



HOSE MASTER

STRIPWOUND METAL HOSE AND ASSEMBLIES



STRIPWOUND METAL HOSE OVERVIEW

Stripwound metal hose is a rugged product made from a strip of steel that is profiled and continuously wound around a mandrel to form a hose. Hose Master's proprietary manufacturing process yields an extremely consistent and balanced profile that maximizes strength and flexibility. Stripwound hose is used as a guard, exhaust hose, and for the transfer of dry bulk materials.

Types of Stripwound Metal Hose Products

Roughbore Interlocked



The strip is formed with legs that interlock to form a hose that is flexible and ideally suited for conveying dry bulk materials, gas exhaust, or used as a protective cover.

Smoothbore Interlocked



Designed to reduce damage to delicate materials, another steel strip is added inside a roughbore hose to provide a smooth interior surface. Smoothbore hose is also flexible and used for dry bulk conveying.

Packed Interlocked



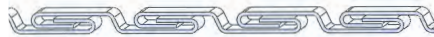
Packing may be added to interlocked hose to minimize leakage through the hose profile. The most effective packings are made from resilient materials such as elastomers and, to a lesser extent, cotton. Harder materials (stainless steel and copper) are also available if requested.

Torque-Resistant Interlocked



Designed for torque resistance and enhanced sealability, this product resists twisting, unwinding, and strip flare-up after cutting. Torque-resistant hose is manufactured in either roughbore or smoothbore constructions.

Floppy Interlocked



Designed to offer flexibility, strength, and crush-resistance, this product is used for casing or armor of small diameter hose and electrical cables.

Floppy Squarelocked



The strip is formed into square shapes that are locked together. Squarelocked is flexible and is primarily used as a protective covering for wires, fiber optic cables, and other hoses.

Roughbore Interlocked Metal Hose (with or without packing)

Interflex (Standard) Page 3

- General-purpose interlocked metal hose
- Suited for air and exhaust applications
- Also used for transferring a variety of solid materials (not intended for products that could be damaged when being conveyed against a rough surface)

T-Rex™ (Torque-Resistant) Page 4

- Patented torque-resistant design
- Enhanced sealability

Smoothbore Interlocked Metal Hose (with or without packing)

Ultraflex (Standard) Page 5

- Constructed from two strips of metal that form an armor and liner
- Smooth, abrasion-resistant liner
- Suited for pneumatic and dry bulk conveying
- Directional arrow on hose indicates flow direction

T-Rex SB™ (Torque-Resistant) Page 6

- Patented torque-resistant design
- Enhanced sealability

Floppy Metal Hose

FloppyGuard™ (Interlocked) Page 7

- Strong
- Crush-resistant
- Suited for casing or armor for small diameter hose and electrical cable

FloppyGuard SQ™ (Squarelocked) Page 8

- Flexible
- Squarelocked construction
- Suited for shielding on electrical wiring and fiber optic cable

Specialty Metal Hose

Poly-Rex Polygonal Hose..... Page 9

Tar & Asphalt (Heavy-Duty Packed Interlocked)Page 10

- Heavy-weight galvanized interlocked metal hose
- Suited for transferring high-temperature, viscous fluids

Assembly Options and Accessories

Fittings Pages 11-12

Assembly Length Page 13

Fabrication Options Page 14

Accessories Page 15

About Hose Master

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INTERFLEX (Standard Roughbore Interlocked)

INTERFLEX (Roughbore) is a high-quality, general-purpose hose, constructed from a single strip of metal that is profiled and locked onto itself. The interlocked, or overlapping, sections of strip are able to slide back and forth, providing the ability to flex.



INTERFLEX Features

- Balanced interlocked construction
- Durability
- Flexibility
- Service life

INTERFLEX Applications

- High-temperature ducting/hot air blower hose
- Engine exhaust
- Loading and unloading of trailers and rail cars
- Grain vacuum equipment
- Bulk transfer of abrasive materials
- Dust collection equipment
- Outer guard over other hoses to prevent damage, kinking, or as protection from blow-out
- Internal liner in corrugated hose to improve flow velocity and abrasion resistance

INTERFLEX Part Numbers IN Thickness Material

Thickness Codes

10 - Extra Light Weight
15 - Light Weight
18 - Medium Weight
20 - Medium Weight (AL only)
25 - Heavy Weight
30 - Extra Heavy Weight

Material Codes

AL - Aluminum
GS - Galvanized Steel
SS - T304 Stainless Steel
16 - T316 Stainless Steel
20 - T201 Stainless Steel

Example: IN10SS is made from T304 stainless steel strip .010" thick.

Packing Options

Packing Type	Features	Maximum Temperature
Low-Temp Elastomeric	Max Press & Vacuum	200° F.
High-Temp Elastomeric	Max Press & Vacuum	500° F.
Low-Temp Fiber	Economical	180° F.
High-Temp Fiber	Elevated Temperature	1000° F.
Metal	Extreme Temperature	800° - 1200° F.

