BA11X16A
998-0510-68	H13X16STA		Style 1	TS-24594	SE-RCAP-03P	SE-RCAP-03S	BA11X16A
998-0510-69	H05X10SDA		Style 4	TS-24592	SE-RCAP-02P	SE-RCAP-02S	BA05X10A
998-0510-89	H07X08SDA		Style 4	TS-24591	SE-RCAP-02P	SE-RCAP-02S	BA05X08A
998-0510-90	H07SDA		Style 4	TS-24592	SE-RCAP-02P	SE-RCAP-02S	BA07X10A
998-0510-93	H05X10SRA		Style 3	TS-24592	SE-RCAP-02P	SE-RCAP-02S	BA05X10A
998-0510-94	H07SRA	H07STA or H07SLA	Style 3	TS-24592	SE-RCAP-02P	SE-RCAP-02S	BA07X10A
998-0510-97	H03SDA		Style 4	TS-24591	SE-RCAP-01P	SE-RCAP-01S	BA03X08A
998-0510-98	H04SDA		Style 4	TS-24591	SE-RCAP-01P	SE-RCAP-01S	BA04X08A
998-0510-99	H09SDA		Style 4	TS-24592	SE-RCAP-02P	SE-RCAP-02S	BA09X10A
998-0511-00	H05SDA		Style 4	TS-24591	SE-RCAP-01P	SE-RCAP-01S	BA05X08A
998-0511-02	H06X08SDA		Style 4	TS-24591	SE-RCAP-01P	SE-RCAP-01S	BA05X08A

CROSS REFERENCE SERVICE VALVES (FLANGE STYLE)



COPELAND KIT NUMBER	SIGMA PART NO.	BODY STYLE	SERVICE PORT	GASKET PART NO	BOTTOM CAP PLASTIC	STEEL CAP (S) BRASS CAP (B)
998-0510-04	2F03SDA-BB	Brass Body	Dual	GASKE02-158-01	SE-RCAP-02P	SE-RCAP-02S
998-0510-05	2F04SDA-BB	Brass Body	Dual	GASKE02-158-01	SE-RCAP-02P	SE-RCAP-02S
998-0510-06	2F05SDA-BB	Brass Body	Dual	GASKE02-158-01	SE-RCAP-02P	SE-RCAP-02S
998-0510-07	4F13SDA-CI	Cast Iron	Dual Top	GASKE001831	SE-RCAP-06P	SE-RCAP-06B
998-0510-08	4F11STA-BB	Brass Body	Top	GASKE001831	SE-RCAP-04P	SE-RCAP-04B
998-0510-09	2F09STA-FU	Brass Body	Top	GASKE02-234-00	SE-RCAP-04P	SE-RCAP-04B
998-0510-10	2F07STA-FU	Brass Body	Top	GASKE02-234-00	SE-RCAP-04P	SE-RCAP-04B
998-0510-11	2F11STA-FU	Brass Body	Top	GASKE02-234-00	SE-RCAP-04P	SE-RCAP-04B
998-0510-12	2F07STA-BB	Brass Body	Top	GASKE02-158-00	SE-RCAP-04P	SE-RCAP-04B
998-0510-13	2F09STA-BB	Brass Body	Top	GASKE02-158-00	SE-RCAP-04P	SE-RCAP-04B
998-0510-14	2F06STA-BB	Brass Body	Top	GASKE02-158-00	SE-RCAP-04P	SE-RCAP-04B
998-0510-15	2F03FDA-BB	Brass Body	Dual	GASKE02-158-01	SE-RCAP-02P	SE-RCAP-02S
998-0510-16	2F04FDA-BB	Brass Body	Dual	GASKE02-158-01	SE-RCAP-02P	SE-RCAP-02S
998-0510-17	2F05FDA-BB	Brass Body	Dual	GASKE02-158-01	SE-RCAP-02P	SE-RCAP-02S
998-0510-18	4F25SDA-CI	Brass Body	Dual Top	GASKE000637	SE-RCAP-08P	SE-RCAP-08S
998-0510-19	4F21SDA-CI	Cast Iron	Dual Top	GASKE000637	SE-RCAP-08P	SE-RCAP-08S
998-0510-20	4F17SDA-CI	Cast Iron	Dual Top	GASKE002672	SE-RCAP-06P	SE-RCAP-06S
998-0510-21	4F13STA-BB	Brass Body	Top	GASKE001831	SE-RCAP-04P	SE-RCAP-04B
998-0510-22	2F04FLA-SB	Steel Body	Left	GASKE02-158-01	SE-RCAP-01P	SE-RCAP-01S
998-0510-23	2F05FLA-SB	Steel Body	Left	GASKE02-158-01	SE-RCAP-01P	SE-RCAP-01S
998-0510-24	2F04FRA-SB	Steel Body	Right	GASKE02-158-01	SE-RCAP-01P	SE-RCAP-01S
998-0510-25	2F05FRA-SB	Steel Body	Right	GASKE02-158-01	SE-RCAP-01P	SE-RCAP-01S
998-0510-26	2F03FLA-SB	Steel Body	Left	GASKE02-158-01	SE-RCAP-01P	SE-RCAP-01S
998-0510-31	2F05SLA-SB	Steel Body	Left	GASKE02-158-01	SE-RCAP-01P	SE-RCAP-01S
998-0510-31	2F05SRA-SB	Steel Body	Right	GASKE02-158-01	SE-RCAP-01P	SE-RCAP-01S
998-0510-32	2F04SRA-SB	Steel Body	Right	GASKE02-158-01	SE-RCAP-01P	SE-RCAP-01S
998-0510-33	2F05SLA-SB	Steel Body	Left	GASKE02-158-01	SE-RCAP-01P	SE-RCAP-01S
998-0510-34	2F04SLA-SB	Steel Body	Left	GASKE02-158-01	SE-RCAP-01P	SE-RCAP-01S
998-0510-35	2F03SRA-SB	Steel Body	Right	GASKE02-158-01	SE-RCAP-01P	SE-RCAP-01S
998-0510-36	2F03SLA-SB	Steel Body	Left	GASKE02-158-01	SE-RCAP-01P	SE-RCAP-01S
998-0511-01	4F17STA-BB	Brass Body	Dual Top	GASKE000634	SE-RCAP-06P	SE-RCAP-06B

