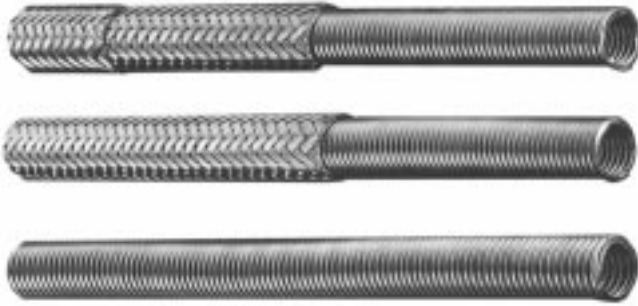


## Corrugated Metal Hose

### Annular Corrugated Stainless Steel Hose



Annular hose is available in T321 and T316L stainless steel.

Metal hose is used when temperature extremes, corrosive media, or permeation preclude the use of rubber, PTFE, or plastic hose. Typical applications are found in steel making, chemical processing, paper manufacturing, petroleum refining, and in numerous other industrial applications.

#### Explanation of Part Numbers:

##### Available

T321 Stainless Steel  
 T316L Stainless Steel

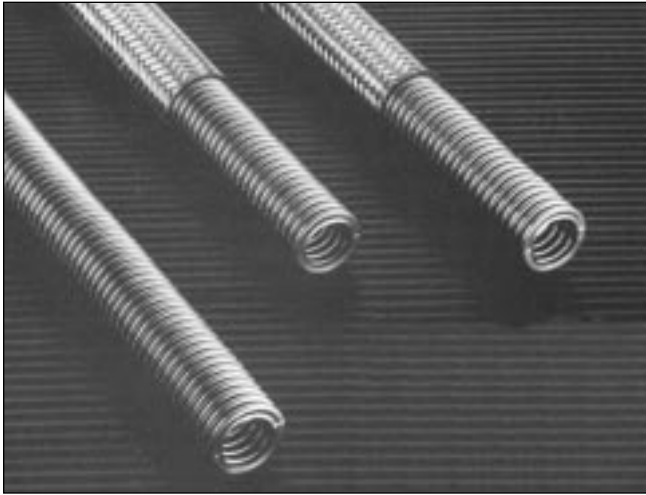
##### Braid Types

Unbraided  
 T304 Single Braided  
 T304 Double Braided

I.D. (In.)	No. of Braids	Max. Working Pressure (psi)	Static Min. Bend Radius (In.)	Dynamic Min. Bend Radius (In.)	Part No.
¼	0	71	0.4	2.3	¼ SS Metal Hose
	1	1,775			
	2	2,485			
⅝	0	42	0.7	2.4	⅝ SS Metal Hose
	1	1,420			
	2	1,988			
¾	0	70	1.2	5.0	¾ SS Metal Hose
	1	1,558			
	2	2,336			
1½	0	70	1.5	5.5	1½ SS Metal Hose
	1	1,186			
	2	1,779			
5⁄8	0	57	1.8	7.0	5⁄8 SS Metal Hose
	1	1,205			
	2	1,808			
¾	0	43	2.1	8.0	¾ SS Metal Hose
	1	898			
	2	1,347			
1	0	43	2.7	9.0	1 SS Metal Hose
	1	718			
	2	1,077			
1¼	0	43	3.1	10.0	1¼ SS Metal Hose
	1	645			
	2	968			
1½	0	28	3.9	11.0	1½ SS Metal Hose
	1	531			
	2	797			
2	0	14	5.1	13.0	2 SS Metal Hose
	1	449			
	2	674			
2½	0	14	6.8	16.0	2½ SS Metal Hose
	1	417			
	2	626			
3	0	14	7.8	18.0	3 SS Metal Hose
	1	346			
	2	519			
4	0	14	9.8	22.0	4 SS Metal Hose
	1	299			
	2	448			
5	0	14	12.8	28.0	5 SS Metal Hose
	1	275			
	2	412			
6	0	11	14.8	32.0	6 SS Metal Hose
	1	210			
	2	315			