INTERFLEX (Roughbore) Hose Specifications

Inside Dia. (in.)	IN 10 SS		IN 15 ____ (GS,SS,16,20)		IN 18 ____ (GS,SS,16)		IN 25 ____ (GS,SS,20)		IN 30 ____ (GS,SS)		IN 20 AL	
	Weight per Foot (lbs.)	Min. Bend Radius (in.)	Weight per Foot (lbs.)	Min. Bend Radius (in.)	Weight per Foot (lbs.)	Min. Bend Radius (in.)	Weight per Foot (lbs.)	Min. Bend Radius (in.)	Weight per Foot (lbs.)	Min. Bend Radius (in.)	Weight per Foot (lbs.)	Min. Bend Radius (in.)
1.375			0.7	7	0.8	7						
1.5	0.5	6	0.7	6	0.9	6	1.3	7				
2	0.7	8	1.0	8	1.1	8	1.7	9	2.0*	11		
2.5	0.8	10	1.2	10	1.4	10	2.1	11	2.5*	13		
3	1.0	11	1.4	12	1.6	12	2.5	13	2.9	14	0.7	14
3.5	1.1	13	1.6	14	1.9	14	2.8	15	3.4	16	0.8	16
4	1.2	14	1.8	16	2.2	16	3.2	17	3.8	18	0.9	18
4.5	1.4	17	2.0	17	2.4	17	3.6	19	4.3	20	1.0	20
5	1.5	18	2.2	19	2.7	19	4.0	21	4.7	22	1.1	22
6	1.8	21	2.7	23	3.2	23	4.7	25	5.6	26	1.3	26
7			3.1	27	3.7	27	5.5	29	6.5	30	1.5	30
8			3.5	30	4.2	30	6.2	33	7.4	34	1.8	34
9			3.9	34	4.7	34	7.0	37	8.3	38	2.0	38
10			4.4	38	5.2	38	7.7	41	9.2	42	2.2	42
11					5.7	42	8.5	45	10.1	46	2.4	46
12					6.2	45	9.3	49	11.0	50	2.6	50
13					6.7	49	10.0	53	11.9	54	2.8	54
14					7.2	53	10.8	56	12.8	57	3.0	57
15					7.7	56	11.5	60	13.7	61	3.2	61
16					8.2	60	12.3	64	14.6	65	3.4	64

* 2 & 2.5 IN 30 available in Galvanized ONLY • Other diameters are available upon request. • For packed hose add 10% to both weight per foot and minimum bend radius • Minimum bend radius is measured from the centerline of the hose.

T-REX™ (Roughbore) is Hose Master's torque-resistant stripwound metal hose with enhanced sealability. T-Rex™ provides resistance to twisting, unwinding, and metal strip flare-up when cut.



T-REX™ Features

- Torque-resistant
- Leak-resistant
- Same great flexibility as standard interlocked products

T-REX™ Applications

- Dry bulk pneumatic conveying
- Material handling
- Pellet transfer
- Bulk unloading

T-REX™ (Roughbore) Part Numbers

RX [Thickness](#) [Material](#)

[Thickness Codes](#)

- 15 - Light Weight
- 18 - Medium Weight
- 25 - Heavy Weight

[Material Codes](#)

- GS - Galvanized Steel
- SS - T304 Stainless Steel
- 16 - T316 Stainless Steel
- 20 - T201 Stainless Steel

Example: RX15SS is made from T304 stainless steel strip .015" thick.

Packing Options

Packing Type	Features	Maximum Temperature
Low-Temp Elastomeric	Max Press & Vacuum	200° F.
High-Temp Elastomeric	Max Press & Vacuum	500° F.
Low-Temp Fiber	Economical	180° F.
High-Temp Fiber	Elevated Temperature	1000° F.
Metal	Extreme Temperature	800° - 1200° F.

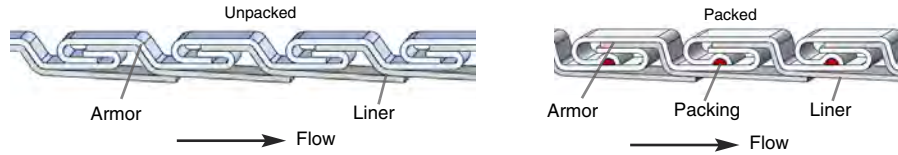
T-REX™ (Roughbore) Hose Specifications

Inside Dia. (in.)	RX 15 _____ (GS,SS,16,20)		RX 18 _____ (GS,SS,16)		RX 25 _____ (GS,SS,20)	
	Weight per Foot (lbs.)	Min. Bend Radius (in.)	Weight per Foot (lbs.)	Min. Bend Radius (in.)	Weight per Foot (lbs.)	Min. Bend Radius (in.)
1.5	0.7	6				
2	1.0	8	1.1	8		
2.5	1.2	10	1.4	10		
3	1.4	12	1.6	12	2.5	13
3.5	1.6	14	1.9	14	2.8	15
4	1.8	16	2.2	16	3.2	17
4.5	2.0	17	2.4	17	3.6	19
5	2.2	19	2.7	19	4.0	21
6	2.7	23	3.2	23	4.7	25
7	3.1	27	3.7	27	5.5	29
8	3.5	30	4.2	30	6.2	33
9	3.9	34	4.7	34	7.0	37
10	4.4	38	5.2	38	7.7	41
11			5.7	42	8.5	45
12			6.2	45	9.3	49
13			6.7	49	10.0	53
14			7.2	53	10.8	56
15			7.7	56	11.5	60
16			8.2	60	12.3	64

Minimum bend radius is measured from the centerline of the hose. • T-Rex is sold in a relaxed state (see page 10 for explanation of "relaxed state"). For packed hose add 10% to both weight per foot and minimum bend radius.

