

**FLEXMASTER**<sup>®</sup>  
HEATING, VENTILATION & AIR CONDITIONING



# HVAC Solutions

HVAC Products

Triple Lock<sup>®</sup> Metal Duct

Fabriflex<sup>®</sup> Duct

Metal non-combustible flexible duct is ideally suited for a wide range of HVAC applications.

**Triple Lock® Aluminum**

*Non-Insulated Pressure Rated*

10" w.g. positive thru 16" Dia.  
6" w.g. positive, 18" Dia.  
12" w.g. negative, thru 16" Dia.  
4" w.g. negative, 18" Dia.

*Rated Velocity*

5500 F.P.M.

Operating Temperature Range:  
-60°F to +600°F

Flame/Smoke: 25/50 UL 181 Class 0



Insulated metal duct with outer vapor barrier controls vapor transmission and condensation.

**T/L-T**

*Insulated Pressure Rated*

10" w.g. positive thru 16" Dia.  
6" w.g. positive, 18" Dia.  
12" w.g. negative, thru 16" Dia.  
4" w.g. negative, 18" Dia.

*Rated Velocity*

5500 F.P.M.

*Vapor Barrier Permeance*

.10 Perm A.S.T.M. E96, Procedure A

Operating Temperature Range: -20°F to +250°F

Flame/Smoke 25/50 UL 181 Class 1

Thermal Resistance: R-4.2, R-6.0, R-8.0



**Triple Lock® Stainless Steel**

*Non-Insulated Pressure Rated*

12" w.g. positive (all Dia.)  
12" w.g. negative (all Dia.)

*Rated Velocity*

5500 F.P.M.

Operating Temperature Range: -60°F to 1500°F

Flame/Smoke: 0/0 UL 181 Class 0



**T/L-M**

*Insulated Pressure Rated*

10" w.g. positive thru 16" Dia.  
6" w.g. positive, 18" Dia.  
12" w.g. negative, thru 16" Dia.  
4" w.g. negative, 18" Dia.

*Rated Velocity*

5500 F.P.M.

*Vapor Barrier Permeance*

.05 Perm A.S.T.M. E96, Procedure A

Operating Temperature Range: -20°F to +250°F

Flame/Smoke: 25/50 UL 181 Class 1

Thermal Resistance: R-4.2, R-6.0, R-8.0





A perforated inner-core reduces noise generated by mechanical equipment or system vibration.

## T/L-A-T/L

**Insulated Pressure Rated**  
6" w.g. positive thru 16" Dia.  
2" w.g. negative thru 16" Dia.

**Rated Velocity**  
4000 F.P.M.

**Vapor Barrier**  
Triple Lock®, Aluminum Jacket

Operating Temperature Range: -20°F to +250°F  
Flame/Smoke 25/50 UL 181 Class 1



## T/L-A

**Insulated Pressure Rated**  
2" w.g. positive thru 16" Dia.  
1" w.g. negative, 10" Dia.

**Rated Velocity**  
4000 F.P.M.

**Vapor Barrier Permeance**  
.10 Perm A.S.T.M. E96, Procedure A

Operating Temperature Range: -20°F to +250°F  
Flame/Smoke 25/50 UL 181 Class 1  
Thermal Resistance: R-4.2, R-6.0, R-8.0

## T/L-AM

**Vapor Barrier Permeance**  
.05 Perm A.S.T.M. E96, Procedure A



## Medical Grade

### Triple Lock® T/L-AMG

Medical grade insulated acoustic air duct is manufactured with a three ply Triple Lock® mechanical airtight seam, using a dead soft perforated aluminum strip, spirally wound and mechanically joined together. The fiberglass blanket is totally isolated from the air stream by a seamless polyethylene liner, covered with thick R-8.0 fiberglass insulation and a flame retardant, scrim foil Mylar vapor barrier.

Triple Lock® Medical grade offers greater flexibility, exceptional strength and acoustic qualities. It is vibration deadening, lightweight and self-supporting; corrosive and highly puncture resistant.