## Chemical Transfer Hose

### ChemKing® Chemical Transfer Hose



ChemKing® is the ultimate metal hose for chemical transfer. Made from C-276 alloy, ChemKing® offers unparalleled corrosion resistance. C-276 is one of the most universally corrosion resistant materials available and is used in a range of environments from moderately oxidizing to strongly reducing.<sup>1</sup> ChemKing® provides excellent corrosion resistance to many of the most severe applications found in chemical processing. In fact, there is such a high level of pitting corrosion resistance that it is considered inert to seawater and is used in many seawater, brine, and high chloride environments, even at strong acid pH values.<sup>2</sup> In addition, ChemKing® may be used for hydrogen sulfide found in sour gas wells.

ChemKing® is also extremely flexible. Hose Master's unique hydroforming technology minimizes stress during the corrugating process, resulting in a longer lasting, more flexible chemical or gas transfer hose.

**Part Nos.: AL 6700 (No Braid)**  
**AL 6740 (Single Braid)**  
**AL 6744 (Double Braid)**

<sup>1</sup>Technical Data Blue Sheet, Nickel-Base Alloy Allegheny Ludlum AL-276 (UNS Designation N10276), Allegheny Ludlum, B-170-ED 1989, p.2

<sup>2</sup>Id, p.3

Inside Dia. (In.)	Outside Dia. (In.)	Number of Braids	Static Min. Bend Radius (In.)	Dynamic Min. Bend Radius (In.)	Working Pressure psi
1.0	1.53	1	2.7	10.0	718
	1.59	2			1,077
1.5	2.16	1	3.9	11.0	531
	2.24	2			797
2.0	2.69	1	5.1	13.0	449
	2.77	2			674

**Note:** Braid is T316 stainless steel. Monel braid is offered upon request. When Monel braid is used, stated pressure ratings need to be reduced by a factor of 0.75. Part numbers for Monel Braid are AL 6780 (Single Braid), and AL 6788 (Double Braid).

## Chlorine Transfer Hose

### ChlorSafe® Chlorine Transfer Hose



**Part Nos.: AL 6740 (Single Braid)**  
**AL 6744 (Double Braid)**

Inside Dia. (In.)	Outside Dia. (In.)	Number of Braids*	Min. Dynamic Bend Radius (In.)	Max. Working Pressure	Min. Burst Pressure**
1.0	1.53	1	10.0	375	1,875
1.5	2.16	1	11.0	375	1,875
2.0	2.77	2	13.0	375	1,875

\*Standard Braid is T316 stainless steel. Monel braid is offered upon request (double braid is required for all sizes using Monel braid. Part Number for Monel Braid is AL 6788).

\*\*Chlorine Institute specification pressure ratings represent a 5 to 1 safety factor.

ChlorSafe® is the answer to chlorine transfer problems. Made from C-276 alloy, ChlorSafe® can stand up where other alloys fail.







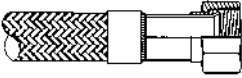

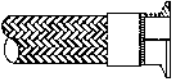
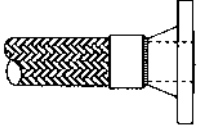
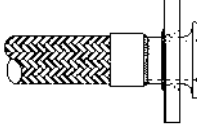
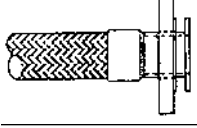
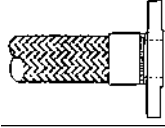
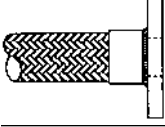

No matter how hard you try, it is nearly impossible to keep chlorine dry. When moisture combines with the chlorine, hydrochloric acid is created. This noxious chemical destroys traditional metal hose. But C-276 is one of the few materials available that resists hydrochloric acid's corrosive properties.