ULTRAFLEX (Standard Smoothbore Interlocked)

ULTRAFLEX (Smoothbore) is constructed from two strips of metal that form a durable armored hose and a smooth, abrasion-resistant metal liner. The liner protects the product being conveyed from damage caused by a rough interior. A directional arrow on the hose indicates flow direction for optimum performance.



ULTRAFLEX Features

- Balanced interlocked construction
- Durability
- Strength
- Flexibility
- Service life
- Smooth interior resists abrasion and material build-up
- Rugged construction is able to handle everything from powder to pebbles

ULTRAFLEX Applications

- Bulk transfer of plastic pellets, grain, wood chips, and other abrasive media
- Loading and unloading trailers and rail cars

ULTRAFLEX Part Numbers

UF <u>Armor Material</u> <u>Armor Thickness</u> <u>Liner Material</u>		
<u>Armor Materials Codes</u>	<u>Armor Thickness Codes</u>	<u>Liner Materials Codes</u>
A - Aluminum	15 - Light Weight	S - Stainless Steel
G - Galvanized Steel	18 - Medium Weight	C - Carbon Steel
S - T304 Stainless Steel	20 - Med. Wt. Aluminum	H - Heavy Weight
6 - T316 Stainless Steel	25 - Heavy Weight	Stainless Steel
2 - T201 Stainless Steel		4 - Magnetic Liner*

Example: UFS15S has an armor made of T304 stainless steel strip .015" thick, and a stainless steel liner.

Packing Options

Packing Type	Features	Maximum Temperature
Low-Temp Elastomeric	Max Press & Vacuum	200° F.
High-Temp Elastomeric	Max Press & Vacuum	500° F.
Low-Temp Fiber	Economical	180° F.
High-Temp Fiber	Elevated Temperature	1000° F.
Metal	Extreme Temperature	800° - 1200° F.

ULTRAFLEX (Smoothbore) Hose Specifications

Inside Dia. (in.)	UF __ 15 __ (G,S,6,2) (S,C,4)		UF __ 18 __ (G,S,6) (S,C,4)		UFS18S25***		UF __ 25 __ (G,S,2) (S,4)		UF __ 25 H** (G,S,2)		UFA20S	
	Weight per Foot (lbs.)	Min. Bend Radius (in.)	Weight per Foot (lbs.)	Min. Bend Radius (in.)	Weight per Foot (lbs.)	Min. Bend Radius (in.)	Weight per Foot (lbs.)	Min. Bend Radius (in.)	Weight per Foot (lbs.)	Min. Bend Radius (in.)	Weight per Foot (lbs.)	Min. Bend Radius (in.)
1.5	1.2	7										
2	1.6	9	1.7	10								
2.5	1.9	11	2.2	12								
3	2.3	13	2.6	14			3.2	18				
3.5	2.6	15	3.0	16			3.7	21				
4	3.0	17	3.4	18	4.1	23	4.2	23	4.4	23	2.1	23
4.5	3.4	19	3.8	21	4.5	26	4.7	26	5.0	26	2.3	26
5	3.7	21	4.2	23	5.0	29	5.2	29	5.5	29	2.6	29
6	4.5	25	5.0	27	6.0	34	6.2	34	6.7	34	3.1	34
7	5.2	29	5.8	32	6.9	40	7.2	40	7.8	40	3.6	40
8	5.9	33	6.6	36	7.9	45	8.2	45	8.9	45	4.1	45
9	6.6	37	7.4	40	8.8	51	9.2	51	10.0	51	4.6	51
10	7.4	40	8.2	45	9.7	56	10.2	56	11.1	56	5.1	56
11			9.0	49	10.7	62	11.2	62				
12			9.8	53	11.7	67	12.2	67				
13			10.6	58	12.7	73	13.2	73				
14			11.4	62	13.6	78	14.2	78				
15			12.2	66	14.6	84	15.2	84				
16			13.1	71	15.5	89	16.2	89				

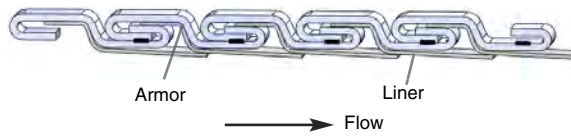
* Magnetic liner available on UF 15 or 18 series only.

** UF25H series is not available with packings.

*** UFS18S25 is constructed with a stainless steel .018 armor and a .025 stainless liner

• Other diameters are available upon request. • For packed hose add 10% to both weight per foot and minimum bend radius. • Minimum bend radius is measured from the centerline of the hose. • Smoothbore hose is sold in a relaxed state (see page 10 for explanation of "relaxed state").

T-REX SB™ is Hose Master's torque-resistant smoothbore metal hose with enhanced sealability. T-Rex SB™ provides resistance to twisting, unwinding, and metal strip flare-up when cut.