STEM CAPS FOR ROTOLOCK AND SERVICE VALVES

PART NUMBER	CAP DETAILS			PKG QTY	COPELAND PN
	HEIGHT	CAP THREAD	MATERIAL		
SE-RCAP-01P	1-7/16"	3/4"-16 UNF	Plastic	1	
SE-RCAP-01S	1-3/8"	3/4"-16 UNF	Steel		005-0601-00
SE-RCAP-01B	1-3/8"	3/4"-16 UNF	Brass		505-0431-00
SE-RCAP-02P	1-7/8"	3/4"-16 UNF	Plastic		005-0585-00
SE-RCAP-12P	1-7/8"	3/4"-16 UNF	Plastic		005-0585-00
SE-RCAP-02S	1-7/8"	3/4"-16 UNF	Steel		
SE-RCAP-03P	2-3/8"	1"-14 UNF	Plastic		505-0435-00
SE-RCAP-03S	2-1/4"	1"-14 UNF	Steel		505-0438-00
SE-RCAP-04P	2-3/16"	1-1/16"-18 UNF	Plastic		505-0280-00
SE-RCAP-04B	2-5/16"	1-1/16"-18 UNF	Brass		505-0374-00
SE-RCAP-06P	2-3/16"	1-3/8"-12 UNF	Plastic		005-0663-00
SE-RCAP-08P	3-1/8"	1-5/8"-12 UNF	Plastic		005-0664-00
SE-RCAP-08B	3-1/8"	1-5/8"-12 UNF	Brass		505-0156-00
SE-RCAP-10S	1-1/2"	7/8"-18 UNF	Steel		
SE-RCAP-20B	1-7/16"	11/16"-20 Mod	Brass		
SE-RCAP-53P	2-3/16"	M27 x 2 Metric	Plastic		005-0953-00
SE-RCAP-54P	3-1/8"	M36 x 1.5 Metric	Plastic		005-0954-00



* Steel Cap finish may vary. May be Black Coated or Silver Zinc Coated
 ** Plastic Cap construction, while listed as plastic, may be Valox, Nylon, or other polymer material

TORQUE SETTINGS FOR ROTOLOCK VALVES

ROTOLOCK SIZE	SIGMA TEFLON SEAL	SEATING TORQUE
3/4" - 16 UNF	SE-24590	10-20 ft-lbs
1" - 14 UNF	SE-24591	15-25 ft-lbs
1-1/4" - 12 UNF	SE-24592	20-30 ft-lbs
1-3/4" - 12 UNF	SE-24593	30-40 ft-lbs
2-1/4"-12 UNF	SE-24594	40-55 ft-lbs

SERVICE VALVE CAPS

Sigma Engineering offers the best selection of service valve replacement caps. The caps on this page are full size and can be used as a template for sizing your replacement cap!



SE-RCAP-20B
 Material-Brass
 Height - 1-1/2"
 Thread-11/16"-20



SE-RCAP-10S
 Material-Steel
 Height - 1-1/2"
 Thread-7/8"-18

SIGMA'S CAP MASTER CHART

Sigma Engineering offers the best selection of service valve replacement caps. The caps on this page are full size and can be used as a template for sizing your replacement cap!



SE-RCAP-01B
Material: Brass
Height: 1-3/8"
Thread: 3/4"-16
505-0431-00



SE-RCAP-01S
Material: Steel*
Height: 1-3/8"
Thread: 3/4"-16
005-0601-00



SE-RCAP-01P
Material: Plastic
Height: 1-7/16"
Thread: 3/4"-16



SE-RCAP-02S
Material: Steel*
Height: 1-7/8"
Thread: 3/4"-16



SE-RCAP-02B
Material: Plastic
Height: 1-7/8"
Thread: 3/4"-16
005-0585-00



SE-RCAP-03S
Material: Steel*
Height: 2-1/4"
Thread: 1"-14
505-0438-00



SE-RCAP-03P
Material: Plastic
Height: 2-3/8"
Thread: 1"-14
505-0435-00



SE-RCAP-04P
Material: Plastic
Height: 2-3/16"
Thread: 1-1/16"-18
505-0280-00



SE-RCAP-04B
Material: Brass
Height: 2-5/16"
Thread: 1-1/16"-18
505-0374-00



SE-RCAP-06P
Material: Plastic
Height: 2-3/16"
Thread: 1-3/8"-12
005-0663-00



SE-RCAP-08P
Material: Plastic
Height: 3-1/8"
Thread: 1-5/8"-12
005-0664-00



SE-RCAP-53P
Material: Plastic
Height: 2-3/16"
Thread: M27 x 2
005-0953-00



SE-RCAP-54P
Material: Plastic
Height: 2-5/8"
Thread: M36 x 1.5
005-0954-00

* Steel Caps finish may vary between Black and Silver

TEFLON SEALS FOR ROTOLOCK VALVES

PART NUMBER	DIMENSIONS (INCHES)				PKG QTY	COPELAND PN
	ID	OD	A	THREAD USE		
SE-24590	7/16	9/16	1/16	3/4"-16 ROTOLOCK	6	020-0028-01
SE-24591	5/8	3/4		1"-14 ROTOLOCK		020-0028-00
SE-24592	7/8	1		1-1/4"-12 ROTOLOCK		020-0028-02
SE-24593	1-3/8	1-1/2		1-3/4"-12 ROTOLOCK		020-0028-03
SE-24294	1-7/8	2		2-1/4"-12 ROTOLOCK		4
SE-TSKIT	Multi-Pack Kit, Contains 3 of each 24590, 24591, 24592, 23593				12	



1/4 SAE MECHANICAL SEAL CAPS FOR THE REFRIGERATION PROFESSIONALS

Sigma Engineering offers a premium line of 1/4" Schrader style caps. These caps are used at the closure for service ports in refrigeration systems, or as the final seal on a Schrader style fitting. The most common replacement caps utilize some type of rubber seal or o-ring as the sealing method. This has its drawbacks as the rubber can deteriorate quickly when used with refrigerant. Our caps use several types of mechanical closure methods. See the details below.

PART NUMBER	DIMENSIONS	THREAD	MATERIAL	PKG QTY
SE-SCAP-AL45	Aluminum with 45° Seal Surface	1/4 SAE	Aluminum	6 or 50
SE-SCAP-BR45	Brass with 45° Seal Surface		Brass	
SE-SCAP-CB45	Brass with Copper Bonnet Crush Seal		Brass and Copper	
SE-SCAP-FS45	Brass with 45° Seal Surface + Flare Seal		Brass and Flareseal	



SE-SCAP-AL45

The "**Economy**" cap is machined aluminum with a 45° SAE mating surface. The hex head allows for robust wrench tightening.



