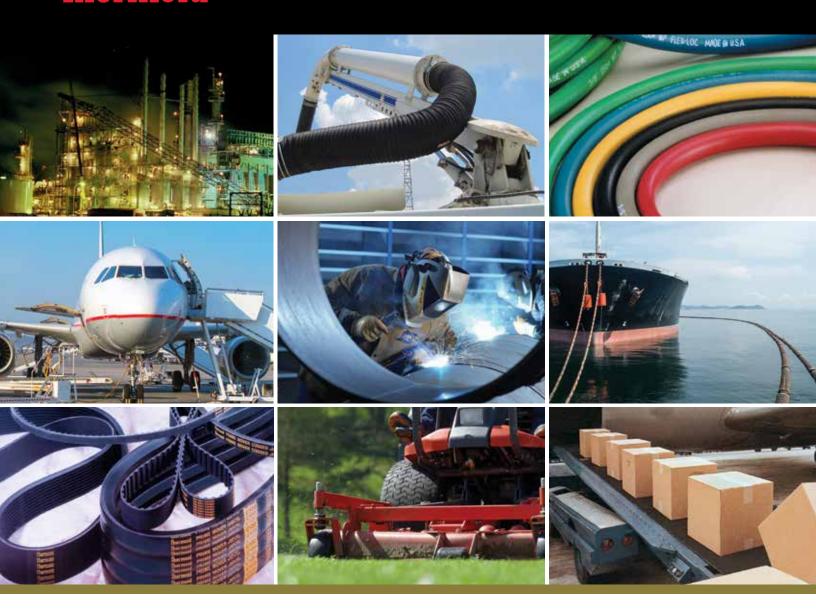
Thermoid®



RUBBER PRODUCTS CATALOG



ABOUT THERMOID

Founded in 1883, Thermoid® manufactures one of the widest lines of industrial rubber products available anywhere in the world. Thermoid® serves many diverse industries and markets and works with customers to source both standard and custom-designed products, ranging from multipurpose industrial hoses to conveyor belting. End users, OEMs and industrial distributors worldwide choose Thermoid® products for their reliability, quality construction, durability and exceptional performance.

Thermoid® is a subsidiary of HBD Industries, Inc., a privately-held diversified manufacturer of highly engineered products. With a heritage dating back to 1864, HBD Industries has grown through acquisition of niche manufacturing businesses to expand its presence and offerings. Today, HBD Companies produce alloy components, industrial rubber and power transmission solutions serving industrial market segments.

MANUFACTURING EXCELLENCE & SAFETY

Thermoid® products are made in environmentally safe manufacturing facilities that operate under the guidance of ISO 9001 Quality Systems. All products are tested to meet or exceed stringent industry standards, and to ensure long- term operation and workers safety. A strong commitment to maintaining and improving the quality of product performance and customer service is inherent within our management policy and extends to every member of the company.



APPLICATION EXPERTISE

Our expert design and application engineers are available to assist our customers, product design engineers and OEMs, and provide innovative solutions for most demanding industrial markets, including:

- Aerospace/Aviation
- Agriculture
- Construction
- Defense/Military
- Material Handling
- Medical/Health
- Metal Processing
- Mining
- Petro-Chemical
- Power Generation
- Power Transmission
- Textile
- Transportation & Utilities

Capable of sourcing nearly every type of standard, industrial rubber product required, Thermoid® can also create an almost unlimited number of application-engineered rubber products, including:

- Automotive Aftermarket Hose & Accessories
- Conveyor Belting
- Ducting
- Grafting/Nursery Rubber Budding Strips
- Hose Products (Automotive, Aviation, Bulk Transfer
- Chemical, Industrial, Marine, Petroleum and More)
- Power Transmission Belts (V-Belts and Timing Belts)
- Rubber Rolls/Roll Coverings





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Thermoid®

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Air Power™ Jackhammer	TYPE 95 FOOD — Gray Cover
Black Max® M.R.O	TYPE 96 F00D – Gray Cover
Dura-Red™	TYPE 120 F00D — Gray Cover
Excalibur™ Multipurpose	INDUSTRIAL DUCTING PRODUCTS
Flex-Loc™ 300 Push-On	
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Maxecon™/GP	MATERIAL HANDLING
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Red Air Tool Coupled	DREDGING SLEEVES
VALUFLEX®/GS - Black	Flexlock™ Connectors
VALUFLEX®/GS - Green, Yellow or Blue	Flexlock™ Ends (Full Face Flanges)
VALUFLEX®/GS - Red	Flexseal™ Connectors (Beaded Connectors)
Versicon®	Flexseal™ Ends (Beaded Ends)
ALITOMOTIVE MARRINE COOL ANT	Sand & Cement Discharge (Black Cover)
AUTOMOTIVE/MARINE COOLANT	SAND SUCTION
1158 Softwall Aromatic Fuel SAE 30R2, Type 2	TRANSPORTER® HOT AIR BLOWER
2007 STANDARD WALL 3/16" COOLANT SAE 20R1	TRANSPORTER® MATERIAL DISCHARGE
2012 Standard Wall 3/16" Coolant SAE 20R1	TRANSPORTER® OIL FIELD VACUUM
2015 Heavy Wall 1/4" Coolant SAE 20R1	TRANSPORTER® PLASTER & CONCRETE
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600D – Gray Cover	
F00D – Gray Cover	
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ERIAL HANDLING	Alarm® Booster – Thermocure
pipe® (Black Cover)	Black Heavy-Duty Contractors Water — Coupled
G SLEEVES	Black Heavy-Duty Water — Coupled
Connectors	Black Municipal Water – Coupled
'Ends (Full Face Flanges)	CASCADE PAPER MILL
Connectors (Beaded Connectors)	Dari-Preen Creamery
Ends (Beaded Ends)	Green Garden – Coupled
ement Discharge (Black Cover)	16 Nylair 44 water discharge
TION	raper machine suction box
RTER® HOT AIR BLOWER	17 Paper Mill-Type 1/88 (Gray Cover)
RTER® MATERIAL DISCHARGE	Sani-White® Washdown
RTER® MATERIAL SUCTION	Iransporter® Water Discharge
RTER® OIL FIELD VACUUM	Transporter® Water Suction & Discharge
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lndicates hose product available in VAPOR-LOC™ version.