T-REX SB™ Features

- Torque-resistant
- Leak-resistant
- Same great flexibility as standard smoothbore product

T-REX SB™ Applications

- Dry bulk pneumatic conveying
- Material handling
- Pellet transfer
- Bulk unloading

T-REX SB™ (Smoothbore) Part Numbers

RX [Armor Material](#) [Armor Thickness](#) [Liner Material](#)

Armor Material Codes

- G - Galvanized Steel
- S - T304 Stainless Steel
- 6 - T316 Stainless Steel
- 2 - T201 Stainless Steel

Armor Thickness Codes

- 15 - Light Wt
- 18 - Medium Wt

Liner Material Codes

- S - Stainless Steel
- C - Carbon Steel
- 4 - Magnetic Liner

Example: RXS15S has an armor made of T304 stainless steel strip .015" thick, and a stainless steel liner

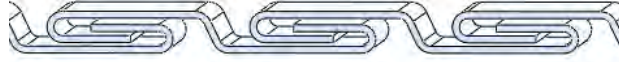
T-REX SB™ (Smoothbore) Hose Specifications

Inside Diameter (in.)	RX _____ 15 _____ (G,S,6,2) (S,C,4)		RX _____ 18 _____ (G,S,6) (S,C,4)		RXS18S25*	
	Weight per Foot (lbs.)	Min. Bend Radius (in.)	Weight per Foot (lbs.)	Min. Bend Radius (in.)	Weight per Foot (lbs.)	Min. Bend Radius (in.)
4	3.0	17	3.4	18	4.1	23
4.5	3.4	19	3.8	21	4.5	26
5	3.7	21	4.2	23	5.0	29
6	4.5	25	5.0	27	6.0	34
7	5.2	29	5.8	32	6.9	40
8	5.9	33	6.6	36	7.9	45
9	6.6	37	7.4	40	8.8	51
10	7.4	40	8.2	45	9.7	56
11			9.0	49	10.7	62
12			9.8	53	11.7	67
13			10.6	58	12.7	73
14			11.4	62	13.6	78
15			12.2	66	14.6	84
16			13.1	71	15.5	89

Minimum bend radius is measured from the centerline of the hose.
 T-Rex is sold in a relaxed state (see page 10 for explanation of "relaxed state").
 *RXS18S25 is constructed with a stainless steel .018 armor and a .025 stainless liner

FLOPPYGUARD™ (Floppy Interlocked)

FLOPPYGUARD™ (Interlocked) is Hose Master's line of floppy interlocked metal hose. Constructed from T304 or T316 stainless steel, this product offers flexibility, strength, durability, and crush resistance. FloppyGuard™ is available in sizes from 3/16" - 12" ID.



FLOPPYGUARD™ Features

- Flexibility
- Abrasion-resistant
- Crush-resistant
- Chemical-resistant
- Ultrasonically cleaned (up to 2" ID)

FLOPPYGUARD™ Applications

- Flexible, durable guard for wire, cable, or tubing
- Casing for fiber optic cables
- Internal and external protection of other hoses
- Air and fume handling, exhaust ducting, and dust collection systems

FLOPPYGUARD™ (Interlocked) Part Numbers SBxx [Material](#) xxxx

[Material Codes](#)

SS - T304 Stainless Steel
16 - T316 Stainless Steel

FLOPPYGUARD™ (Interlocked) Hose Specifications

Nominal Inside Diameter (in.)	Part Number	Standard Material Thickness**	Minimum Bend Radius (in.)	Weight Per Foot (lbs.)
3/16	SB08_0018	.008	0.63	0.05
1/4	SB08_0025	.008	0.90	0.05
5/16	SB08_0031	.008	0.94	0.06
3/8	SB10_0037	.010	1.74	0.11
7/16	SB10_0043	.010	1.90	0.12
1/2	SB12_0050	.012	2.56	0.17
9/16	SB12_0056	.012	2.72	0.19
5/8	SB12_0062	.012	3.12	0.21
3/4	SB12_0075	.012	2.69	0.27
7/8	SB12_0087	.012	2.75	0.29
1	SB12_0100	.012	3.08	0.31
1 1/8	SB12_0112	.012	3.63	0.38
1 1/4	SB12_0125	.012	3.94	0.41
1 3/8	SB12_0137	.012	4.49	0.47
1 1/2	SB12_0150	.012	4.82	0.51
1 5/8	SB12_0162	.012	5.12	0.53
1 3/4	SB12_0175	.012	5.44	0.55
1 7/8	SB12_0187	.012	5.98	0.59
2	SB12_0200	.012	6.08	0.70
3	SB15_0300	.015	12	1.40
4	SB15_0400	.015	16	1.90
5	SB15_0500	.015	19	2.20
6	SB15_0600	.015	23	2.70
7	SB15_0700	.015	27	3.10
8	SB15_0800	.015	30	3.50
10	SB15_1000	.015	38	4.40
12	SB18_1200	.018	45	6.20

• Minimum bend radius is measured from the centerline of the hose. The hose will always meet or surpass this number.

• Fractional sizes and other material gauges may be available. Please consult factory.

* Galvanized Steel is only offered in sizes 3 inch and above.