Features anti-microbial properties and thermal reliability. The air stream is protected by a seamless polyethylene liner and uses a Triple Lock® (T/L basic) perforated core with an open area of 20% to 25% to completely cushion sounds, such as air movement and duct vibrations and is ideal for use in medical care facilities and should provide a comparatively noise free environment.

Material: Perforated aluminum core, polyethylene vapor liner, mylar vapor barrier, insulation R4.2, R6, R8

Vapor Barrier: Mylar, Polyethylene

Maximum Rated Velocity: 4000 fpm (20.3 m/s)

Maximum Positive Pressure: 6 in. WC (1.5 kPa)

Maximum Negative Pressure: 1 in. WC (0.25 kPa)

Temperature Range: -40°F to +250°F (-40°C to +121°C)

Bend Radius: 1½ x diameter

Available Sizes: 6" - 16"

Standard Lengths: 10ft, 5ft Boxed (LEEDS)

UL Listing UL181 Class 1 Duct

NOTE: This UL Class 1 product has a flame spread rating of not over 25 without evidence of continued progressive combustion and a smoke developed rating of not over 50.

#### Acoustic Properties for Standard and Acoustic Ducts

Straight duct - insertion loss (db) in forward flow conditions for 10 feet length

Model #	Center Frequency (Hz)	125	250	500	1000	2000	4000
T/L-AM8	0 FPM	6	10	25	31	40	27
	2500 FPM	6	11	25	>32	>38	25



A patented outside mechanical lock provides a positive seal and eliminates the need for problematic adhesives. Choose a duct to handle internal operating pressures, provide thermal reliability or meet critical noise criteria levels.

## Fabriflex® Ducting

### Fab 3 (Non-Insulated)

#### Pressure Rated

20" w.g. positive  
10" w.g. neg thru 12" dia.  
5" w.g. neg 14" & 16" dia.  
1" w.g. neg. 18" & 20" dia.

#### Rated Velocity

5500 F.P.M.

#### Core

Trilaminate of Aluminum Foil, Fiberglass and Aluminized Polyester  
Operating Temperature Range: -20°F to +250°F  
Flame/Smoke 25/50 UL 181 Class 1  
Thermal Resistance: R-4.2, R-6.0, R-8.0

### Fab 3T (Insulated)

#### Vapor Barrier Permeance

.10 Perm A.S.T.M E96 Procedure A

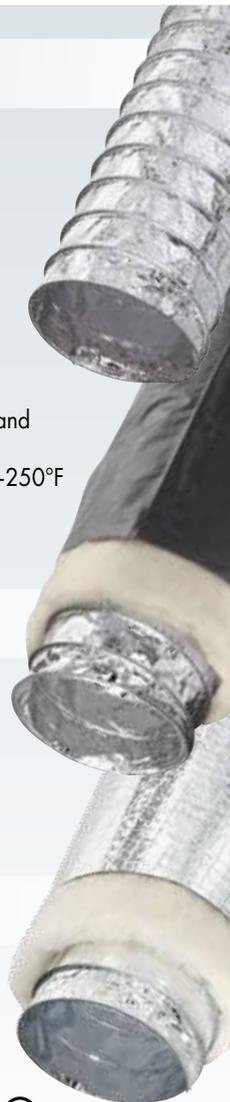
Connector Rated

### Fab 3M (Insulated)

#### Vapor Barrier Permeance

.05 Perm A.S.T.M E96 Procedure A

Duct Rated



## Fabriflex® Ducting

### Fab 4 (Non-Insulated)

#### Pressure Rated

25" w.g. positive  
10" w.g. neg thru 12" dia.  
5" w.g. neg 14" & 16" dia.  
1" w.g. neg. 18" & 20" dia.

