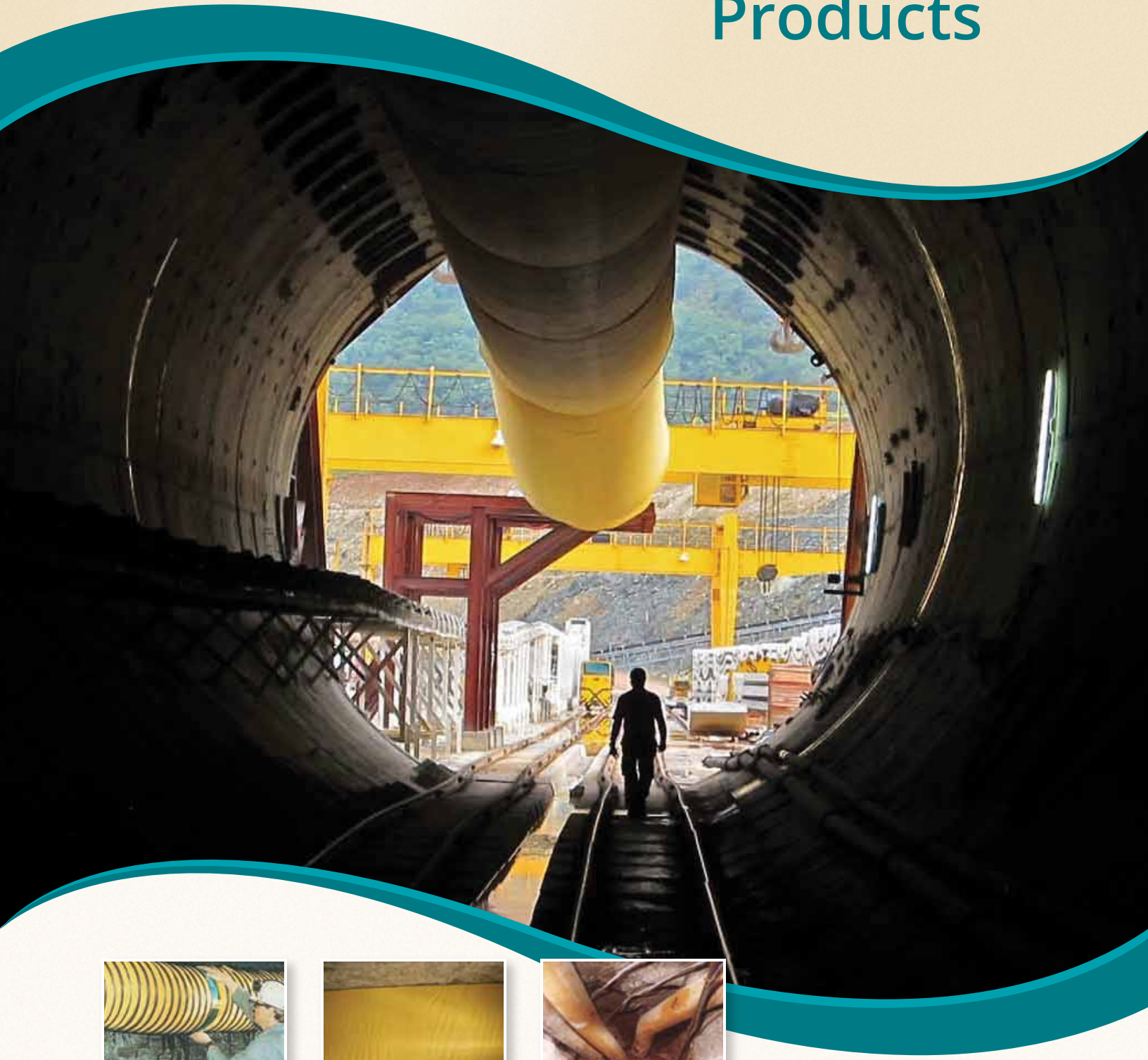




# Mine and Tunnel Ventilation Products



# Brattice

VentaTex® & VentaLene®  
Series Fabrics

Strength in construction. Strength in quality. Strength in experience. Brattice by ABC Industries, Inc. offers mine and tunnel professionals custom line curtain solutions for the most complex applications. A number of manufacturing variables, including scrim or substrate, adhesive, and film combinations influence the overall tear and tensile strength and brattice weight. ABC Industries' group of sales experts will work with you to select the best product for your operating requirements.