FLOPPYGUARD SQ™ (Squarelocked) is Hose Master's line of squarelocked stripwound hose. It can be used in a wide variety of applications where the added flexibility of squarelocked hose is required. It is used as shielding on electrical wiring and fiber optic cable. FloppyGuard SQ™ is available in sizes ranging from 5/32" - 1/2" ID.



FLOPPYGUARD SQ™ Features

- Flexibility
- Abrasion-resistant
- Crush-resistant
- Chemical-resistant
- Ultrasonically cleaned

FLOPPYGUARD SQ™ Applications

- Flexible, durable guard for wire, cable, or tubing
- Fiber optic cables
- Internal and external protection of other hoses

FLOPPYGUARD SQ™ (Squarelocked)

FLOPPYGUARD SQ™ is made from T304 stainless steel .010 thick.

FLOPPYGUARD SQ™ (Squarelocked) Hose Specifications

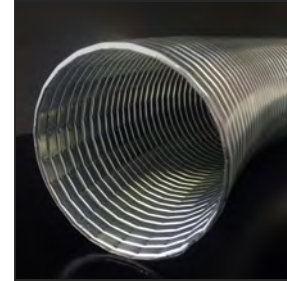
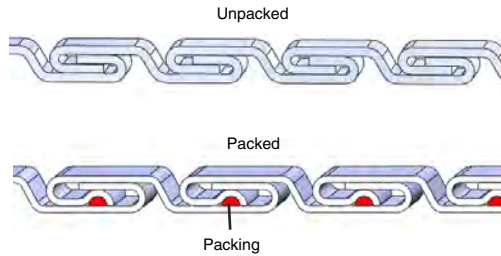
Nominal Inside Diameter (in.)	Part Number	Minimum Bend Radius (in.)	Weight Per Foot (lbs.)
5/32	SQ10SS0015	0.6	0.03
3/16	SQ10SS0018	0.7	0.04
7/32	SQ10SS0021	0.8	0.04
1/4	SQ10SS0025	0.9	0.05
9/32	SQ10SS0038	0.9	0.05
5/16	SQ10SS0031	1.1	0.06
11/32	SQ10SS0034	1.1	0.06
3/8	SQ10SS0037	1.1	0.06
13/32	SQ10SS0040	1.2	0.07
7/16	SQ10SS0043	1.2	0.08
15/32	SQ10SS0047	1.2	0.08
1/2	SQ10SS0050	1.3	0.09

- Minimum bend radius is measured from the centerline of the hose. The hose will always meet or surpass this number.
- Other material gauges may be available. Please consult factory.

POLYGONAL HOSE

POLY-REX HOSE

POLY-REX is Hose Master's line of polygonal interlocked metal hose. Constructed from T304, T316, T201, or Galvanized steel in a variety of different thicknesses, this product offers the most robust resistance to torsional stress, without sacrificing flexibility.



POLY-REX Features

- Highly-resistant to torque
- Durable, balanced interlocked construction
- Bi-directional construction offers error-free connection of hose inlet / outlet to existing system

POLY-REX Applications

- Dry bulk pneumatic conveying
- Material handling
- Pellet transfer
- Bulk unloading

POLY-REX (Roughbore) Part Numbers

PX [Thickness](#) [Material](#)

[Thickness Codes](#)

15 - Light Weight
18 - Medium Weight
25 - Heavy Weight

[Material Codes](#)

GS - Galvanized Steel
SS - T304 Stainless Steel
16 - T316 Stainless Steel
20 - T201 Stainless Steel

Example: PX15SS is made from T304 stainless steel strip .015" thick.

Packing Options*

Packing Type	Features	Maximum Temperature
Low-Temp Elastomeric	Max Press & Vacuum	200° F.
High-Temp Elastomeric	Max Press & Vacuum	500° F.
Low-Temp Fiber	Economical	180° F.
High-Temp Fiber	Elevated Temperature	1000° F.
Metal	Extreme Temperature	800° - 1200° F.

POLY-REX (Roughbore) Hose Specifications

Inside Dia. (in.)	PX 15 _____ (GS,SS,16,20)		PX18 _____ (GS,SS,16)		PX25 _____ (GS,SS,20)	
	Weight per foot (lbs.)	Min. Bend Radius (in.)	Weight per foot (lbs.)	Min. Bend Radius (in.)	Weight per foot (lbs.)	Min. Bend Radius (in.)
4	1.8	16.5	2.2	18	3.2	20
5	2.2	21	2.7	23	4.0	25
6	2.7	25	3.2	26	4.7	29.5
7	3.1	29.5	3.7	31.5	5.5	34.5
8	3.5	33.5	4.2	35.5	6.2	39

*For packed hose add 20% to minimum bend radius

TAR & ASPHALT HOSE

TAR & ASPHALT (Roughbore) is Hose Master's heavy-weight interlocked metal hose. Constructed from a single strip of galvanized steel with Hose Master's proprietary packing, this hose is used for transferring high-temperature, viscous fluids. Tar & Asphalt hose is leak-resistant and handles maximum suction. It is design-tested to 100 psi and has a temperature range of -40° F. to 500° F.



