## IIIOSE TEC® TOUGHT METAL HOSE™

by Kuriyama

**Interlocked and Corrugated Metal Hose** 





Kuriyama of America, Inc.







## HOSE TEC® TOUGH METAL HOSE™

## **HOSE TECHNOLOGY, INC.**

Founded in 1982 in Williamsport, IN, Hose Technology, Inc., a division of Kuri Tec Manufacturing, Inc., manufactures high quality, custom designed and standard metal hose, delivered quickly and competitively priced. We offer both interlocked and corrugated metal hose styles to meet the needs of a wide variety of applications – agricultural, dry bulk truck, dry bulk handling, environmental clean-up, trucking and many more.



## PRODUCT DESIGN AND DEVELOPMENT



Having the right hose for the job is of utmost importance to ensure long hose life and user safety. Our helpful, in-house design team is always available to develop custom solutions based on the specific needs of your particular hose application. Let us create a solution for you!

## **QUALITY MANUFACTURING, FABRICATION & TESTING**

The key to our success is our people! Our experienced, certified, professional fabrication staff of welders ensures you receive high quality assemblies you can trust to perform at the highest level. All Hose Tec welders are ASME IX certified, and we leak test 100% of all corrugated hoses we make to NAHAD guidelines before shipping.



## **INVENTORY**

In addition to the metal hose inventory already housed at Kuriyama's six North American warehouses, Hose Tec recently added 80,000 feet of additional space to our centrally located warehouse, allowing for guick delivery throughout the U.S.



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**Agriculture** — Grain handling/chutes/vac systems, feed trucks.

**Brewery** — Grain handling offloading railcar/in-plant.

**Chemical** — Dry bulk resin handling offloading railcars/bulk trucks/in-plant, fume exhaust.

**Cryogenics** — Armor for transfer hoses.

**Environmental/Industrial Clean-Up** — Dry material handling for power plants, steel mills, fly ash, soda ash, lime powder.

**Food Processing** — Dry bulk handling, protective armor on hot water lines.

**Government** — Fresh air/air conditioning ducting for ship maintenance.

**Mining** — Dry bulk handling, lime, trona. Ducting/venting/exhaust lines.

**OEM** — Air/Gas/Liquid/Material handling, armor guard, bend restrictor, wire guides.

**Oil Field** — BOP lines, heater hoses, dry bulk handling, frac sand trucks.

**Petro-Chemical** — Dry resin handling offloading railcars/bulk trucks/in-plant.

**Plastics** — Transfer/transport of pellets, resins with railcars/bulk trucks/in-plant.

**Plating** — Fume removal.

**Railyard** — Switch box heating.

**Shipyards** — Maintenance ducting lines for fresh air/air conditioning.

**Steel Mills** — Hot material clean-up, protective armor, ducting/venting, cooling plate armor.

**Textile Mills** — Dust/lint control.

**Trucking** — Dry bulk drop hoses, vacuum hoses, flexible exhaust connectors, hot air blower hoses.

Welding — Fume exhaust.

**Woodworking** — Dust/chip control.

While this is a list of industries and common uses within the industry, there are still many more that are not listed here. The type of metal hose used in these industries could be either interlocked hose or corrugated hose.



Application Guide	Metal- Hose- To-Go <sup>™</sup>	HT4000 Series, "Multi-Flex" Rough Bore	HT5000 Series, "Smooth Flow" Smooth Bore (lined)	HT1100 Series, "Floppy Guard"
Abrasive Material Handling	<b>✓</b>	<b>v</b>	<b>V</b>	
Air Intake Supply; Fresh Air Intake		<b>✓</b>		
Bend Restrictor		<b>✓</b>		<b>V</b>
Beverage Dispenser Hose Armor				<b>V</b>
BOP (Blow Out Protection) for Hydraulic,		V		<b>✓</b>
Cryogenic and Other High Pressure Hoses				
Bulk Unloading/Loading (Railcar/Truck)	<b>V</b>	V	V	
Dry Bulk Transfer (Railcar/Truck/In-Plant)	<b>V</b>	V	V	
Dust/Fume Collection		V		
Engine Exhaust		V		
Environmental/Industrial Clean-Up	<b>V</b>	V		
Fly Ash/Soda Ash Handling	<b>V</b>	V		
Fume Hood Exhaust		V		
Garage Fume Exhaust		V		
Grain Handling	<b>V</b>	V	V	
High Temperature Material Handling	<b>V</b>	V	V	
Hot Air Blower/Suction	<b>V</b>	V		
Hot Air Ducting		V		
Industrial Dryer Vents		V		
Liner for Corrugated/Braided Assemblies		V		
Low Temperature Material Transfer	<b>✓</b>	V	V	
Oven/Kiln Exhaust		V		
Plastic Pellet Transfer	<b>✓</b>	V	V	
Pneumatic Transfer	<b>V</b>	V	V	
Protective Armor/Shielding for Hoses		V		V
Shielding for Wiring		V		V
Steam Hose Liner		V		
Railcar - Bulk Unloading/Loading		V	V	
Spot Cooling/Air Conditioning Ducting		V		
Truck - Bulk Unloading/Loading	<b>V</b>	V	V	
Truck Exhaust/Flexible Tailpipe Exhaust		V		
Vacuum Trucks and Equipment	<b>V</b>	~	<b>V</b>	

## **CAUTION**

**NOTE:** This application guide provides information on typical flexible metal hose applications. Actual results may vary due to variances in the operating conditions involving temperature, chemical resistance, abrasiveness of the material being handled, working pressure, handling requirements, etc. Please refer to the specifications printed for each product in this catalog and our Cautionary Statement (see page 22), to better ensure successful results.

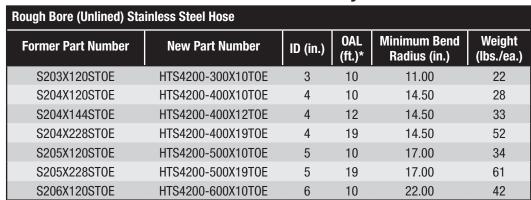
NOTE: For questions regarding chemical resistance please call Hose Technology at 1-800-878-5501.