BELTING PRODUCTS CONVEYOR





CONVEYOR BELTING

Over the last 50 years, Thermoid® has become widely known and respected as a high quality manufacturer and innovator of lightweight rubber conveyor belting products. Many improvements that are now considered industry standards were conceptualized and developed in our research laboratories. We were the first to use 100% polyester and 50/50 polyester-cotton blends for greater strength and moisture resistance in our lightweight belting. We were also the first to use a nitrile rubber to dramatically improve the oil resistance in our food belts, and we pioneered the development of special adhesive treatments for synthetic carcasses that help keep plies from separating.



APPLICATIONS

From the highest quality food-grade products that meet the most rigorous standards of the FDA, to highly engineered belting for today's automated Package Handling systems, each of our products is quality made and application-engineered to offer high performance, long life and exceptional value. Applications include:

FOOD HANDLING

From field to factory, Thermoid® offers a full range of food-grade belting with multiple fabric selections, specially designed compounds in a variety of colors, and a choice of food-grade cover impressions. Operating environments include high and low temperatures (from -65° F to 300° F), as well as hot, oily, acidic or sticky conditions. Thermoid® food belting is FDA and USDA approved for both direct and packaged products across any food need, including fruits, nuts, meat, fish and poultry.

Meats & Poultry – USDA & FDA Approved

- Saniwhite Nitrile rubber (all fabrics)
- Sani-Brite NBR/PVC rubber (all fabrics)
- Hot 'n Cold Butyl (Polyester fabrics)
- Ridgetop Nitrile

Hot, Oily Foods (FDA)

- Saniwhite Nitrile rubber (all fabrics)
- Sani-Brite NBR/PVC rubber (all fabrics)
- Hot 'n Cold Butyl
- Teflon®

Frozen Food Conveyor Belting

- Butyl Hot 'n Cold
- Rubber Slide-A-Pack
- Rubber Griptop

Fruit/ Vegetable Processing

- Saniwhite Nitrile rubber (all fabrics)
- Sani-Brite NBR/PVC rubber (all fabrics)



PACKAGE HANDLING

Thermoid® offers multiple baggage/handling solutions for numerous systems. Our VCleat, Ribflex and Diamond Incline Belts smoothly and effortlessly move products along steep inclines and declines, and our Pack-EZ S/ Weave or EZ Premium PH Series Belt products improve the efficiency and speed of Slider Bed Package Handling Systems. Additionally, our Sliptop, Caripack and Slide-A-Pack belts are ideal for horizontal belt package handling applications.

Belts For Inclines/Declines – When Oil Is Present

• Griptop – Up to 35 degree inclines/declines

Belts For Steep Inclines/Declines – Up To 45°

- Diamond Incline
- V-Cleat
- Ribflex

Belts For Package Slider Bed Systems

- Pack-EZ S/Weave
- Pack-EZ Premium PH Series

Belts For Horizontal Service

- Caripack
- Slide-A-Pack
- Sliptop
- Sheeting Belt
- Hot Stock & Water

AGRICULTURE

Offering numerous products that span the entire agricultural production process, Thermoid® agricultural conveyor belting is selected for its reliability and durability across varying terrain and environments

Incline Service - FDA Approved

- Griptop for up to 35° inclines and declines
- Ridgetop USDA & FDA Approved

Potato Harvesting/Utility Service

• Potato (2-ply synthetic fabrics)

LIGHT INDUSTRIAL / AUTOMATION

From lightweight sheeting belts to Slide-A-Pack transmission belts, each product is specifically engineered to meet the demanding requirements of common light industrial applications. Thermoid® also offers a wide range of products for the newer, highly automated, material handling systems.

Belts - When Oil Is Present

- Nitrile rubber (Polyester, PNT, SCP)
- NBR/PVC rubber (Polyester, PNT, SCP and APT)
- MOR Rubber

Belts - For Oil-Free Service

- Hot Stock & Water
- Caripack
- Slide-A-Pack
- Potato (Utility)

SPECIAL APPLICATION PRODUCTS

- Big Red (Silicone Covered) for Hot or Cold Tacky Material
- Plywood Processing Tray
- Lumber Service Lumber



THERMOID BELT DESCRIPTION AND NOMENCLATURE

Belt Width	Number of Plies and Fabric	Belt Style or Color	Color or Style	Top Cover	Bottom Cover
72"	2 ply APT-35	Sani-Brite	White Nitrile	3/64"	FS
72"	3 ply PCB-35	Tan SBR	Slide-A-Pack	FS	FS
72"	2 ply APT-75	Black SBR		Griptop	Bare
72"	2 ply APT-75	Black SBR	Potato Belt	1/32″	1/32″