9 x 9 Conventional



9 x 6 Conventional



9 x 5 Uni-directional



9 x 9 Uni-directional



9 x 6 RipStop



9 x 9 RipStop

## CONVENTIONAL WEFT-INSERTION KNITTED SCRIM

VentaTex® and VentaLene® fabrics incorporate synthetic scrims, which are produced by over stitching a non-woven web. This produces a scrim with a unique geometric pattern. The substrate is laminated using PVC films, resulting in a strong, low-maintenance, fire-resistant fabric excellent for brattice and flexible ducting applications.

## RIPSTOP WEFT-INSERTION KNITTED SCRIM

VentaTex® and VentaLene® fabrics with RipStop feature heavier yarns staggered sequentially in either a uni-directional or bi-directional pattern. The result is a fabric that prevents a small snag from developing into a major tear.

ABC's mine fabrics comply with all applicable United States Mine Safety and Health Administration (MSHA) regulations and policies. Extensive testing at ABC's onsite laboratory gives you peace of mind that your product will perform at specific, documented rating strengths.

FABRIC	WEIGHT (oz./yd.²)	WEIGHT (g/m²)	SCRIM COUNT	COLOR
VL-695	6	204.43	9 x 5	Frosty Clear
VL-895	8	271.25	9 x 5	Frosty Clear
V-330	9	305.15	9 x 5	Frosty Clear or Yellow
V-335	9	305.15	9 x 5	Frosty Clear or Yellow
V-800	10	339.06	9 x 9	Frosty Clear
V-820	11	372.96	9 x 9	Frosty Clear or Yellow
V-840	12	406.86	9 x 9	Frosty Clear or Yellow
V-870	18	610.30	9 x 9	Yellow
V-885UD	22	745.92	9 x 9UD	Yellow
V-335UD	10	339.06	9 x 5UD	Frosty Clear or Yellow
V-540RS	12	406.86	9 x 6RS	Frosty Clear or Yellow
V-8440RS	13	440.77	9 x 9RS	Frosty Clear or Yellow
V-365UD	16	542.49	9 x 5UD	Frosty Clear
V-560RS	16	542.49	9 x 6RS	Frosty Clear or Yellow
V-570RS	18	610.30	9 x 6RS	Frosty Clear or Yellow
V-8740RS	18	610.30	9 x 9RS	Yellow
V-8840RS	20	678.12	9 x 9RS	Yellow

# Fly Pads

AirStop® Series  
VentaTex® 3000 & 5000 Series

## AIRSTOP® SERIES WINDOW CLEAR FABRICS

FABRIC	WEIGHT (oz./yd. <sup>2</sup> )	WEIGHT (g/m <sup>2</sup> )	SCRIM COUNT
AS-600	18	610.30	N/A
AS-1000	30	1,017.17	N/A
AS-2500	25	847.64	2 x 2
AS-4500	45	1,525.76	N/A
AS-4550	45	1,525.76	2 x 2
AS-6000	60	2,054.35	N/A

## VENTATEX® 3000 & 5000 SERIES FROSTY CLEAR FABRICS

FABRIC	WEIGHT (oz./yd. <sup>2</sup> )	WEIGHT (g/m <sup>2</sup> )	SCRIM COUNT
V-3110	20	678.11	9 x 5
V-3120	25	847.64	9 x 5
V-3150	30	1,017.17	9 x 5
V-5150RS	30	1,017.17	9 x 6 RipStop
V-5175RS	35	1,186.70	9 x 6 RipStop
V-3205	40	1,356.23	9 x 5
V-5200RS	40	1,356.23	9 x 6 RipStop
V-5225RS	44	1,491.85	9 x 6 RipStop
V-5300RS	58	1,966.53	9 x 6 RipStop



Trust the durability and quality of ABC Industries' line of fly pads for safe travel in underground environments. Fly pads made with ABC's AirStop® window clear fabric and VentaTex® frosty clear fabric allow vehicles to conveniently travel in and out of crosscuts while providing visibility and directing air flow. The heavyweight material helps ensure that the curtain will hang straight once the vehicle has passed.