Seam weld integrity is a concern for anyone using chlorine transfer hose. Another unique advantage of C-276 is its resistance to carbide precipitation during welding, maintaining corrosion resistance even in the heat-affected zones of welded joints. This, coupled with Hose Master's proprietary seam weld technology, ensures that ChlorSafe® is truly worry-free.

This unique hydroforming technique minimizes stress during the corrugating process, resulting in a longer lasting, more flexible metal hose. Couple this with the extreme corrosion resistance of C-276 alloy, and see why ChlorSafe® is the best chlorine transfer hose.

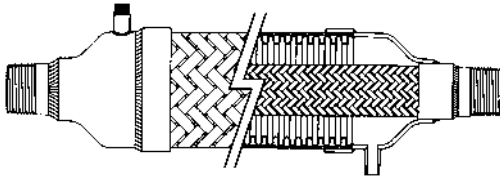
Assemblies are available with C-276 male nipples or C-276 "A" stub ends with 300 lb. ANSI carbon steel flanges. All assemblies are fabricated in accordance to the Chlorine Institute guidelines.

## Fabricated Corrugated Assemblies

	Fitting	Explanation	Alloy
	<b>Male Pipe Nipple</b>	Sch. 40 TOE (Thread One End) pipe nipple with NPT threads. Other threads and schedules available.	SS, CS, Brass
	<b>Hex Male Fitting</b>	NPT thread fitting complete with an integral wrench flat hex.	SS, CS, Brass
	<b>Solid Female Pipe</b>	150# female fitting with NPT internal thread. Heavier ratings available.	SS, CS, Bronze
	<b>Female Union</b>	Ground joint 150# female union with NPT thread. Higher pressure ratings and washer joint unions are available.	SS, MI, FS, Brass
	<b>Weld Nipple</b>	Sch. 40 pipe beveled for butt welding. Sch. 80 and 160 also available.	SS, CS
	<b>Tube Ends</b>	Wide range of wall gauges and bent tube ends available.	SS, CS, Copper
	<b>JIC Female Swivel</b>	Also available in SAE configuration for cryogenic and automotive applications.	SS, CS, Brass
	<b>Victaulic Male Nipple</b>	Sch. 40 pipe grooved for victaulic clamping. Sch. 80 and 160 also available.	SS, CS
	<b>Sanitary (vacuum) Fittings</b>	Available in standard and special configurations.	SS
	<b>Weld Neck Flange</b>	Raised face, ASTM 150# rated. Other ratings and facings available.	SS, FS
	<b>"A" Stub &amp; Lap Joint Flange</b>	Sch. 40 type A stub end with ASTM 150# lap joint flange. Other flange ratings available.	SS, CS
	<b>"C" Stub &amp; Slip-On Flange</b>	Sch. 10 type C stub end with ASTM 150# slip-on flange. Other schedules and flange ratings available.	SS, FS
	<b>Slip-On Flange</b>	ASTM 150# rated raised face slip-on flange. Other ratings and facings available.	SS, FS
	<b>Plate Flange</b>	150# drilling. Variety of thicknesses and drillings available including TTMA specifications.	SS, CS
	<b>Weld Reducer</b>	Available in a wide range of reductions and schedules.	SS, CS

## Special Fabricated Assemblies

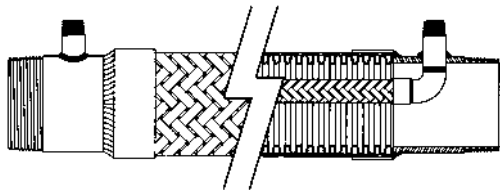
### Jacketed Assembly



Jacketed assemblies are normally used in one of the following applications:

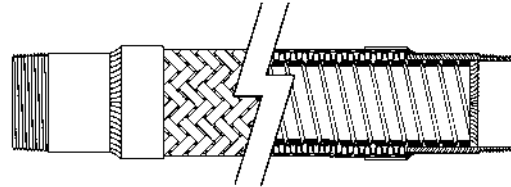
1. As a heated transfer line for those products, such as sulphur, which must be maintained at an elevated temperature in order to flow readily. Steam or hot oil is circulated through the jacket, which in turn heats the product being conveyed in the core hose.
2. As a cryogenic transfer line. Maintaining a high vacuum in the jacket effectively insulates cryogenic liquids being conveyed in the core hose.

