



The Right Connection™



Dixon Specialty Hose 2010 Hose Catalog

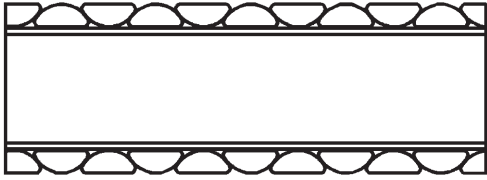
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This catalog is intended as a product offering. It is not intended to be a user or technical manual. Information in this catalog is subject to change without notice. All users and distributors of products sold through this catalog should contact Dixon Specialty Hose with questions of use, compatibilities, coupling procedures and life of product. Dixon's full-time engineering and test staff is always available to recommend uses and to assist distributors and users with any questions.

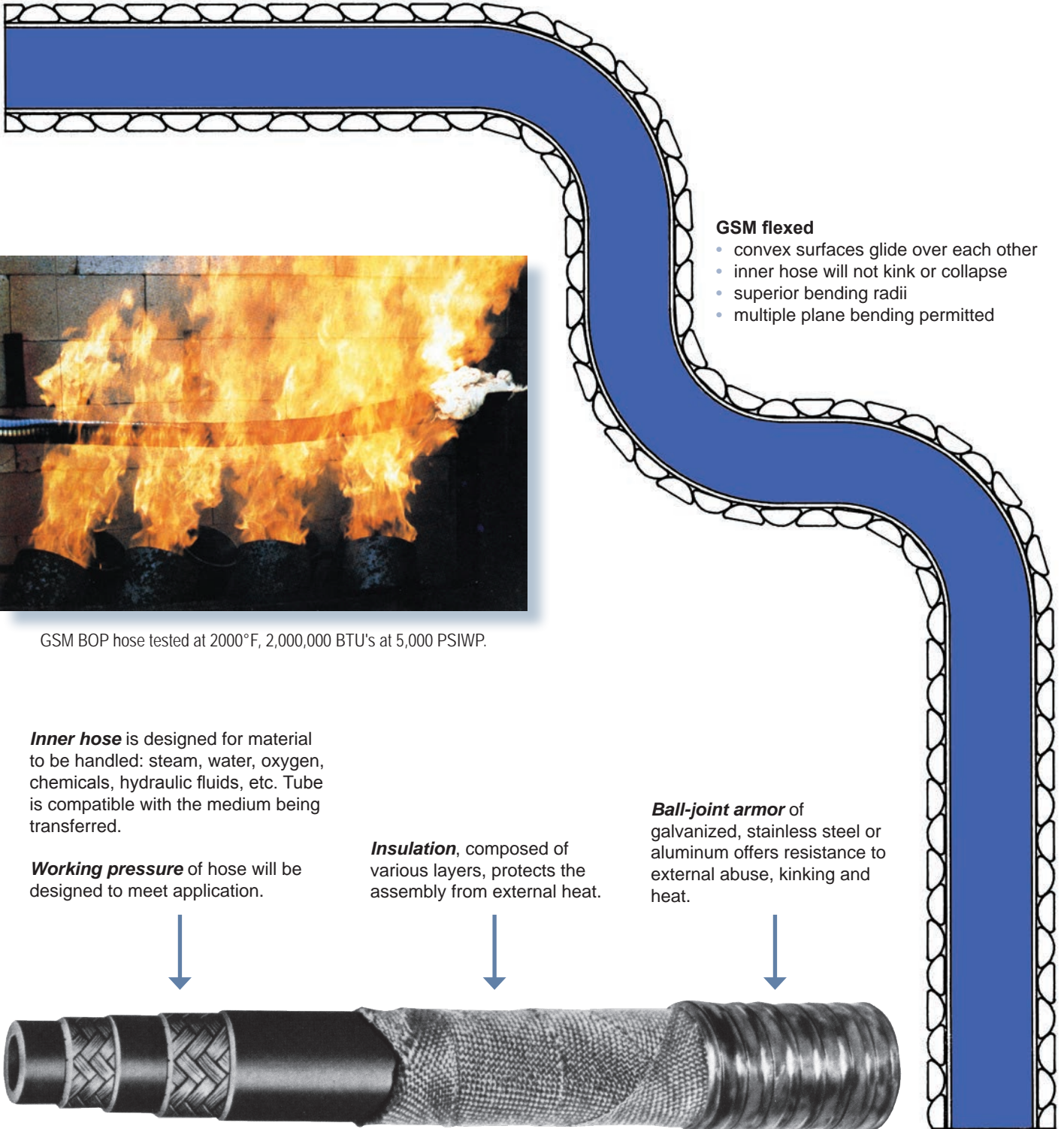
GSM Hose

GSM Hose Design and Critical Risk Factors



GSM hose not flexed

- dual half oval spirals
- galvanized steel (stainless and aluminum available)
- ball-joint, overlapping surfaces
- no interlocking or corrugations to inhibit flexing



GSM flexed

- convex surfaces glide over each other
- inner hose will not kink or collapse
- superior bending radii
- multiple plane bending permitted



GSM BOP hose tested at 2000°F, 2,000,000 BTU's at 5,000 PSIWP.

Inner hose is designed for material to be handled: steam, water, oxygen, chemicals, hydraulic fluids, etc. Tube is compatible with the medium being transferred.

Working pressure of hose will be designed to meet application.

Insulation, composed of various layers, protects the assembly from external heat.

Ball-joint armor of galvanized, stainless steel or aluminum offers resistance to external abuse, kinking and heat.



GSM Hose

Water Hose

Application: Water cooling applications and the transfer of water involving heat and external abrasion

Specification: 350E

Temperature: Temperature rate depends on the specific application, consult factory.

Tube: 3/8" - 3" = nitrile blend / 4" - 10" SBR

Reinforcement: Combination of textile and metal reinforcement, 4" and above have metal helical wire

Cover: 3/8" - 3" = neoprene / 4" - 10" SBR

Special Features: Heat resistant insulation to 1000°F and GSM Ball Joint
Armor available in galvanized steel or stainless steel



Part #	Hose Dimension		Bend Radius		PSI		Approximate Weight / Ft. Lbs.
	ID	Approximate OD	Dynamic	Static	Working	Burst	
350E-06	3/8"	52/64"	2.5"	2"	200	800	1
350E-08	1/2"	1-15/64"	3"	2.5"	500	2000	1.1
350E-12	3/4"	1-22/64"	4"	3"	500	2000	1.4
350E-16	1"	1-42/64"	5"	4"	500	2000	1.8
350E-20	1-1/4"	1-60/64"	7.5"	5"	500	2000	2.4
350E-24	1-1/2"	2-18/64"	9"	8"	500	2000	2.9
350E-32	2"	2-50/64"	12"	10"	500	2000	3.8
350E-40	2-1/2"	3-18/64"	16"	13"	400	1600	4.5
350E-48	3"	4-8/64"	20"	17"	400	1600	6
350E-64	4"	5-36/64"	36"	24"	150	600	11
350E-80	5"	7-50/64"	44"	30"	150	600	18
350E-96	6"	7-45/64"	48"	36"	150	600	20
350E-128	8"	10-7/64"	58"	48"	150	600	27.5
350E-160	10"	12"	72"	60"	150	600	35

Air Hose

Application: Air service where heat and external abrasion are present

Specification: 460E

Temperature: Temperature rate depends on the specific application, consult factory.

Tube: nitrile blend

Reinforcement: Combination of textile and metal reinforcement, 4" and above have metal helical wire

Cover: neoprene

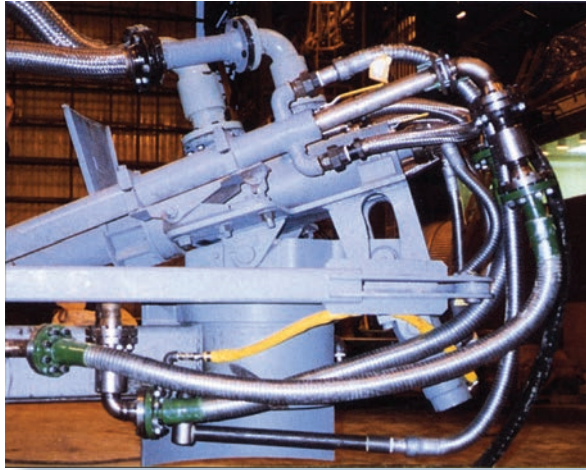
Special Features: Heat resistant insulation to 1000°F and GSM Ball Joint
Armor available in galvanized steel or stainless steel.



Part #	Hose Dimension		Bend Radius		PSI		Approximate Weight / Ft. Lbs.
	ID	Approximate OD	Dynamic	Static	Working	Burst	
460E-06	3/8"	52/64"	2.5"	2"	200	800	1
460E-08	1/2"	1-15/64"	3"	2.5"	500	2000	1.1
460E-12	3/4"	1-22/64"	4"	3"	500	2000	1.4
460E-16	1"	1-42/64"	5"	4"	500	2000	1.8
460E-20	1-1/4"	1-60/64"	7.5"	5"	500	2000	2.4
460E-24	1-1/2"	2-18/64"	9"	8"	500	2000	2.9
460E-32	2"	2-50/64"	12"	10"	500	2000	3.8
460E-40	2-1/2"	3-18/64"	16"	13"	400	1600	4.5
460E-48	3"	4-8/64"	20"	17"	400	1600	6

GSM Hose

Oxygen Hose



Application: Oxygen service where heat and external abrasion are present

Specification: 256E

Temperature: Temperature rate depends on the specific application, consult factory.

Tube: neoprene

Reinforcement: Combination of textile and metal reinforcement, 4" and above have metal helical wire

Cover: neoprene

Special Features: Heat resistant insulation to 1000°F and GSM Ball Joint Armor available in galvanized steel or stainless steel.

Part #	Hose Dimension		Bend Radius		PSI		Approximate Weight / Ft. Lbs.
	ID	Approximate OD	Dynamic	Static	Working	Burst	
256E-06	3/8"	60/64"	3"	2.5"	500	2000	1
256E-08	1/2"	1-17/64"	3.5"	3"	500	2000	1.25
256E-12	3/4"	1-19/64"	4.5"	3.5"	500	2000	1.8
256E-16	1"	1-45/64"	6"	5"	500	2000	2
256E-20	1-1/4"	1-52/64"	8.5"	7"	500	2000	2.8
256E-24	1-1/2"	2-18/64"	10"	9"	500	2000	3
256E-32	2"	2-53/64"	13"	11"	300	1200	4
256E-40	2-1/2"	3-27/64"	16"	13"	300	1200	5
256E-48	3"	3-45/64"	18"	15"	300	1200	6.25
256E-64	4"	5-36/64"	36"	24"	300	1200	11
256E-96	6"	7-1/4"	---	---	300	1200	

BOF Oxygen Lance Hose



Application: For the critical transfer of oxygen to the basic oxygen furnace

Specification: LW65

Temperature: Temperature rate depends on the specific application, consult factory.

Tube: Smooth bore-high quality neoprene

Reinforcement: Combination of textile and metal reinforcement, 4" and above have metal helical wire

Cover: smooth neoprene

Special Features: Heat resistant insulation to 1000°F and GSM Ball Joint Armor available in galvanized steel or stainless steel.

Part #	Hose Dimension		Bend Radius		PSI		Approximate Weight / Ft. Lbs.
	ID	Approximate OD	Dynamic	Static	Working	Burst	
LW65-64	4"	5-36/64"	36"	24"	300	1500	11
LW65-80	5"	6-50/64"	44"	30"	300	1500	18
LW65-96	6"	7-45/64"	52"	36"	300	1500	20
LW65-128	8"	10"	64"	50"	300	1500	27.5

GSM Hose

Natural Gas Hose

Application: Natural gas systems, oxy-fuel burners. Used in applications to convey natural gas in areas of heat and abrasion.

Specification: 524E

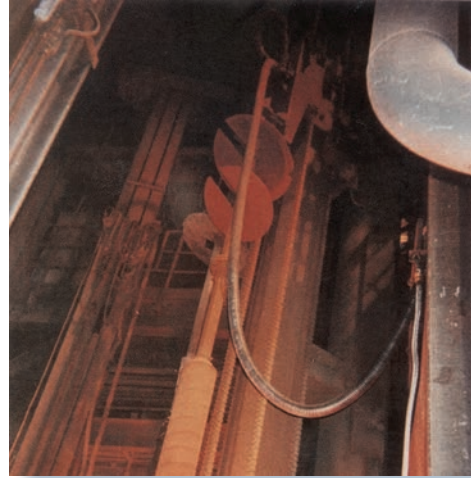
Temperature: Temperature rate depends on the specific application, consult factory.

Tube: neoprene

Reinforcement: Combination of textile and metal reinforcement, 4" and above have metal helical wire

Cover: neoprene

Special Features: Heat resistant insulation to 1000°F and GSM Ball Joint Armor available in galvanized steel or stainless steel.



