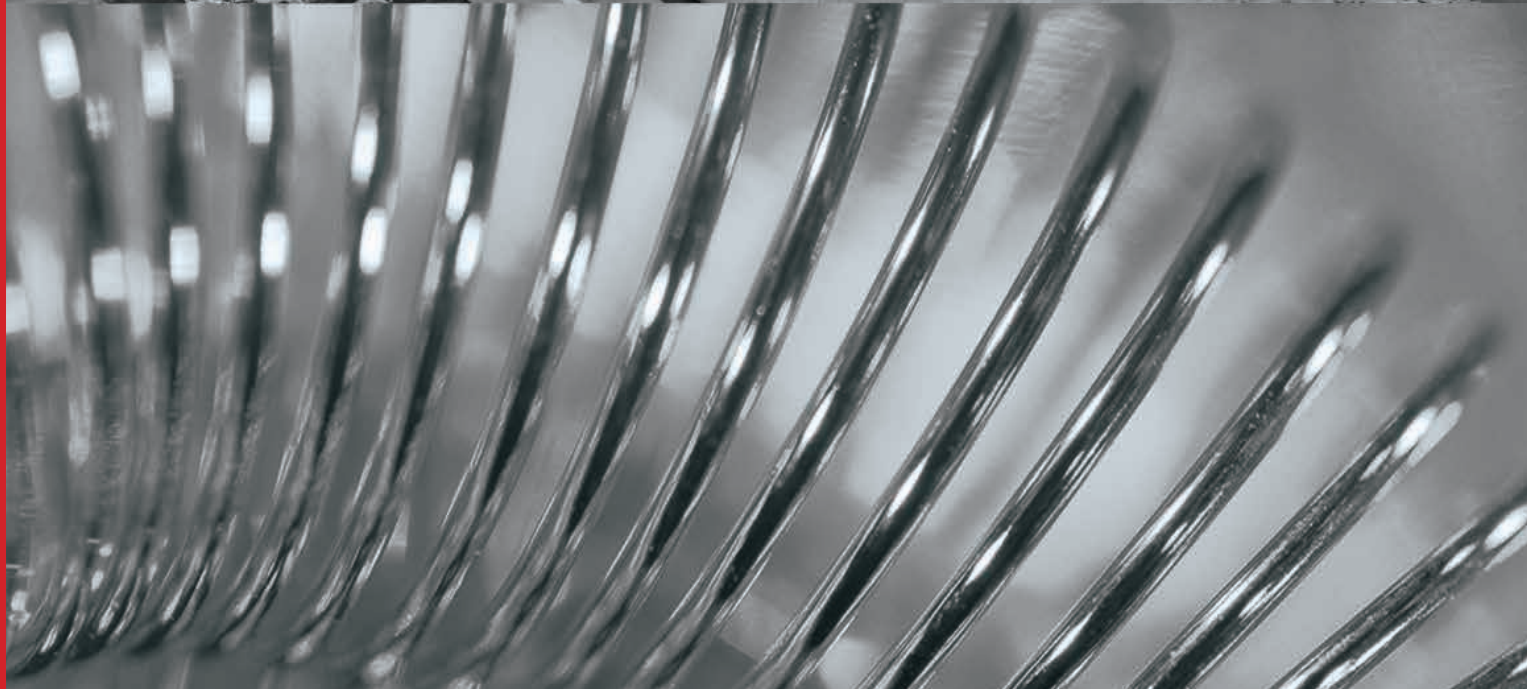




PVS Underground / Corrosive Fume Duct System



Flexmaster PVS

Flexmaster PVS (Polyvinyl Steel) Underground/Corrosive HVAC Duct System has been the industry standard for over 30 years. Specified by architects, engineers, and contractors more than any other underground corrosive fume air delivery system because it offers both the strength of steel and the corrosion resistance of plastic. These attributes make Flexmaster PVS ideal for underground duct systems, corrosive fume exhaust and indoor swimming pool applications.