### Traced Assembly



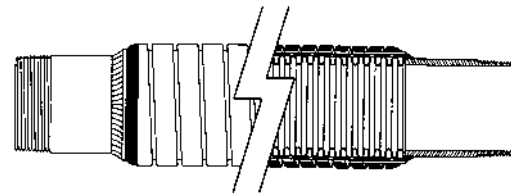
Traced hose assemblies are used when the product being conveyed must be heated in order to flow freely. Steam or hot oil circulated through the inner tracer hose heats the product in order to maintain high flow rates.

### Lined Assembly



Product being conveyed through an unlined corrugated metal hose at high velocity can set up resonant vibration within the hose causing it to prematurely fail. This may be eliminated by adding a liner to the hose.

### Guarded Assembly



Guarded assemblies are used where a corrugated metal hose could easily be damaged by rough handling, abrasion, or flexing past its minimum bend radius.

## Interlocked Metal Hose

### Interflex



*INTERFLEX* is a quality, general purpose interlocked metal hose formed from a single metal strip. Pressure and vacuum capabilities may be easily enhanced by the selection of an appropriate packing material.

Interflex is available in various alloys, metal strip thicknesses

and in diameters from 1½" through 16". Interlocked hose is available in any length up to 100' and can be provided in bulk or fabricated assemblies.

A sampling of some industries and their applications for Interflex hose are: Agriculture, lumber, chemical, petroleum refining, municipalities, tank truck.

### Packings Available for Increased Pressure and Vacuum Capabilities

Packing Type	Features	Max. Temp.
Cotton	Most economical packing	180°F
Elastomeric	Provides maximum pressure and vacuum capability	200°F
Copper	For high temperatures	800°F
High Temp. Fiber	Specially coated high temperature filament	1000°F
Stainless Steel	For extreme temperatures	1200°F

### Explanation of Interflex Part Numbers:

#### Strip Thicknesses

10 – Extra Lightweight  
 15 – Lightweight  
 18 – Medium Weight  
 20 – Light Heavyweight  
 25 – Heavyweight  
 30 – Extra Heavyweight

#### Material Codes

AL – Aluminum  
 GS – Galvanized Steel  
 SS – T304 Stainless Steel  
 16 – T316 Stainless Steel

I.D. (In.)	IN 10 ____ GS, SS		IN 15 ____ GS, SS		IN 18 ____ GS, SS, 16		IN 25 ____ GS, SS		IN 30 ____ GS		IN 20 ____ AL	
	Wt. /ft. (Lbs.)	Min. Bend Radius (In.)	Wt. /ft. (Lbs.)	Min. Bend Radius (In.)	Wt. /ft. (Lbs.)	Min. Bend Radius (In.)	Wt. /ft. (Lbs.)	Min. Bend Radius (In.)	Wt. /ft. (Lbs.)	Min. Bend Radius (In.)	Wt. /ft. (Lbs.)	Min. Bend Radius (In.)
1½	0.5	6	0.7	7	0.9	7	1.3	8	1.6	8	0.4	8
2	0.7	8	1.0	9	1.1	9	1.7	10	2.0	11	0.5	10
2½	0.8	10	1.2	11	1.4	11	2.1	12	2.5	13	0.6	12
3	1.0	11	1.4	12	1.6	13	2.5	15	2.9	15	0.7	15
3½	1.1	13	1.6	14	1.9	15	2.8	17	3.4	18	0.8	17
4	1.2	15	1.8	16	2.2	17	3.2	19	3.8	20	0.9	19
4½	1.4	17	2.0	18	2.4	19	3.6	21	4.3	22	1.0	21
5	1.5	19	2.2	20	2.7	21	4.0	24	4.7	25	1.1	24
6	1.8	22	2.7	24	3.2	25	4.7	28	5.6	29	1.3	28
7			3.1	28	3.7	30	5.5	33	6.5	34	1.5	33
8			3.5	32	4.2	34	6.2	37	7.4	39	1.8	37
9			3.9	35	4.7	38	7.0	42	8.3	43	2.0	42
10			4.4	39	5.2	42	7.7	46	9.2	48	2.2	46
11					5.7	46	8.5	51	10.1	53	2.4	51
12					6.2	50	9.3	55	11.0	57	2.6	55
13					6.7	54	10.0	60	11.9	62	2.8	60
14					7.2	58	10.8	64	12.8	67	3.0	64
15					7.7	62	11.5	69	13.7	71	3.2	69
16					8.2	66	12.3	73	14.6	76	3.4	73