Part #	Hose Dimension		Bend Radius		PSI		Approximate Weight / Ft. Lbs.
	ID	Approximate OD	Dynamic	Static	Working	Burst	
524E-06	3/8"	60/64"	3"	2.5"	500	2000	1
524E-08	1/2"	1-17/64"	3.5"	3"	500	2000	1.25
524E-12	3/4"	1-19/64"	4.5"	3.5"	500	2000	1.8
524E-16	1"	1-45/64"	6"	5"	500	2000	2
524E-20	1-1/4"	1-52/64"	8.5"	7"	500	2000	2.8
524E-24	1-1/2"	2-18/64"	10"	9"	500	2000	3
524E-32	2"	2-53/64"	13"	11"	300	1200	4
524E-40	2-1/2"	3-27/64"	16"	13"	300	1200	5
524E-48	3"	3-45/64"	18"	15"	300	1200	6.25
524E-64	4"	5-36/64"	36"	24"	300	1200	11

Steam Hose

Application: Steam service used in applications to convey steam in areas of heat and abrasion

Specification: 769E

Temperature: Butyl blend tube rated at 450°F. Temperature rate depends on the specific application, consult factory.

Tube: butyl blend

Reinforcement: wire braid

Cover: EPDM

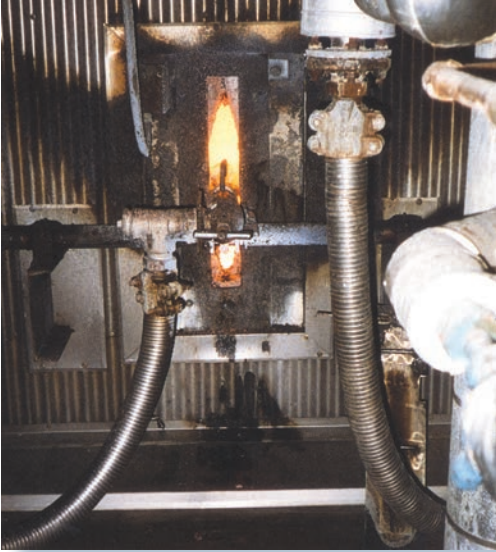
Special Features: Heat resistant insulation to 1000°F and GSM Ball Joint Armor available in galvanized steel or stainless steel.



Part #	Hose Dimension		Bend Radius		PSI		Approximate Weight / Ft. Lbs.
	ID	Approximate OD	Dynamic	Static	Working	Burst	
769E-08	1/2"	1-15/64"	3"	2.5"	250	2500	1.25
769E-12	3/4"	1-34/64"	6"	3"	250	2500	2
769E-16	1"	1-54/64"	8"	5"	250	2500	2.25
769E-20	1-1/4"	2-8/64"	11"	6"	250	2500	3
769E-24	1-1/2"	2-26/64"	13"	7"	250	2500	3.5
769E-32	2"	3"	14"	8"	250	2500	4.5
769E-40	2-1/2"	3-24/64"	16"	10.5"	250	2500	6.25
769E-48	3"	4-9/64"	19"	13"	250	2500	7.5

GSM Hose

Black Liquor Hose



Application: Black Liquor service used in application to convey Black Liquor in areas of heat and abrasion

Specification: 800E

Temperature: Rating at 450°F. Temperature rate depends on the specific application, consult factory.

Tube: butyl blend

Reinforcement: wire braid

Cover: EPDM

Special Features: Heat resistant insulation to 1000°F and GSM Ball Joint Armor available in galvanized steel or stainless steel.

Part #	Hose Dimension		Bend Radius		PSI		Approximate Weight / Ft. Lbs.
	ID	Approximate OD	Dynamic	Static	Working	Burst	
800E-08	½"	1-15/64"	3"	2.5"	250	2500	1.25
800E-12	¾"	1-34/64"	6"	3"	250	2500	2
800E-16	1"	1-54/64"	8"	5"	250	2500	2.25
800E-20	1-¼"	2-8/64"	11"	6"	250	2500	3
800E-24	1-½"	2-26/64"	13"	7"	250	2500	3.5
800E-32	2"	3"	14"	8"	250	2500	4.5
800E-40	2-½"	3-24/64"	16"	10.5"	250	2500	6.25
800E-48	3"	4-9/64"	19"	13"	250	2500	7.5

GSM and Dixon Hose Fittings



male NPT



male NPT with ferrule



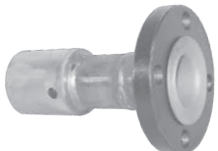
female JIC



union



150# and 300# fixed flange



150# and 300# floating flange



barrel crimp



victaulic grooved



Dixon ground joint



Dixon cam and groove

Type	Carbon Steel	Brass	304 Stainless	316 Stainless	Malleable Iron
male NPT	X	X	X	X	---
male NPT with ferrule	X	X	X	X	X
FJIC	X	---	X	X	---
union	X	---	X	X	X
150# and 300# fixed flange	X	---	X	X	---
150# and 300# floating flange	X	---	X	X	---
victaulic grooved	X	---	X	X	---
Dixon ground joint	X	X	---	X	---
Dixon cam and groove	---	X	---	X	X

GSM Hose

Hydraulic 100R2

Application: Hydraulic service used in application, used in areas of heat and abrasion.

Specification: 100R2XHRGSM

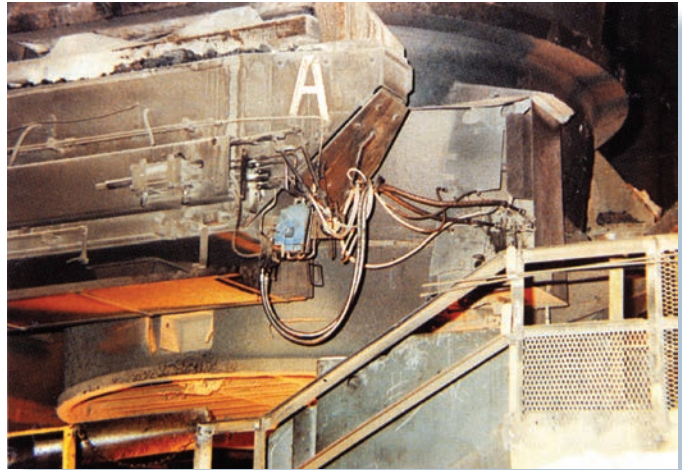
Temperature: Temperature rate depends on the specific application, consult factory.

Tube: synthetic rubber

Reinforcement: 2 - Wire braid

Cover: synthetic rubber

Special Features: Heat resistant insulation rated to 1000°F and GSM Ball Joint Armor available in galvanized steel or stainless steel.



Part #	Hose Dimension ID	Bend Radius Static	PSI Rating	Approximate Weight / Ft. Lbs.
100R2XHR-04	¼"	3"	5800	0.78
100R2XHR-06	3/8"	4"	5000	1.01
100R2XHR-08	½"	6"	4250	1.19
100R2XHR-10	5/8"	7"	2750	1.37
100R2XHR-12	¾"	8.5"	3125	1.64
100R2XHR-16	1"	10"	2500	2.58
100R2XHR-20	1-¼"	14.5"	2250	3.61
100R2XHR-24	1-½"	18"	1800	4
100R2XHR-32	2"	22"	1300	4.97

Hydraulic 100R12

Application: Hydraulic service used in application, used in areas of heat and abrasion.

Specification: 100R12XHRGSM

Temperature: Temperature rate depends on the specific application, consult factory.

Tube: synthetic rubber

Reinforcement: 4 - wire braid

Cover: synthetic rubber

Special Features: Heat resistant insulation to 1000°F and GSM Ball Joint Armor available in galvanized steel or stainless steel.



Part #	Hose Dimension ID	Bend Radius Static	Working PSI	Approximate Weight / Ft. Lbs.
100R12XHR-04	¼"	N/A	N/A	N/A
100R12XHR-06	3/8"	5"	4000	1.03
100R12XHR-08	½"	7"	4000	1.25
100R12XHR-10	5/8"	8"	4000	1.5
100R12XHR-12	¾"	9.5"	4000	1.8
100R12XHR-16	1"	12"	4000	2.84
100R12XHR-20	1-¼"	16.5"	3000	3.7
100R12XHR-24	1-½"	20"	2500	4.35
100R12XHR-32	2"	25"	3000	5.3

GSM Hose

Hydraulic 100R13



Part #	Hose Dimension ID	Bend Radius Static	PSI Rating	Approximate Weight / Ft. Lbs.
100R13XHR-12	¾"	9.5"	5,000	1.05
100R13XHR-16	1"	12"	5,000	1.32
100R13XHR-20	1-¼"	16.2"	5,000	2.46
100R13XHR-24	1-1½"	20"	5,000	3.16
100R13XHR-32	2"	25"	5,000	4.78

Hydraulic Fittings



Type	Carbon Steel	Brass	304 Stainless	316 Stainless	Malleable Iron
male NPT	X	---	X	---	---
FJIC	X	---	X	---	---
FJIC	X	---	X	---	---
FJIC90	X	---	X	---	---
FJIC45	---	---	X	---	---
code 61	X	---	X	---	---
code 61 90	X	---	X	---	---
code 61 45	X	---	X	---	---

Other fittings are available, please consult Dixon Specialty Hose for additional information.

Why Choose Dixon Specialty Hose for Metal, PTFE, or GSM?



DSH Metal Hose

When the load of pressure, temperature, media, or environment exceed the limitations of a rubber or PTFE lined transfer hose, Dixon Specialty Hose (DSH) can assist in the careful selection of the correct flexible metal hose product for your application. Flexible metal hose is often employed to achieve liberal flexibility while accommodating high operating pressures (in some cases beyond 4,000 psi) or a range of design temperatures from cryogenics to 1,500°F. The metal hose lining commonly known as the carrier and its reinforcing braids are available in T321, T316L, or T304 stainless steel. For the transfer of more aggressive chemicals, DSH offers corrugated metal hoses of Monel, Hastelloy, Inconel, and Bronze.

Dixon Specialty metal hoses are manufactured in accordance with ISO 10380, Type 1. All DSH completed assemblies are fabricated by experienced professionally trained, ASME certified welders, ensuring utmost safety and expert workmanship matched by few in the industry. Following its fabrication, every DSH metal hose is closely inspected, leak tested and properly packaged for shipment.

Turn to Dixon, the Right Connection, to offer the right solution for your metal hose requirements. Please refer to pages 11-15 for more information.



DSH PTFE Hose

Dixon Specialty Hose (DSH) is the Right Connection for PTFE bulk hose and fittings, as well as custom fabricated assemblies ranging in ID size from dash 3 nominal bore through Dash 20 and True Bore convoluted from ¼" to 4". DSH PTFE [polytetrafluoroethylene] hose is suitable for conveying a variety of liquid chemicals, food products, oils, fuels, and steam. Whether non-conductive [white] or conductive [black] PTFE hose maintains exceptional flexibility, as the unique liner is most forgiving in continuous movement installations. Reinforced with stainless steel braiding, DSH open pitch convoluted products accommodate a range of pressures from full vacuum to 1,500 psi and design temperatures from -65° F through 450° F. All nominal hoses, also stainless steel braided, are manufactured in accordance with the SAE 100R14 standard.

Each DSH made assembly is fabricated by professionally trained hose technicians to ensure that safety and expert workmanship are never compromised. Following fabrication in Chestertown, MD or Houston, TX, every DSH PTFE hose is carefully inspected, leak tested and properly packaged prior to dispatch.

Turn to Dixon, the Right Connection, to offer the right solution for your PTFE hose requirements. Please refer to pages 16-20 for more information.



DSH GSM Hose

For nearly a century, GSM hose has been the product by which all other flexible armored hoses are measured. Whether carrying 22,000 SCFM of pure oxygen in an environment of extreme heat and pressure during the production of steel, or protecting a high pressure, rotary hose on a drilling rig, GSM remains the best choice for durability, safety and efficiency. Dixon Specialty Hose can assist in the careful selection of the correct GSM product to meet the rigors of nearly any hose application. Manufactured in Chestertown, MD in sizes ranging from ¼" through 10" bore and lengths to 100 ft., GSM protects internal hoses of rubber, all stainless steel or even PTFE. Each assembly is wrapped with multiple layers of insulation, resistant to 1,000°F, and then topped with the unique GSM Ball Joint Armor of either carbon steel or stainless steel.

GSM's distinctive half round ball joint design allows for multiple plane movements, and is virtually impossible to kink, creating the most forgiving flexible hose product available. All finished hoses are assembled by expertly trained factory professionals. Dixon Specialty Hose can couple, test, clean and certify to a multitude of special requirements. All hose assemblies are closely inspected, measured and verified for the intended service prior to crating and shipment.

Turn to Dixon, the Right Connection, to offer the proper solution to any extreme hose application. Please refer to pages 3-9 for more information.