TAR & ASPHALT

Part Numbers TA [Thickness](#) [Material](#)

[Thickness Code](#)

25 - Heavy Weight
30 - Extra Heavy Weight

[Material Code](#)

SS - 201 Stainless Steel
GS - Galvanized Steel

TAR & ASPHALT (Roughbore) Hose Specifications

Inside Diameter (In.)	Minimum Bend Radius (in.)	25-Heavy Weight, 201 Stainless Steel Weight per Foot (lbs.)	30-Extra Heavy Weight, Galvanized Steel Weight per Foot (lbs.)
2	12	1.9	2.2
2.5	15	2.4	2.8
3	17	2.7	3.2
4	22	3.6	4.2

25 - Heavy Weight Strip is only available in 201 Stainless Steel • 30 - Extra Heavy Weight Strip is only available in Galvanized Steel
Other diameters are available upon request. • Minimum bend radius is measured from the centerline of the hose.

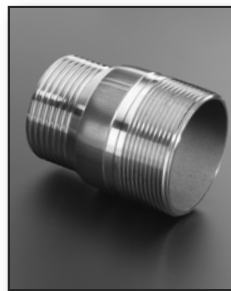
TAR & ASPHALT FITTINGS

Heavy-duty, reusable rigid male or female swivel fittings are available upon request. These specialized fittings are packed onto the hose ends, eliminating the need for welding that could burn the sealant packing within the hose.



Tar & Asphalt Male and Female Connections

Alloys	Malleable Iron
Size Range	1 1/2" thru 3"
Sch.	N/A



Tar & Asphalt Shank Male

Alloys	Malleable Iron
Size Range	1 1/2" thru 4"
Sch.	40

Selecting the proper fittings for an application is largely determined by the mating fittings to which the hose assembly will be attached. Once the mating fittings have been identified, the hose fittings should complement the mating fittings in type, size, and alloy. Even though the selection of hose fittings is determined by the mating fittings, it is a good idea to confirm that the fittings used are appropriate for the application. Ensure that the fittings are chemically compatible with the conditions in which the hose will be installed and used.

The following pages cover a sampling of commonly used fittings for stripwound metal hose. For items not listed, please contact Hose Master's Inside Sales Department.



Male Pipe Nipple

Alloys	T304 & T316 Stainless Steel, Carbon Steel, and Aluminum
Size Range	1.5" - 8"
Sch.	40 & 80



Grooved-End

Alloys	T304 & T316 Stainless Steel, Carbon Steel
Size Range	1.5" - 8"
Sch.	40



Slip-on Flange

Alloys	T304 & T316 Stainless Steel, Carbon Steel
Size Range	1.5" - 12"
Class	150 & 300



Plate Flange

Alloys	T304 & T316 Stainless Steel, Carbon Steel
Size Range	1.5" - 14"
Class	150# drilling



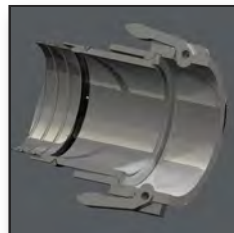
C-Stub with Floating Flange

Alloys	T304 & T316 Stainless Steel
Size Range	1.5" - 10"
Sch.	10



Part A and Part D (Cam-Lock)

Alloys	T316 Stainless Steel, Aluminum
Size Range	1.5" - 10"
Sch.	N/A



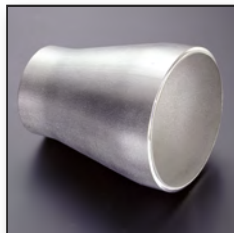
Swivel Part D Coupler (Reusable)

Alloys	Aluminum Body with Stainless Steel Insert
Size Range	4" - 6"
Sch.	N/A



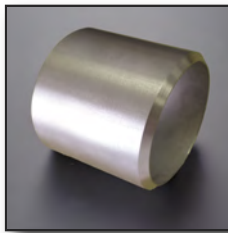
Tube End

Alloys	T304 & T316 Stainless Steel, Carbon Steel, and Aluminum
Size Range	1.5" - 8"
Wall Thick.	Various



Reducer

Alloys	T304 & T316 Stainless Steel, Carbon Steel
Size Range	1.5" - 6"
Sch.	10 & 40 (Carbon Steel)



Beveled Pipe End

Alloys	T304 & T316 Stainless Steel, Carbon Steel, and Aluminum
Size Range	1.5" - 8"
Sch.	Various



NPSM Female or Male

Alloys	T304 Stainless Steel, Carbon Steel
Size Range	1.5" - 6"
Class	N/A



Compensator

Alloys	Urethane
Size Range	3" - 6"
Class	N/A

FLOW-TITE FITTINGS

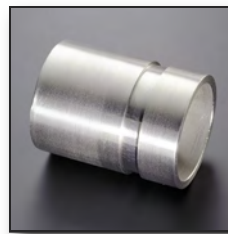
Flow-Tite is an interlocked metal hose assembly that features a patented fitting system designed for leak resistance and smooth product flow. The fittings are internally expanded to provide an extremely smooth transition from the hose to the fitting and incorporate an internal silicone sealant for leak-free, positive pressure, or vacuum service (*refer to page 13 for fabrication description*).

Flow-Tite has a weld-free design that ensures smooth flow while minimizing leakage. Because of their ability to handle higher temperatures (up to 400° F) Flow-Tite assemblies can replace polyurethane and UHMW products. Flow-Tite is available in Ultraflex smoothbore or Interflex roughbore constructions.