**Notes:** Other diameters are available on request. For packed hose add 10% to both weight per foot and minimum bend radius. Minimum bend radius is measured from the center line of the hose.

Technical data is meant to be used as a guide. If more specific information is required, please contact Summers Rubber Company.

Interlocked Metal Hose — *continued*

## Ultraflex



ULTRAFLEX is a smoothbore hose ideally suited for dry bulk pneumatic conveying. This hose is produced with a durable armor and a highly abrasion-resistant liner.

Ultraflex is available in various alloys, metal strip thicknesses and in diameters from 1½" through 16". Smoothbore hose is available

in any length up to 100' and can be provided in bulk or fabricated assemblies.

A sampling of some industries and their applications for Ultraflex hose are: Brewing, cement, food processing, mining, plastic pellets.

**Packings Available for Increased Pressure and Vacuum Capabilities**

Packing Type	Features	Max. Temp.
Cotton	Most economical packing	180°F
Elastomeric	Provides maximum pressure and vacuum capability	200°F
Copper	For high temperatures	800°F
High Temp. Fiber	Specially coated high temperature filament	1000°F
Stainless Steel	For extreme temperatures	1200°F

**Explanation of Ultraflex Part Numbers**
**Armor Materials**

A – Aluminum  
 G – Galvanized Steel  
 S – T304 Stainless Steel  
 6 – T316 Stainless Steel

**Armor Strip**

15 – Lightweight  
 18 – Medium Weight  
 20 – Light Heavyweight  
 25 – Heavyweight

**Liner Material**

S – T301 Stainless Steel  
 4 – T410 Stainless Steel  
 C – Carbon Steel

I.D. (In.)	UF __ 15 __ G, S / C, S, 4		UF __ 18 __ G, S, 6 / C, S, 4		UF __ 25 __ G, S / C, S		UF A 20 __ A / C, S	
	Wt. /ft. (Lbs.)	Min. Bend Radius (In.)	Wt. /ft. (Lbs.)	Min. Bend Radius (In.)	Wt. /ft. (Lbs.)	Min. Bend Radius (In.)	Wt. /ft. (Lbs.)	Min. Bend Radius (In.)
1½	1.2	7	1.3	8				
2	1.6	9	1.7	10				
2½	1.9	11	2.2	12				
3	2.3	13	2.6	14	3.2	18	1.6	18
3½	2.6	15	3.0	16	3.7	21	1.8	21
4	3.0	17	3.4	18	4.2	23	2.1	23
4½	3.4	19	3.8	21	4.7	26	2.3	26
5	3.7	21	4.2	23	5.2	29	2.6	29
6	4.5	25	5.0	27	6.2	34	3.1	34
7	5.2	29	5.8	32	7.2	40	3.6	40
8	5.9	33	6.6	36	8.2	45	4.1	45
9	6.6	37	7.4	40	9.2	51	4.6	51
10	7.4	40	8.2	45	10.2	56	5.1	56
11			9.0	49	11.2	62	5.6	62
12			9.8	53	12.2	67	6.1	67
13			10.6	58	13.2	73	6.6	73
14			11.4	62	14.2	78	7.1	78
15			12.2	66	15.2	84	7.6	84
16			13.1	71	16.2	89	8.1	89

**Notes:** Other diameters are available on request. For packed hose add 10% to both weight per foot and minimum bend radius. Minimum bend radius is measured from the center line of the hose.