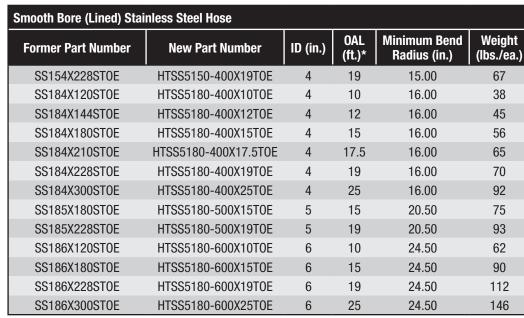


## METAL-HOSE-TO-GO"

## **Stainless Metal Hose Assemblies**

In Stock for immediate delivery and use!





\* OAL (overall length) in "natural lie" state, actual length may vary slightly



1. Select your hose

2. Select your couplings

3. Thread together and done!



Please refer to the back page for the location of your nearest warehouse for availability of products/sizes shown.

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**Hoses include** 

pre-welded

stainless threaded

NPT (TOE) ends

No welding

required!



## Nominal Specifications THREADED SWIVEL ALUMINUM FEMALE COUPLER WITH SS304 THREADED NPT INSERT Part Number Size (in.) Weight Each (lbs.) Standard Carton KAS-C401 4 5.20 1 KAS-C501 5 6.53 1 KAS-C601 6 10.49 1

THREADED SWIVEL AL	UMINUM MALE ADAPTOR			
Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton	
KAS-E401	4	4.67	1	
KAS-E501	5	5.42	1	(M)
KAS-E601	6	6.97	1	

THREADED SWIVEL SS	304 MALE ADAPTOR WIT	H SS304 THREADED NPT	INSERT	
Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton	
KSS-E401	4	6.12	1	
KSS-E501	5	7.61	1	La Company of the Com
KSS-E601	6	11.07	1	

THREADED PART 'A' QUICK-ACTING MALE ADAPTOR x FEMALE NPT (NON-SWIVEL)								
Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton <sup>†</sup>					
AL-A300	3	0.70	35					
SS304-A300	3	2.16	8					
SS-A300	3	2.16	8					
AL-A400	4	1.58	20					
SS304-A400	4	2.88	6					
SS-A400	4	2.88	6					
AL-A500	5	1.75	4					
SS304-A500	5	4.30	4					
SS-A500	5	4.30	4					
AL-A600	6	2.95	15					
SS304-A600	6	6.00	2					
SS-A600	6	6.00	2					

Note: Couplings can be purchased individually also.

THREADED PART 'D' QU				
Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton <sup>†</sup>	
AL-D300	3	1.80	20	
SS304-D300	3	3.82	8	A
SS-D300	3	3.82	8	
AL-D400	4	2.16	10	
SS304-D400	4	5.14	6	
SS-D400	4	5.14	6	
AL-D500	5	3.42	4	A CONTRACTOR OF THE PARTY OF TH
SS304-D500	5	8.00	4	
SS-D500	5	8.00	4	
AL-D600	6	4.24	10	
SS304-D600	6	10.06	2	
SS-D600	6	10.06	2	

Note: Couplings can be purchased individually also.

WHITE NEOPRENE (FDA	) GASKETS FOR QUICK	ACTING COUPLINGS	
Part Number	Size (in.)	Weight Each (lbs.)	Standard Carton
WN300	3	0.042	10
WN400	4	0.066	10
WN500	5	0.094	10
WN600	6	0.116	10

Note: For standard part "A" and "D" Quick-Acting Couplings, please refer to our separate Kuriyama-Couplings TM full line catalog. Web: http://www.kuriyama.com

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## HOSE TEC® TOUGH METAL HOSE™



**Construction:** A single strip of galvanized or 304 stainless steel wound into a interlocked metal hose, with or without packing materials.

**Max Service Temperature:** Galvanized: to 750°F (399°C), Stainless: to 1,500°F (816°C)

Note: for packed hoses service temperature see page 19.

## **Features and Advantages:**

- Abrasion Resistant and Durable steel construction resists damage from abrasive and damaging materials.
- Corrosion Resistant (Stainless Only) 304 stainless version resists corrosion making it resistant to the elements.
- Heat Resistant can withstand very high temperatures allowing for the transfer of hot materials.

# Rough Bore (unlined) Interlocked Metal Hose HTS4000 Series HTG4000 Series

## **Applications:**

- Abrasive material handling
- BOP (Blow out Protection) for hydraulic, cryogenic and other high pressure hoses
- · Bulk truck and railcar unloading
- · Dry bulk transfer
- Fly ash and soda handling
- Grain handling
- Transfer of high temperature air, gasses and materials
- Protective armor/shielding for hoses
- Truck tailpipe exhaust
- Vacuum trucks and equipment



Also available in oval, square or rectangle.

- Conductive prevents the build-up of static electricity eliminating the risk of "hose arcing".
- Flexible corrugations allow for greater flexibility than lined metal hose.