Significant advantages

- Energy efficiencies are gained as the underground system significantly reduces heat loss compared to ceiling hung duct systems.
- With the duct system installed below ground, more core architectural space is available, offering both aesthetic and environmental benefits.
- Flexmaster PVS duct requires no protection from the corrosive effects of concrete or soil.
- **Flexmaster PVS is the only underground/corrosive fume duct system tested, listed and labelled by ULC to ULC S110 - Air Duct Standard.**

Round Flexmaster PVS Duct Systems are available in diameters from 3 inches to 60 inches, and supplied in lengths from 3 feet to 20 feet. Duct can be cut in the field with regular sheet metal tools, eliminating waste.

Rectangular Flexmaster PVS can also be supplied. Virtually any configuration is possible. Custom Fittings and Hoods made on request.



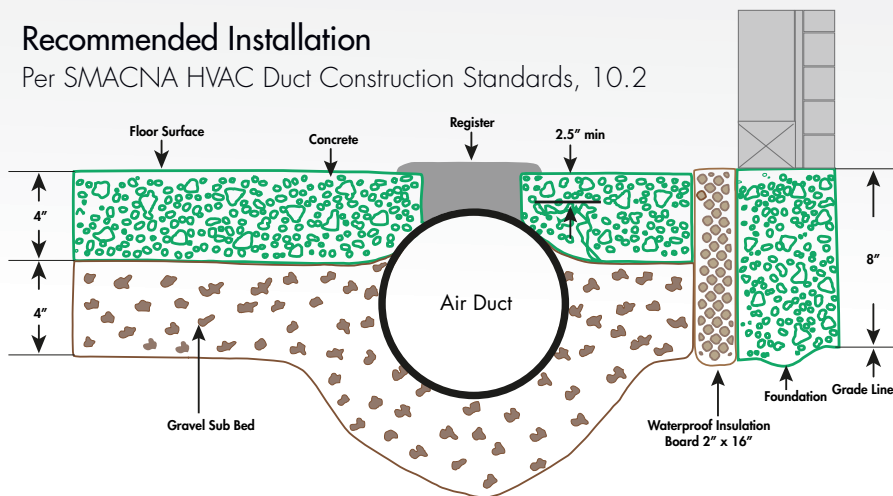
Flexmaster PVS Corrosion Protection

The core material is hot-dipped, galvanized G-90 steel. A special epoxy primer is baked onto both sides of the steel and then a 4 x 4 mil. polyvinyl chloride coating is heat fused onto both sides of the steel. The result is a tough, corrosion resistant surface that with normal use and handling will not crack, chip, peel, or rust. Should the coating be compromised, special Flexmaster PVS touch-up is available to repair the affected area.



Recommended Installation

Per SMACNA HVAC Duct Construction Standards, 10.2



Flexmaster PVS Duct

Characteristics

Flexmaster PVS Duct, under normal handling conditions, will not rust, chip, crack, peel, corrode or produce odors.

- Lightweight but tough enough to walk on.
- High crushing strength.
- Can be stacked outside in all weather conditions without cover.
- Flexmaster PVS needs no additional field applied protection from sand, concrete or plaster.
- Flexmaster PVS has passed 1000's hours of accelerated salt spray, humidity cabinet and water immersion tests with no loss of adhesion or corrosive resistance.

Joints and Sealant

- Flexmaster PVS surfaces to be joined should be clean, dry and grease free. Apply a heavy brush coat of Number 8 Flexmaster PVS Duct Sealer to the exterior plastic of the duct slip joint, then securely interlock duct sections and fasten in place with screws or rivets.
- To finish, apply a heavy brush coat of Number 8 Flexmaster PVS Duct Sealer to the exterior surface of the duct joint or seam covering the heads of lock joint stainless steel screws and or rivets.
- Make sure that all voids are completely filled to ensure a continuous air pressure seal.
- Flexmaster's unique construction method does not pierce or compromise the coating.
- The Flexmaster Connection System guarantees the integrity of the product, speeds up the manufacturing process and reduces installation costs.