Metal Hose

DA0, DA1, DA2 & GAM

Application: Used in high heat application where stainless steel is desired due to media transfer.

Reinforcement: single or double braid are available in 304 and 316L stainless steel

Specification: ISO 10380

Cover: 304 stainless steel or aluminum available

Temperature: 1500°F, see temperature adjustment factors on pg. 27

Special Features: Medium weight, medium flexibility, annular, standard pitch

Carrier: 321 stainless steel and 316L stainless steel are available

Part #	Hose Dimension			Bend Radius		PSI @70°F		Approximate Weight / Ft. Lbs.	GAM APROX WEIGHT /FT
	ID	# Braids	OD	Dynamic	Static	Working	Burst		
DA0-04S or R	¼"	0	0.48	5	1	180	-	0.09	---
DA1-04S or R		1	0.57			2,116	10,250	0.17	---
DA2-04S or R		2	0.64			3,125	12,500	0.26	---
DA0-06S or R	3/8"	0	0.63	5.5	1.25	100	-	0.13	0.19
DA1-06S or R		1	0.74			1,501	6,004	0.25	0.31
DA2-06S or R		2	0.81			2,401	9,604	0.36	0.42
DA0-08S or R	½"	0	0.82	6	1.5	80	-	0.23	0.83
DA1-08S or R		1	0.89			1,075	4,301	0.34	0.94
DA2-08S or R		2	0.96			1,720	6,880	0.46	1.06
DA0-12S or R	¾"	0	1.21	8	2.25	70	-	0.39	1.35
DA1-12S or R		1	1.28			792	3,168	0.59	1.55
DA2-12S or R		2	1.35			1,267	5,069	0.79	1.75
DA0-16S or R	1"	0	1.51	9	2.75	40	-	0.53	2.18
DA1-16S or R		1	1.58			571	2,285	0.75	2.4
DA2-16S or R		2	1.65			914	3,654	0.98	2.63
DA0-20S or R	1¼"	0	1.85	10.5	3.5	25	-	0.76	2.8
DA1-20S or R		1	1.93			531	2,125	1.07	3.11
DA2-20S or R		2	2.02			850	3,398	1.37	3.41
DA0-24S or R	1½"	0	2.19	12	4	20	-	0.84	3.19
DA1-24S or R		1	2.28			472	1,887	1.23	3.58
DA2-24S or R		2	2.37			755	3,021	1.63	3.98
DA0-32S or R	2"	0	2.6	15	5	15	-	0.9	3.89
DA1-32S or R		1	2.72			516	2,064	1.52	4.51
DA2-32S or R		2	2.84			826	3,302	2.14	5.13
DA0-40S or R	2½"	0	3.23	20	8	12	-	1.16	4.84
DA1-40S or R		1	3.33			387	1,548	1.86	5.54
DA2-40S or R		2	3.43			619	2,477	2.56	6.24
DA0-48S or R	3"	0	3.78	22	9	10	-	1.21	5.65
DA1-48S or R		1	3.88			316	1,264	2	6.44
DA2-48S or R		2	3.98			506	2,022	2.8	7.24
DA0-64S or R	4"	0	4.85	27	13	8	-	1.69	11.97
DA1-64S or R		1	4.98			232	927	2.68	12.96
DA2-64S or R		2	5.1			371	1,485	3.68	13.96
DA0-80S or R	5"	0	5.9	31	18	6	-	2.5	13.64
DA1-80S or R		1	6.03			191	764	3.75	14.89
DA2-80S or R		2	6.15			306	1,222	5	16.14
DA0-96S or R	6"	0	6.87	36	19	5	-	3.47	16.28
DA1-96S or R		1	7.1			165	660	4.75	17.56
DA2-96S or R		2	7.33			264	1,056	6.04	18.85
DA0-128S or R	8"	0	9.09	40	20	6	-	5.56	17.9
DA1-128S or R		1	9.19			234	934	9.44	21.78
DA2-128S or R		2	9.28			374	1,495	13.36	25.7
DA0-160S or R	10"	0	11.18	50	25	5	-	6.8	19.65
DA1-160S or R		1	11.32			230	918	12.9	25.75
DA2-160S or R		2	11.45			367	1,469	19	31.85
DA0-192S or R	12"	0	13.23	60	30	3	-	9.02	---
DA1-192S or R		1	13.37			161	643	14.83	---
DA2-192S or R		2	13.5			257	1,029	20.64	---
DA0-224S or R	14"	0	14.7	70	35	3	-	14.1	---
DA1-224S or R		1	14.84			119	476	21.7	---
DA2-224S or R		2	14.98			190	760	29.3	---



S = 321 stainless steel hose
R = 316 stainless steel hose

Metal Hose

D80, D81, D82 & GAM

Application: Used in high heat application where stainless steel is desired due to media transfer. This hose has a heavier wall and higher pressure rating than DA series.

Reinforcement: single or double braid are available in 304 and 316L stainless steel

Specification: ISO 10380

Cover: 304 stainless steel or aluminum available

Temperature: 1500°F, see temperature adjustment factors on pg. 27

Special Features: Heavy weight, medium flexibility, annular, close pitch

Tube: 321 stainless steel and 316L stainless steel are available



Part #	Hose Dimension			Bend Radius		PSI @ 70°F		Approximate Weight / Ft. Lbs.	GAM APROX WEIGHT /FT
	ID	# Braids	OD	Dynamic	Static	Working	Burst		
D80-04S or R		0	0.50			180	-	0.09	---
D81-04S or R	¼"	1	0.57	5.00	1.00	2,562	10,250	0.17	---
D82-04S or R		2	0.64			4,099	16,400	0.26	---
D80-06S or R		0	0.67			100	-	0.13	0.19
D81-06S or R	3/8"	1	0.74	5.50	1.25	1,501	6,004	0.25	0.31
D82-06S or R		2	0.81			2,401	9,604	0.36	0.96
D80-08S or R		0	0.82			80	-	0.39	0.99
D81-08S or R	½"	1	0.92	8.00	1.50	2,194	8,777	0.63	1.23
D82-08S or R		2	1.02			3,510	14,040	0.87	1.83
D80-12S or R		0	1.21			70	-	0.48	1.44
D81-12S or R	¾"	1	1.31	8.00	2.00	1,311	5,244	0.79	1.75
D82-12S or R		2	1.41			2,098	8,392	1.1	2.75
D80-16S or R		0	1.50			40	-	0.79	2.44
D81-16S or R	1"	1	1.60	9.00	3.00	1,069	4,276	1.2	2.85
D82-16S or R		2	1.70			1,710	6,840	1.61	3.55
D80-20S or R		0	1.85			33	-	1.02	3.06
D81-20S or R	1¼"	1	1.97	10.00	3.25	1,110	4,443	1.66	3.7
D82-20S or R		2	2.10			1,776	7,040	2.3	4.65
D80-24S or R		0	2.17			20	-	1.36	3.71
D81-24S or R	1½"	1	2.30	10.00	3.25	868	3,472	2.11	4.46
D82-24S or R		2	2.43			1,388	5,552	2.86	5.67
D80-32S or R		0	2.51			15	-	1.6	4.59
D81-32S or R	2"	1	2.64	11.50	5.38	810	3,240	2.56	5.55
D82-32S or R		2	2.76			1,296	5,184	3.52	6.51
D80-40S or R		0	3.23			10	-	2	5.86
D81-40S or R	2½"	1	3.36	24.00	7.00	578	2,312	3.12	6.98
D82-40S or R		2	3.49			925	3,700	3.3	7.16
D80-48S or R		0	3.78			10	-	2.97	7.41
D81-48S or R	3"	1	3.91	28.00	7.50	540	2,160	4.42	8.86
D82-48S or R		2	4.03			864	3,456	5.87	10.31
D80-64S or R		0	4.81			8	-	3.1	13.38
D81-64S or R	4"	1	4.93	40.00	20.00	333	1,332	4.55	14.83
D82-64S or R		2	5.05			533	2,132	6	16.26
D80-96S or R		0	6.87			5	-	3.85	14.99
D81-96S or R	6"	1	7.10	95.00	24.00	266	1,062	6.45	17.59
D82-96S or R		2	7.33			425	1,700	9.05	20.19

S = 321 stainless steel hose
R = 316 stainless steel hose

Metal Hose

D90, D91, D92 & GAM

Application: Used in high heat and pressure application where stainless steel is desired due to media transfer. This hose has a heavier wall and higher pressure rating than D8 series.

Reinforcement: single or double braid are available in 304 and 316L stainless steel

Specification: ISO 10380

Cover: 304 stainless steel or aluminum available

Temperature: 1500°F, see temperature adjustment factors on pg. 27

Special Features: Heavy weight, medium flexibility, annular, standard pitch

Tube: 321 stainless steel and 316L stainless steel are available

Part #	Hose Dimension			Bend Radius		PSI @ 70°F		Approximate Weight / Ft. Lbs.	GAM APROX WEIGHT /FT
	ID	# Braids	OD	Dynamic	Static	Working	Burst		
D91-04S or R	¼"	0	0.50	12.00	6.00	180	-	0.20	---
D92-04S or R		1	0.58			2,754	11,017	0.28	---
D90-04S or R		2	0.64			4,406	17,627	0.36	---
D90-06S or R	3/8"	0	0.67	12.00	6.00	100	-	0.31	0.06
D91-06S or R		1	0.75			1,921	7,682	0.43	0.83
D92-06S or R		2	0.83			3,073	12,291	0.55	1.29
D90-08S or R	½"	0	0.82	14.00	7.00	80	-	0.40	0.60
D91-08S or R		1	0.92			2,194	8,777	0.58	1.48
D92-08S or R		2	1.02			3,510	14,040	0.76	2.00
D90-12S or R	¾"	0	1.22	15.00	7.50	70	-	0.65	0.96
D91-12S or R		1	1.34			1,994	7,980	0.92	1.76
D92-12S or R		2	1.46			3,192	12,769	1.19	2.24
D90-16S or R	1"	0	1.52	16.00	8.00	40	-	1.02	1.65
D91-16S or R		1	1.65			1,599	6,397	1.48	2.29
D92-16S or R		2	1.77			2,558	10,234	1.94	2.67
D90-20S or R	1¼"	0	1.85	18.00	9.00	25	-	1.56	2.04
D91-20S or R		1	1.97			1,317	5,240	2.02	2.56
D92-20S or R		2	2.09			2,107	8,431	2.48	2.88
D90-24S or R	1½"	0	2.19	19.00	9.50	20	-	2.01	2.35
D91-24S or R		1	2.31			1,062	4,247	2.65	2.77
D92-24S or R		2	2.43			1,698	6,795	3.30	3.03
D90-32S or R	2"	0	2.51	24.00	12.00	15	-	2.43	2.99
D91-32S or R		1	2.64			842	3,368	3.17	3.33
D92-32S or R		2	2.77			1,346	5,388	3.91	3.53



Ball Joint
Armour
Cover



S = 321 stainless steel hose
R = 316 stainless steel hose

For high pressure applications please consult factory 888.226.4673.

Metal Hose

GA0, GA1 & GAM

Application: Used in high heat application where stainless steel is desired due to media transfer. GA series is the economic alternative without sacrificing performance.