#### Rated Velocity

5500 F.P.M.

#### Core

PVC Coated Fiberglass Cloth

### Fab 4T (Insulated)

#### Vapor Barrier Permeance

.10 Perm A.S.T.M Procedure A

Connector Rated

### Fab 4M (Insulated)

#### Vapor Barrier Permeance

.05 Perm A.S.T.M E96 Procedure A

Duct Rated



Flexible ducting connects mixing boxes, light troffers, diffusers, and other terminals to air distribution systems.

## Fabriflex® Low Pressure Ducting

### Fab 5 (Non-Insulated)

#### Pressure Rated

10" w.g. positive  
10" w.g. neg thru 12" dia.  
5" w.g. neg 14" & 16" dia.  
1" w.g. neg. 18" & 20" dia.

#### Rated Velocity

5500 F.P.M.

#### Core

Trilaminate of Aluminum Foil, Fiberglass and Aluminized Polyester  
Operating Temperature Range: -20°F to +250°F  
Flame/Smoke 25/50 UL 181 Class 1  
Thermal Resistance: R-4.2, R-6.0, R-8.0

### Fab 5T (Insulated)

#### Vapor Barrier Permeance

.10 Perm A.S.T.M. Procedure A

Connector Rated

### Fab 5M (Insulated)

#### Vapor Barrier Permeance

.05 Perm A.S.T.M. E96 Procedure A

Duct Rated



## Fabriflex® Acoustical Ducting

### Fab 6T (Insulated)

#### Vapor Barrier Permeance

.10 Perm A.S.T.M Procedure A

Connector Rated

Operating Temperature Range:  
-20°F to +250°F

Flame/Smoke 25/50 UL 181 Class 1  
Thermal Resistance: R-4.2, R-6.0, R-8.0

### Fab 6M (Insulated)

#### Vapor Barrier Permeance

.05 Perm A.S.T.M. E96 Procedure A

Duct Rated

Operating Temperature Range:  
-20°F to +250°F

Flame/Smoke 25/50 UL 181 Class 1  
Thermal Resistance: R-4.2, R-6.0, R-8.0



Flexmaster flexible ducting products are UL Approved as Class 1 Air Duct and have a Flame Spread Rating of not over 25 without evidence of continued progressive combustion and a Smoke Developed Rating of not over 50. Thermal resistance R4.2, R6 and R8.



Our Fabriflex® line of flexible ducting products conforms to NFPA standards 90A and 90B; tested in accordance with UL-S110M or UL-181 standards under — Factory-Made Air Ducts and Air Ducts. Flexible ducts must be installed in accordance with the conditions of their UL/UL Listings.

## Fabriflex® Ducting

### Fab 8 (Non-Insulated)

#### Pressure Rated

10" w.g. positive  
5" w.g. neg thru 16" dia.  
1" w.g. neg. 18" & 20" dia.

#### Rated Velocity

5500 F.P.M.

#### Core

Chlorinated Polyethylene  
(CPE) Fabric  
Operating Temperature Range:  
-20°F to +250°F  
Flame/Smoke 25/50 UL 181 Class 1  
Thermal Resistance: R-4.2, R-6.0, R-8.0

### Fab 8T (Insulated)

#### Vapor Barrier Permeance

.10 Perm A.S.T.M Procedure A

#### Type

Connector

### Fab 8M (Insulated)

#### Vapor Barrier Permeance

.05 Perm A.S.T.M. E96 Procedure A

#### Type

Duct Rated



Unless otherwise designated, the term "flexible air duct" is used for all ducts classified by UL as either flexible air ducts or flexible air connectors.

These provisions apply to ducts used for indoor comfort heating, ventilating, and air conditioning service. They do not apply to service for conveying particulates, corrosive fumes and vapors, high temperature air or contaminated atmosphere. Project specifications must define specific materials, pressure limits, velocity limits, friction rate, thermal conductivity, acoustical ratings, and other pertinent or relevant attributes.