SE-SCAP-BR45

The "**Standard**" cap is machined brass with a 45° SAE mating surface. The hex head allows for robust wrench tightening.



SE-SCAP-CB45

The "**Premium**" cap is machined brass with a copper crush bonnet mating surface. This is a great option for supermarkets. The hex head allows for robust wrench tightening.

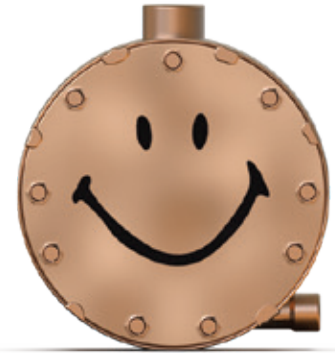


SE-SCAP-FS45

The "**Ultimate**" cap is machined brass with a 45° SAE mating surface. Combine with the included Flareseal, leaks are a thing of the past. The Refrigeration Tech's best friend.

CHILLER BARREL & CONDENSER GASKETS & ENDPLATES

We are the official source for all of the Gaskets, Heads, and Parts for the Standard Refrigeration line of heat exchangers. This includes current products, as well as, legacy products. The Gaskets on the following pages are still manufactured by Sigma Engineering and are readily available. Our technical support team can assist you in selecting the proper item and we can also assist with installation instructions and torque recommendations.



Evaporators - Gasket Cross Reference

MODELS	FRONT (GASKE-)	REAR (GASKE-)	SINGLE CIRCUIT	DUAL CIRCUIT	QUAD CIRCUIT
TX2	2865	2865	Fig. A	NA	NA
TX3	2865	2865	Fig. A	NA	
TX5	2872	2872	Fig. A	NA	
TX6	2872	2872	Fig. A	NA	
TX7.5	2872	2872	Fig. A	NA	
TX10	2872	2872	Fig. A	Fig. C	
TX12	2889	2889	Fig. A	Fig. C	
TX15	2889	2889	Fig. A	Fig. C	
TX20	2889	2889	Fig. A	Fig. C	
TX25	2889	2889	Fig. A	Fig. C	
TXC30	2218	2218	Fig. B	Fig. D	
TXC40	2227	2227	Fig. B	Fig. D	
TXC50	2227	2227	Fig. B	Fig. D	
TXC60	2227	2227	Fig. B	Fig. D	
TXC75	2227	2227	Fig. B	Fig. D	
TXC100	4892	4804	Fig. A	Fig. C	
TXC120	4892	4804	Fig. A	Fig. C	
TXC150	3549	3549	NA	Fig. C	
TXC175	5169	5169	NA	Fig. D	
TXC200	5169	5169	NA	Fig. D	
TXC250	3675	3675	NA	Fig. C	
TXC300	3637	3637	NA	Fig. C	
TXC400	3637	4878	NA	Fig. C	
TXC500	3532	3532	NA	Fig. D	

FIGURE A SINGLE CIRCUIT DUAL PASS

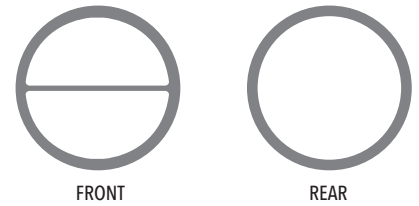


FIGURE B SINGLE CIRCUIT FOUR PASS

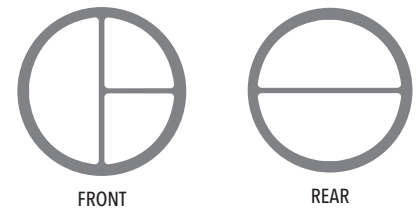


FIGURE C DUAL CIRCUIT DUAL PASS

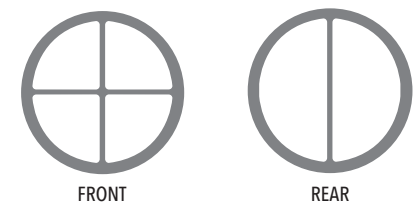
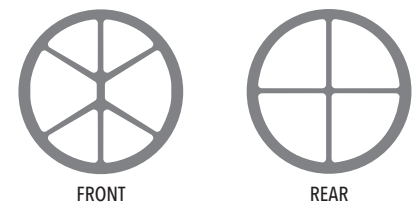


FIGURE D DUAL CIRCUIT FOUR PASS



SST-Gasket and Endplates Cross Reference

MODELS	FRONT GASKET GASKE-	REAR GASKET GASKE-	FRONT ENDPLATE ENDPL-	REAR ENDPLATE ENDPL-
SST 75A	3156	346	4304	30
SST 75	337	346	49	30
SST 100A	3163	3149	5040	5026
SST 100	175	184	67	58
SST 150	175	184	67	58
SST 200A	3101	3170	5819	76
SST 200	193	201	85	76
SST 300A	3101	3170	5819	76
SST 300	193	201	85	76
SST 500A	3118	2584	5938	4047
SST 500	210	229	120	21
SST 750A	3118	2584	5938	4047
SST 750	210	229	12	21
SST 755A	3118	2584	5938	4047
SST 755	238	247	12	21
SST 1000A	1723	2953	6605	4047
SST 1000	238	247	12	21
SST 1500A	1723	2953	5576	4047
SST 1501	2977	2584	175	4047
SST 1555A	2591	2984	5907	4180
SST 1555	256	265	193	184
SST 2005A	2591	2984	5914	4180
SST 2005	256	265	148	184
SST 2026A	2591	2984	5914	4180
SST 2026	256	265	148	184
SST 2505A	2591	2984	6205	4180
SST 2505	256	265	148	184
SST 2527A	2591	2984	6205	4180
SST 2527	256	265	148	184
SST 3005A	2591	2984	6205	4180
SST 3005	256	265	148	184
SST 3028A	2591	2984	6205	4180