# MineVent®

## Layflat Blower Ducting

Expect more from your collapsible, layflat blower ducting by choosing MineVent® (positive pressure) ducting. Its 100% welded construction eliminates air loss and weakening associated with conventional sewn ducting. Several standard and custom end finishes provide numerous configuration possibilities for your installation. Choose MineVent® with ABC's RipStop substrate technology to prevent small tears from expanding into gaping holes.

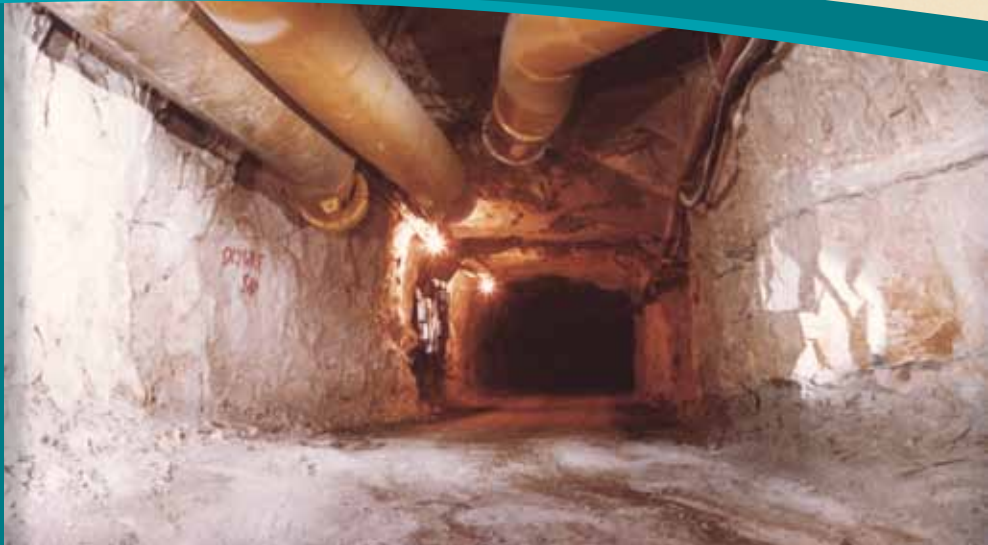
MineVent® Tubing Accessories



MineVent® AutoFeed™ Tubing Cassette



Holds 109 - 164 yds (100 - 150 m) of MineVent®



Molecularly bonded for positive pressure applications, MineVent® is manufactured with ABC's VentaTex® material. MineVent® is designed to perform from -20° F to 180° F (-29° to 82° C) continuously in underground environments. MineVent® fabrics have been tested and approved by Mine Safety and Health Administration Standards (MSHA).

### SPECIFICATIONS

Fabric	12 oz./yd. <sup>2</sup> (407 g/m <sup>2</sup> ) 13 oz./yd. <sup>2</sup> (441 g/m <sup>2</sup> ) 18 oz./yd. <sup>2</sup> (610 g/m <sup>2</sup> ) 20 oz./yd. <sup>2</sup> (678 g/m <sup>2</sup> ) 22 oz./yd. <sup>2</sup> (746 g/m <sup>2</sup> )
Scrim	9 x 6 RipStop, 9 x 9, 9 x 9 RipStop
Film	PVC laminated to both sides of scrim
Color	Yellow
Diameter	8" - 72" (200 - 1,850 mm)
Length	25', 50', 100' (7.5, 15, 30.5 m)
End Finish	Wire Rope Coupling (Standard) Aussie Coupling Snap-Loc Coupling Soft Cuff Velcro® Cuff Zipper Cuff
Suspension	A-3 Hooks

# TruOval MineVent<sup>®</sup>

Layflat Blower Ducting  
(Patent Pending)