## **Nominal Specifications**

Weight	Series	Material	Wall Thickness (in.)	Max Service Temp (°F)
Evtra Light Woight	HTG4100	Galvanized Steel	0.0110	750
Extra Light Weight	HTS4100	304 Stainless Steel	0.0110	1,500
1.1111/	HTG4150	Galvanized Steel	0.0150	750
Light Weight	HTS4150	304 Stainless Steel	0.0150	1,500
Madium Waight	HTG4200	Galvanized Steel	0.0185	750
Medium Weight	HTS4200	304 Stainless Steel	0.0185	1,500
Hoovy Woight	HTG4250	Galvanized Steel	0.0245	750
Heavy Weight	HTS4250	304 Stainless Steel	0.0245	1,500
F	HTG4300	Galvanized Steel	0.0290	750
Extra Heavy Weight	HTS4300	304 Stainless Steel	0.0290	1,500

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# Rough Bore (unlined) Interlocked Metal Hose HTS4000 Series HTG4000 Series

Nominal Specifications										
	HTG4 HTS4	100 100	HTG4 <sup>-</sup> HTS4 <sup>-</sup>	150 150	HTG4: HTS4:	200 200	HTG4250 HTS4250		HTG4300 HTS4300	
Hose Size	Extra Light	t Weight	Light Wo	eight	Med. We	eight	Heavy W	leight	Extra Hvy. Weight	
I.D. (in.)	Min. Inside Bend Radius (in.)	Weight (lbs./ft.)								
<b>1</b> <sup>3</sup> / <sub>8</sub>	4.25	0.45	5.00	0.60	_	_	_	_	_	_
<b>1</b> <sup>1</sup> / <sub>2</sub>	4.75	0.50	5.50	0.70	6.00	1.00	_	_	_	_
<b>1</b> <sup>5</sup> / <sub>8</sub>	5.00	0.54	5.75	0.75	6.50	1.05	_	_	_	_
<b>1</b> <sup>3</sup> / <sub>4</sub>	5.25	0.58	6.00	0.80	7.00	1.10	_	_	_	_
<b>1</b> <sup>7</sup> / <sub>8</sub>	5.50	0.62	6.25	0.85	7.50	1.20	_	_	_	_
2	6.00	0.70	6.50	0.90	8.00	1.30	9.00	1.60	9.50	2.10
21/4	6.75	0.75	7.25	1.10	8.50	1.45	9.50	1.80	10.00	2.20
21/2	7.50	0.80	8.00	1.20	9.00	1.60	10.00	2.00	10.50	2.30
23/4	8.75	0.90	8.25	1.30	10.00	1.80	11.00	2.15	11.50	2.50
3	10.00	1.00	10.50	1.40	11.00	2.00	12.00	2.30	13.00	2.70
31/4	10.50	1.10	11.25	1.50	12.00	2.10	13.00	2.50	13.50	2.95
31/2	11.00	1.20	12.00	1.60	12.50	2.30	13.50	2.70	14.00	3.20
4	12.50	1.40	13.50	1.80	14.50	2.60	15.00	3.10	15.50	3.60
41/2	14.00	1.50	15.00	2.00	16.00	2.90	17.00	3.50	18.00	4.10
5	15.00	1.70	16.00	2.30	17.00	3.00	18.00	3.90	19.00	4.50
5 <sup>1</sup> / <sub>4</sub>	16.00	1.80	17.25	2.40	18.00	3.15	19.50	4.10	20.50	4.75
51/2	17.50	1.90	18.50	2.50	19.50	3.30	21.00	4.30	22.00	5.00
6	20.00	2.00	21.00	2.70	22.00	3.60	23.50	4.70	25.00	5.40
61/4	20.50	2.10	21.50	2.80	23.00	3.75	24.50	4.90	26.00	5.60
61/2	21.00	2.20	22.00	2.95	23.50	3.90	25.00	5.10	26.50	5.80
7	22.00	2.40	23.00	3.20	25.00	4.20	26.50	5.50	28.00	6.30
71/4	23.00	2.50	23.75	3.30	26.00	4.30	27.50	5.70	29.00	6.50
71/2	24.00	2.60	24.50	3.40	26.50	4.40	28.00	5.85	29.50	6.75
8	25.00	2.70	26.00	3.60	28.00	4.70	29.50	6.20	31.00	7.20
9	_	_	28.25	4.05	30.50	5.30	32.00	6.60	34.00	7.60
91/2	_	_	29.50	4.25	31.50	5.60	33.50	6.80	35.50	7.80
10	_	_	30.50	4.50	32.50	5.90	34.50	7.00	37.00	9.00
11	_	_	33.00	5.00	35.50	6.50	37.50	7.40	39.50	9.90
111/4	_	_	33.75	5.10	36.00	6.60	38.00	7.50	40.50	10.20
11 <sup>1</sup> / <sub>2</sub>	_	_	34.50	5.20	37.00	6.75	38.50	7.60	41.50	10.40
12	_	_	36.00	5.40	38.00	7.00	40.00	7.80	42.00	10.80
14	_	_	50.00	6.30	53.00	8.10	55.00	9.40	57.50	12.60
16		_		_	60.50	9.20	62.50	11.00	75.00	14.40

**NOTE:** Standard lengths are 25 ft. and 50 ft. coils, **WHEN FULLY EXTENDED**; other lengths available on request.

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## HOSE TEC® TOUGH METAL HOSE™



# Smooth Bore (lined) Interlocked Metal Hose HTSS5000 Series HTGS5000 Series HTGG5000 Series

**Hose Material Indicated by Directional Arrow Color** 

Arrow Color	Armor Material	Liner Material		
RED	Stainless	Stainless		
BLUE	Galvanized	Stainless		
BLACK	Galvanized	Galvanized		

**Construction:** Two strips of galvanized or 304 stainless steel wound into an interlocked metal hose consisting of an outer cover (referred to as the armor) and smooth inner liner, with or without packing materials.

Max Service Temperature: Galvanized: to 750°F (399°C), Stainless: to 1,500°F (816°C)

Note: for packed hoses service temperature see page 19.

## **Features and Advantages:**

- Highly Abrasion Resistant and Durable steel construction resists damage from abrasive and damaging materials. Additionally, liner material provides extra layer of protection for longer hose life.
- **Smooth Bore** reduces degradation of the transferred materials and improves flow rates. Helps prevent "angel hairing."
- Corrosion Resistant (Stainless Only) 304 stainless version resists corrosion making it resistant to the elements.

## **Applications:**

- Abrasive material handling
- · Bulk truck and railcar unloading
- Dry bulk transfer
- Grain handling
- Transfer of high temperature air, gasses and materials
- Plastic Pellet Transfer
- Heat Resistant can withstand very high temperatures allowing for the transfer of hot materials.
- Conductive prevents the build-up of static electricity eliminating the risk of "hose arcing".