MODELS	FRONT GASKET GASKE-	REAR GASKET GASKE-	FRONT ENDPLATE ENDPL-	REAR ENDPLATE ENDPL-
SST 3028	256	265	148	184
SST 30-460M	166	111	166	157
SST 3505A	2591	2984	6205	4180
SST 35-520M	166	111	201	157
SST 4005A	111	120	210	238
SST 40-610M	111	120	210	238
SST 4505A	111	120	210	238
SST 45-680M	111	120	210	238
SST 5005A	111	120	247	238
SST 50-760M	111	120	210	238
SST 5505A	111	120	247	238
SST 55-850M	111	120	210	238
SST 6005A	111	120	247	238
SST 60-940M	111	120	247	238
SST 7005A	111	120	247	238
SST 70-1060M	111	120	247	238
SST 8005A	111	120	247	238
SST 80-1200M	111	120	247	238
SST 100-1408A	120	120	2245	2245
SST 100-1500M	111	120	247	238
SST 120-1408A	120	120	2245	2245
SST 126-1905M	120	120	3994	3994
SST 150-1410A	120	120	2245	2245
SST 150-2250M	2254	2254	1039	1039
SST 200-1412A	120	120	4335	4335
SST 200-3000M	2263	2263	1048	1048
SST 250-3750M	1679	1679	1057	1057
SST 300-4500M	1688	1688	1066	1066
SST 350-5250M	1688	1688	1066	1066
SST 400-6000M	2290	2290	1921	1921
SST 500-7500M	2290	2290	1921	1921

This chart is to be used for reference purposes only. For replacement parts contact customer service with your condenser model and serial numbers.

HSE/HP/CA/MSE-Gasket and Endplates Cross Reference

MODELS	FRONT GASKET GASKE-	REAR GASKET GASKE-	FRONT ENDPLATE ENDPL-	REAR ENDPLATE ENDPL-
HSE 2	337	346	6412	30
HSE 3	175	184	6717	5026
HSE 5	3718	3170	6229	76
HSE 7	3718	3170	5552	76
HSE 10	3718	3170	5552	76
HSE 15	445	247	5495	21
HSE 20A	2953	2584	5707	4047
HSE 20	1723	1732	2227	21
HSE 25A	2953	2584	5707	4047
HSE 25	1723	1732	2227	21
HSE 30A	1741	2984	5583	4180
HSE 30	1741	1750	2236	4180
HSE 40A	1741	2984	6900	4180
HSE 40	1741	1750	2236	4180
HSE 50A	1741	2984	6900	4180
HSE 50	1741	1750	2236	4180
HSE 60	111	120	247	238
HSE 70	111	120	247	238
HSE 80	111	120	247	238
HSE 100	120	120	2245	2245
HSE 125	120	120	2245	2245
HSE 150	2254	2254	1039	1039
HSE 200	2263	2263	1048	1048
HSE 250	1679	1679	1057	1057
HSE 300	1688	1688	1066	1066
HSE 350	1688	1688	1066	1066
HSE 400	2290	2290	1921	1921
HSE 450	2290	2290	1921	1921
HSE 500	2290	2290	1921	1921

MODELS	FRONT GASKET GASKE-	REAR GASKET GASKE-	FRONT ENDPLATE ENDPL-	REAR ENDPLATE ENDPL-
HP 10	Call/Contact Customer Service			
HP 15				
HP 20				
HP 30				
HP 40				
HP 50				
HP 60				
HP 80				

MODELS	FRONT GASKET GASKE-	REAR GASKET GASKE-	FRONT ENDPLATE ENDPL-	REAR ENDPLATE ENDPL-
CA 050	355	364	2876	2885
CA 075	238	247	2911	2902
CA 100	238	247	2911	2902
CA 150	256	265	2920	2948
CA 200	445	247	2894	2902
CA 300	373	265	2939	2948

MODELS	FRONT GASKET GASKE-	REAR GASKET GASKE-	FRONT ENDPLATE ENDPL-	REAR ENDPLATE ENDPL-
MSE 100	3163	3149	6436	300
MSE 200	3163	3149	6436	300
MSE 300	355	364	6386	337
MSE 500	355	364	6386	337
MSE 750	436	364	6281	4461
MSE 1005	436	364	6281	4461
MSE 1500	445	2584	5752	4104
MSE 2005	1723	2953	5752	4104
MSE 2505	1723	2953	5752	4104
MSE 3006	1723	2953	6467	4104
MSE 3305	1741	2984	6481	5114
MSE 4005	1741	2984	6481	5114
MSE 4505	1741	2984	6481	5114
MSE 5005	1741	2984	6481	5114
MSE 6505	111	120	2542	5233
MSE 7505	111	120	2542	5233
MSE 100Hp	4092	4092	120	120
MSE 120Hp	4092	4092	120	120

This chart is to be used for reference purposes only. For replacement parts contact customer service with your condenser model and serial numbers.

This chart is to be used for reference purposes only. For replacement parts contact customer service with your condenser model and serial numbers. MSE models with zinc anode may require a special rear endplate. Please Call/Contact Customer Service.

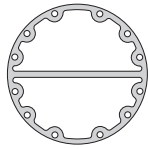
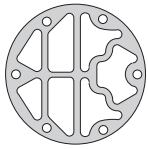
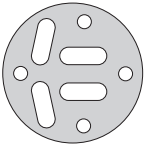
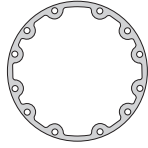
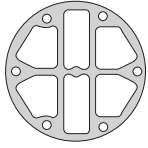
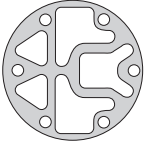
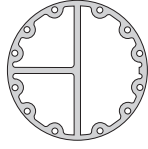
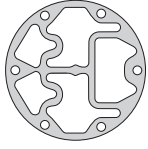
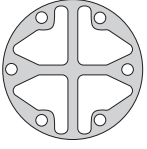
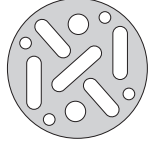
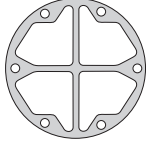
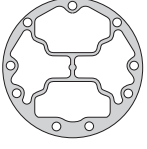
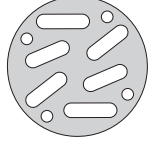
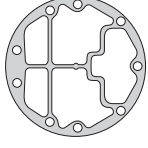
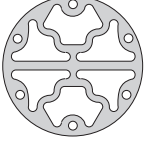
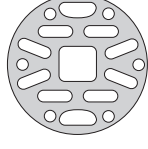
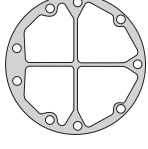
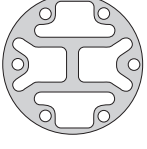
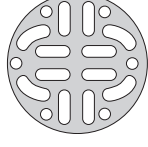
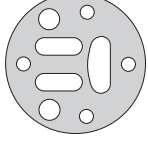
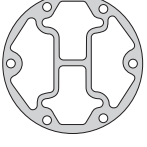
ELT/KHX - Gasket and Endplates Cross Reference