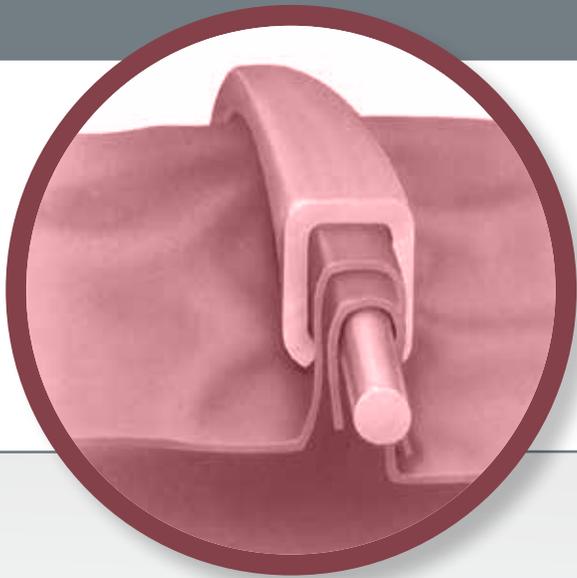
## Insulation Sleeves

Factory assembled fiberglass inner lining with polyethylene or Mylar vapor barrier. Standard 1" insulating blanket offers an R-value of 4.2.

Meets guidelines for anti-bacterial and anti-moisture. Available in diameters ranging from 2" to 24". Thermal Resistance Available: R4.2, R6, R8. Polyethylene or Mylar vapour barrier  
UL Classified as a Registered Component (RC).

Vapour Barrier Permeance  
A.S.T.M E96 Procedure A  
Polyethylene .10 Perm  
Mylar .05 Perm





NovaFlex's patented manufacturing technique, utilizing "mechanical lock construction", allows us to produce specialized products not available from other sources. This process combines unmatched product integrity and durability with the flexibility to quickly meet custom orders, large or small.

Unlike conventional methods using adhesives, our process requires no curing and is more resistant to temperature and environmental extremes. The outside metal helix also contributes to duct strength, durability and scuff-resistance.

Coupled with our complete line of extruded thermoplastic ducts, NovaFlex offers the widest selection of individual products in the industry.

## Vinyl Blower Duct (Fabric Reinforced)

Fabric reinforced vinyl coated blower duct, ideal for fresh air supply. Manufactured with a molecularly bonded wearstrip for scuff resistance. An economical duct for large volume air transfer. This duct is reinforced with a spring steel helix and covered with a urethane wearstrip.

Material: Polyester single fabric coated with vinyl  
Diameters: 6" to 24" I.D. Larger sizes available  
Bend Radius = 12" diam. = 7"  
Weight: 6" I.D. = .7 lbs/ft  
Length 25ft  
Compression Ratio: 10:1  
Temperature Range: -20°F to +180°F



## U-Lok 1500

A more robust, two ply high temperature service duct. Two plies high temperature resistant coated fabric offers a longer service life.

Applications: Hot air extraction, heat shield or compensator, furnace construction, iron and steel works

\*Air velocity should be less than 50m/sec

Material: Alumina coated, textile glass fabric reinforced with fine V4A wire.

Construction: Mechanical bond, galvanized steel helix

Diameters: 4" to 24" I.D. Larger sizes available.

Weight: 6" I.D. = 2.01 lbs/ft.

Length: 25 ft.

Compression Ratio: 4:1

Temperature range: -200°F (-129°C) to +1500°F (816°C). Intermittent.

Colour: Grey



## Flame Retardant TPR

This flame retardant welding fume extraction duct and cable cover is designed specifically for welding environments including sparks and slag.

Material: Flame retardant thermoplastic rubber

Diameters: 2" to 12" / Weight: 6" = .77 lbs/ft

Lengths: 25 ft & 50 ft to 8" diam., 25' - 10" and up

Compression Ratio: 2:1

Temperature range: -40°F to +275°F, continuous, +300°F (intermittent)



## Static Dissipating (Urethane)

Manufactured using inherently dissipating urethane with wire helix to allow for safe grounding when used with metallic fittings. This results in permanent protection against electrostatic discharge. The special molecular bonded construction generates less turbulence. Lightweight and extremely flexible, it will perform under the toughest conditions. Excellent flexibility and maximum abrasion resistance. Superior tear resistance and high tensile strength. Clear construction for visual monitoring.