Nominal Specifications									
Corios		Armor		Liner					
Series	Weight	Material	Thickness (in.)	Weight	Material	Thickness (in.)			
HTGG5150	Light Weight	Galvanized Steel	0.0150	Light Weight	Galvanized Steel	0.0150			
HTGS5150	Light Weight	Galvanized Steel	0.0150	Light Weight	304 Stainless Steel	0.0150			
HTSS5150	Light Weight	304 Stainless	0.0150	Light Weight	304 Stainless Steel	0.0150			
HTGG5180	Medium Weight	Galvanized Steel	0.0180	Light Weight	Galvanized Steel	0.0150			
HTGS5180	Medium Weight	Galvanized Steel	0.0180	Light Weight	304 Stainless Steel	0.0150			
HTSS5180	Medium Weight	304 Stainless	0.0180	Light Weight	304 Stainless Steel	0.0150			
HTSS5250	Heavy Weight	304 Stainless	0.0250	Medium Weight	304 Stainless Steel	0.0180			

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# Smooth Bore (lined) Interlocked Metal Hose HTSS5000 Series HTGS5000 Series

**HTGG5000 Series** 

Nominal Specifications							
	HT5150 Series		HT518	0 Series	HT525	0 Series	
Hose Size I.D.	HTGS – Galv. Aı	HTGG – Galv. Armor/Galv. Liner HTGS – Galv. Armor/SS Liner HTSS – SS Armor/SS Liner		mor/Galv. Liner rmor/SS Liner nor/SS Liner	HTSS – SS Armor/SS Liner		
(in.)	Lt. Wt. Armor	/Lt. Wt. Liner	Med. Wt. Armo	r/Lt. Wt. Liner	Hvy. Wt. Armor	/Med. Wt. Liner	
	Minimum Inside Bend Radius (in.)	Weight (lbs./ft.)	Minimum Inside Bend Radius (in.)	Weight (lbs./ft.)	Minimum Inside Bend Radius (in.)	Weight (lbs./ft.)	
11/2	5.63	1.10	6.00	1.50	_	_	
13/4	6.50	1.35	7.00	1.70	_	_	
2	7.50	1.60	8.00	1.90	_	_	
21/4	8.50	1.90	9.50	2.10	_	_	
21/2	9.50	2.10	10.50	2.30	_	_	
23/4	10.50	2.30	12.50	2.50	_	_	
3	11.50	2.50	14.00	2.80	17.50	3.75	
31/2	13.50	2.90	15.00	3.20	18.50	4.35	
4	15.00	3.40	16.00	3.60	19.50	5.10	
41/2	17.00	3.75	18.50	4.00	22.00	5.40	
5	18.50	4.10	20.50	4.70	24.00	5.60	
6	22.00	4.90	24.50	5.60	30.00	6.25	
7	26.50	5.80	29.00	6.60	34.00	7.80	
8	30.50	6.60	31.50	7.70	37.00	8.80	
10	_	_	39.50	9.70	43.00	11.00	
12	_	_	47.00	11.70	52.00	13.00	
14	_	_	55.00	13.50	60.00	15.50	
16	_	_	63.00	15.00	69.00	18.00	

NOTE: Standard coil length is 25 ft., WHEN FULLY EXTENDED; other lengths available on request.





# "Floppy Guard" Interlocked Metal Hose HTS1100 HTG1100

Extremely Flexible!

**Construction:** A single strip of galvanized or 304 stainless steel wound into an interlocked metal hose creating a unique, floppy-type construction that's more flexible than other metal hoses.

Max Service Temperature: Galvanized: to 750°F (399°C), Stainless: to 1,500°F (816°C)

## **Features and Advantages:**

- Abrasion Resistant and Durable steel construction protects plastic and rubber hoses from external abrasion.
- Corrosion Resistant (Stainless Only) 304 stainless version resists corrosion allowing it to be left in the elements.
- **Heat Resistant** can withstand very high temperatures allowing for the transfer of hot materials.

## **Applications:**

- Bend restrictor
- · Beverage dispenser hose armor
- BOP (Blow out Protection) for hydraulic, cryogenic and other high pressure hoses
- Protective armor/shielding for hoses
- · Shielding for wiring
- **Conductive** prevents the build-up of static electricity eliminating the risk of "hose arcing".
- Highly Flexible Unique design provides a smaller bend radius than other metal hoses.

## **Nominal Specifications**

Hose	HTG1100/HTS1100				HTG1100/HTS1100			
Size ID (in.)	Min. Inside Bend Radius (in.)	Thickness (in.)	Weight (lbs./ft.)	Hose Size ID (in.)	Min. Inside Bend Radius (in.)	Thickness (in.)	Weight (lbs./ft.)	
3/16	0.75	0.011	0.08	<b>1</b> <sup>1</sup> / <sub>8</sub>	4.50	0.011	0.32	
1/4	1.00	0.011	0.10	<b>1</b> <sup>1</sup> / <sub>4</sub>	5.00	0.011	0.36	
5/16	1.25	0.011	0.12	13/8	5.50	0.011	0.42	
3/8	1.50	0.011	0.14	<b>1</b> <sup>1</sup> / <sub>2</sub>	6.00	0.011	0.48	
1/2	2.25	0.011	0.16	<b>1</b> <sup>5</sup> / <sub>8</sub>	6.50	0.011	0.52	
5/8	2.75	0.011	0.18	13/4	7.00	0.011	0.58	
3/4	3.00	0.011	0.20	<b>1</b> <sup>7</sup> / <sub>8</sub>	7.50	0.011	0.62	
7/8	3.50	0.011	0.23	2	8.00	0.011	0.66	
1	3.75	0.011	0.28	21/4	9.50	0.011	0.76	

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## **Corrugated Metal Hose Services**

Hose Tec designs and manufactures a wide variety of custom corrugated metal hose. Corrugated metal hose is generally used in high pressure applications, for everything from air and water to natural gas and molten sulfur. Hose Tec offers medium weight/medium flexibility and heavy duty/higher pressure versions depending on the needs of the application.