MODELS	FRONT GASKET GASKE-	REAR GASKET GASKE-	FRONT ENDPLATE ENDPL-	REAR ENDPLATE ENDPL-
ELT 100A	5057	5064	3055	3073
ELT 150A	5057	5064	3055	3073
ELT 200A	5057	5057	3055	3154
ELT 300A	2191	2209	3253	3280
ELT 500A	2191	2209	3253	3280
ELT 800A	2461	2470	3451	3482
ELT 1000A	2461	2470	3451	3482
ELT 50	2092	2100	3046	3064
ELT 75	2092	2100	3046	3064
ELT 100	2092	2100	3046	3064
ELT 150	2092	2100	3046	3064
ELT 200	2092	2092	3424	3424
ELT 300	2191	2209	3262	3280
ELT 500	2191	2209	3262	3280
ELT 800	2461	2470	3475	3482
ELT 1000	2461	2470	3475	3482


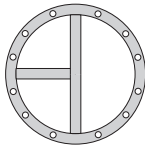
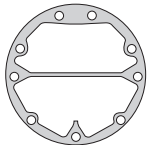

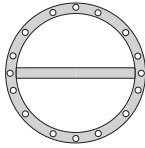
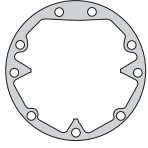

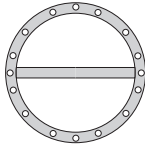

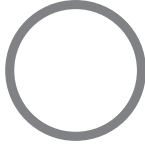

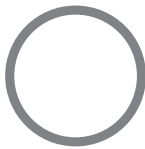
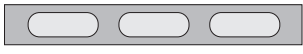

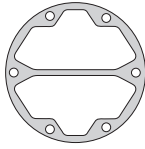

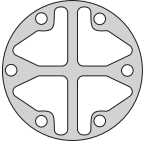
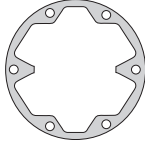
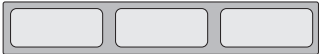
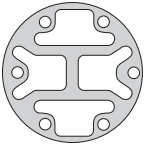

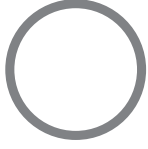
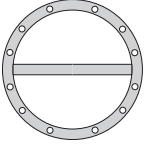
MODELS	FRONT GASKET GASKE-	REAR GASKET GASKE-	FRONT ENDPLATE ENDPL-	REAR ENDPLATE ENDPL-
KH 11/2X	698A	698B	1840	1796
KH 2X	698A	698B	1840	1796
KH 3X	698A	698B	1840	1796
KH 5X	706A	706B	1859	1813
KH 71/2X	724A	724B	1868	1831
KH 10X	724A	724B	1868	1831

This chart is to be used for reference purposes only.
 For replacement parts contact customer service with your condenser model and serial numbers.

GASKETS ID

<p>111</p> <p>12-3/4" Dia. 12 Studs</p> 	<p>210</p> <p>8-5/8" Dia. 6 Studs</p> 	<p>346</p> <p>5" Dia. 4 Studs</p> 
<p>120</p> <p>12-3/4" Dia. 12 Studs</p> 	<p>229</p> <p>8-5/8" Dia. 6 Studs</p> 	<p>355</p> <p>6-5/8" Dia. 12 Studs</p> 
<p>166</p> <p>12-3/4" Dia. 12 Studs</p> 	<p>238</p> <p>8-5/8" Dia. 6 Studs</p> 	<p>364</p> <p>6-5/8" Dia. 6 Studs</p> 
<p>175</p> <p>6" Dia. 4 Studs</p> 	<p>247</p> <p>8-5/8" Dia. 6 Studs</p> 	<p>373</p> <p>10-3/4" Dia. 9 Studs</p> 
<p>184</p> <p>6" Dia. 4 Studs</p> 	<p>256</p> <p>10-3/4" Dia. 9 Studs</p> 	<p>382</p> <p>6-5/8" Dia. 6 Studs</p> 
<p>193</p> <p>6-5/8" Dia. 6 Studs</p> 	<p>265</p> <p>10-3/4" Dia. 9 Studs</p> 	<p>436</p> <p>6-5/8" Dia. 6 Studs</p> 
<p>201</p> <p>6-5/8" Dia. 6 Studs</p> 	<p>337</p> <p>5" Dia. 4 Studs</p> 	<p>445</p> <p>8-5/8" Dia. 12 Studs</p> 

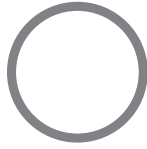
GASKETS ID

<p>689A</p> 	<p>1471</p> <p>8-5/8" Dia. 12 Studs</p> 	<p>1741</p> <p>10-3/4" Dia. 9 Studs</p> 
<p>689B</p> 	<p>1480</p> <p>12-3/4" Dia. 12 Studs</p> 	<p>1750</p> <p>10-3/4" Dia. 9 Studs</p> 
<p>706A</p> 	<p>1499</p> <p>14" Dia. 12 Studs</p> 	<p>2074</p> <p>Tube-in-tube gasket No picture available</p>
<p>706B</p> 	<p>1679</p> <p>19-11/16" Dia.</p> 	<p>2083</p> <p>Tube-in-tube gasket No picture available</p>
<p>724A</p> 	<p>1688</p> <p>21-11/16" Dia.</p> 	<p>2092</p> <p>1-3/16" x 9-1/16"</p> 
<p>724B</p> 	<p>1723</p> <p>8-5/8" Dia. 6 Studs</p> 	<p>2100</p> <p>1-3/16" x 6-5/16"</p> 
<p>1057</p> <p>6-5/8" Dia. 6 Studs</p> 	<p>1732</p> <p>8-5/8" Dia. 6 Studs</p> 	<p>2191</p> <p>2-9/16" x 15-3/4"</p> 
<p>1066</p> <p>6-5/8" Dia. 6 Studs</p> 	<p>2209</p> <p>2-9/16" x 15-3/4"</p> 	<p>2254</p> <p>14-11/16" Dia.</p> 
<p>1462</p> <p>10-3/4" Dia. 12 Studs</p> 		

GASKETS ID

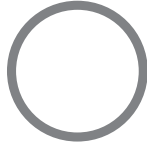
2263

16-11/16" Dia.