THERMOID LIGHTWEIGHT BELTING COMMON COMPONENTS

	Standard Fabrics – Tension Rating Color(s)			Compound		Туре
APT-35	RFL Treated Polyester rated at 35 lbs/in/ply	Black	Nitrile	Oil Resistant NBR	Saniwhite	Nitrile (NBR) Food Belting
PNT-50	RFL Treated Polyester/Nylon rated at 50 lbs/in/ply	White	Sani-Brite White Nitrile	High gloss, oil resistant NBR/ PVC blend	Sani-Brite	High Gloss Food Belting NBR/ PVC
SCP-14	Spun Cotton/Polyester rated at 14lbs./in/ply	Blue	Butyl	High and Low Temperature Polymer	Caripack	High Gloss Food Belting NBR/ PVC
SCP-23	Spun Cotton/Polyester rated at 23 lbs./in/ply	Red/Brown	SBR	General purpose Styrene Butadiene Rubber	Slide-A-Pack	Transmission Belting
APT-75	RFL Treated Filament Polyester rated at 75 lbs/in/ply	Red	NR	Natural Rubber	HSW	Hot, Stock, and Water
PNT-75	RFL Treated Polyester/Nylon rated at 75 lbs./in/ply	Blue	Carbox.	High abrasion resistant Carboxylated Nitrile	Gin Flashing	Cotton Gin Flashing
PCB-35	Spun Cotton/Filament Polyester rated at 35 lbs./in/ply	Orange	Pure-Gum	Abrasion resistant Pure-Gum Rubber	Potato Belt	Agriculture
PN-45	RFL Treated Filament Polyester rated at 110 lbs./in/ply	Black	MOR	Moderate Oil Resistant Rubber	Sliptop	
33oz SHD	33oz/yd 2 Silver Hard Duck rated at 35 lbs./in/ply – All Cotton	Natural				

Stand	Standard Fabrics – Tension Rating Top Cover(s)		Top Cover(s)	bottom Cover(s)			Special
APT-35	RFL Treated Polyester rated at 35 lbs/in/ply	Thickness	Specified as a fraction of an inch or in metric	Thickness	Specified as a fraction of an inch or in metric	FR	Flame Retardant to ASTM D378
PNT-50	RFL Treated Polyester/Nylon rated at 50 lbs/in/ply	Ridge top	1/4" integrally folded cleats on one inch enters	FS	Friction Surface	SE	Self Extinguishing to ISO-340
SCP-14	Spun Cotton/Polyester rated at 14lbs./in/ply	Teflon®	0.002"Teflon film	TD	Bare RFL fabric	AS	Anti-Static to ≥10° to ≤10 ¹⁴
SCP-23	Spun Cotton/Polyester rated at 23 lbs./in/ply	F5	Friction surface	Bare	Bare fabric surface	SC	Static Conductive to a maximum of 300 Mega Ohms (MΩ)
APT-75	RFL Treated Filament Polyester rated at 75 lbs/ in/ply	Gripper	Molded light fabric impression				
PNT-75	RFL Treated Polyester/Nylon rated at 75 lbs./in/ply	TR	Molded fabric (Griptop)				
PCB-35	Spun Cotton/Filament Polyester rated at 35 lbs./ in/ply	TD	Bare RFL fabric				
PN-45	RFL Treated Filament Polyester rated at 110 lbs./ in/ply	SHD	Bare heavy cotton cover				
APT-110	RFL Treated Filament polyester rated at 35 lbs./nch/ply	Bare	Bare fabric surface				
33oz SHD	33oz/yd 2 Silver Hard Duck rated at 35 lbs./in/ply – All Cotton	V-cleat	Molded "M" cleats on $x = \frac{1}{2}$ " enters				
		Big red silicone	Light coating of red silicone rubber				
		Diamond impression	Molded diamond incline				

INDUSTRIAL DUCTING PRODUCTS





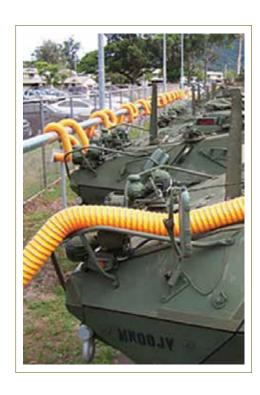
INDUSTRIAL DUCTING

Thermoid® offers a wide range of flexible industrial ducting that meets the highest standards of quality and integrity in the industrial marketplace. Our ducting product line includes many well known and trusted products like FlexKing®, Ultraflex®, Neoflex®, Silflex®, Tuftex® and Cyclone®. The strength and reliability of our products make them suitable for a variety of applications, including industrial air movement, dust collection, fume control and light bulk material handling. Many of these ducting products are outlined within this catalog. However, for complete information on all of our industrial ducting products, please visit our website or contact your area Thermoid® brand distributor.

CUSTOM DUCTING PRODUCTS

In addition to our quality ducting products that are available in standard specifications, Thermoid® has the production expertise and manufacturing capability to design and produce custom ducting products to meet your unique industrial air movement, dust/dirt collection, fume control, light and/or heavy bulk material handling application requirements.

Our experienced personnel can assist you in developing high performance products that will offer long-term service life in harsh working conditions and extreme temperatures









FLEXKING® DUCTING LINE

The FlexKing® product line offers a broad range of base fabrics, plies, coatings and sizes, all of which have a wire helix completely enclosed for a smooth, reliable, flexible operation. Its applications include fume control, cool or warm ventilation, hot air, light materials handling, and even projects where rot, mold and mildew pose a challenge. FlexKing® is available in a variety of neoprene coated fabrics, soft cuffs and neoprene dip coatings.