We provide additional services such as adding special protective covers or guards, identification tags for hose tracking, or lining corrugated hose with interlocked hose for additional abrasion resistance.



## Corrugated Hose Assembly with Interlocked Hose Liner

- Liner is used to help protect the hose corrugations.
- Eliminates material build-up and reduces damage caused by abrasion.

## **Thermal Fire Sleeves**

- Silicone coated fiberglass orange sleeves.
- Protects assembly from high heat or molten splash.



## **Identification Tags**

 Are available to be attached to any hose assembly as required.

Please refer to the back page for the location of your nearest warehouse for availability of products/sizes shown.

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## Corrugated Metal Hose – Medium Weight/Medium Flexibility

**Construction:** Annular/Standard Pitch (open and compressed available upon request)

Hose Material: 316 or 321 Stainless Steel Braid Material: 316 or 321 Stainless Steel

		ICAIDI							
ID (in.)	Braids	Braid Construction	Braid Coverage	OD (in.)	Max. Pressi (PS		Centerline E (ir	Bend Radius 1.)	Weight (lbs./ft.)
		Construction	(%)		Working	Burst	Dynamic	Static	(IDS./IL.)
1/4	0 1 2	24 x 5 x 0.014	89	0.48 0.57 0.64	180 2,116 3,125	- 8,464 12,500	5.0	1.00	0.09 0.17 0.26
3/8	0 1 2	24 x 7 x 0.014	91	0.63 0.70 0.81	100 1,501 2,401	6,004 9,604	5.5	1.25	0.13 0.25 0.36
1/2	0 1 2	24 x 7 x 0.014	82	0.82 0.89 0.96	80 1,075 1,720	4,301 6,880	6.0	1.50	0.23 0.34 0.46
3/4	0 1 2	36 x 8 x 0.014	90	1.21 1.28 1.35	70 792 1,267	3,168 5,069	8.0	2.25	0.39 0.59 0.79
1	0 1 2	36 x 9 x 0.014	85	1.51 1.58 1.65	40 571 914	2,285 3,654	9.0	2.75	0.53 0.75 0.98
1 1/4	0 1 2	48 x 7 x 0.016	83	1.85 1.93 2.02	25 531 850	2,125 3,398	10.5	3.50	0.76 1.07 1.37
1 1/2	0 1 2	48 x 9 x 0.016	87	2.19 2.28 2.37	20 472 755	1,887 3,021	12.0	4.00	0.84 1.23 1.63
2	0 1 2	48 x 9 x 0.020	89	2.61 2.72 2.84	15 516 826	2,064 3,302	15.0	5.00	0.90 1.52 2.14
2 1/2	0 1 2	72 x 7 x 0.020	86	3.23 3.33 3.43	12 387 619	1,548 2,477	20.0	8.00	1.16 1.86 2.56
3	0 1 2	72 x 8 x 0.020	85	3.78 3.88 3.98	10 316 506	1,264 2,022	22.0	9.00	1.21 2.00 2.80
3 1/2	0 1 2	72 x 10 x 0.020	84	4.32 4.45 4.58	9 297 475	1,188 1,900	24.0	10.00	1.62 2.61 3.60
4	0 1 2	72 x 10 x 0.020	84	4.85 4.98 5.10	8 232 371	927 1,485	27.0	13.00	1.69 2.68 3.68
5	0 1 2	72 x 8 x 0.025	74	5.90 6.03 6.15	6 191 306	764 1,222	31.0	18.00	2.50 3.75 5.00
6	0 1 2	96 x 12 x 0.020	90	6.87 7.10 7.33	5 165 264	660 1,056	36.0	19.00	3.47 4.75 6.04
8	0 1 2	96 x (21 x 0.024)	96	9.09 9.19 9.28	6 234 374	934 1,495	40.0	20.00	5.56 9.44 13.36
10	0 1 2	96 x (25 x 0.028)	98	11.18 11.32 11.45	5 230 367	918 1,469	50.0	25.00	6.80 12.90 19.00
12	0 1 2	96 x (25 x 0.028)	97	13.23 13.37 13.50	3 161 257	643 1,029	60.0	30.00	9.02 14.83 20.64
14	0 1 2	96 x (25 x 0.028)	93	14.70 14.84 14.98	3 119 190	476 760	70.0	35.00	14.10 21.70 29.30



# Corrugated Metal Hose – Heavy Duty/Higher Pressure & Corrosion Resistant

Construction: Annular/Close Pitch

Hose Material: 316 or 321 Stainless Steel

Braid Material: 316 or 321 Stainless Steel

ID (in.)	Braids	Braid Construction	Braid Coverage	OD (in.)	Max. Press (PS		Centerline B (in		Weight (lbs./ft.)
		Construction	(%)		Working	Burst	Dynamic	Static	(105./11.)
1/4	0 1 2	24 x 5 x 0.014	89	0.50 0.57 0.64	180 2,562 4,099	- 10,250 16,400	5.0	2.50	0.09 0.17 0.26
3/8	0 1 2	24 x 7 x 0.014	91	0.67 0.74 0.81	100 1,501 2,401	- 6,004 9,604	5.5	2.75	0.13 0.25 0.36
1/2	0 1 2	24 x 7 x 0.020	96	0.82 0.92 1.02	80 2,194 3,510	- 8,777 14,040	8.0	4.00	0.39 0.63 0.87
3/4	0 1 2	36 x 6 x 0.020	92	1.21 1.31 1.41	70 1,311 2,098	- 5,244 8,392	8.0	4.00	0.48 0.79 1.10
1	0 1 2	36 x 8 x 0.020	95	1.50 1.60 1.70	40 1,069 1,710	- 4,276 6,840	9.0	4.50	0.79 1.20 1.61
1 1/4	0 1 2	48 x 6 x 0.025	95	1.85 1.97 2.10	33 1,110 1,776	- 4,443 7,040	10.0	5.00	1.02 1.66 2.30
1 1/2	0 1 2	48 x 7 x 0.025	95	2.17 2.30 2.43	20 868 1,388	- 3,472 5,552	10.0	5.00	1.36 2.11 2.86
2	0 1 2	48 x 9 x 0.025	95	2.51 2.64 2.76	15 810 1,296	- 3,240 5,184	11.5	5.75	1.60 2.56 3.52
2 1/2	0 1 2	72 x 7 x 0.025	96	3.23 3.36 3.49	10 578 925	- 2,312 3,700	24.0	12.00	2.00 3.12 3.30
3	0 1 2	72 x 9 x 0.025	88	3.78 3.91 4.03	10 540 864	- 2,160 3,456	28.0	14.00	2.97 4.42 5.87
4	0 1 2	72 x 9 x 0.025	89	4.91 4.93 5.05	8 333 533	1,332 2,132	40.0	20.00	3.10 4.55 6.00
6	0 1 2	96 x (13 x 0.025)	89	6.87 7.10 7.33	5 266 425	- 1,062 1,700	48.0	24.00	3.85 6.45 9.05