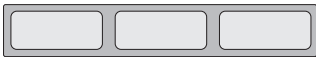
2290

25" Dia.




2461

3-1/4" x 20-1/4"



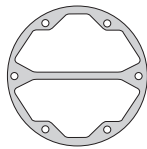
2470

3-1/4" x 13-1/2"



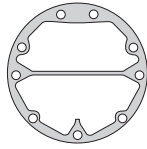
2584

8-5/8" Dia.
6 Studs



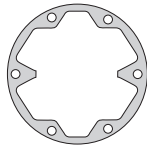
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8-5/8" Dia.
6 Studs



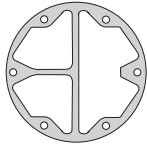
2953

8-5/8" Dia.
6 Studs



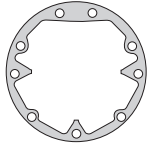
2977

8-5/8" Dia.
6 Studs



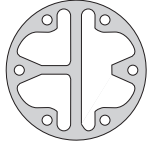
2984

10-3/4" Dia.
9 Studs



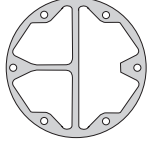
3101

6-5/8" Dia.
6 Studs




3118

8-5/8" Dia.
6 Studs



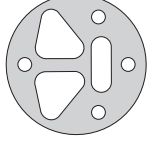
3149

6" Dia.
4 Studs




3156

5" Dia.
4 Studs



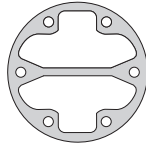
3163

6" Dia.
4 Studs



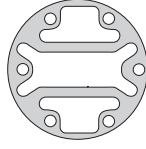
3170

6-5/8" Dia.
6 Studs



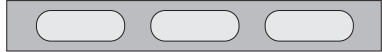
3718

6-5/8" Dia.
6 Studs

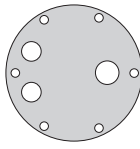
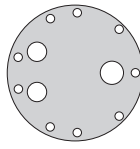
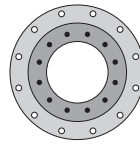
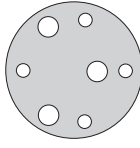
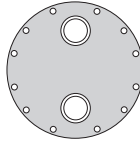
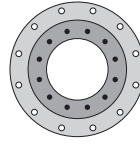
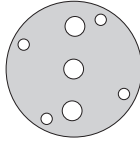
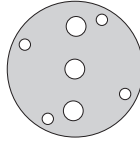
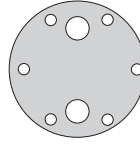
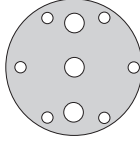
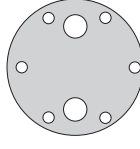
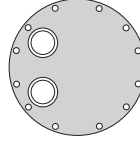
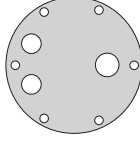
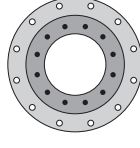
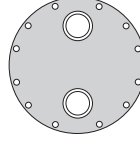
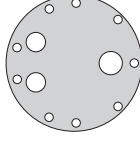
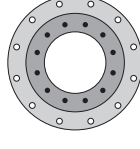
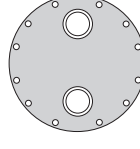
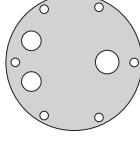
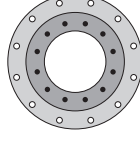
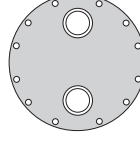


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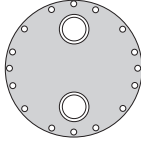
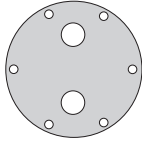
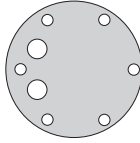
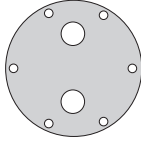
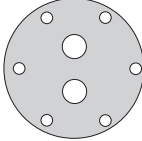
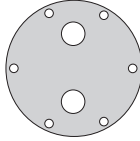
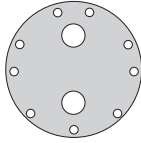
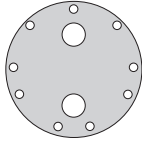
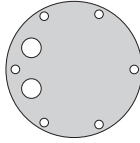
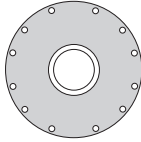
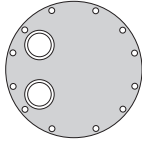
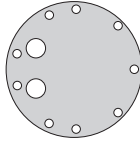
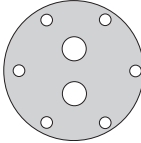
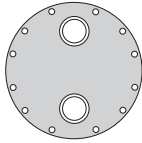
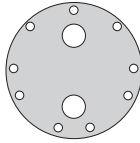
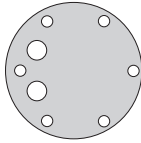
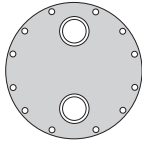
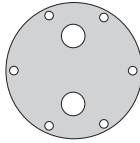
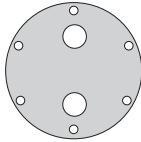
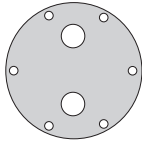
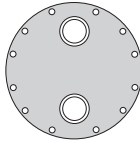
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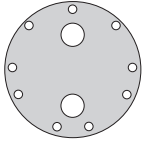
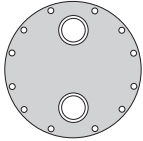
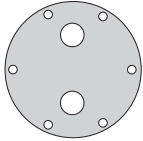
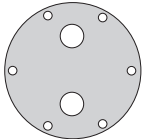
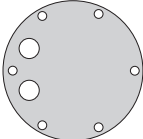
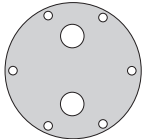
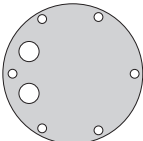
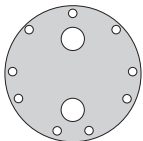
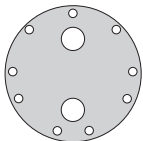
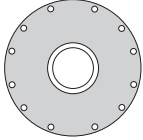
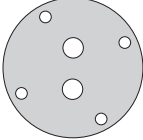
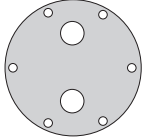
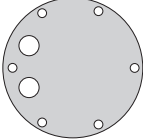
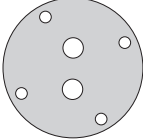
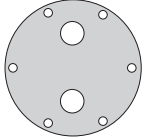
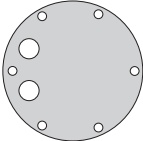
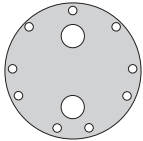
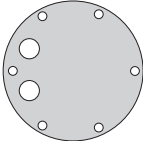
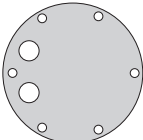
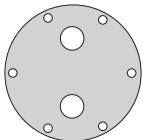
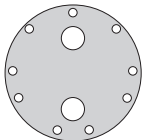
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12		193		H1066	
8-1/2" Dia. 6 Studs		10-3/4" Dia. 9 Studs		24" Dia.	
49		247		H1921	
5" Dia. 14 Studs		12-3/4" Dia. 12 Studs		28" Dia.	
67		328		1499	
6" Dia. 4 Studs		6" Dia. 4 Studs		6-5/8" Dia. 6 Studs	
85		706		2065	
6-5/8" Dia. 6 Studs		8-5/8" Dia. 6 Studs		8-5/8" Dia. 12 Studs	
120		H1039		2092	
8-5/8" Dia. 6 Studs		17-7/8" Dia.		8-5/8" Dia. 12 Studs	
148		H1048		2119	
10-3/4" Dia. 9 Studs		19-7/8" Dia.		10-3/4" Dia. 12 Studs	
175		H1057		2137	
8-5/8" Dia. 6 Studs		22" Dia.		12-3/4" Dia. 12 Studs	