FlexKing® Type SC

The FlexKing® Type SC performs especially well in low pressure, light duty areas and is best suited for air handling and fume control. It features a single ply, neoprene coated cotton/polyester blend fabric with a helical wire reinforcement.

FlexKing® Type DC

Exceptionally reliable and strong, the FlexKing® Type DC is designed for air handling, fume control, dust collection, and light material handling applications. It features a double ply, neoprene coated cotton/polyester blend fabric with a helical wire reinforcement.





FlexKing Type DC-FR

Featuring the same construction as the FlexKing® Type DC, this product also offers excellent flame resistant qualities that meet UL 94V-O requirements.

FlexKing Type DE

The most rugged of the two-ply FlexKing® products, the Type DE has an incomparable reliability record for performance under the most severe conditions. It resists rupture and flex-fatigue and is both mildew and rot proof. It features a double-ply, neoprene coated polyester fabric and a helical wire reinforcement (it is also available in a single ply construction – FlexKing® SE).





TYPE DC

Hose Inside Diameter (inches)	2	3	4	5	6	7	8	10	12
Weight (lbs./ft.)	0.24	0.41	0.61	0.64	0.75	1.15	1.36	1.64	2.07
Inside Bend Radius (inches)	0.625	0.625	1	1	1.5	1.75	1.75	2	2.5
Length Required for 180° Bend (inches)	9.2	12.5	19	21	25	28	29	38	46
Minimum Burst Pressure (psig)	50	45	40	32	28	24	20	18	15
Internal Working Pressure (psig)	12.5	11	10	9	7	6	5	4.5	3.75
Crush Resistance (lbs./ft.)	490	280	550	360	800	700	600	500	400
Axial Tensile Strength (lbs.)	408	612	816	1000+	1000+	1000+	1000+	1000+	1000+
Retracted Length (in./ft.)	6	6	5	5	4.75	4.75	4.75	4.5	4.5
Neg. Pressure Req. to Collapse (hg.in.)	18	17	16	15	14	13	12	11	10
Operating Temperature Range		-40°F to +250°F							

^{*} FlexKing Type DC is normally available in 25 foot lengths, however this product can be ordered in a range of diameter sizes and lengths.

Thermoid®

ULTRAFLEX® DUCTING LINE

The Ultraflex® ducting line delivers high performance service across multiple applications. The variety of thermoplastic materials used, coupled with its durability, weatherability and resistance to chemicals and abrasion makes this an incredibly versatile line capable of taking on the most demanding jobs.

Ultraflex® Type TPR

The Ultraflex® TPR features a helical wire-reinforced thermoplastic rubber suitable for a wide variety of air handling, fume control, and dust collection applications. It offers superior resistance against abrasion, chemicals, ozone, weathering and flex fatigue.

TYPE TPR

Inside Diameter (inches)	2	4	6	8	10		
Weight (lbs./ft.)	0.22	0.75	0.94	1.62	1.86		
Inside Bend Radius			1/2 of I.D				
Burst (psig)	50	32	27	25	22		
Working Pressure (psig)	17	11	9	8	7		
Compressibility			65%				
Temperature Range	-60°F to +275°F, +300°F Intermittent						
Max. Negative Pressure (in. hg.)	24	24	9	8	6		

Footnote: All pressure and vacuum data based on 72°F temperature.



Standard Colors: BLACK

Sizes:2" I.D. through 18" I.D.Standard25 ft. (other lengths up toLength:50 ft. available upon request)-60°F to +275°F Continuous.

Temp. Range: +300°F Intermittent
Excellent flexibility and compressibility

Features: characteristics; can be used in both positive

and negative applications.

Venting systems for chemical fumes;
Applications: dust collection; exhausting gases; air

movement.

Ultraflex® Type TPC

Ultraflex® TPC consists of a thermoplastic polyvinyl chloride (PVC) material reinforced with a spring steel wire helix. It is an excellent economical choice for industrial applications that require fume removal, ventilation, dust collection, etc.

TYPE TPC

Inside Diameter (inches)	2	4	6	8	10		
Weight (lbs./ft.)	.17	.40	.59	.85	1.03		
Inside Bend Radius	1/2 of I.D.						
Burst (psig)	27	18	17	15	10		
Working Pressure (psig)	9	6	5.5	5	3		
Compressibility			75%				
Temperature Range	-20°F to +180°F						
Max. Negative Pressure (in. hg.)	20	14	8	6	5		

Footnote: All pressure and vacuum data based on 72°F temperature.



Standard Colors: Blue

Sizes:2" I.D. through 18" I.D.Standard25 ft. (other lengths up toLength:50 ft. available upon request)

Temp. Range: $-20^{\circ}F$ to $+180^{\circ}F$

Features: Excellent flexibility, good abrasion

resistance, good chemical resistance, good

weathering characteristics

Applications: Fume removal, ventilation, dust collection,

light material handling internal cooling and

venting of computers



Ultraflex® Type TPU

Constructed of a helical wire-reinforced thermoplastic urethane, the Ultraflex® TPU offers excellent abrasion resistance for material handling applications. It is a tough, versatile, lightweight, flexible product that can be used in a variety of applications, and is offered in black or clear transparent urethane that allows the user to monitor the flow of material.