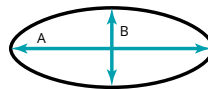


ABC industries, Inc. is proud to introduce TruOval MineVent<sup>®</sup>, a patent pending, oval layflat blower ducting engineered to increase air distribution efficiency throughout your underground ventilation system. The unique construction features suspension cables spaced intermittently through the ducting to maintain its oval shape while reducing the amount of air flow friction. The oval configuration maximizes headroom in confined spaces and allows larger equipment to travel through the shaft without disrupting air flow. TruOval MineVent<sup>®</sup> ventilation ducting also features a series of easy-to-handle accessories that require less space, are more cost-effective, and smoothly transfer air through bends and turns.

TruOval MineVent's<sup>®</sup> welded construction reduces air loss and weakening associated with conventional sewn ducting. The durable RipStop substrate prevents small tears from expanding to major holes. Molecularly bonded for positive pressure applications, TruOval MineVent<sup>®</sup> is manufactured with ABC's VentaTex<sup>®</sup> material, which is designed to perform from -20° F to 180° F (-29° to 82° C) continuously. MineVent<sup>®</sup> fabrics have been tested and approved by Mine Safety and Health Administration Standards (MSHA).

SPECIFICATIONS	
Fabric	18 oz./yd. <sup>2</sup> (610 g/m <sup>2</sup> ) 20 oz./yd. <sup>2</sup> (678 g/m <sup>2</sup> ) 22 oz./yd. <sup>2</sup> (746 g/m <sup>2</sup> )
Scrim	9 x 9 RipStop, 9 x 9 UD
Film	PVC laminated to both sides of scrim
Color	Yellow
Length	25', 50', 100' (7.5, 15, 30.5 m)
End Finish	Wire Rope Coupling (Standard), Aussie Coupling, Snap-Loc Coupling, Soft Cuff, Velcro <sup>®</sup> Cuff, Velcro <sup>®</sup> /Zipper Cuff
Suspension	A-3 Hooks, Carabiner Suspension

TruOval MineVent <sup>®</sup> Size for Specifying		TruOval MineVent <sup>®</sup> Dimensions			
		A		B	
INCHES	mm	INCHES	mm	INCHES	mm
18"	450	24.75"	650	13.50"	350
24"	600	33.25"	850	18.00"	450
30"	750	43.25"	1,100	22.50"	550
32"	800	45.00"	1,150	24.00"	600
36"	900	51.25"	1,300	27.00"	700
42"	1,050	60.00"	1,500	31.50"	800
48"	1,200	66.50"	1,700	36.00"	900
54"	1,350	76.50"	1,950	40.50"	1,050
60"	1,500	85.50"	2,150	45.00"	1,150
66"	1,650	91.00"	2,300	48.00"	1,200



*TruOval MineVent<sup>®</sup> Accessories*

# RigiDuct®

Filament-Wound  
Fiberglass Ducting

The strength of RigiDuct® is derived from filament-wound fiberglass rovings reinforced with polyester fibers for added durability and resiliency. RigiDuct® has greater strength than non-filament-wound fiberglass or PVC duct; yet, the tubing is as light as other plastic-made ducting and much lighter and more durable than comparable metal ducting.

A unique feature of ABC Industries' RigiDuct® is the WireGuard reinforcement. During the manufacturing process, a web of steel wire is constructed within the fiberglass rovings to increase the tubing's strength under high degrees of negative pressure. The wire provides a lightweight, economical solution for strengthening the ducting while providing superior impact resistance.

Tough polyester resins, coupled with the inherent resiliency of fiberglass and polyester fibers, make RigiDuct® highly resistant to attack from acid or alkaline conditions. UV stabilized; rubberized elastic gaskets resist degrading and remain pliable in cold weather applications.

RigiDuct® is approved by the United States Mine Safety and Health Administration (MSHA).



## OPTIONS

RigiDuct® is offered in light, standard, WireGuard, and extended-duty weights. Anti-static RigiDuct® is also available.