ENDPLATE ID

<p>2155</p> <p>14" Dia. 16 Studs</p> 	<p>2470</p> <p>8-5/8" Dia. 6 Studs</p> 	<p>2876</p> <p>8-5/8" Dia. 6 Studs</p> 
<p>2227</p> <p>8-5/8" Dia. 6 Studs</p> 	<p>2489</p> <p>8-5/8" Dia. 6 Studs OBSOLETE</p> 	<p>2894</p> <p>8-5/8" Dia. 6 Studs</p> 
<p>2236</p> <p>10-3/4" Dia. 9 Studs</p> 	<p>2506</p> <p>10-3/4" Dia. 9 Studs</p> 	<p>2911</p> <p>8-5/8" Dia. 6 Studs</p> 
<p>2245</p> <p>12-3/4" Dia. 12 Studs</p> 	<p>2524</p> <p>12-3/4" Dia. 12 Studs</p> 	<p>2920</p> <p>10-3/4" Dia. 9 Studs</p> 
<p>2263</p> <p>8-5/8" Dia. 6 Studs</p> 	<p>2533</p> <p>12-3/4" Dia. 12 Studs</p> 	<p>2939</p> <p>10-3/4" Dia. 9 Studs</p> 
<p>2452</p> <p>6-5/8" Dia. 6 Studs</p> 	<p>2542</p> <p>12-3/4" Dia. 12 Studs</p> 	<p>3334</p> <p>8-5/8" Dia. 6 Studs</p> 
<p>2461</p> <p>8-5/8" Dia. 6 Studs</p> 	<p>2678</p> <p>8-5/8" Dia. 6 Studs</p> 	<p>3868</p> <p>12-3/4" Dia. 12 Studs</p> 

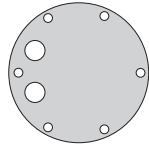
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<p>3901</p> <p>8-5/8" Dia. 9" Studs</p>		<p>4261</p> <p>8-5/8" Dia. 6 Studs</p>		<p>5552</p> <p>6-5/8" Dia. 6 Studs</p> 
<p>3918</p> <p>8-5/8" Dia. 6" Studs</p>		<p>4278</p> <p>10-3/4" Dia. 9 Studs</p>		<p>5576</p> <p>8-5/8" Dia. 6 Studs</p> 
<p>3956</p> <p>8-5/8" Dia. 6" Studs</p>		<p>4292</p> <p>10-3/4" Dia. 9 Studs</p>		<p>5583</p> <p>10-3/4" Dia. 9 Studs</p> 
<p>4092</p> <p>12-3/4" Dia. 12 Studs</p>		<p>4328</p> <p>6" Dia. 4 Studs</p>		<p>5707</p> <p>8-5/8" Dia. 6 Studs</p> 
<p>4230</p> <p>6-5/8" Dia. 6" Studs</p>		<p>5040</p> <p>6" Dia. 4 Studs</p>		<p>5727</p> <p>8-5/8" Dia. 6 Studs</p> 
<p>4247</p> <p>8-5/8" Dia. 6 Studs</p>		<p>5464</p> <p>10-3/4" Dia. 9 Studs</p>		<p>5819</p> <p>6-3/4" Dia. 6 Studs</p> 
<p>4254</p> <p>8-5/8" Dia. 6 Studs</p>		<p>5495</p> <p>8-5/8" Dia. 6 Studs</p>		<p>5907</p> <p>10-3/4" Dia. 9 Studs</p> 

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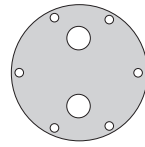
5938

8-5/8" Dia.
6 Studs



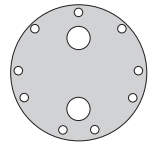
6487

8-5/8" Dia.
6 Studs



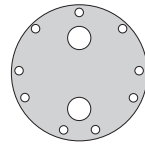
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10-3/4" Dia.
9 Studs