TYPE TPU

Inside Diameter (inches)	2	4	6	8	10		
Weight (lbs./ft.)	0.24	0.56	0.94	1.08	1.36		
Inside Bend Radius	1/2 of I.D.						
Burst (psig)	50	25	22	15	10		
Working Pressure (psig)	17	8	7	5	3		
Compressibility			65%				
Temperature Range	-65°F to +200°F						
Max. Negative Pressure (in. hg.)	24	23	9	8	6		

Footnote: All pressure and vacuum data based on 72°F temperature.



Standard Colors:BLACK or ClearSizes:2"I.D. through 18"I.D.Standard25 ft. (other lengths up toLength:50 ft. available upon request)Temp. Range:-65°F to +200°F Continuous.

Features: Superior abrasion resistance, excellent low

temperature flexibility, high tear strength, excellent ozone resistance,

and good oil resistance.

Applications: Lawn and garden applications include chip

handling, leaf and grass loading, straw blowing; industrial vacuum systems; transfer of plastic pellets; dry bulk material handling systems; agricultural product material handling; woodworking applications include transfer of sawdust and wood chips.

Thermoid

CYCLONE® UTILITY BLOWER & **UTILITY BLOWER INSULATED**

Our Cyclone® line of ducting products provides excellent

service in applications that require the conveying of air and fume control in large volumes. This line proves to be ideal for portable blower applications, temporary ship construction ventilation, welding fume removal, utility manhole ventilation, portable heaters, and mobile vehicle air conditioning and heating units.

Cyclone® Type UB

This flexible ducting with its exceptional compressibility (approx. 8 to 1) permits ease of storage and handling. It maintains a smooth bore when operating at working pressure, and to protect the ducting when being dragged over rough surfaces, a scuff strip is included for added durability.

TYPE UB CONSTRUCTION

- A. Galvanized spring steel wire helix, fully enclosed.
- B. Single ply vinyl flame retardant, co ated polyester fabric
- C. Thermoplastic scuff strip.
- D. Nylon thread stitching.



TYPE UB TECHNICAL DATA

Inside Diameter (inches): 5 to 30

Larger diameters available upon request.

Operating Temp Range: -40° F to $+250^{\circ}$ F Standard Lengths:

10, 15 and 25 ft.

Longer lengths available. Color: Yellow with black helical wear strip.

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CYCLONE® TYPE UBI

This pre-insulated ducting is designed to move large volumes of hot or cold conditioned air with negligible heat loss or gain. Both flexible and lightweight, it provides a compressibility ratio of approximately 5 to 1, and its exterior scuff strip provides abrasion resistance.

TYPE UBI CONSTRUCTION

- **A.** Galvanized spring steel wire helix, fully enclosed.
- B. Two ply flame retardant, vinyl coated polyester fabric.
- C. Insulation blanket encased between material plies.
- **D.** Thermoplastic scuff strip.
- E. Nylon thread stitching..



Inside Diameter (inches): 5 to 30

Larger diameters available upon request.

Operating Temp Range: -40°F to +250°F

10, 15 and 25 ft. – Longer lengths available. **Standard Lengths:** Color:

Yellow with black helical wear strip.







NEOFLEX® DUCTING PRODUCTS

Our Neoflex® ducting line is designed for conveying hot or cold temperature air and fume control applications ranging from -40°F to +300°F (It is not recommended for applications involving the movement of liquids or abrasive materials, or for negative pressure applications). Its excellent flexibility allows for easy installation around obstructions and sharp bends. Typical applications include portable generator cooling, heater ducts and electronic equipment cooling.

Neoflex® Type SNF

The Neoflex® SNF is an extremely lightweight, highly flexible, low pressure ducting suitable for conveying fumes and air. It features a single ply of neoprene coated fiberglass fabric with an internally exposed helical wire reinforcement. Short lengths can be easily attached together to form a continuous length.

Neoflex® Type DNF

Featuring a double-ply neoprene coated fiberglass fabric with the helical wire reinforcement encased between two plies of fabric, the Neoflex® DNF benefits from a higher pressure rating, improved air flow and less air friction loss.



TYPE DNF

Inside Diameter (inches)	2	3	4	5	6	7	8	10	12
Weight (lbs./ft.)	.22	.35	0.47	0.58	0.69	0.81	0.92	1.15	1.35
Inside Bend Radius (inches)	0.75	1.1	1.25	1.5	1.75	2	2.25	3	4
Length Required for 180° Bend (inches)	10	14	19	24	28	32	38	50	60
Minimum Burst Pressure (psig)	185	160	144	84	76	48	43	38	22
Internal Working Pressure (psig)	46	40	36	21	19	12	9.5	6.5	5.5
Maximum Leakage (cfm/ft. at working pressure)	.020	0.03	0.04	0.05	0.06	0.07	0.08	0.1	0.12
Crush Resistance (lbs./ft.)	400	320	290	240	200	190	145	105	60
Axial Tensile Strength (lbs.)	550	720	900+	900+	900+	900+	900+	900+	900+
Compressed Length (inches per foot)	4	4	3.5	3.5	3.5	3.5	3.5	3.5	3
Operating Temperature Range		-40°F to +300°F							

^{*} NeoFlex Type DNF is normally available in 10 foot lengths, however this product can be ordered in a range of diameter sizes and lengths.



SILFLEX® DUCTING PRODUCTS

Our Silflex® line of ducting products has been designed to handle extreme high and low temperature air handling applications ranging from -80°F to +550°F (It is not recommended for applications involving the movement of liquids or abrasive materials, or for negative pressure applications). Extremely flexible and easily installed around obstructions and sharp bends, typical applications include electronic equipment cooling, paper processing equipment, engine compartment air handling, and fume removal from aluminum and glass manufacturing.