### STANDARD-DUTY (SD) ROUND RIGIDUCT® SIZES

8" (200 mm)	20" (500 mm)	36" (900 mm)
10" (250 mm)	22" (550 mm)	40" (1,000 mm)
12" (300 mm)	24" (600 mm)*	42" (1,050 mm)
14" (350 mm)	26" (650 mm)	48" (1,200 mm)
16" (400 mm)	28" (700 mm)	
18" (450 mm)	30" (750 mm)	

\*NOTE: WireGuard and extended-duty round RigiDuct® are available in 24" (600 mm) diameter and larger.

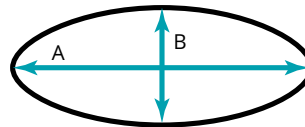
### STANDARD-DUTY OVAL RIGIDUCT® SIZES

14" (350 mm)	22" (550 mm)	36" (900 mm)
16" (400 mm)	24" (600 mm)	42" (1,050 mm)
18" (450 mm)	30" (750 mm)	45" (1,150 mm)
21" (550 mm)**		

\*\*NOTE: Extended-duty oval RigiDuct® is available in 21" (550 mm) equivalent diameter and larger.

### EQUIVALENT ROUND DIAMETERS FOR OVAL RIGIDUCT®

RigiDuct® Size for Specifying		Spigot End <i>Note: Add 1" (25 mm) to dimensions to determine bell end equivalents.</i>				Equivalent Round Diameter (I.D.)	
		A		B			
INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
14	350	17.125	450	9.125	250	12.500	300
16	400	19.750	500	10.875	300	15.125	400
18	450	22.500	550	11.125	300	16.500	400
21	550	26.500	650	12.000	300	19.125	500
22	550	28.750	750	14.250	350	21.125	550
24	600	30.000	750	16.000	400	22.500	550
30	750	36.500	950	20.500	500	28.100	700
36	900	43.000	1,100	26.000	650	34.375	850
42	1,050	51.000	1,300	28.000	700	39.250	1,000
45	1,150	54.000	1,350	32.500	850	43.125	1,100





Y\*\*



ELBOW\*\*



REDUCER WITH MINEDUCT®\*\*



DAMPER KIT



FLEXEL (FLEXIBLE ELBOW)

\*\* When ordering Ts, Ys, reducers, and lateral Ys, be sure to indicate the bell and spigot ends.

ABC Industries, Inc. offers a complete line of RigiDuct® filament-wound fiberglass tube fittings for easy planning and installation of your RigiDuct® ventilation system. Available fittings include 22.5°, 30°, 45°, 60°, and 90° elbows, flexible and smooth radius elbows, end caps, Ts, Ys, and lateral Ys. In addition, reducers and transition pieces are available to link different shapes and sizes of RigiDuct®. All transition pieces are riveted and fiberglass wrapped both inside and outside for increased durability.

ABC also manufactures extendable face tubes that manually slide forward to keep ducting close to of the face. Face tubes are slightly smaller than the tubing line diameter.

Custom items, such as short lengths of RigiDuct® or smooth radius fittings, are offered for unique applications.\* Sections with mixed couplings are available to adapt RigiDuct® to MineDuct® exhaust ducting or MineVent® blower ducting.

\* If a custom item is required, please supply a sketch for quoting and manufacturing purposes.

# MineDuct®

## Wire-Reinforced Ducting

Demanding mine and tunnel ventilation applications require high quality, reliable ducting to perform in extreme underground conditions. MineDuct® wire-reinforced ducting is made of premium PVC fabric for both positive and negative pressure applications. Its durable construction and heavy-duty wearstrip allow MineDuct® to withstand continuous use in the harshest environments. ABC's RipStop substrate technology makes maintenance quick and easy by preventing tears from expanding.