All corrugated hoses are custom designed. Contact Hose Tec at (800) 878-5501 for pricing and availability.



## **Fittings for Custom Assemblies**

In addition to our standard cam lock couplings, Hose Tec metal hose assemblies can be designed and manufactured with a wide variety of end fittings. Some of the more common include the following:



Method of

Attachment

Weld or epoxy

Weld or epoxy

Weld or epoxy

Weld or epoxy

Weld

Weld or epoxy



## **Fittings for Custom Assemblies**

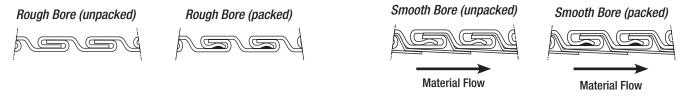
Fitting Type	Description	Materials Available	Method of Attachment
Sanitary Coupler	For use in food and beverage applications.	Stainless	Weld
Tube End	Wide range of wall guages available.	Aluminum or stainless steel	Weld or epoxy
Raised Face Flange	1/2" thru 14"	Carbon Steel or Stainless	Welded
Plate Flange	150# drilling. Variety of thicknesses and drill- ings available, including TTMA specifications.	Carbon Steel or Stainless	Welded
Stub End	Schedule 10 is stan- dard. Schedule 40 available upon request	Stainless Steel	Weld or epoxy
Floating Flange (Unassembled)	Various sizes available, consult with factory for details.	Carbon Steel or Stainless	Weld
Floating Flange (Assembled)	1/2" thru 14"	Stainless stub with Carbon Steel flange or Stainless Steel stub with Stainless Steel flange	Weld or epoxy

Please refer to the back page for the location of your nearest warehouse for availability of products/sizes shown.

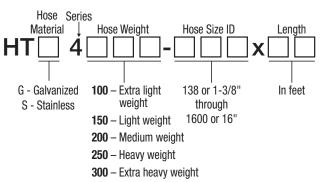


## INTERLOCKED METAL HOSE

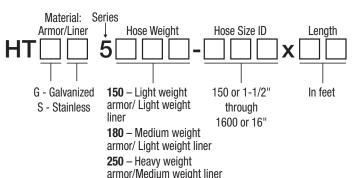
Also referred to as strip-wound metal hose, interlocked metal hose is manufactured from a single metal strip wound around a mandrel. It's generally more flexible than corrugated metal hose, used in medium pressure applications (15-20 PSI), and is not liquid tight. Interlocked hose can be manufactured with a smooth bore liner that provides additional abrasion resistance and reduces degradation of the transferred materials. They can also be manufactured with various packing materials, such as fabrics and elastomers, to make a more pressure tight hose. Interlock hoses are generally used for dry bulk material handling, in exhaust applications, or as a protective cover for plastic or rubber hoses.



## **HT4000 Series Rough Bore**



## **HT5000 Series Smooth Bore**



## CORRUGATED METAL HOSE

Corrugated metal hose is manufactured from a metal strip that's rolled and welded together, with corrugations added to increase flexibility. The corrugations are available in annular or helical patterns. Annular corrugations are parallel and independent of one another. They are more common than helical corrugations as they're generally more flexible. Helical patterns consist of a single corrugation that runs around the entire length of the hose, and better allow liquid to drain from the hose. Single or double layer metal braids are often added to the exterior of corrugated hose to increase the pressure rating which can exceed 3,000 PSI. Therefore, corrugated hoses are generally used in high pressure applications involving fluids or gasses.





## **PACKING MATERIALS**

Packing materials are commonly inserted into a specially designed groove within the interlocked hose to make it more pressure tight. Various packing materials are available based on the particular requirements of the application. Packing is particularly common in powder transfer applications where a tighter seal is required.

Packing Materials	Maximum Temperature (°F)	Primary Benefits		
Fiber (Cotton)	300	Economical		
Fiber (Apyrous)	700	High Temperature Resistance		
Elastomer (NR)	180	Highest Pressure & Vacuum Ratings		
Elastomer (Silicone)	500	Highest Pressure & Vacuum Ratings; High Temperature Resistance		
Metal (Stainless Steel)	1,500	Highest Temperature Resistance		

## **EPOXY/BOLT CONNECTION**

The process of welding ends onto the hose has a tendency to burn and damage most packing materials near the area of the weld (except the stainless steel packing). This results in areas that are less pressure tight near the ends. Hose Tec has designed a process by which the couplings are attached with a high strength adhesive and secured with two bolts, thereby not damaging the packing.



Round headed bolts are used inside as to not cause an obstruction of the transferred materials.

## **TOES**

TOE (threaded one end) couplings consist of a plain end x NPT thread, welded onto the hose, allowing for easy coupling attachment and interchangeability with NPT couplings.