Tube: 321 stainless steel and 316L stainless steel are available
Reinforcement: single or double braid are available in 304 and 316L stainless steel

Specification: ISO 10380

Cover: 304 stainless steel or aluminum available

Temperature: 1500°F, see temperature adjustment factors on pg. 27

Special Features: light weight, medium flexibility, annular, standard pitch

Part #	Hose Dimension			Bend Radius		PSI @ 70°F		Approximate Weight / Ft. Lbs.	GAM APROX WEIGHT /FT
	ID	# Braids	OD	Dynamic	Static	Working	Burst		
GA0-04S or R	¼"	0	.48	3.9	1.77	57	228	0.0	---
GA1-04S or R		1	.53			1,422	5,688	0.1	---
GA2-04S or R		2				2,134	8,534	0.2	---
GA0-06S or R	3/8"	0	.62	5.9	1.97	57	228	0.1	0.2
GA1-06S or R		1	.67			1,280	5,126	0.2	0.3
GA2-06S or R		2				1,920	7,681	0.3	0.4
GA0-08S or R	½"	0	.69	7.9	2.56	43	171	0.1	0.7
GA1-08S or R		1	.74			1,138	4,551	0.2	0.8
GA2-08S or R		2				1,707	6,827	0.3	0.9
GA0-12S or R	¾"	0	1.04	8.0	2.76	28	114	0.2	1.2
GA1-12S or R		1	1.08			910	3,641	0.4	1.3
GA2-12S or R		2				1,365	5,462	0.6	1.5
GA0-16S or R	1"	0	1.33	9.0	4.09	28	114	0.3	1.9
GA1-16S or R		1	1.39			711	2,845	0.5	2.2
GA2-16S or R		2				1,067	4,267	0.7	2.4
GA0-20S or R	1¼"	0	1.65	10.5	4.61	21	85	0.3	2.3
GA1-20S or R		1	1.72			569	2,276	0.6	2.7
GA2-20S or R		2				853	3,414	0.9	3.0
GA0-24S or R	1½"	0	2.03	11.5	5.98	21	85	0.5	2.8
GA1-24S or R		1	2.09			427	1,707	0.9	3.2
GA2-24S or R		2				640	2,560	1.2	3.6
GA0-32S or R	2"	0		12.5	6.30	14	57	0.6	3.6
GA1-32S or R		1	2.49			398	1,593	1.1	4.1
GA2-32S or R		2				597	2,390	1.6	4.6
GA0-40S or R	2½"	0	3.03	10.0	5.89	14	57	0.8	4.5
GA1-40S or R		1	3.11			341	1,365	1.6	5.3
GA2-40S or R		2				512	2,048	2.4	6.1
GA0-48S or R	3"	0	3.58	24.0	9.09	14	57	1.2	5.6
GA1-48S or R		1	3.66			256	1,024	2.1	6.5
GA2-48S or R		2				384	1,536	2.9	7.4
GA0-64S or R	4"	0	4.63	29.5	9.84	11	46	1.4	11.7
GA1-64S or R		1	4.70			228	910	2.5	12.8
GA2-64S or R		2				341	1,365	3.5	13.8
GA0-80S or R	5"	0	5.87	35.4	12.52	9	34	2.2	13.3
GA1-80S or R		1	5.94			171	683	3.6	14.8
GA2-80S or R		2				256	1,024	5.0	16.2
GA0-96S or R	6"	0	7.01	41.3	13.96	9	34	2.7	15.5
GA1-96S or R		1	7.07			142	569	4.4	17.3
GA2-96S or R		2				213	853	6.2	19.0
GA0-128S or R	8"	0	8.98	46.5	17.95	7	28	5.6	17.9
GA1-128S or R		1	9.07			114	455	9.4	21.8
GA2-128S or R		2				171	683	13.4	13.4

S = 321 stainless steel hose
R = 316 stainless steel hose

Metal Hose Fittings



Dixon adapter cam & groove



Dixon coupler cam & groove



plain nipple



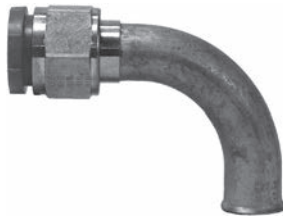
plate flange



slip on flange



lap joint flange



tube end 90° elbow



tube end 45° elbow



tube end straight



stub end



female JIC swivel



beveled pipe



union



victaulic end

Type	Carbon Steel	304 Stainless	316 Stainless
Dixon C & G adapter	X	X	X
Dixon C & G coupler	X	X	X
plain nipple	X	X	X
plate flange	X	X	X
lap joint flange	X	X	X
slip on flange	X	X	X
FJIC	X	---	X
tube end 90° elbow	X	---	X
tube end 45° elbow	X	---	X
tube end straight	X	X	X
stub end	X	X	X
beveled pipe	X	X	X
union	X	X	X
victaulic end	X	X	X

PTFE Hose

Nominal

WSB and BSB White Non-conductive and Black



Application: automotive, food processing, pharmaceutical, chemical and petrochemical

Specification: .030" wall meets specification SAE 100R14

Temperature: continuous -65°F to 450°F, intermittent -100°F to 500°F

See PTFE Temperature Derating chart on page 25.

Tube: smooth bore PTFE

Reinforcement: outside braid

Cover: 304 stainless steel wire braid

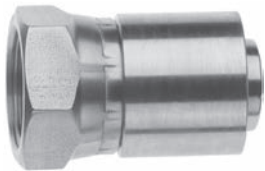
Part #	Hose Dimension			Bend Radius Static	PSI		Approximate Weight / Ft. Lbs.
	Size	ID	OD		Working	Burst	
WSB or BSB-03	3/16	.125	.250	2	3,000	12,000	.047
WSB or BSB-04	¼	.187	.312	2	3,000	12,000	.077
WSB or BSB-05	5/16	.250	.375	3	3,000	12,000	.098
WSB or BSB-06	3/8	.312	.445	4	2,500	10,000	.110
WSB or BSB-06T	7/16	.375	.503	4.5	2,250	9,000	.124
WSB or BSB-08	½	.405	.549	5.2	2,000	8,000	.124
WSB or BSB-10	5/8	.500	.648	6.5	1,500	6,000	.154
WSB or BSB-12	¾	.625	.778	7.7	1,200	4,800	.170
WSB or BSB-12T	7/8	.750	.885	8.2	1,100	4,400	.198
WSB or BSB-16	1	.875	1.030	9	1,000	4,000	.273
WSB or BSB-16T	1 1/8	1.000	1.135	10	900	3,600	.305
WSB or BSB-20T	1¼	1.125	1.290	16	750	2,800	.350

*See smooth bore True ID .030 hose on pg. 17

PTFE Fittings

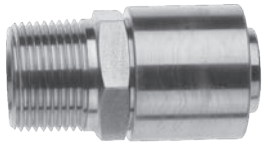
Crimp Collars for all Nominal fittings are included

Female JIC Swivel



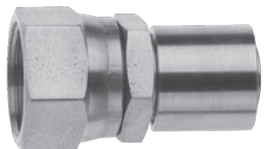
Hose Size	Thread Size	Carbon Steel Part #	304 Stainless Steel Part #	Brass Part #
dash 4	¼"	FJC-04-04	FJS-04-04	FJB-04-04
dash 5	5/16"	FJC-05-05	FJS-05-05	FJB-05-05
dash 6	3/8"	FJC-06-06	FJS-06-06	FJB-06-06
dash 8	½"	FJC-08-08	FJS-08-08	FJB-08-08
dash 10	5/8"	FJC-10-10	FJS-10-10	FJB-10-10
dash 12	¾"	FJC-12-12	FJS-12-12	FJB-12-12
dash 16	1"	FJC-16-16	FJS-16-16	FJB-16-16
dash 20Z	1¼"	FJC-20Z-20	FJS-20Z-20	FJB-20Z-20

Rigid Male Pipe



Hose Size	Thread Size	Carbon Steel Part #	304 Stainless Steel Part #	Brass Part #
dash 4	1/8"	MPC-04-02	MPS-04-02	MPB-04-02
dash 4	¼"	MPC-04-04	MPS-04-04	MPB-04-04
dash 5	¼"	MPC-05-04	MPS-05-04	MPB-05-04
dash 6	¼"	MPC-06-04	MPS-06-04	MPB-06-04
dash 6	3/8"	MPC-06-06	MPS-06-06	MPB-06-06
dash 8	3/8"	MPC-08-06	MPS-08-06	MPB-08-06
dash 8	½"	MPC-08-08	MPS-08-08	MPB-08-08
dash 10	½"	MPC-10-08	MPS-10-08	MPB-10-08
dash 12	¾"	MPC-12-12	MPS-12-12	MPB-12-12
dash 16	1"	MPC-16-16	MPS-16-16	MPB-16-16
dash 20Z	1¼"	MPC-20Z-20	MPS-20Z-20	MPB-20Z-20

Female SAE Swivel



Hose Size	Thread Size	Carbon Steel Part #	Brass Part #
dash 6	3/8"	SAEC-06-06	SAEB-06-06
dash 12	¾"	SAEC-12-12	SAEB-12-12

PTFE Hose

Nominal

Tube End Stub

Hose Size	Thread Size	304 Stainless Steel Part #
dash 3	3/16"	<i>TES-03-03</i>
dash 4	1/4"	<i>TES-04-04</i>
dash 5	5/16"	<i>TES-05-05</i>
dash 6	3/8"	<i>TES-06-06</i>
dash 8	1/2"	<i>TES-08-08</i>
dash 10	5/8"	<i>TES-10-10</i>
dash 12	3/4"	<i>TES-12-12</i>
dash 16	1"	<i>TES-16-16</i>
dash 20Z	1 1/4"	<i>TES-20Z-20</i>



45° FJIC

Hose Size	Thread Size	304 Stainless Steel Part #	Carbon Steel Part #
dash 3	3/16"	<i>FJS45-03-03</i>	<i>FJC45-03-03</i>
dash 4	1/4"	<i>FJS45-04-04</i>	<i>FJC45-04-04</i>
dash 5	5/16"	<i>FJS45-05-05</i>	<i>FJC45-05-05</i>
dash 6	3/8"	<i>FJS45-06-06</i>	<i>FJC45-06-06</i>
dash 8	1/2"	<i>FJS45-08-08</i>	<i>FJC45-08-08</i>
dash 10	5/8"	<i>FJS45-10-10</i>	<i>FJC45-10-10</i>
dash 12	3/4"	<i>FJS45-12-12</i>	<i>FJC45-12-12</i>
dash 16	1"	<i>FJS45-16-16</i>	<i>FJC45-16-16</i>
dash 20Z	1 1/4"	<i>FJS45-20Z-20</i>	<i>FJC45-20Z-20</i>



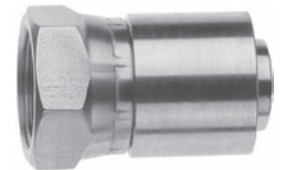
90° FJIC

Hose Size	Thread Size	304 Stainless Steel Part #	Carbon Steel Part #
dash 3	3/16"	<i>FJS90-03-03</i>	<i>FJC90-03-03</i>
dash 4	1/4"	<i>FJS90-04-04</i>	<i>FJC90-04-04</i>
dash 5	5/16"	<i>FJS90-05-05</i>	<i>FJC90-05-05</i>
dash 6	3/8"	<i>FJS90-06-06</i>	<i>FJC90-06-06</i>
dash 8	1/2"	<i>FJS90-08-08</i>	<i>FJC90-08-08</i>
dash 10	5/8"	<i>FJS90-10-10</i>	<i>FJC90-10-10</i>
dash 12	3/4"	<i>FJS90-12-12</i>	<i>FJC90-12-12</i>
dash 16	1"	<i>FJS90-16-16</i>	<i>FJC90-16-16</i>
dash 20Z	1 1/4"	<i>FJS90-20Z-20</i>	<i>FJC90-20Z-20</i>

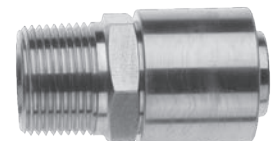


Fittings for XXT Smooth Bore True ID .030 Hose

I. D.	Hose	Carbon Steel FJIC Part #	Carbon Steel MNPT Part #
1/4"	WSB-5	<i>FJC-04T-04</i>	<i>MPC-04T-04</i>
3/8"	WSB-6T	<i>FJC-06T-06</i>	<i>MPC-06T-06</i>
1/2"	WSB-10	<i>FJC-08T-08</i>	<i>MPC-08T-08</i>
3/4"	WSB-12T	<i>FJC-12T-12</i>	<i>MPC-12T-12</i>
1"	WSB-16T	<i>FJC-16T-16</i>	<i>MPC-16T-16</i>



FJIC



MNPT

PTFE Hose

True ID

WOC and BOC White Non-conductive and Black Conductive Convoluted True ID PTFE



Application: automotive, food processing, pharmaceutical, chemical and petrochemical

Specification: .040" wall

Temperature (°F): continuous -65°F to 450°F, intermittent -100°F to 500°F

Tube: smooth bore PTFE

See PTFE Temperature Derating chart on page 25.