Technical data is meant to be used as a guide. If more specific information is required, please contact Summers Rubber Company.

## Interlocked Metal Hose — *continued*

### Guard and B.O.P.



Guard and BOP are both loose-wound interlocked metal hose formed from a single strip of steel. These products are specifically designed and engineered to be used as rugged protective armor over rubber, plastic, metal, and PTFE hose assemblies.

These hoses are manufactured from

various metals and strip thicknesses, and are available in diameters from 1½" through 16" and in any length.

A sampling of some industries and their applications for Guard and B.O.P. hose are: Marine, oil exploration, steel making, construction, electric cable conduit.

### Tar and Asphalt



Tar and Asphalt hose is a sturdy and flexible interlocked metal hose specifically designed for the transfer of high temperature viscous fluids.

Mechanically attached fittings allow for easy installation at the factory or in the field. Tar and Asphalt hose is available in standard lengths of 60' or 100'

but can be provided in a any specified length up to 100'.

A sampling of some industries which commonly use Tar and Asphalt hose are: Refineries, municipalities, contractors, highway commissions.

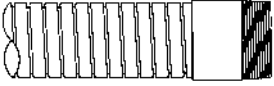
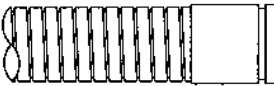
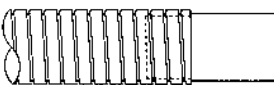
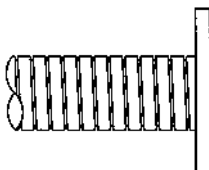
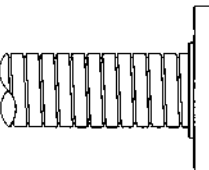
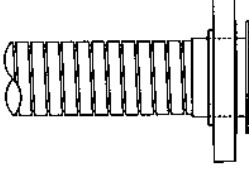

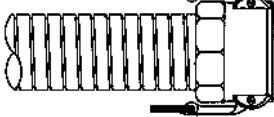

Refer to page 39 for Rubber Tar and Asphalt Hose.

### Interlocked Fabricated Assemblies



Refer to end fitting styles on the next page.

## Fabricated Interlock Assemblies

	Fitting	Explanation	Alloy
	<b>Male Pipe Nipple</b>	Sch. 40 T.O.E. (Thread One End) pipe nipple with NPT threads. Other threads and schedules available.	SS, AL, CS, Brass
	<b>Victaulic Male Nipple</b>	Sch. 40 pipe grooved for victaulic clamping. Sch. 80 and 160 also available.	SS, C
	<b>Tube Ends</b>	Wide range of wall gauges and bent tube ends available.	SS, AL, CS
	<b>Plate Flange</b>	150# drilling. Variety of thicknesses and drillings available including TTMA specifications.	SS, CS
	<b>Slip-On Flange</b>	ASTM 150# rated raised face slip-on flange. Other ratings and facings available.	SS, FS
	<b>"C" Stub and Slip-On</b>	Sch. 10 Type C stub end with ASTM 150# slip-on flange. Other schedules and flange ratings available.	SS, FS
	<b>Part A Cam and Groove Adapter</b>	Available from 1/2" to 12" size.	SS, AL, CS, Bronze
	<b>Part D Cam and Groove Adapter</b>	Available from 1/2" to 12" size.	SS, AL, CS, Bronze
	<b>Compensator</b>	Provides a convenient method of attaching a shank type fitting to interlocked hose. Also helps relieve stress in the fitting to hose connection.	Urethane