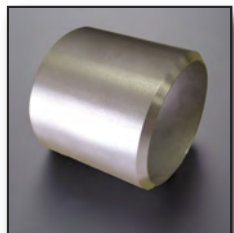
Male Pipe Nipple

Alloys	T304 & T316 Stainless Steel, Carbon Steel, and Aluminum
Size Range	4" - 6"
Sch.	40



Grooved-End

Alloys	T304 & T316 Stainless Steel, Carbon Steel
Size Range	4" - 6"
Sch.	40

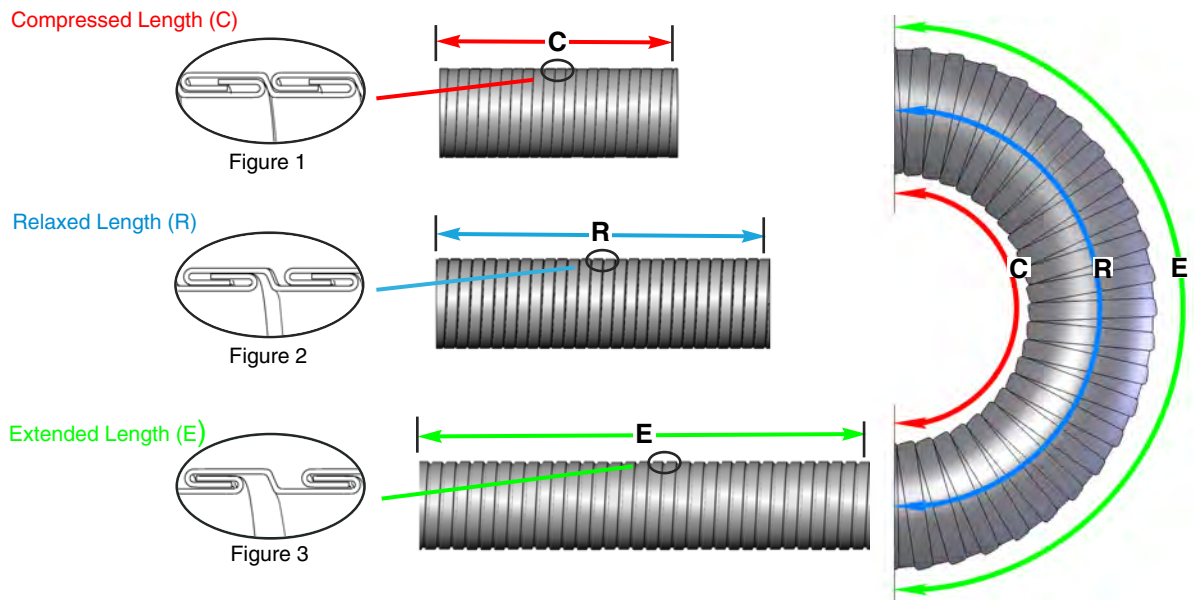


Weld End

Alloys	T304 & T316 Stainless Steel, Carbon Steel, and Aluminum
Size Range	4" - 6"
Sch.	40

Various States of Hose Length

Interlocked metal hose can be Compressed (Figure 1) and Extended (Figure 3), and it is this ability that allows the hose to bend. The Relaxed Length (R) is defined as the average between the Extended Length (E) and the Compressed Length (C) of the hose (Figure 2), and is calculated as $R=1/2 (C+E)$. When interlocked hose is bent as far as it can go, the outside surface of the hose is in the Extended state, while the inside surface is in the Compressed state.



Measuring Various Hose States

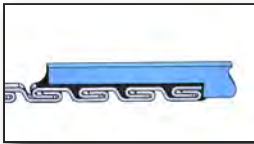
The Relaxation Factor is defined as Extended Length (E) divided by Relaxed Length (R) and is used to facilitate ordering interlocked hose. Hose Master can provide the Relaxation Factor for each of our interlocked hose products.

Interlocked metal hose is generally priced and defined in its extended state. Frequently, the hose designer thinks in terms of the relaxed state. This is especially true when using smoothbore hose, packed hose, and calculating assembly length. In these cases, the purchaser must define the state (relaxed) when placing an order, OR multiply the desired (relaxed) length by its Relaxation Factor to order it as an extended length.

Example: For a hose with a relaxation factor of 1.12

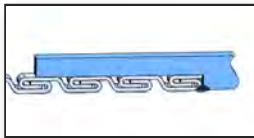
To obtain a 20-foot relaxed length of hose, it can be ordered as 22.4 feet of extended product ($20' \times 1.12$). Additionally, if this extended length of hose weighs 3 lbs. per foot, and costs \$4.00 per foot, then in the relaxed state it will weigh 3.36 lbs. per foot ($3 \text{ lbs. per foot} \times 1.12$) and it will cost \$4.48 per foot ($\$4.00 \text{ per foot} \times 1.12$).

Interlocked metal hose is used in a variety of applications. Just as the hose, fittings, and other assembly parts must be tailored to suit the demands of the service, so must the methods of joining these components. Hose Master has developed specialized fabrication procedures to ensure the integrity and serviceability of metal hose assemblies in even the most extreme applications.