Reinforcement: outside braid

Cover: 304 stainless steel wire braid

Special Features: open pitch, low profile corrugations, vacuum formed tube, helical corrugations

Part #	Hose Dimension			Bend Radius Static	PSI		Approximate Weight / Ft. Lbs.	Vacuum (in HG)
	Size	ID	OD		Working	Burst		
WOC or BOC-04	¼"	¼"	0.410	0.75	1500	6000	0.18	29.9
WOC or BOC-06	3/8"	3/8"	0.595	1	1500	6000	0.23	29.9
WOC or BOC-08	½"	½"	0.744	1.5	1600	6400	0.27	29.9
WOC or BOC-10	5/8"	5/8"	.906	1.97	1300	5230	0.33	29.9
WOC or BOC-12	¾"	¾"	1.039	2	1015	4060	0.43	29.9
WOC or BOC-16	1"	1"	1.299	2.5	725	2900	0.63	29.9
WOC or BOC-20	1-¼"	1 ¼"	1.594	3	650	2600	0.75	29.9
WOC or BOC-24	1-½"	1 ½"	1.850	3.75	580	2320	0.88	29.9
WOC or BOC-32	2"	2"	2.402	4.75	522	2088	1.11	29.9
WOC or BOC-48	3"	3"	3.705	12.2	290	1160	1.82	29.9
WOC or BOC-64	4"	4"	4.921	16	220	880	2.10	29.9

WTB and BTB White Non-conductive and Black (Conductive True ID PTFE)



Application: automotive, food processing, pharmaceutical, chemical and petrochemical

Specification: .040" wall

Temperature: continuous -65°F to 450°F, intermittent -100°F to 500°F

Tube: smooth bore, heavy wall .040

Cover: 304 stainless steel wire braid

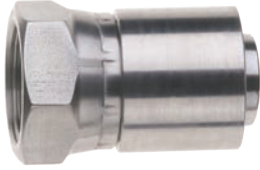
Part #	Hose Dimension			Bend Radius Static	PSI		Approximate Weight / Ft. Lbs.	Vacuum (in HG)
	Size	ID	OD		Working	Burst		
WTB or BTB-04	¼"	1/8"	0.24	1.5	3400	13600	0.05	full
WTB or BTB-06	3/8"	¼"	0.37	2.95	2600	10150	0.08	full
WTB or BTB-08	½"	3/8"	0.505	5	2000	7830	0.13	full
WTB or BTB-10	5/8"	½"	0.632	5.98	1800	6960	0.16	full
WTB or BTB-12	¾"	¾"	.886	7.99	1305	5220	0.22	full
WTB or BTB-16	1"	1"	1.155	12.01	1000	4000	0.34	20.1
WTB or BTB-20	1¼"	1¼" DB	1.2411	13.98	1650	6525	0.36	20.1
WTB or BTB-24	1½"	1½" DB	1.74	15.75	1100	4350	0.43	15.5

PTFE Hose

True ID

PTFE Fittings

Crimp Collars for all True ID fittings are sold separately



Female JIC Swivel

Thread Size	Carbon Steel Part #	316 Stainless Steel Part #
1/4"	<i>FJIC-T04</i>	<i>FJR-T04</i>
3/8"	<i>FJIC-T06</i>	<i>FJR-T06</i>
1/2"	<i>FJC-T08</i>	<i>FJR-T08</i>
3/4"	<i>FJC-T12</i>	<i>FJR-T12</i>
1"	<i>FJC-T16</i>	<i>FJR-T16</i>
1 1/4"	<i>FJC-T20</i>	<i>FJR-T20</i>
1 1/2"	<i>FJC-T24</i>	<i>FJR-T24</i>
2"	<i>FJC-T32</i>	<i>FJR-T32</i>



Rigid Male Pipe

Thread Size	Carbon Steel Part #	316 Stainless Steel Part #
1/4"	<i>MPC-T04</i>	<i>MPR-T04</i>
3/8"	<i>MPC-T06</i>	<i>MPR-T06</i>
1/2"	<i>MPC-T08</i>	<i>MPR-T08</i>
3/4"	<i>MPC-T12</i>	<i>MPR-T12</i>
1"	<i>MPC-T16</i>	<i>MPR-T16</i>
1 1/4"	<i>MPC-T20</i>	<i>MPR-T20</i>
1 1/2"	<i>MPC-T24</i>	<i>MPR-T24</i>
2"	<i>MPC-T32</i>	<i>MPR-T32</i>



Flange Retainer

Hose Size	316 Stainless Steel Part #	316 Stainless Steel PFA Encapsulated Part #
1/2"	<i>FRR-T08</i>	---
3/4"	<i>FRR-T12</i>	<i>FRRE-T12</i>
1"	<i>FRR-T16</i>	<i>FRRE-T16</i>
1 1/4"	<i>FRR-T20</i>	<i>FRRE-T20</i>
1 1/2"	<i>FRR-T24</i>	<i>FRRE-T24</i>
2"	<i>FRR-T32</i>	<i>FRRE-T32</i>



Sanitary Tri-Clamp

Hose Size	Clamp Size	316 Stainless Steel Part #
1/2"	1"	<i>TCR-T08-16</i>
1/2"	1 1/2"	<i>TCR-T08-24</i>
3/4"	1 1/2"	<i>TCR-T12-24</i>
1"	1"	<i>TCR-T16-16</i>
1"	1 1/2"	<i>TCR-T16-24</i>
1 1/2"	1 1/2"	<i>TCR-T24-24</i>
2"	2"	<i>TCR-T32-32</i>

Crimp Collars

Hose Size	Carbon Steel Part #	304 Stainless Steel Part #
1/4"	<i>CSC-T04</i>	<i>SSC-T04</i>
3/8"	<i>CSC-T06</i>	<i>SSC-T06</i>
1/2"	<i>CSC-T08</i>	<i>SSC-T08</i>
3/4"	<i>CSC-T12</i>	<i>SSC-T12</i>
1"	<i>CSC-T16</i>	<i>SSC-T16</i>
1 1/4"	<i>CSC-T20</i>	<i>SSC-T20</i>
1 1/2"	<i>CSC-T24</i>	<i>SSC-T24</i>
2"	<i>CSC-T32</i>	<i>SSC-T32</i>

Mini Sanitary Tri-Clamp

Thread Size	316 Stainless Steel Part #
1/2"	<i>TCRM-T08</i>
3/4"	<i>TCRM-T12</i>

Notes:

- insertion tool is available to aid in assembly fabrication
- contact Dixon Specialty Hose for GSM PTFE and metal hose assemblies

Dixon Flare Through PTFE Hose Assemblies



Construction

Dixon Flare Through PTFE assemblies have an inner tube of helically convoluted PTFE with an outer cover of 304 stainless steel braid, providing good flexibility and kink resistance. Manufactured from top quality PTFE resin, the assemblies have a translucent appearance. Dixon Flare Through PTFE can be fitted with cuffed ends for low-pressure applications. The PTFE inner-core is extended through the fitting and flared. Protecting the fitting from internal corrosion. The hose can be fitted with standard True ID fittings for higher pressure applications. The design also eliminates potential entrapment areas and promotes smooth flow of materials. Rounded convolutions and the non-stick property of PTFE coupled with a smooth uninterrupted flow through the fitting make the hose self-cleaning and prevents bacteria traps. An antistatic version is also available (black). Other materials for braiding are available on request, i.e. Stainless Steel 316, polyester etc. For applications with full vacuum a version with helical spring on the external convoluted tube is available as a special order

Applications

Dixon Flare Through PTFE is widely used in the food, dairy, beverage, cosmetic and pharmaceutical industries. The convoluted PTFE tube gives the hose an extremely tight bend radius. PTFE is resistant to steam and virtually all chemicals and solvents used in the industries mentioned. Due to the inherent qualities of PTFE and the manner of construction, Dixon Flare Through PTFE is essentially self-draining and very easy to clean.

Size	OD	Bend Radius	Working PSI	Burst PSI	Flare Through Working PSI @ 70°	Flare Through Burst PSI @ 70°
¾"	1.0	3.1	1,015	4,061	425	1700
1"	1.3	3.9	725	2,901	350	1400
1½"	1.9	5.5	580	2,321	300	1200
2"	2.4	6.9	522	2,089	200	800

Optional Hose Covers and Accessories For Use With All Dixon Specialty Hose

**Genuine GSM Ball Joint Armor with 1000°F Insulation
* Higher Temperature Insulation Available**



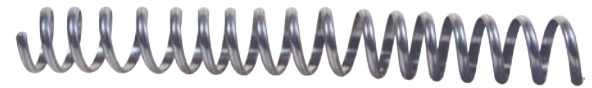
Spring Guard in Stainless Steel and Galvanized Steel



HDPE Spiral



**Continuous GSM Wire Wound in Stainless Steel
and Galvanized Steel**



Silicone Fire Jacket with Stainless Steel Caps



Interlocking Metal Hose Bend Restrictors



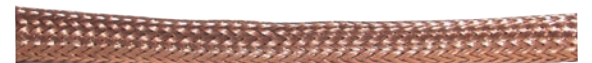
Nylon Protective Sleeves



Stainless Steel Braid



Bronze Braid



Blue Poly Braid



Heat Shrink Tubing



Lay Flat Protective Cover



Extruded Cover Hoses



Nominal Smooth Bore Hose Crimp Specifications

Dixon PTFE Hose				
Hose Part #	Crimp Specification	Die #	Scale	
WSB-03	.300/.310	**	**	
WSB- 04	.325/.335	8	.040	
WSB- 05	.395/.405	10	.048	
WSB- 06	.471/.480	12	.039	
WSB- 06T	.540/.550	**	**	
WSB- 08	.575/.585	14	.026	
WSB- 10	.685/.695	16	.095	
WSB- 12	.790/.800	20	.043	
WSB- 12T	.970/.980	**	**	
WSB- 16	1.070/1.080	26	.083	
WSB-16T	1.190/1.200	**	**	
WSB- 16TZ	1.150/1.160	**	**	
WSB- 20	1.420/1.430	**	**	
WSB- 20Z	1.420/1.430	**	**	

** Consult Dixon Specialty Hose for specifications
 • Also includes all sizes of BSB hoses

• Specifications are valid only when using Dixon Nominal Fittings
 • Z = double braid

Open Pitch Convoluted True Bore Hose Crimp Specifications

Dixon PTFE Hose and CC-60 Crimper				
Size	GSM Size Code	Crimp Specification	Die #	Scale
1/4"	WOC-T04	**	**	**
3/8"	WOC-T06	**	**	**
1/2"	WOC-T08	0.800	20	.040
3/4"	WOC-T12	1.060	26	.053
1"	WOC-T16	1.375	34	.061
1 1/4"	WOC-T20	1.750	39	.218
1 1/2"	WOC-T24	1.880	45	.160
2"	WOC-T32	2.437	57	.193

** Consult Dixon Specialty Hose for specifications
 • Also includes all sizes of BOC hoses

• Specifications are valid only when using Dixon True Bore Fittings

True ID Heavy Wall Smooth Bore Hose Crimp Specifications

Dixon PTFE Hose and CC-60 Crimper				
Size	GSM Size Code	Crimp Specification	Die #	Scale
1/4"	WTB-T04	0.525	**	**
3/8"	WTB-T06	0.652	**	**
1/2"	WTB-T08	0.750	**	**
3/4"	WTB-T12	1.070	26	.078
1"	WTB-T16	1.350	34	.036
1 1/4"	WTB-T20Z	**	**	**
1 1/2"	WTB-T24Z	**	**	**

** Consult Dixon Specialty Hose for specifications
 • Also includes all sizes of BOC hoses

• Specifications are valid only when using Dixon True Bore Fittings
 • Z = double braid

Technical Information for PTFE Hose

Rubber Covered PTFE Hose Crimp Specifications

Dixon PTFE Hose and CC-60 Crimper		
Size	GSM Size Code	Crimp Specification
½"	WRT-T08	1.022
5/8"	WRT-T10	1.110
¾"	WRT-T12	1.320
1"	WRT-T16	1.585
1¼"	WRT-T20	1.780
1½"	WRT-T24	2.130
2"	WRT-T32	2.750
2½"	WRT-T40	3.189
3"	WRT-T48	3.840
4"	WRT-T64	4.850

- Consult Dixon Specialty Hose for specifications
 - Specifications are valid only when using Dixon True Bore fittings and ferrules for rubber hose.
-

Dixon PTFE Hose Cutting Options

There are several methods to effectively cut stainless braided Teflon® hose:

Hose Cutting Tool Options:

1. **Metal Cutting Wheel** - non-scalloped (used to cut hydraulic hose). Since Dixon PTFE braid doesn't flare much on the female side of the braid there is no need to tape the braid.
2. **Beverly Shear** - flattens the hose but does a nice job cutting the hose and braid; Dixon offers a simple ferrule tool which assists in putting on the collars (this is the preferred method of cutting stainless braided hoses)
3. **Thin Abrasive Blade** - works well except creates a lot of dirt and dust and many times you need to tape the braid

Dixon PTFE Insertion Tools:

Insertion tools are available from Dixon Specialty Hose by calling 888-226-4673.

Overall Length (OAL) Calculation:

1. Select the fitting you plan to insert in the hose.
2. Measure the distance from the ferrule groove to the connection end of the fitting for each fittings.
3. Add the two end distances together and subtract this number from the assembly overall length
4. The result is the cut length of the hose.

Technical Information for PTFE Hose

Assembly Installation (continued)

Do...

- follow any printed instructions included with the flexible connector
- follow industry–recommended practices and use care in handling and installing flexible connector
- install flexible connectors so the bend is as close to the center of the connector as possible
- observe the minimum bend radius as specified by the connector manufacturer
- trial-fit threaded connections by hand, unmake and then make permanent
- use a flexible connector of proper length to suit the installation
- only wrench on the fitting hex flats as provided
- design the installation to allow for ground movement after installation, such as settling or frost heave
- install the proper length connector to allow a 2" straight run of hose at each end fitting
- use pipe wrenches on both mating hexes to avoid twisting the hose
- keep hose free from all objects and debris
- handle and store connectors carefully prior to installation
- check for leaks before covering the installation
- install in such a manner that the connector can be removed
- make sure the pressure rating of connector is not exceeded

Don't...