Temperature range: -65°F to 200°F

Lengths: 25 & 50 ft

Sizes: 2" to 12" (larger diameters available, please contact the factory)

Compression ratio: 2:1





Flexmaster conical spin collars average 36% less static pressure (SP) drop and 45% less total pressure (TP) drop than conventional fish-lock collars.

### **Straight Spin-On Collars (1801 & 1802)**

Assembly comes complete with quality regulator and retractable spring bearing hardware. Available in diameters ranging from 4" to 12"; with or without damper. Save approximately 43% on installation time over conventional fish-lock collars.



### **Long Body Spin-On Collars (1803 & 1804)**

Diameters range from 6" to 20"; with or without damper. 24 gauge construction. Complete with quality regulator and retractable spring bearing hardware. Extra long body allows damper blade to be less obtrusive in linear air stream.

1804 s/o comes with identical 1802 hardware. Designed for use with spiral duct.



### **Conical Spin-In Collars (1701 & 1702)**

Conicals average 36% less Static Pressure (SP) drop and 45% less Total Pressure (TP) drop than conventional spin-on collars. Superior quality and design. Diameters range from 4" to 16"; with or without damper.



### **Spin-On Collars c/w Stand-off Regulator (1806)**

Complete with 8" body, 1/4" square rod, locking quadrant, heavy duty handle, 1" standoff regulator; with or without damper; in diameters ranging from 6" to 20". Blades are specially designed for optimum linear balancing. Recommended for insulated ductwork.



For quality job, use our water-based, mold and mildew resistant, low VOC emitting, UV resistant, High-Velocity Ductbond Duct Sealant.

## Seal-Ons 2000 Series

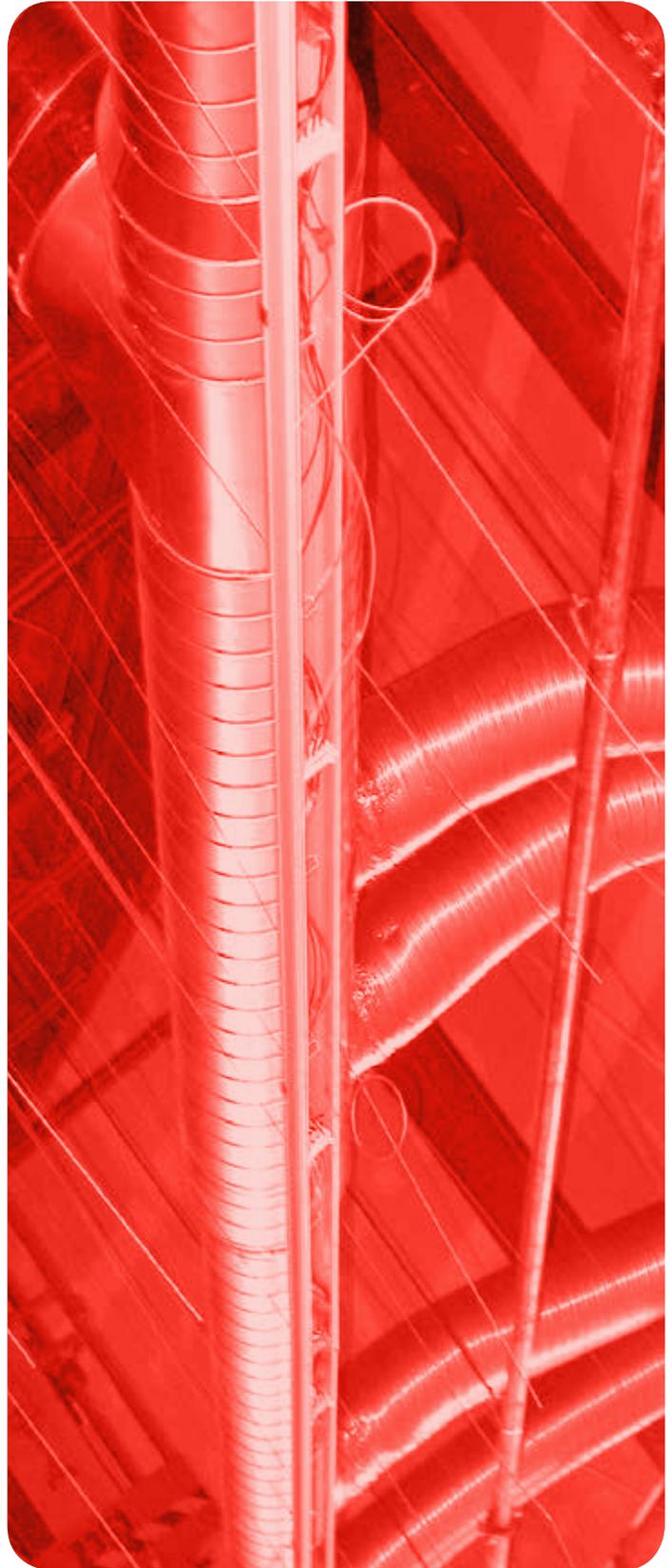
Flexmaster® Series 2000/2001 Seal-On Connectors, manufactured from 26 gauge, or heavier, galvanized steel. Meets ANSI/SMACNA Duct Construction Standards.