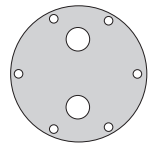
6481

10-3/4" Dia.
9 Studs



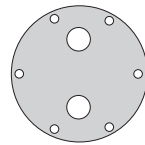
6229

6-3/4" Dia.
6 Studs



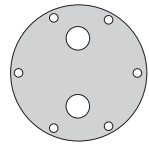
6605

8-5/8" Dia.
6 Studs



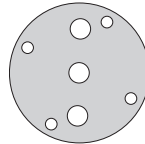
6281

6-5/8" Dia.
6 Studs



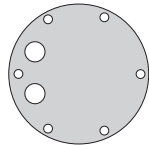
6717

6" Dia.
4 Studs



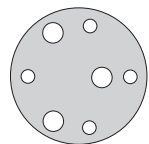
6389

6-5/8" Dia.
6 Studs



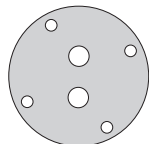
6412

5-1/4" Dia.
4 Studs



6436

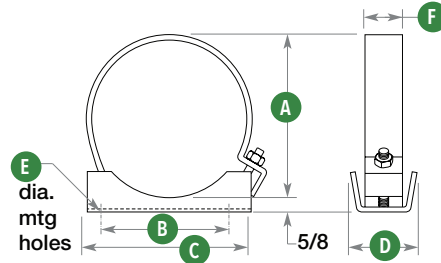
6" Dia.
4 Studs



ACCESSORY SERVICE ITEMS FOR CONDENSERS AND RECEIVERS

UNIVERSAL

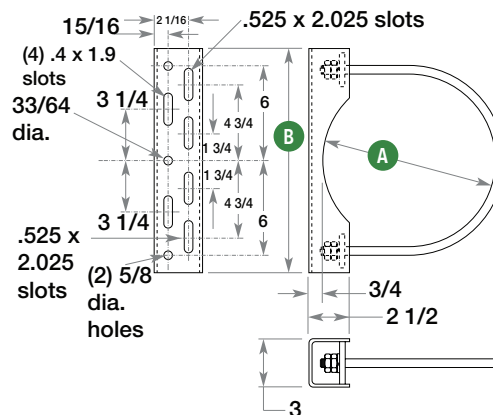
PART NUMBER	DIMENSIONS (INCHES)					
	A	B	C	D	E	F
5A	5	5 1/2	7	2 9/16	7/16	1 1/16
6A	6	5 1/2	7	2 9/16		
6B	6 5/8	5 1/2	7	2 9/16		
8B	8 5/8	8	9	2 7/8		
10B	10 3/4	10	11	3 5/16	9/16	1 1/2
12B	12 3/4	11 5/8	13	4 1/8		
14B	14	13 1/4	14 1/2	4 1/8		
16B	16	15 3/4	17	4 1/8		



COMPRESSOR/CONDENSER

PART NUMBER	DIMENSIONS (INCHES)	
	A	B
BR1	6	14
BR3	6 5/8	
BR5	8 5/8	
BR7	10 3/4	
BR9	12 3/4	

PART NUMBER	DIMENSIONS (INCHES)	
	A	B
BR10	14	24
BR11	16	
BR12	18	
BR13	20	



PART NUMBER	DESCRIPTION	APPLICATION	DIMENSIONS
ZN 60	Zinc Plate Anode	6-5/8" Dia. Condenser	6" OD x .250"
ZN 65		6-5/8" Dia. Condenser	6-5/8" OD x .250"
ZN 85		8-5/8" Dia. Condenser	8-5/8" OD x .250"
ZN 105		3/4"-10 UNC Plug Thread.	10-3/4" OD x .250"
ZN 122	Zinc PLUG Anode	3/4"-10 UNC Plug Thread.	1/2" Dia x 2-3/8" Long
ZN 3332		3/8" NPT Plug Thread	3/8" Dia x 1" Long



VALVE 645 PRESSURE GAUGE

0-30 PSI Range
2 Inch Gauge Face
1/4" NPT Connection



ZN 122 PLUG ANODE



ZN 3332 PLUG ANODE



ZN PLATE ANODE

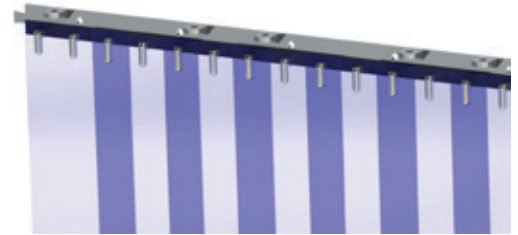
SIGMA ENGINEERING MODULAR STRIP CURTAIN SYSTEM

Sigma Engineering introduces the first of its kind MODULAR Strip Curtain System. This system allows the customer to offer a replacement Strip Curtain System for multiple door sizes easily....and without a large inventory commitment! This is accomplished by supplying a universal header kit, and then selecting the number of strip curtains needed based on the Strip Curtain Chart!! The majority of applications will feature a 33% overlap, but some customers desire a 66% overlap and we can handle that!

ADDITIONAL FEATURES:

- Coolers or Freezers
- Multiple Door Size Offering
- Can now sell Replacement Strips!
- 8" Curtains Available
- Extra-Long Curtains available upon request

SIGMA PART NO.	DESCRIPTION	QTY/PKG
SESC-2X24 BRACKET	Strip Curtain Brackets, 2x24" Alum w/ hardware	2 pcs - 24" Brackets
SESC-3X684	6" Strip Curtains Only, 3 pcs, 6"x84" x .060	3 pcs - Six Inch Strips
SESC-4X684	6" Strip Curtains Only, 4 pcs, 6"x84" x .060	4 pcs - Six Inch Strips
SESC-3X884	8" Strip Curtains Only, 3 pcs, 8"x84" x .060	3 pcs - Eight Inch Strips
SESC-4X888	8" Strip Curtains Only, 4 pcs, 8"x84" x .060	4 pcs - Eight Inch Strips
SESC-48120-HDKIT	Strip Curtain Kit 48"x124", 8"x.080 HD Curtains	1 Kit (fits 4'W x 10' H opening)
SESC-48100-HDKIT	Strip Curtain Kit 48"x100", 8"x.080 HD Curtains	1 Kit (fits 4'W x 8' H opening)



ENDPLATE ID

DOOR SIZE OPENING	SESC-2X24 BRACKET KIT	6" CURTAINS REQUIRED	
30 Inches	Requires 1 Bracket Kit (Kit includes 2 pcs 24" brackets)	7	
32 Inches		8	
34 Inches		9	
36 Inches			
38 Inches		10	
40 Inches		11	
42 Inches			
44 Inches		12	
46 Inches		Requires 2 Bracket Kits	15
48 Inches			18
60 Inches	21		
72 Inches	24		
84 Inches			
96 Inches			



Contains THREE strips 6" x 84"



Contains FOUR strips 6" x 84"



Innovative HVAC/R Solutions

**2166 14th Circle North,
St. Petersburg, FL 33713**

sales@sigmaengineeringllc.com

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(888) 744-6211