### SPECIFICATIONS

Fabric	13 oz./yd. <sup>2</sup> (441 g/m <sup>2</sup> ) 18 oz./yd. <sup>2</sup> (610 g/m <sup>2</sup> )
Scrim	9 x 9 RipStop
Film	PVC laminated to both sides of scrim
Color	Yellow
Standard Pitch	3" (7.5 cm) for Exhausting 6" (15 cm) for Blowing
Wire	Hard-Drawn Steel
Inside Diameter	Sewn: 8" - 48" (200 - 1,200 mm) Heat-Sealed: 8" - 36" (200 - 900 mm)
Length	10', 20' (3, 6 m)
Wearstrip	Heavy-Duty, Flame Resistant
End Finish	Wire Rope Coupling (Standard) Aussie Coupling Snap-Loc Coupling Soft Cuff Velcro® Cuff Velcro® Zipper Cuff
Suspension	A-3 Hooks

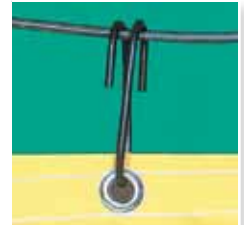


# Suspension Options

Mine & Tunnel Ventilation

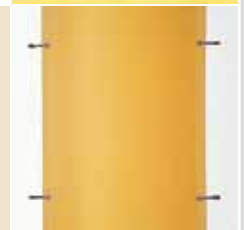
## A-3 SUSPENSION FOR MINEVENT®

Double-locking A-3 suspension hooks are looped through grommets on the MineVent® suspension seam and hang from a messenger wire. Recommended spacing is one hook every 2' (.5 m).



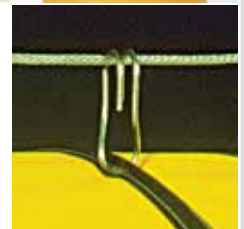
## A-3 VERTICAL SUSPENSION FOR MINEVENT®

ABC has specifically engineered its A-3 suspension method to accommodate vertical applications. The ducting is constructed with two suspension seams opposed at 180°. The A-3 suspension hooks are then attached to the vertical messenger wire or shaft wall.



## S-3 SUSPENSION FOR MINEDUCT®

S-3 suspension consists of double-locking S-hooks looped underneath the steel-wire helix. This design allows for easy installation while providing a secure connection.



## S-3 VERTICAL SUSPENSION FOR MINEDUCT®

ABC has adapted its S-3 suspension method for vertical MineDuct® applications. Two rows of S-3 suspension hooks are opposed at 180° and wrapped under the steel-wire helix, eliminating the need for grommets and the suspension seam.



## DOUBLE SUSPENSION FOR MINEVENT® 48" (1,200 mm) OR LARGER

Designed for large diameter MineVent®, the double suspension method features twin suspension seams for channeling airflow. Additionally, two small eyelets can be installed near each end for condensation drainage. Please, specify the eyelets when ordering.



## AIRCRAFT CABLE

For ducting over 54" in diameter, an aircraft cable is sewn or heat sealed into the suspension seam to reinforce the suspension line. The aircraft cable can also be sold separately.



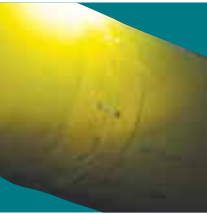
# Couplings

For use with MineVent®  
and MineDuct® products



## AUSSIE COUPLING

Aussie couplings are used to lace ducting sections together at connection points. Grommets are affixed to cuffs, and the cuffs are sewn to ducting ends. The two ducting pieces are attached by inter-weaving poly rope through the opposing grommets. Male and female couplings are sealed by an internal 10" (250 mm) ducting flap.



## SNAP-LOC COUPLING

ABC Industries has developed a universal snap-loc coupling with evenly spaced grommets to eliminate the left and right designations for directional fittings. The welded construction features male and female ends that create an overlapping internal seal and prevent air loss.



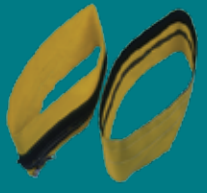
## SOFT CUFF

Soft cuffs are traditionally used to finish the ends of standard MineVent® and MineDuct®. The cuffs are built by overlapping and sewing the ducting fabric to form a double-layered end that adds extra coupling flexibility. Note: A soft cuff adds 3" (7.5 cm) of fabric to the total ducting length.



## VELCRO® CUFF

Velcro® cuffs form a barrier against unwanted dust and debris at ducting connection points. The hook and loop features 6" (15 cm) of overlap that seals the ducting's female entry and male exit.