Standard Construction  
26-gauge Galvanized Steel Body  
26-gauge Galvanized Steel Damper 1" formed flange, with pressure sensitive polyethylene high density adhesive gasket, provides air-tight connection. Available in sizes from 4" to 16"  
Optional Construction  
24 ga, 22 ga, or 20 ga, aluminum or stainless steel.



## Duct Sealant

Ductbond is a high velocity duct sealant, tested to ASTM G-21, with a Rating = 0 (no fungal growth on surface). This UL Listed duct sealant is tested to ASTM E84 and meets NFPA 90A and 90B 25/50 requirements. UV Rated, Fire Resistant, water based, non toxic, VOC Rated and inhibits mold and mildew growth.





Flexmaster combines various patented processes with numerous unique product characteristics to produce a wide range of revolutionary ducting and accessory products.

### Spiral Duct

Unique lock-formed seam and consistent calibrated tolerances combine to produce a superior quality product in a wide range of gauges to SMACNA Standards. Spiral duct is available in Galvanized, Satin Coat, Aluminum, 304/316 Stainless Steel, in diameters ranging from 3" to 72". Standard length - 10ft. Also available in double wall, insulated.



### Platinum Flow<sup>®</sup>

Innovative self-sealing round duct system incorporates factory installed EPDM double safe gaskets. Designed to exceed SMACNA's duct construction standards. Complete system available in single wall, double wall insulated as well as custom design capabilities.



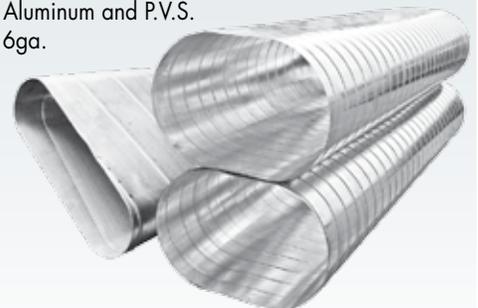
### Fume Vent Lab Smart Laboratory Exhaust System

Features factory expanded pipe and fitting ends. Fusion welded air and watertight pipe seams. Fully welded fittings 4" through 24" diameters. Lab-Smart design. Directional exhaust flow. Self-supporting connections. Field labour savings. Cut to length on site. Constructed from 20 GA Stainless Steel 304L/316L Stainless Steel. Meets SMACNA's RT-6 Standard. Applications include: Anaesthetic gas scavenging systems; hot lab exhaust; bio-safety cabinets; car wash exhaust.