TOE couplings are commonly used with interlock hose in order that the end user can easily replace couplings in the field, should one become damaged. Alternatively, had the cam lock or flange been welded directly to the hose, they would need to return it for repair.

TOE couplings are also commonly used with corrugated hose in order to provide adaptability for different piping configurations. The end user can use the TOE fitting to connect to female couplers, elbows, cam locks, ball valves, or female unions.



TOE ends allow for easy fitting replacement and interchangeability in the field.



## **Commonly Used Metal Hose Terms**

**Abrasion** — Scuffing, rubbing or wear of a hose or braid surface.

**Ambient Conditions** — The surrounding environment to which a hose assembly is subjected. This includes temperature, corrosion and extreme physical conditions.

**Annular** — With reference to the convolution form, meaning independent corrugations straight and parallel.

**Armor** — Flexible interlocked tubing placed over the entire length, or in short lengths, at the ends of a metal, hose to protect it from physical damage and to help protect from over bending.

**ASME** — American Society of Mechanical Engineers.

**Bend Radius** — The centerline radius of a hose in a bent condition.

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

**Compressed** — Interlocked hose in its completely closed state.

**Extended** — Interlocked hose in its completely open state.

**Fatigue** — The process of failure in a metal hose associated with motion or pressure.

**Floppy Interlock "Floppy Guard"** — Constructed for maximum flexibility.

**Helical** — With reference to the convolution form, meaning one single convolution generated along the axis of the tube in a manner similar to a screw thread.

**Interlocked Hose** — Formed from profiled strip and would 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 in an elastic radius.

**Minimum Bend Radius** — The smallest radius to which a hose is permitted to be bent, generally applicable only to static conditions. Sometimes referred to as static bend radius.

**Natural Lie (Relaxed)** — Interlocked hose halfway between the compressed and extended state.

**Offset** — A condition wherein the ends of a hose are displaced laterally with respect to each other with the ends being in parallel planes. Sometimes referred to as lateral offset, shear, or parallel offset.

**Operating Conditions** — The designation of pressure, temperature, motion media and environment. Used interchangeably with "application."

**Packing** — Material inserted into the windings of interlocked hose to make it less susceptible to leaking.

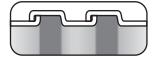
**Pressure** — The internal hydraulic or pneumatic force applied to a metal hose.

**Rough Bore (Unlined)** — Interlocking metal hose that allows movement of media in either direction.

**Smooth Bore (Lined)** — Interlocking metal hose that uses an additional strip to create a smooth transition of media in one direction only.

**Square Cutting** — Cutting the end of a metal hose so that the end will be completely flush with a fitting for attaching.

**Squarelocked Hose —** Flexible metal hose that is not mechanically locked together.



**Standard Interlock —** Flexible interlocked hose that offers flexibility, strength and service life.



TOE - Threaded one end

**Torque** — A force that produces rotation on an interlocked hose.

**Vacuum** — Negative pressure or suction.

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## HOSE TEC™ TECHNICAL REQUEST FORM

Account:	TR No.:						
Contact:	Date:						
Phone:	Requested By:						
Fax:	New ☐ Revision ☐ P/N:						
Email:	Cust/Comp Samples: Yes □ No □						
SECTION A - APPL	ICATION DETAILS						
SECTION A – APPLICATION DETAILS  Equip/Machine Type: What is hose transporting?							
Fitting Type:	Solid Liquid Gas Gas						
	Is it hazardous?						
Mostly Indoor Use ☐ Outdoor Use ☐	Is jacket abrasion a problem?						
Operating Pressure PSI Constant Pulsating Sample Approval F	Required?						
Normal working pressure: psi @ ° F / C  Maximum working pressure: psi @ ° F / C What	is being used now?						
Normal working temperature: ° F / C	Is it satisfactory? Yes  No  No						
	If not, why?						
	desirable feature:						
Vacuum: in. Hg							
SECTION B - PRODU	ICT CONSTRUCTION						
Similar Hose Tec™ Product No.:							
I.D.: " ± " O.D.: " ±	" Strip Thickness:" ±"						
(if tolerance not specified, standard r							
Hose Material:							
(e.g. Material can be Stainless Steel,	, ·						
Fittings Required: No 🗆 Yes							
Other Details:	Packing Type:						
one search	T dotting Type:						
SECTION C - BRAN	IDING & LABELING						
Hose: ☐ Regular Hose Tec Labeling							
☐ Special Label Required:							
Directional Flow Arrows: Yes ☐ No ☐							
Lay Lines: Yes ☐ No ☐ Standard Black Color: Yes ☐ No ☐	Other Paint Color Required:						
SECTION D - APPL	ICATION DRAWING						
Sketch the installation and include all dimensions and motions of hose du	ring application.						

re (inches): \_\_\_\_\_ (in the event the fittings or hose have different sizes, include asll sizes and show on the application drawing).

It's as easy as 1...2...3! 1. Photocopy 2. Complete 3. Fax FAX: (765) 762-5502 Toll-Free FAX: (800) 879-8232

## **Cautionary Statement**

All Products sold and distributed by Kuriyama of America, Inc. are in the nature of commodities and they are sold by published specifications and not for particular purposes, uses or applications. Purchaser shall first determine their suitability for the intended purposes, uses or applications and shall either conduct its own engineering studies or tests, or retain qualified engineers, consultants or testing laboratories and consult with them before determining the proper use, suitability or propriety of the merchandise or Products for the intended purposes, uses or applications.

Kuriyama of America, Inc. ("Seller") does not recommend the Products for any particular purpose, use or application, and the Purchaser or user thereof shall assume full responsibility for the suitability, propriety, use and application of the Products. Purchaser shall follow all instructions contained in Seller's catalogs, brochures, technical bulletins and other documents regarding the Products. The Products, including but not limited to, hose, tubing or couplings, may fail due to the use or conveyance of substances at elevated or lowered temperatures or at excessive pressure, the conveyance of abrasive, injurious, flammable, explosive or damaging substances.