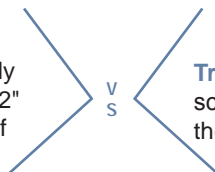
- apply a wrench to a hose, collar or assembly
- twist hose assemblies during installation or when aligning the bolt holes in a flange or when making up pipe threads
- "pre-flex" a flexible connector to limber it up. Over-bending could cause damage and result in leakage
- over-bend a flexible connector, a 45° - 90° bend should be sufficient to install any flexible connector
- install a flexible connector with the bend next to the end fittings, this could cause damage and result in leakage
- lay the flexible connector on rocks or objects which could puncture the hose and cause leakage
- attempt to stretch or compress a flexible connector to fit an installation
- restrict flexibility by allowing connector to come into contact with other components or equipment during installation

PTFE Hose Assembly Instructions

1. Determine the cut-off dimension of the fitting.
2. Determine the cut length of the hose by marking the hose with a black magic marker. Then, using either masking tape or reinforced glass tape, wrap a layer of tape in the middle of the mark you put on the hose. Measure the desired length and again mark with a magic marker.
3. The preferred method of cutting stainless braid hose is with either a Beverly Shear or an abrasive cut off saw.
4. Once the hose is cut, slide collars on the hose either by using our collar assembly tool or by sliding the collar onto the hose making sure the step in the collar is facing the cut end of the hose.
5. It is recommended that the ID of the hose be expanded using a tube expander. If you don't have one please call us at 1-888-226-4673 and we can supply you one. This expander can be mounted in a re-attachable coupling machine and turned on each end of the use pushed onto the insert.
6. Once this is done simply put the fitting in a vice with the hose shank facing out, then push the hose into the insert.
7. Determine the correct set of dies, set the scale setting and make sure collar is in the correct position on the insert, then crimp the fitting, rotate the hose assembly and re-crimp the fitting on the high spots made by the first crimp pass.
8. Use a caliper to check crimp dimensions and make any macro adjustments in the finished OD.

PTFE Hose Assembly Instructions

Nominal Bore Hose follows the SAE 100R14 tubing standard which is typically labeled in 'dash' sizes (1/16 of an inch). For example, 1/2" tubing is 1/2" OD with a slightly smaller ID. Thus, dash 8 (-08) nominal hose is 8/16" or 1/2" OD, yielding an average ID of 13/32". All manufacturers of Nominal Fluoropolymer hose follow the same nominal ID / OD standard.

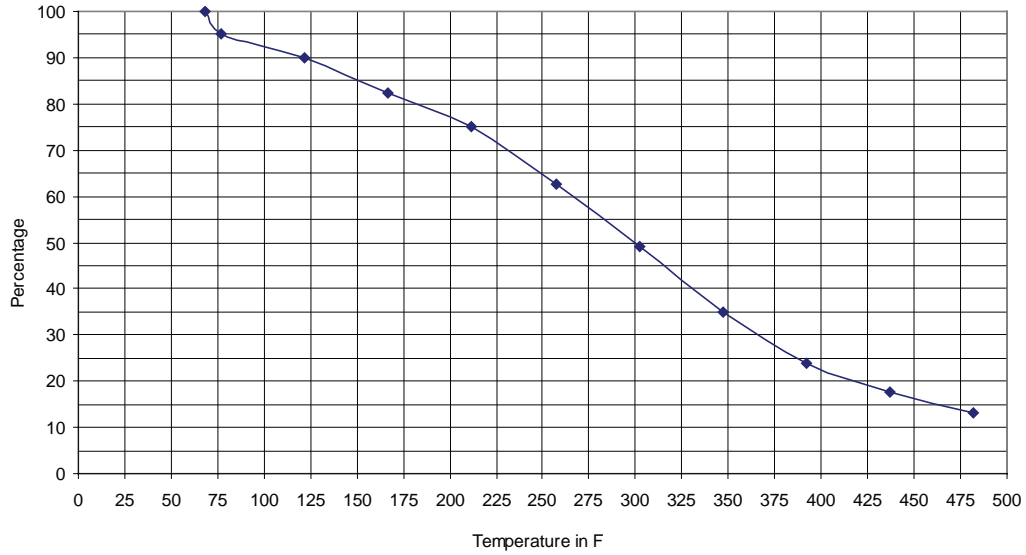


True Bore Hose on the other hand follows the same ID as schedule 40 pipe; therefore, a typical 2" ID true bore hose is the exact same bore size as its mating 2" pipe.

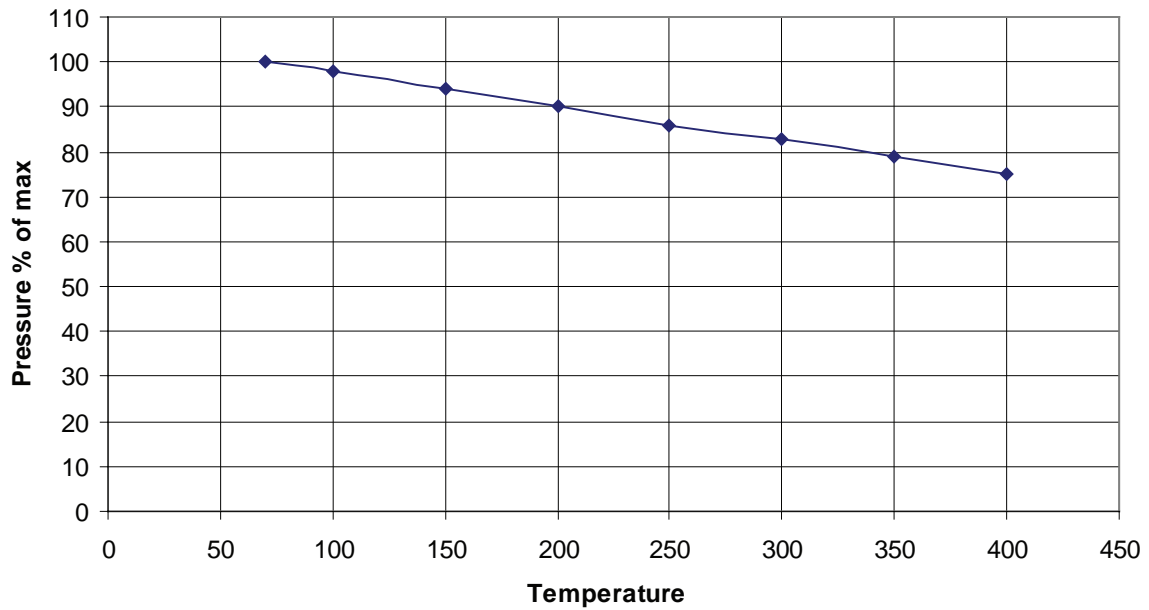
Technical Information for PTFE Hose

Temperature Derating for PTFE Hose

Temperature Derating Curve for Smooth Bore Hose



Temperature Derating for Open Pitch Convoluted Hose



Technical Information for Metal Hose

Selection Criteria

The selection of flexible metal hose for a particular application is influenced by six primary considerations:

- Size
- Temperature
- Application
- Media
- Pressure
- Motion

To make the best choice for a specific application, consider all the relevant operating factors against the properties of the various types of flexible metal hoses.

Size

The size of flexible metal hose is specified by the nominal diameter. The existing piping will normally dictate the size of the metal hose for a particular application. However, flow rate, velocity and pressure drop considerations may also influence the selection of the hose size.

Temperature

The physical properties of any material varies with temperature. Limits for operating temperature are affected by the working pressure, the type of media being conveyed and the nature of the application. By careful selection of material, it is possible to provide flexible metal hose for a wide range of operating temperatures. The choice of hose type, metal alloy, end fitting and method of fitting attachment determines the temperature limit.

Application

Flexible metal hose is generally used in four types of applications.

- To correct problems of misalignment.
- To provide flexibility in manual handling operations.
- To compensate for regular or constant movement.
- To absorb vibration.

Media

The type of media being conveyed is an important consideration in the selection process. Metal hose is subject to corrosion by both the material flowing through it and the outside environment. For almost all applications, a metal hose can be selected that is resistant to the intended media. Since metal hose is a thin-walled product, it will not have the same total life as heavier walled tube or pipe of the same material.

Pressure

The nominal pressure ratings of flexible metal hose varies according to type, material and size. Specific pressure ratings for each type of flexible metal hose are found in each section of this catalog. Under actual working conditions, pressure is affected by many other factors such as temperature, pulsating conditions and bending stresses.

End Fittings

The use of flexible metal hose is complimented by the extensive range of end fittings that are available. Such end fittings may be male or female pipe threads, unions, flanges, flared tube fittings or other specially designed connectors. End fittings are attached by welding, silver brazing, soldering and occasionally by mechanical means, depending on the type of hose and the alloy. For further detail on the appropriate type of end fitting please consult your fabricating distributor.

Delivery/Dixon

Dixon recommends that, based on the hose, fittings and attachment method used, all assemblies be permanently marked with the designed working pressure and intended media. Do not use other manufacturer's fittings or ferrules with Dixon products due to the differences in dimensions and tolerances. We also recommend that all hose assemblies be tested frequently.

Motion

See page 28 and 29 for more information.

In all types, careful hose selection, design of the assembly and installation are important for optimal service life. The flexibility of a hose is determined by its mechanical design and the inherent flexibility of its material.

Technical Information for Metal Hose

Temperature Adjustment Factors

In general, the strength and therefore the pressure rating of metal hose decreases as the temperature increases. Thus, as the operating temperature of a metal hose assembly increases, the maximum allowable working pressure of the assembly decreases.

The pressure ratings shown in the specifications charts for corrugated and interlocked hose are valid at 70°F. Elevated service temperatures will decrease these pressure ratings by the factors shown in the following chart for the alloy used in the braid wire. What also must be considered is the maximum working temperature of the end fittings, of the hose and their method of attachment.

For example to calculate the maximum working pressure for:

- ¾" ID, 321 stainless steel corrugated hose
- with single-braided, 304L braid
- at 800°F

From the corrugated metal hose specification table, the maximum working pressure at 70°F is 792 PSIG. Multiply 792 PSIG by 0.73. The maximum working pressure at 800°F is 578 PSIG.

Temperature Adjustment Factor Based on Braid Alloy

Temperature (°F)	304/304L Stainless Steel	316L Stainless Steel	321 Stainless Steel
70	1.00	1.00	1.00
150	.95	.93	.97
200	.91	.89	.94
250	.88	.86	.92
300	.85	.83	.88
350	.81	.81	.86
400	.78	.78	.83
450	.77	.78	.81
500	.77	.77	.78
600	.76	.76	.77
700	.74	.76	.76
800	.73	.75	.68
900	.68	.74	.62
1000	.60	.73	.60
1100	.58	.67	.58
1200	.53	.61	.53
1300	.44	.55	.46
1400	.35	.48	.42
1500	.26	.39	.37

Technical Information for Metal Hose

Pressure Loss and Flow Velocity Information

Pressure Loss

For the same flow characteristics, the pressure loss is higher in metal hoses than rigid piping, due to the profile of the corrugations. As a rough estimation, expect the pressure loss in corrugated hoses to be 150 percent higher than in new, smooth steel pipes.

Flow Velocity Consideration

The flow velocity in corrugated metal hose should never exceed 150 ft./sec. for gas or 75 ft./sec. for liquids. When a hose is installed in a bent condition, the flow values should be reduced proportionally to the degree of the bend. Where the flow velocity exceeds these rates, an interlocked metal hose liner or larger hose ID is recommended.

Classification of Motion

Random Motion

Such motion is non-predictable and occurs from the manual handling of a hose assembly. Care must be taken to prevent over-bending of the hose and to avoid external abrasion of the wire braid. An armor covering of **GSM Ball Joint Armour** provides protection against these abuses.

Axial Motion

This type of motion occurs when there is extension or compression of the hose along its longitudinal axis. This class of motion is restricted to unbraided corrugated hose only and is accommodated by traveling loops.

Angular Motion

This type of motion occurs when one end of a hose assembly is deflected in a simple bend with the ends not remaining parallel.

To find the live hose length:

$$L = R\theta/180 + 2(s)$$

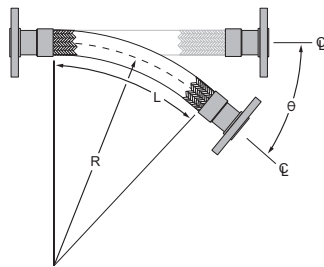
L = Live Hose Length (inches)

$$\pi = 3.1416$$

R = Minimum Centerline Bend Radius — Dynamic (in.)

θ = Angular Deflection (degrees)

S = Outside Diameter of Hose



Offset Motion

Offset motion occurs when one end of the hose assembly is deflected in a plane perpendicular to the longitudinal axis with the ends remaining parallel. This movement can be due to a one-time (static) bend or movement which repeatedly occurs slowly over time (such as thermal expansion).