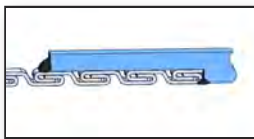
Epoxy

Fittings may be attached to interlocked hose using a two-part epoxy. An epoxied fitting-to-hose connection, made with properly prepared fittings, can be as strong as or stronger than the hose itself at service temperatures up to 200°F. Epoxy is recommended for packed interlocked hose to avoid damaging the packing material. Epoxy also affords a convenient method for field attachment of a variety of fittings to interlocked hose.



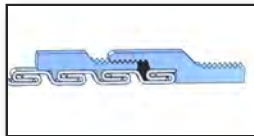
Welding/Brazing

Welding provides the strongest possible connection between the hose and fittings. Whenever possible, the weld is made on the interior hose-to-fitting joint, in order to provide a smooth surface over which the media flows. Welding is generally not recommended for packed interlocked hose, as the packing may be damaged by the high welding temperature.



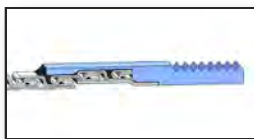
ID/OD Welding

Welding the interior hose-to-fitting joint provides for a smooth transition, preventing product from becoming damaged. Also, welding on the outside of the hose prevents exterior contamination from entering the crevice and provides additional strength.



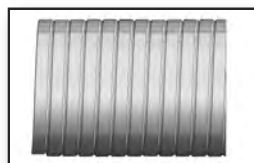
Mechanical Attachment (Tar & Asphalt)

Certain high-temperature applications, like tar and asphalt service, require a fitting that actually threads and locks onto the hose corrugations. A high-temperature packing is used to seal against leakage. These fittings are leak-tight up to 500° F and are easily field attached.



Flow-Tite

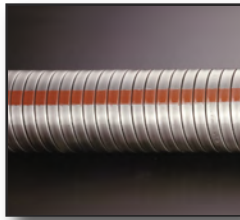
The internally expanded design eliminates the need for welded or epoxied ends, while providing a leak-free, full-flow connection. These fittings are ideal for use with packed stripwound hose in dense-phase pneumatic conveying systems, or whenever a smooth assembly interior is required.



Square Cutting

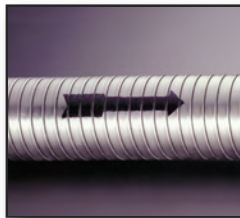
The stripwound profile is helical. When it is cut by traditional methods, the hose end will also be helical, creating a gap between the fitting and the end of the hose. This gap can cause the fittings to separate from the hose during use. Square cutting the hose ends ensures that the hose and the fitting are flush.

Stripwound hose assemblies often require special accessories or components. Accessories may be used to improve performance or to make the assembly easier to use or identify. Other accessories are available upon request, please contact Hose Master's Inside Sales Department for details.



Lay Line

A straight painted line can be applied to interlocked hose along its entire length. The lay line serves to give clear warning to the user if the hose is being torqued or twisted in service. Monitoring torsion or twisting of an assembly can significantly increase the service life of the hose.



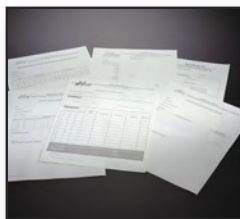
Flow Arrows

Smoothbore interlocked hose is uni-directional. Media flowing in the wrong direction can easily cause damage both to the hose and to abrasion-sensitive media, such as plastic pellets. Flow arrows are painted on all smoothbore hose to indicate the correct flow direction. In specific high-velocity applications, the flow direction may also become a factor in roughbore interlocked hose. Flow arrows can be provided on roughbore hose upon request.



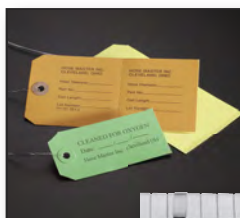
Braid

For elevated working pressures, or for critical safety situations, a stainless steel braid can be installed and welded over a stripwound hose assembly. The braid serves to prevent the hose from overextending, and protects the hose wall from being damaged.



Certifications

Standard written certifications for materials or inspections can be supplied for stripwound hose or assemblies. Certifications of conformance to specific customer requirements and PMI (Positive Material Identification) are also available upon request.



Tagging

A variety of tags (metal, plastic, or cardboard) are readily available to record hose identification, service information, or any customer-specific information.



Testing and Certifications



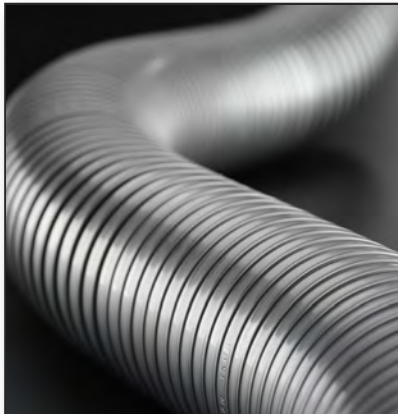
PED
Pressure
Equipment
Directive



ASME IX
Certified Welders



Stripwound Metal Hose and Assemblies



Corrugated Metal Hose and Assemblies



Metal Bellows and Expansion Joints





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