Hose or tubing used in bent configurations will be subjected to increased abrasion. Hose clamps or couplings may loosen after initial installation and all sections of hose and tubing including connections, couplings, clamps, conductivity and bonding should be inspected frequently, regularly and consistently, and should be replaced, adjusted or re-tightened for the avoidance of leakage, for the prevention of injuries or damages, and for general safety purposes. Except as indicated in its Limited Warranty, Seller shall not be liable or responsible for direct or indirect injuries or damages caused by or attributed to the failure or malfunction of any Products sold or distributed by it.

Purchasers or users of the Products should frequently and consistently undertake inspections and protective measures with respect to the use and application of Products, which should include the examination of tube and cover, conditions of the hose or tubing, and the identification, repair or replacement of sections showing cracking, blistering, separations, internal and external abrasions, leaking or slipped couplings or connections and make proper proof tests.

## **Limited Warranty**

The Products sold or distributed by Seller are warranted to its customers to be free from defects in material and workmanship at the time of shipment by us, subject to the following provisions.

ALL WARRANTY CLAIMS SHALL BE MADE WITHIN SIX (6) MONTHS AFTER SELLER SHIPPED THE PRODUCTS. SELLER'S LIABILITY HEREUNDER IS LIMITED AT SELLER'S EXCLUSIVE DISCRETION, TO 1) THE PURCHASE PRICE OF ANY PRODUCTS PROVING DEFECTIVE; 2) REPAIR OF ANY DEFECTIVE PRODUCT OR PART THEREOF; OR 3) REPLACEMENT OF ANY DEFECTIVE PRODUCT OR PART UPON ITS AUTHORIZED RETURN TO SELLER. THIS WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESSED, IMPLIED, STATUTORY, OR OTHERWISE CREATED UNDER APPLICABLE LAW INCLUDING, BUT NOT LIMITED TO, THE WARRANTY OF MERCHANTABILITY AND THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL SELLER OR THE MANUFACTURER OF THE PRODUCT BE

LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING LOSS OF PROFITS, WHETHER OR NOT CAUSED BY OR RESULTING FROM THE NEGLIGENCE OF SELLER AND/OR THE MANUFACTURER OF THE PRODUCT, UNLESS SPECIFICALLY PROVIDED HEREIN. IN ADDITION, THIS WARRANTY SHALL NOT APPLY TO ANY PRODUCTS OR PORTIONS THEREOF WHICH HAVE BEEN SUBJECTED TO ABUSE, MISUSE, IMPROPER INSTALLATION, MAINTENANCE, OR OPERATION, ELECTRICAL FAILURE OR ABNORMAL CONDITIONS, AND TO PRODUCTS WHICH HAVE BEEN TAMPERED WITH, ALTERED, MODIFIED, REPAIRED, REWORKED BY ANYONE NOT APPROVED BY SELLER, OR USED IN ANY MANNER INCONSISTENT WITH THE PROVISIONS OF THE "CAUTIONARY STATEMENT" ABOVE OR ANY INSTRUCTIONS OR SPECIFICATIONS PROVIDED WITH OR FOR THE PRODUCT.

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## **Notes**




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## CONTACT OUR SALES/WAREHOUSE LOCATIONS BELOW WHICH SERVE YOUR AREA

## SOUTHWEST WAREHOUSE KURIYAMA OF AMERICA, INC. HOUSTON

200 Portwall Street, Suite 100 HOUSTON, TX 77029 Phone: (713) 674-8212 Toll Free Phone: (800) 501-6808 FAX: (713) 674-5214 Toll Free FAX: (800) 800-5214

## WESTERN WAREHOUSE KURIYAMA OF AMERICA, INC. SANTA FE SPRINGS

10749 SHOEMAKER AVENUE SANTA FE SPRINGS, CA 90670-4039 Phone: (562) 941-4507 FAX: (562) 941-8940 Toll-Free FAX: (800) 326-8940

## SOUTHEAST WAREHOUSE FORTNEY SALES CO., INC.

4221 Cantrell Road NW Acworth, GA 30101 Phone: (770) 427-6528 FAX: (770) 423-9249 Toll Free FAX: (800) 423-9249 Web Site: www.fortneysales.com E-Mail: sales@fortneysales.com

## EASTERN WAREHOUSE EASTERN RUBBER & PLASTICS CO., INC.

100 Goldman Dr.
PLUMSTED INDUSTRIAL PARK
CREAM RIDGE, NJ 08514
Phone: (609) 758-0100
FAX: (609) 758-0102
Toll Free FAX: (800) 445-7138
Web Site: www.easternrubber.com
E-Mail: sales@easternrubber.com

## MEXICO WAREHOUSE KURIYAMA DE MÉXICO S DE RL DE CV

Av Jose Palomo Martinez No 520-20 Bodega 5 Parque Industrial Omolap Apodaca, N.L. CP:66633, Mexico Telefonos: (81) 1086-1870 ó 71 Lada sin Costo: 01-800-822-52-00 FAX: (81) 1086-1869 Internet: www.kuriyama.com Correo Electronico: ventas@kuriyama.com

### CANADA WAREHOUSE KURI TEC CORPORATION

Box 21052, L P M P 0 140 Roy Boulevard Brantford, ONT, Canada N3R 7W9 Phone: (519) 753-6717 FAX: (519) 753-7737 Web Site: http://www.kuritec.com E-mail: sales@kuritec.com

## **About Hose Technology...**



Hose Technology is dedicated to manufacturing the highest quality flexible metal hose, delivered quickly and competitively priced.

Our plant in centrally located in the Midwest to provide fast delivery, and has been designed solely for the efficient manufacture of flexible metal hose and ducting.

Hose Technology's standard Hose Tec® Brand products are being inventoried in all Kuriyama warehouses.

We pride ourselves on our ability to meet our customer's individual needs. Whether you need a special length, special diameter, special materials of construction, special fittings, or just special handling, don't hesitate to ask!

## PLANT AND WAREHOUSE LOCATION