- The appropriate formula to use to calculate Live Hose Length depends on the condition of the moving end.
- When the offset motion occurs to both sides of the hose centerline, use total travel in the formula; i.e., $2 \times "T"$.
- The offset distance "T" for constant flexing should never exceed 25 percent of the centerline bend radius "R". If the difference between "L" and "Lp" is significant, exercise care at installation to avoid stress on hose and braid at the maximum offset distance.

L = Live Hose Length (inches)

Lp = Projected Live Hose Length (inches)

R = Minimum Centerline Bend Radius — Dynamic (in.)

T = Offset Motion to One Side of Centerline (inches)

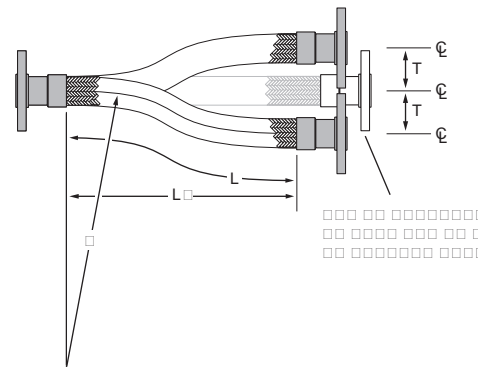
Minimum Bend Radius Occurs at Offset Position

Moving end is free to move "out of line" at neutral position.

To find the live hose length:

$$L = \sqrt{6(RT) + T^2}$$

$$Lp = \sqrt{L^2 - T^2}$$



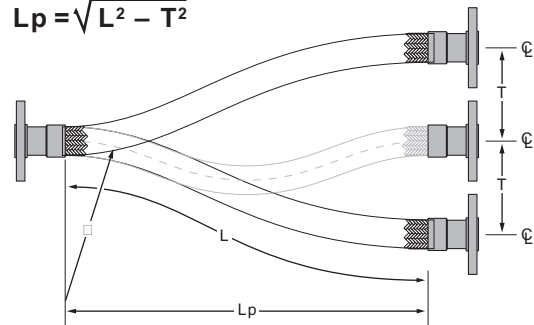
Minimum Bend Radius Occurs at Crowded Position

Moving end of hose is restricted to move only up and down as hose crosses neutral position.

To find the live hose length:

$$L = \sqrt{20(RT)}$$

$$Lp = \sqrt{L^2 - T^2}$$



Technical Information for Metal Hose

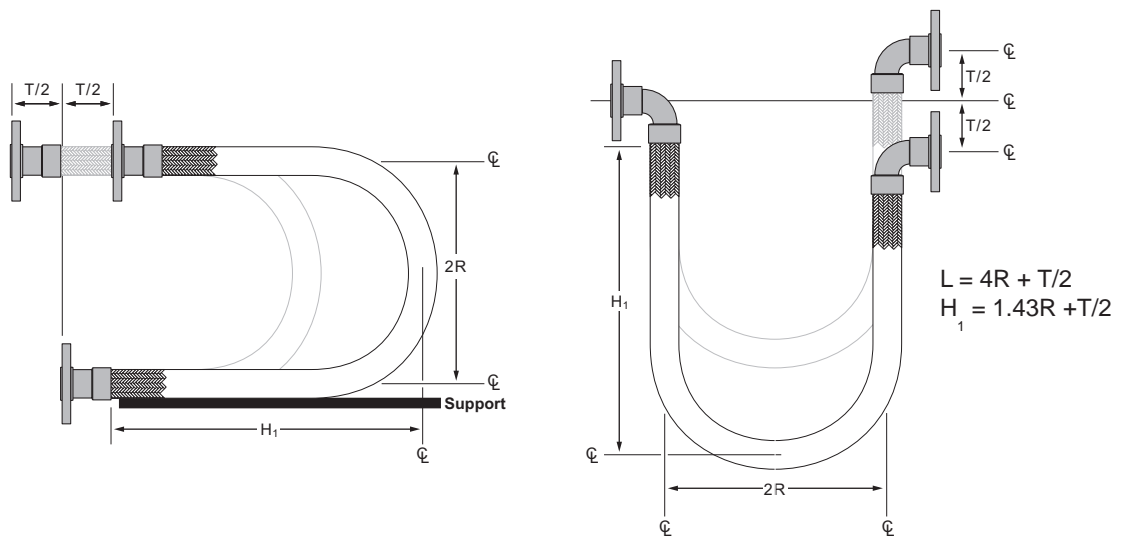
Classification of Motion (continued)

Traveling Loops

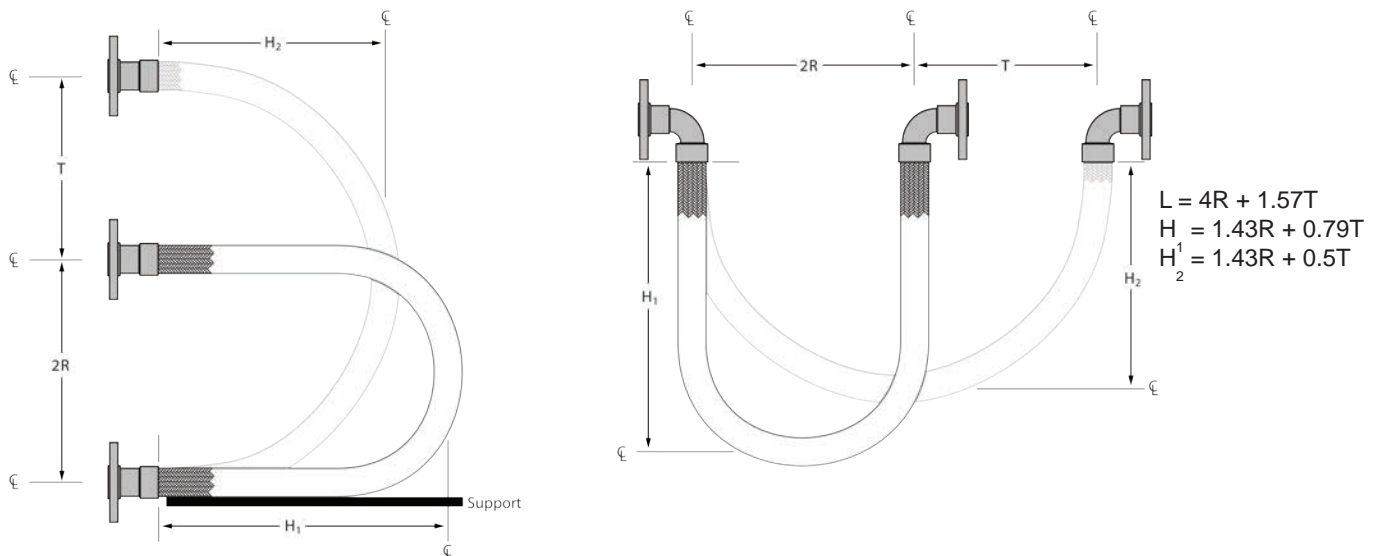
In a piping system where axial movement must be accommodated or where the magnitude of the motion is in excess of the limits of an offset movement, the traveling loop configuration offers an ideal solution. In traveling loops, the centerline of a hose assembly is bent in a circular arc. Traveling loops accommodate movement in one of two ways. A constant radius traveling loop accommodates motion by varying the length of the arms of the assembly while the radius remains constant. A variable radius traveling loop accommodates motion by varying the bend radius of the hose assembly. Both types of traveling loops can be installed to absorb either horizontal or vertical movement. The constant radius traveling loop provides for greater movement while the variable radius traveling loop requires less installation space.

- L = Live Hose Length (inches)
- R = Minimum Centerline Bend Radius for Constant Flexing (inches)
- T = Total Travel (inches)
- H = Hang Length of the Loop (inches)

Constant Radius Traveling Loop – Class A



Variable Radius Traveling Loop – Class B



Technical Information for Metal Hose

Assembly Installation

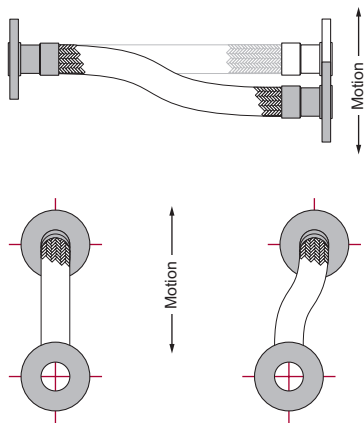
Metal corrugated hose is engineered to provide maximum service life when properly installed. Improper installation, incorrect flexing or careless handling in an application will reduce the effective service life of the hose and cause premature failure of an assembly. The following installation and handling precautions should be observed to achieve optimum performance from your corrugated hose assemblies.

Avoid torque.

Do not twist the hose assembly during installation when aligning the bolt holes in a flange or in making up pipe threads. The utilization of lap joint flanges or pipe unions will minimize this condition. It is recommended that two wrenches be used in making the union connection; one to prevent the hose from twisting and the other to tighten the coupling.

In plane lateral offset installation

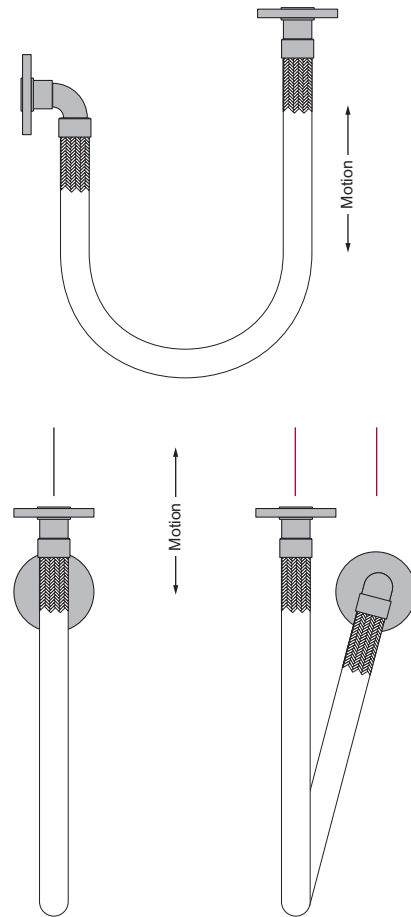
Prevent out-of-plane flexing in an installation. Always install the hose so that the flexing takes place in only one plane. This plane must be the plane in which the bending occurs.



Correct
in plane
flexing

Wrong
out of plane
flexing

In plane traveling loop installation



Correct
in plane
flexing

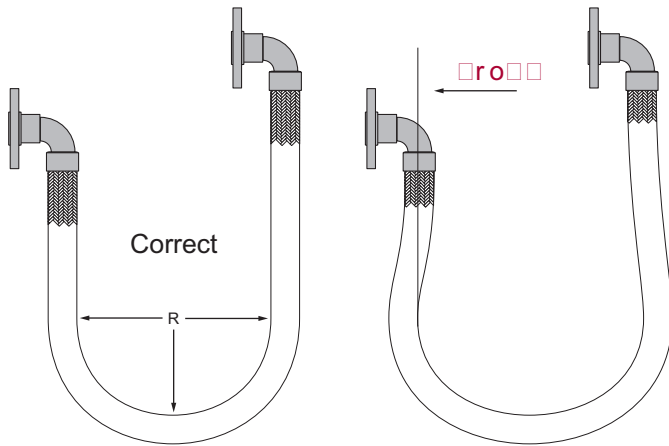
Wrong
out of plane
flexing

Technical Information for Metal Hose

Assembly Installation (continued)

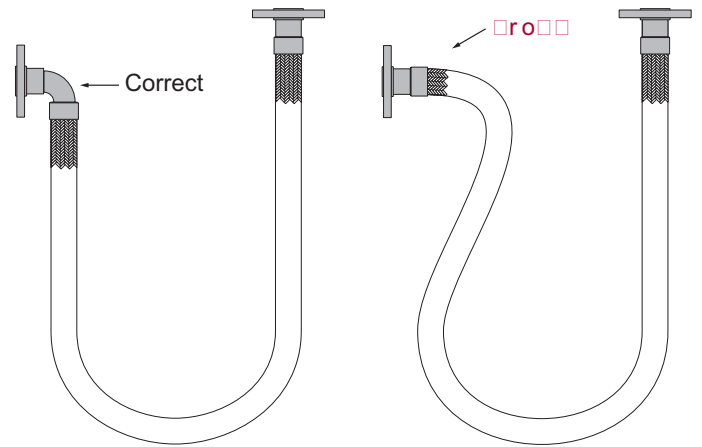
Avoid over bending.

The repetitive bending of a hose to a radius smaller than the radius listed in the specification tables for corrugated hose will result in premature hose failure. Always provide sufficient length to prevent over bending and to eliminate strain on the hose.