Silflex® Type SSF

Lightweight and extremely flexible, short sections can be joined together to form a continuous length, thereby minimizing waste. It features a single-ply silicone-coated fiberglass fabric with an internally exposed helical wire reinforcement.

Silflex® Type DSF

This ducting features a double-ply silicone coated fiberglass fabric with the helical wire reinforcement encased between two plies of fabric. Its liner allows for improved air flow and less air friction loss. The Silflex® DSF ducting product offers a higher pressure rating than the Silflex® SSF.



TYPE DSF

Inside Diameter (inches)	2	3	4	5	6
Weight (lbs./ft.)	0.2	0.33	0.44	0.55	0.66
Inside Bend Radius (inches)	0.75	1	1.25	1.5	1.75
Length Required for 180° Bend (inches)	10	14	19	24	28
Minimum Burst Pressure (psig)	165	142	125	76	68
Internal Working Pressure (psig)	42	35	31	19	17
Maximum Leakage (cfm/ft. at working pressure)	0.016	0.024	0.032	0.04	0.048
Crush Resistance (lbs./ft.)	400	320	290	240	200
Axial Tensile Strength (lbs.)	525	680	860	900+	900+
Compressed Length (inches per foot)	4.5	4.5	4	3.5	3.5
Operating Temperature Range			-80°F to +550°F		-

^{*} Silflex Type DSF is normally available in 11 foot lengths, however this product can be ordered in a range of diameter sizes and lengths.



TUFTEX® DUCTING PRODUCTS

The Tuftex® product line is an incredibly unique product, as it can almost be considered a general purpose industrial hose. It provides an integrally vulcanized rubber liner and cover with external corrugation that enhances its flexibility while maintaining a smooth bore. This line is designed for gravity or positive and negative pressure applications in bulk material handling applications.

Tuftex® Type CD

This flexible, long service hose is designed to handle lightweight abrasive materials. It can be used for the transmission of liquids, grindings and contaminated air. Its construction consists of a single-ply neoprene coated fabric cover, a .032" abrasion resistant rubber liner, and a spring steel wire helix.



TYPE CD

Inside Diameter (inches)	2	3	4	5	6	7	8	10	12
Weight (lbs./ft.)	.15	.30	.42	.80	1.0	1.25	1.4	1.8	2.5
Inside Bend Radius (inches)	1.25	1.50	1.50	1.75	2.0	2.5	4.0	6.0	9.0
Minimum Burst Pressure (psig)	30	28	26	23	20	18	16	14	12
Negative Pressure Req. to Collapse (in.hg.)	27	27	23	22	20	18	14	9	2
Operating Temperature Range	-40°F to +250°F								

^{*}Tuflex Type CD is normally available in 20 foot lengths, however this product can be ordered in a range of diameter sizes and lengths.



TUFTEX® DUCTING PRODUCTS

Tuftex® MH1, MH2 and MH3

This material handling hose is designed for gravity or positive and negative pressure applications in bulk material handling. Thermoid® manufactures three types of this product (MH1, MH2 and MH3), allowing the customer to select the type that best fits the application, but all three are constructed with excellent abrasion-resistant materials.



CONSTRUCTION TYPE MH (MATERIAL HANDLING)

MH Type 1	MH Type 2	MH Type 3
A. Spring steel wire helix support.	A. Spring steel wire helix support.	A. Spring steel wire helix support.
B. Single-ply synthetic fabric reinforcement.	B. Single-ply synthetic fabric reinforcement.	B. Double-ply synthetic fabric reinforcement.
C. Abrasive-resistant rubber tube .062 inch thick.	C. Abrasive-resistant rubber tube .125 inch thick.	C. Abrasive-resistant rubber tube .250 inch thick.
D. Abrasive-resistant rubber cover.	D. Thick abrasive-resistant rubber cover.	D. Thick abrasive-resistant rubber cover.

Sewer cleaning needs vary, but TUFTEX handles the toughest jobs. TUFTEX comes in a variety of lengths and of ID Sizes. Shown below are just some of the many standard /common sizes:

8"×60"×4"	8"×66"×4"	8"×62"×4"	8"×68"×4"	8"×72"×4"	8" × 100" × 4"
	8"×102"×4"	8"×120"×4"	8" × 20' × 4"	8"×127"×4"	

TUFTEX MH-2

Inside Diameter (inches)	4	6	8	10	
Approx. Weight (lbs./ft.)	2.5	3.5	4.5	6	
Length Required for 90° Bend (inches)	7	11	13	16	
Minimum Burst Pressure (Psig)	90	65	45	40	
Negative Pressure to Collapse (inches hg.)	28+	28+	28+	28+	
Temperature Range	-40°F/40°C to +250°F/168°C				



TUFTEX® DUCTING PRODUCTS

Tuftex® LSH-CB (Leaf Suction Hose)

Featuring a corrugated liner, this hose is produced using weather-resistant and excellent abrasion-resistant rubber compounds which provide a unique flexibility, ease of handling and long trouble-free service life not often associated with material handling hoses.

Construction:

- A. Abrasive resistant rubber liner.
- B. Double-ply synthetic fabric reinforcement.
- C. Abrasive resistant rubber cover.
- D. Spring steel wire helix support.

TUFTEX Type LSH-CB Leaf suction hose gets the job done. It is weather and abrasion resistant and built to get the job done. It comes in a variety of I.D. Sizes (6"- 18") and lengths to suit your application needs, including:

12" X 100" X 6"	16" X 100" X 4"	12" X 10' X 6"	16" X 10' X 4"
16" X 4' X 4"	16" X 12' X 4"	16" X 5' X 4"	AND MORE!