### Flat Oval Duct & Fittings

Flat Oval ductwork is manufactured from a mechanically locked spiral seam that is evenly spaced for those tight places. Duct and fittings are constructed to SMACNA duct standards for high, medium, low and negative pressure classes. Flat Oval is available in slip fit or flange connections along with a variety of material options which include Galvanized, Satin Coat, Stainless Steel, Aluminum and P.V.S. from 24ga to 16ga. Also available in double wall insulated.



Consider registers and in-line silencers if you need to eliminate unwanted fan or duct vibration noise. Flexmaster can supply the Sound Attenuation and Insertion Loss data to assist you in the selection process. Reduce broadband or tonal noise by lowering dB levels and decreasing the overall NC Rating.

## Platinum Flow® – Double Wall

Innovative self-sealing round duct system. Designed to exceed SMACNA's duct construction standards. Complete system available in single wall, double wall insulated as well as custom design capabilities.



## Silencers

Strategically locate these in-line silencers to eliminate noise problems. All silencers come with double-lipped EPDM self-sealing gaskets for easy system integration. Available in diameters from 3" to 50", lengths from 1 ft. to 8 ft., insulation thicknesses from 2" to 6". Insertion loss data and pressure drop information available on request.



## P.V.S. Under-slab/Corrosive Environment Duct

P.V.S. is an engineered Duct system for use as an under-slab duct or in corrosive environments such as natatoriums. P.V.S. is a G90 galvanized sheet bonded on both sides with 4 mil. Polyvinyl Chloride. P.V.S. duct will not rust, chip, crack, peel, corrode, or off gas. Service temperature -40 F to 350F. P.V.S. is non-flammable and UL listed as a Class 1 air duct. Full duct systems are provided in both rectangular and round configurations.



## Registers

Supply or return RGS-3 register with adjustable double deflection blade and volume damper mount directly onto spiral duct. Eliminates unsightly rectangular register taps. No leakage; manufactured from heavy gauge galvanized steel; available in 21 sizes. Performance data available on request. Drum Louvers also available.





## Multi-Cut Hole Cutter

The Multi-Cut Hole Cutter is ideal for cutting large quantities of identical holes ideal for spin-on cut-ins. It can cut perfect holes from 2" to 12" diameter through a wide range of gauges. It comes with a solid cast aluminum body, adjustable nut & pivot pin, and easy to read scale. Replaceable three fluted cutting bits are available.



## Nylon Tensioning Clamps

Complete with 8" body, 1/4" square rod, locking quadrant, heavy duty handle, 1" standoff regulator; with or without damper; in diameters ranging from 6" to 20". Blades are specially designed for optimum linear balancing. Recommended for insulated ductwork.



## Gear Clamps

Constant tension clamps come with a 5/16" hex slotted head and 1/2" wide stainless steel band. Fully adjustable and ideal for making flexible duct connections in diameters ranging from 2" to 24". Offer maximum strength and anti-shear protection. Not recommended for underground applications.



## Bridge Clamps

Stainless steel bridge clamps, in comparison to traditional band clamps provide a superior seal for both interior and exterior helix ducting. The flat band clamps snugly around the material between the raised helix, assuring a tight seal at the venting connection.



The information provided within is for informational purposes only. We have made every effort to ensure the accuracy of the provided information and assume no responsibility for any loss or damage due to errors or omissions or to the use or misuse of any information supplied. It is impossible to test all products under all conditions to which they might be subjected in the field. It is therefore the buyer and/or end users' responsibility to test all products under the conditions that duplicate the service conditions prior to installation. All improvements, all specifications are subject to change without prior notice. It is the buyer and/or end users' responsibility to review our complete Terms and Conditions of Sale located on our web sites at: [www.novaflex.com](http://www.novaflex.com) | [www.z-flex.com](http://www.z-flex.com) | [www.flexmaster.com](http://www.flexmaster.com).

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