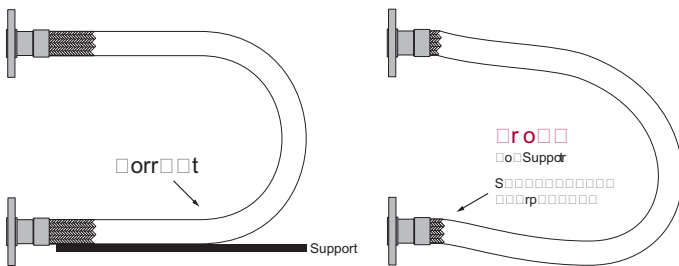
Avoid sharp bends.

Utilize sound geometric configurations that avoid sharp bends, especially near the end fittings of the assembly.



Provide support.

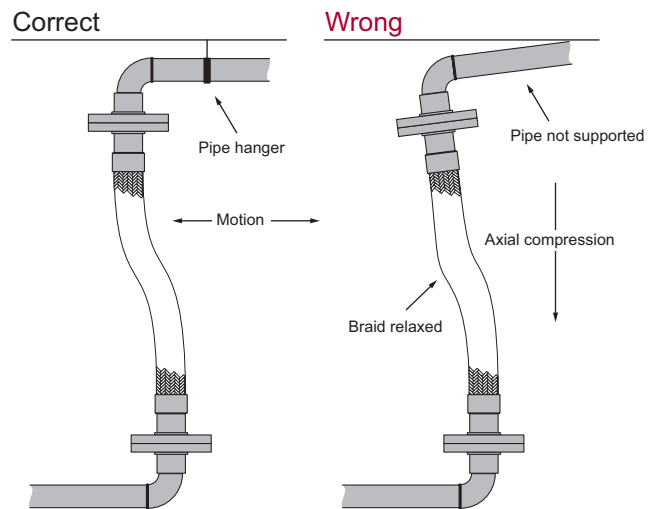
When installing the assembly in a horizontal loop, provide support for the arms to prevent the hose from sagging.



Do not extend or compress axially.

A piping system which utilizes metal hose to absorb movement must be properly anchored and/or guided.

Always support the piping to prevent excessive weight from compressing the hose and relaxing the braid tension.



Technical Information

Glossary

Abrasion: External damage to a hose assembly caused by its being rubbed on a foreign object.

Ambient or Atmospheric Conditions:

The surrounding conditions, such as temperature, pressure and corrosion, to which a hose assembly is exposed.

Amplitude of Vibration and/or Lateral Movement: The distance a hose assembly deflects laterally to one side from its normal position, when this deflection occurs on both sides of the normal hose centerline.

Anchor: A restraint applied to a pipeline to control its motion caused by thermal growth.

Annular: Refers to the convolutions on a hose that are a series of complete circles or rings located at right angle to the longitudinal axis of the hose (sometimes referred to as bellows).

Application: The service conditions that determine how a hose assembly will be used.

Attachment: The method of fixing end fittings to flexible hose – welding, brazing, soldering, swaging or mechanical.

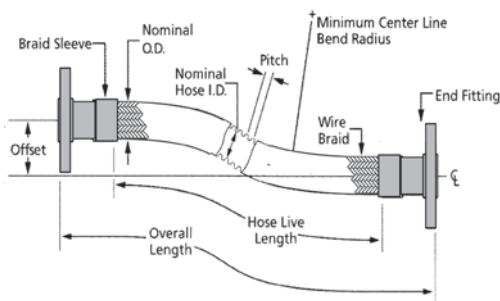
Axial Movement: Compression or elongation of the hose along its longitudinal axis.

Basket Weave: A braid pattern in which the strands of wire alternately cross over and under two braid bands (two over – two under).

Bend Radius: The radius of a bend measured to the hose centerline.

Braid: A flexible wire sheath surrounding a metal hose that prevents the hose from elongation due to internal pressure. Braid is composed of a number of wires wrapped helically around the hose while at the same time going under and over each other in a basket weave fashion.

Braid Angle: The acute angle formed by the braid strands and the axis of the hose.



Braid Construction: Term applies to description of braid, i.e., 36 x 8 x .014, 304L SS.

- 36 = number of carriers or bands in a braid
- 8 = number of wires on each carrier
- .014 = wire diameter in inches
- 304L = material, Type 304L stainless steel

Braid Color, Braid Band or Ferrule: A ring made from tube or metal strip placed over the ends of a braided hose to contain the braid wires for attachment of fittings.

Braid Wear: Motion between the braid and corrugated hose which normally causes wear on the OD of hose.

Braided Braid: In this braid, the strands of wire on each carrier of the braiding machine are braided together, and then braided in normal fashion, hence the term braided braid.

Brazing: A process of joining metals using a non-ferrous filler metal, which melts above 800°F, yet less than the melting of the "parent metals" to be joined.

Butt Weld: A process in which the edges or ends of metal sections are butted together and joined by welding.

Controlled Flexing: Controlled flexing occurs when the hose is being flexed regularly, as in connections to moving components. Examples: Platen presses, thermal growth in pipe work.

Convolution: The annular or helical flexing member in corrugated or strip wound hose.

Corrosion: The chemical or electrochemical attack of a media upon a hose assembly.

Cycle-Motion: The movement from normal to extreme position and return.

Dye Penetrant Inspection or Test: A method for detecting surface irregularities, such as cracks, voids, porosity, etc. The surface to be checked is coated with a red dye that will penetrate existing defects. Dye is removed from surface and a white developer is applied. If there is a defect in the surface being checked, the red dye remaining in it causes the white developer to be stained, thereby locating the defective area.

Dog-Leg Assembly: Two hose assemblies joined by a common elbow.

Duplex Assembly: An assembly consisting of two hose assemblies – one inside the other – and connected at the ends.

Erosion: The wearing away of the inside convolutions of a hose caused by the flow of the media conveyed, such as wet steam, abrasive particles, etc.

Exposed Length: The amount of active (exposed) hose in an assembly. Does not include the length of fittings and ferrules.

Fatigue: Failure of the metal structure associated with, or due to, the flexing of hose or bellows.

Fitting: A loose term applied to the nipple, flange, union, etc., attached to the end of a hose.

Technical Information

Glossary (continued)

Flow Rate: Pertains to a volume of media being conveyed in a given time period, e.g., cubic feet per hour, pounds per second, gallons per minute, etc.

Frequency: The rate of vibration or flexure of a hose in a given time period, e.g., cycles per second (CPS), cycles per minute (CPM), cycles per day (CPD), etc.

Galvanic Corrosion: Corrosion that occurs on the less noble of two dissimilar metals in direct contact with each other in an electrolyte, e.g., water, sodium chloride in solution, sulphuric acid, etc.

Helical: Used to describe a type of corrugated hose having one continuous convolution resembling a screw thread.

Helical Wire Armor: To provide additional protection against abrasion under rough operating conditions, GSM Ball Joint Armour can be supplied.

Installation: Referring to the installed geometry of a hose assembly.

Interlocked Hose: Formed from profiled strip and wound into flexible metal tubing with no subsequent welding, brazing, or soldering. May be made pressure-tight by winding in strands of packing.

Intermittent Bend Radius: The designation for a radius used for non-continuous operation. Usually an elastic radius.

Liner: Flexible sleeve used to line the I.D. of hose when the velocity of gaseous media is in excess of 180 ft. per second.

Medium (Singular)/Media (Plural): The substance(s) being conveyed through a piping system.

Minimum Bend Radius: The smallest radius to which a hose can be bent without suffering permanent deformation of its convolutions.

Misalignment: A condition in which two points, intended to be connected, will not mate due to their being laterally out of line with each other.

Operating Conditions: The pressure, temperature, motion, media, and environment that a hose assembly is subjected to.

Outside Diameter: This refers to the external diameter of a hose.

Penetration (Weld): The percentage of wall thickness of the two parts to be joined that is fused into the weld pool in making a joint. Our standard for penetration of the weld is 100 percent, in which the weld goes completely through the parent metal of the parts to be joined and is visible on the opposite side from which the weld was made.

Pitch: The distance between the two peaks of adjacent corrugation.

Pressure: Usually expressed in pounds per square inch (PSI) and, depending on service conditions, may be applied internally or externally to a hose.

- a. Absolute Pressure – A total pressure measurement system in which atmospheric pressure (at sea level) is added to the gauge pressure, and is expressed as PSIG.
- b. Atmospheric Pressure – The pressure of the atmosphere at sea level which is 14.7 PSI, or 29.92 inches of mercury.
- c. Burst Pressure (Actual And Rated)
 1. Actual – Failure of the hose determined by the laboratory test in which the braid fails in tensile, or the hose ruptures, or both, due to the internal pressure applied. This test is usually conducted at room temperature with the assembly in a straight line, but for special applications, can be conducted at elevated temperatures and various configurations.
 2. Rated – A burst value which may be theoretical, or a percentage of the actual burst pressure developed by laboratory test. It is expected that, infrequently, due to manufacturing limitations, an assembly may burst at this pressure, but would most often burst at a pressure greater than this.
- d. Deformation Pressure (Collapse) – The pressure at which the corrugations of a hose are permanently deformed due to fluid pressure applied internally, or, in special applications, externally.
- e. Feet of Water or Head Pressure – Often used to express system pressure in terms of water column height. A column of water 1 ft. high exerts a .434 PSI pressure at its base.
- f. Proof Pressure or Test Pressure – The maximum internal pressure which a hose can be subjected to without either deforming the corrugations, or exceeding 50 percent of the burst pressure. When a hose assembly is tested above 50 percent of its burst pressure, there often is a permanent change in the overall length of the assembly, which may be undesirable for certain applications.
- g. PSIG – Pounds per square inch gauge.
- h. Pulsating Pressure – A rapid change in pressure above and below the normal base pressure, usually associated with reciprocating type pumps. This pulsating pressure can cause excessive wear between the braid and the tops of the hose corrugations.
- i. Shock Pressure – A sudden increase of pressure in hydraulic or pneumatic system, which produces a shock wave. This shock can cause severe permanent deformation of the corrugations in a hose as well as rapid failure of the assembly due to metal fatigue.
- j. Static Pressure – A non-changing constant pressure.
- k. Working Pressure - The pressure, usually internal, but sometimes external, imposed on a hose during operating conditions.

Scale: Generally refers to the oxide in a hose assembly brought about by surface conditions or welding.

Seamless: Used in reference to a corrugated metal hose made from a base tube that does not have a longitudinal seam as in the case of a butt welded or lap welded tube.

Technical Information

Glossary (continued)

Strand(s): Individual groups of wires in a braid. Each group is constructed of wire strands from the braiding machine.

Stress Corrosion: A form of corrosion in stainless steel normally associated with chlorides.

Tig Weld: The tungsten insert gas welding process sometimes referred to as shielded arc. The common trade name is heliarc.

Traveling Loop: A general classification of bending, wherein the hose is installed to a U-shaped configuration.

1. Class A Loop – An application wherein the radius remains constant and one end of the hose moves parallel to the other end of the hose.
2. Class B Loop – A condition wherein a hose is installed in a U-shaped configuration and the ends move perpendicular to each other so as to enlarge or decrease the width of the loop.

Torque (Torsion): A force that produces, or tends to produce, rotation of or torsion through one end of a hose assembly while the other end is fixed.

Velocity: The speed at which the medium flows through the hose, usually specified in feet per second.

Velocity Resonance: The sympathetic vibration of convolutions due to buffeting of high velocity gas or air flow.

Vibration: Low amplitude motion occurring at high frequency.

Welding: The process of localized join of two or more metallic components by means of heating their surfaces to a state of fusion, or by fusion with the use of additional filler materials.

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DIXON SPECIALTY HOSE (herein called "Dixon") warrants the products described herein, and manufactured by Dixon to be free from defects in material and workmanship for a period of one (1) year from date of shipment by Dixon under normal use and service. It's sole obligation under this warranty being limited to repairing or replacing, as hereinafter provided, at its option any product found to Dixon's satisfaction to be defective upon examination by it, provided that such product shall be returned for inspection to Dixon's factory within three (3) months after discovery of the defect. The repair or replacement of defective products will be made without charge for parts or labor. This warranty shall not apply to: (a) parts or products not manufactured by Dixon, the warranty of such items being limited to the actual warranty extended to Dixon by its supplier; (b) any product that has been subject to abuse, negligence, accident, or misapplication; (c) any product altered or repaired by others than Dixon; and (d) to normal maintenance services and the replacement of service items (such as washers, gaskets and lubricants) made in connection with such services. To the extent permitted by law, this limited warranty shall extend only to the buyer and any other person reasonably expected to use or consume the goods who is injured in person by any breach of the warranty. No action may be brought against Dixon for an alleged breach of warranty unless such action is instituted within one (1) year from the date the cause of action accrues. This limited warranty shall be construed and enforced to the fullest extent allowable by applicable law.

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