TUFTEX LSH-CB

Inside Diameter (inches)	6	8	10	12	14	16
Approx. Weight (lbs./ft.)	3.6	4.2	6	8	10	12
Length Required for 90° Bend (inches)	16	18	22	27	31	39
Negative Pressure to Collapse (inches hg.)	27	27	27	27	20	17
Temperature Range	-40°F to +250°F					

^{*} Tuflex Type LSH-CB is normally available in 20 foot lengths, however this product can be ordered in a range of diameter sizes and lengths.

■ V-BELT/TIMING BELT PRODUCTS



Thermoid®

V-BELT & TIMING BELT PRODUCTS

From standard belts to custom designs, Thermoid® manufactures a diverse range of power transmission belt products that can power virtually any type of drive application. Our V-belt product line offers customers a variety of configurations and constructions, including Kevlar®, polyester and fiberglass reinforcement as well as synchronous timing belts. Applications include use as original equipment on various power landscaping, garden and ground tilling equipment produced by various OEMs.



THERMOID® V-BELTS

PRIME MOVER™

Prime Mover™ is a premium-rated, heavy duty industrial V-belt that can power nearly every drive in a plant. It is produced to a tight Sure-Set tolerance, ensuring excellent match-ability, and it is oil and heat resistant, as well as static conducting.

Available in A, B, C, D and E cross-sections:

- Multicord construction is standard for D and E sections
- Special order for C section belts when less than 300" is required
- B-section Belts 120" through 200"
- C-Section belts 120" through 200" are branded Unicord®

199009000 P



MAXIPOWER™

The wedge-type, multi-drive, deep-V design enables this smaller belt to carry a bigger load, operating at higher speeds up to 6,500 feet-per-minute. Its width and groove spacing are narrow, reducing sheave face width 30% to 50% compared to classical belt drives, thereby lessening shaft overhang, which places a lighter load on bearings and increases bearing life.

- Oil and heat resistant
- Static conducting. As
- Available in 3V, 5V and 8V sizes
- Available in a special order Kevlar® construction for difficult drives requiring extra strength.





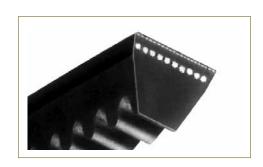
PRIME MOVER™ COGGED

Designed for uniform stress distribution, superior heat dissipation and greater flexibility, this belt has a precision cogged profile base. It provides higher horsepower capacity for exceptional performance on small diameter sheaves using A, B, and C Section V-belts. Prime Mover Cogged™ Belts are available in AX, BX and CX size dimensions and come in a wide variety of lengths.



MAXIPOWER™ COGGED

Maxipower Cogged™ Belts are specifically designed to fit the sheave groves exactly, which allows maximum wedging action. Its heavy duty wedge construction includes tough polyester tensile members, bonded cord and neoprene rubber to prevent separation, improve cord stability and resist fatigue and shock loads. Maxipower belts are also oil and heat resistant and static conducting.*



Thermoid® Banded Belts

POWERPLUS MAXIBAND

Designed for high horsepower, high tension and severe shock load applications such as dredge pumps, hammer mills, pile drivers and steel billet grinders, this belt delivers as much as 50% more horsepower than ordinary belt setups. Its super tough Kevlar® cords with maximum internal adhesion have far more heat resistance and far less stretch than other cords. With a premium chloroprene rubber cushion section that resists compression, heat, oil and fatigue, the belt flexes smoothly as it passes over the sheaves, and an oil-resistant compression section transfers the belt load to the cords.



Cover Features:

- Woven 2-ply
- Specially processed for maximum adhesion
- Protect the carcass from abrasion, heat and oil
- Prevents static buildup.



Thermoid® Banded Belts

PRIME MOVER BANDED

This banded belt is a unitized set of premium construction belts, including a vulcanized band to form a belt set in which the individual V's are spaced to permit operation in MPTA standard groove belt sheaves. This design prevents belt whip and turnover under pulsating and shock loads. Its B and C cross sections up to 200" I.C. are single cord construction which offers flexibility for operating over small diameter pulleys and short distances between pulleys at higher speeds. All D cross sections, B and C sizes over 200" I.C. are multi-cord construction, suited for operation at longer distances. This belt is available in B, C and D cross-sections that are oil and heat resistant and static conducting.*



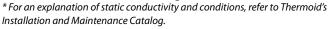
MAXIPOWER BANDED

Maxipower™ Banded V-belts are molded with a vulcanized band into a unitized belt set. The individual V's are spaced to permit operation in MPTA standard groove 3V, 5V and 8V sheaves. It has been engineered for difficult applications where lateral vibration and heavy shocks often cause individual belts to whip or turnover. Maxipower Banded belts are oil and heat resistant and static conducting.*



MAXIPOWER COGGED BANDED

Maxipower Cogged Banded V-belts are cut from a vulcanized sleeve into a unitized belt set. The individual V's are spaced to permit operation in MPTA standard groove 3V and 5V sheaves. They have been engineered for difficult applications where small sheaves, lateral vibration and heavy shocks often cause individual belts to whip or turnover. Sheaves as small as 2.2" in diameter can be used. The unique notched construction distributes bending stress uniformly — and also provides superior heat dissipation. These belts are oil, ozone, and heat resistant and static conducting.*





Thermoid®

Thermoid® V-Belts

POWERPLUS™ REPLACEMENT BELTS

Our replacement belts are specifically designed and produced to withstand the rigors of tough, frequent usage in lawn and garden equipment, home workshop equipment, and hobby center tools, as well as in severe industrial drives. PowerPlus™ belts are offered in 3H, 4H, and 5H cross-sections with Kevlar® cord, and transmit a minimum of 35% more horsepower than standard belts. They can withstand severe shock loads and generally provide longer service life than standard duty belts. They are oil and heat resistant.