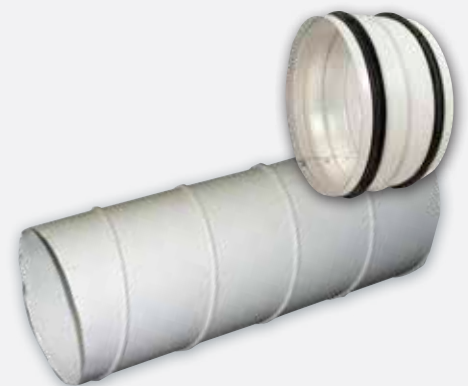
Flexmaster PVS Ducting for Corrosive Fume Environments

- A corrosive resistant material, with the strength of steel and the high corrosion resistance of plastic.
- A unique method of fusing Polyvinyl Chloride to G90 galvanized steel, coating both sides of the sheet providing a virtually everlasting protection against the damaging effect of fumes and vapors from corrosive acid or alkaline chemicals.
- Manufactured in diameters from 3" to 60".
- Strength and durability of steel is unimpaired, providing long life and service free performance.
- A high impact strength material, lightweight, easy to form and easy to handle.
- Sealant material is impervious to corrosive action; easy to use without special preparatory labour.
- Formed in the shop, or cut in the field with standard tools and equipment.
- Withstands temperature variations from -40° F to +200° F.

The Completely Integrated Duct System - offers an excellent solution for both longer service life and lower installation costs

Typical applications include: chemical fume exhaust systems and indoor swimming pools.

Flexmaster PVS is the only product available that is ULC tested, approved and labeled.



Bursting Pressure (PSI) (Seam Failure)

Diam	3"	4"	5"	6"	7"	8"	9"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"
26 Ga.	420	308	238	199	169	145	127	113	93	76	68	-	-	-	-	-	-	-	-
24 Ga.	535	392	303	252	216	186	161	144	118	100	86	75	66	60	-	-	-	-	-
22 Ga.	650	475	369	308	262	224	196	177	145	120	103	91	81	72	66	61	55	51	47

PVS Spiral Weight Chart

Diam	3"	4"	5"	6"	7"	8"	9"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"
Flexmaster PVS	.82	1.1	1.4	1.6	1.9	2.1	3.3	3.6	4.3	5.1	5.8	6.5	7.2	7.9	8.6	14.6	15.7	21.9	23.4	24.8	26.2

Standard gauges shown, actual weights may vary slightly.

PVS Corrugated Spiral

Flexmaster PVS calibrated 4-ply lock-seam corrugated spiral increases the strength of the tubing by approximately 300%. This allows the thickness of the metal to be reduced by as much as 50% over comparable conventional tubes, drastically reducing the weight of the duct and allowing for easier installation.



Longitudinal section of a corrugated tube wall

LOAD LIMITS

#1 Standard

4"Ø - 8" Ø 400 lbs/Linear Ft.
10" Ø - 36" Ø 800 lbs/Linear Ft.

#2 Corrugated

4" Ø - 8" Ø 1200 lbs/Linear Ft.
10" Ø - 36" Ø 2400 lbs/Linear Ft.

The above weights apply when PVS is installed as recommended with general compaction in back filling.

These tables are given only as a courtesy. Flexmaster is not responsible for any results listed on these charts.

THE ORIGINAL
POLY-VINYL COATED GALVANIZED

4 X 4 COATING
"DEMAND THE BEST
ASK FOR P.V.S."
EXCLUSIVE SUPPLIER IN CANADA

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UNDERWRITERS' LABORATORIES OF CANADA
LISTED

ULC
CLASS 1

AIR DUCT
ISSUE NO 1 C

TYPE P.V.S.
MAXIMUM VELOCITY 12.7 M/S
MAX. POSITIVE PRESSURE 12.5 kPa
MAX. NEGATIVE PRESSURE 0.125 kPa

USE JOINT TREATMENT AND METHOD
AS DETAILED IN MANUFACTURER'S
INSTRUCTIONS

Flexmaster Canada Limited
RICHMOND HILL, ONTARIO

**Surface Burning
Characteristics**

CAN/ULC S102
Class 1 Air Duct
Flame spread less
than 25
Smoke developed
less than 50

Engineering Specification

All Under slab ductwork shall be Type Flexmaster PVS 4X4 ULC listed and labeled and supplied by Flexmaster. All fittings shall be factory fabricated to ASHRAE/SMACNA and or SPIDA standards.
On all LAP seams Flexmaster Punch Lok shall be used. On all other joint connections stainless steel rivets or screws must be used. All Flexmaster PVS spiral over 12 inches in diameter shall be corrugated as per Flexmaster standards. All joints are to be factory sealed inside using Flexmaster Number 8 Flexmaster PVS sealer. All outside joints and connections shall be sealed on site.



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