## VELCRO®/ZIPPER CUFF

The Velcro®/Zipper cuff adds to the secure connection created by Velcro® alone by sewing one side of a zipper assembly to the first duct at a connection point. The second cuff contains the coordinating zipper teeth to form a secure union.



## WIRE ROPE COUPLING

Wire rope couplings join ducting sections by placing one ducting section with the wire rope coupling into another with the same coupling. This union provides a secure fit and extended service life. The wire rope coupling may be used in conjunction with a multi-clip and is available in 6" (150 mm) or larger sizes.

# Clamps & Repair Kits

For use with MineVent® and MineDuct® products

## FLAT BAND CLAMP

Flat band clamps are ideal for securing ducting to a fan adaptor or metal tubing. Features include a zinc-coated steel construction, quick-release handle, and three adjustments for varying thicknesses. Standard diameters range from 8" (20.5 cm) to 48" (122 cm). Larger diameters are available upon request.



## MULTI-CLIP

The multi-clip is used to secure two pieces of ducting together that each use a wire rope coupling end finish. The wire rope couplings are inserted one inside the other (dependent upon air flow direction) and pulled back square. A 3" (7.5 cm) space between the wire rope couplings is required for insertion of the multi-clip.



DUCTING DIAMETER	NO. OF MULTI-CLIPS
Up to 30" (750 mm)	3-4
36"-48" (900-1,200 mm)	4-6
54"-72" (1,350-1,850 mm)	6-7

On occasion, MineVent® or MineDuct® ducting may be damaged by machinery or blasting. For that reason, ABC offers special repair kits for quick, inexpensive repairs.

## ADHESIVE REPAIR KIT

**KIT INCLUDES:**  
 PVC cement  
 5 yards (4.5 m) of VentaTex® fabric



## SEWING-STYLE REPAIR KIT

**KIT INCLUDES:**  
 2 - 5" (12.5 cm) curved needles  
 2 - Ready-wound bobbins (thread)



## ZIPPER REPAIR SLEEVE

The zipper repair sleeve provides an expedient means of repairing and reinforcing high-wear areas of ABC ducting. To install, the zipper sleeve is simply unzipped, wrapped around the affected area, and rezipped. The targeted area is then secured when positive pressure is applied.



# About ABC



*ABC's current headquarters  
in Winona Lake, Indiana*

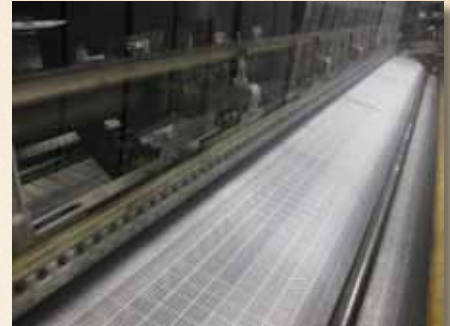


*ABC Industries' facility in  
Grand Junction, Colorado*



The story of ABC Industries is one of product evolution and prosperity since its humble beginnings in 1926. Industry trends and new technologies have guided ABC along the path of innovation to provide its customers with premium products and outstanding service. As mining, tunneling, and underground construction continue to evolve, ABC proactively collaborates with industry professionals to engineer unique, high quality ventilation products to meet the market's needs for tomorrow and beyond.

What began as American Brattice Cloth (ABC) and a single product, jute brattice cloth, has transformed into a diverse line of ventilation products for a wide range of industries. Today, ABC is one of the leading suppliers of high quality, customized ducting solutions to many of the largest mine, tunnel, and underground construction operations in North America and around the world. ABC's complete line of MineVent® layflat blower ducting, MineDuct® wire-reinforced exhaust ducting, RigiDuct® filament-wound fiberglass ducting, brattice cloth, blast curtains, fly pads, high-pressure vane axial and high-volume, low-pressure propeller fans, and accessories offer underground professionals a sole-source solution for ventilation products.



*Wefting technology is used to reinforce  
many of ABC's fabrics for the mine, tunnel,  
and underground construction industries.*



*RigiDuct®*



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