Our Select™ belt products have been designed and built tough to withstand shock, reduce fatigue and provide quality, longterm performance under most service conditions. We offer four of the most popular belt styles, including Classical, Classical Cogged, Wedge and Wedge Cogged.

Benefits of a Select™ V-Belt:

- Better, quality made belts
- Excellent performance from every belt style
- Longer service life than comparable imports
- Easy to order
- Competitive prices
- Timely delivery

SELECT CLASSICAL

Select[™] Classical is a heavy duty industrial V-belt available in A, B, C and D cross sections. This one versatile belt can power virtually every drive in your plant and it is manufactured to tight tolerances, ensuring match-ability. It is resistant to oil and heat and is static conductive.*









Thermoid®

SELECT CLASSICAL COGGED

Select™ Classical Cogged belts – AX, BX and CX – have a precision cogged profile designed for uniform stress distribution and excellent heat dissipation. Their construction permits greater flexibility and a higher horsepower capacity for exceptional performance on small diameter sheaves using A, B and C section drives. The aggressive construction is specially designed to fit the sheave grooves exactly, which allows maximum wedging action. These belts are built with tough polyester tensile members to resist fatigue and shock loads. The cord and neoprene rubber are bonded to prevent separation, and reinforcement layers on both sides of the tensile member improve cord stability. All belts are resistant to oil and heat resistant and are static conductive.*



Thermoid® Select™ V-Belts

SELECT WEDGE

Featuring a deep V-design, the Select™ Wedge is a smaller belt to carry a bigger load, operating at higher speeds of up to 6,500 feet per minute. Its width and groove spacing are narrow, reducing sheave face width 30% to 50% compared to classical belt drives, thereby lessening shaft overhang, which places a lighter load on bearings and increases bearing life. It is also resistant to oil and heat and is static conductive.*



SELECT WEDGE COGGED

The Select™ Wedge Cogged is ideal for applications where weight or sheave size is restricted. In applications where increased horsepower is required, this belt – used with sheaves as small as 2.2″ in diameter, provides higher horsepower in a given space when compared to classical belts, thus allowing the use of high speed motors, which, according to the National Electrical Manufacturers Association, can increase energy efficiency by 10%. The unique notched construction distributes bending stress uniformly and provides superior heat dissipation, and in most installations, smaller diameter sheaves can be used, permitting shorter center distances. Its raw edge construction is cut to the precise dimensions to fit the sheave groove, resulting in maximum wedging action and a reduced chance of slippage. Tensile members are engineered to resist fatigue and shock loads. Cord and rubber are specially bonded to prevent





separation. Reinforcement layers on both sides of the tensile member help improve cord stability. Select Wedge Cogged belts have excellent resistance to heat, oil and ozone, and are static conductive.*

Shown below is a quick reference outline about some the belt products on the previous pages as well as a number of our other popular belts. However, to see all of our available Thermoid belt products, please visit our Internet website or contact your area Thermoid distributor for complete information.

THERMOID® POWER TRANSMISSION BELT PRODUCTS
Prime Mover Classical (A, B, C, D, E)
Prime Mover Banded (B, C, D)
Maxipower™ (3V, 5V, 8V)
Maxipower™ Cogged (3VX, 5VX)
Maxipower™ Cogged Banded (3VX, 5VX)
Maxipower™ Banded (3V, 5V, 8V)
Double V (AA, BB, CC) FHP (3L, 4L, 5L)
Metriflex™ (XPZ, XPA, XPB, SPC) Multiribbed (H, J, K, L, M)
Novex (3M, 5M, 7M, 11 M) Open Ended Prime Mover (A, B, C)
PowerPlus™ (3H, 4H, 5H) PowerPlus™ Maxiband (5VK, 8VK)
Variable Speed V-Link Nu-T-Link (A, B)
Timing Trapezoidal (XL, L, H, XH, XXH)
HTD (3M, 5M, 8M, 14M) and STD (8M)
HTD Dual (8M, 14M) and STD Dual (5M)
HTD Heavy Duty (8M, 14M) SELECT™
Classical (A, B, C, D)
SELECT™ Classical Cogged

THERMOID® POWER TRANSMISSION BELT PRODUCTS
(AX, BX, CX) SELECT™
Wedge (3V, 5V, 8V) SELECT™
Wedge Banded (3V, 5V, 8V) SELECT™
Wedge Cogged (3VX, 5VX)
SELECT™ Wedge Cogged Banded (3VX, 5VX)
SELECT™ Timing Trapezoidal (XL, L, H, XH, XXH)
SELECT™ H Tooth (3M, 5M, 8M, 14M)
SELECT™ R Tooth (3M, 5M, 8M, 14M)
SELECT™ S Tooth (8M)
SELECT™ Metric (XPZ, XPA, XPB, SPC)
PU Endless (T5, T10, AT5, AT10)
PU Open Ended HTD (3M, 5M, 8M, 14M)
PU Open Ended STD (5M, 8M)
PU Open Ended (T5, T10, AT5, AT10)
PU Trapezoidal (XL, L, H)
Rubber Open Ended HTD (5M, 8M), STD (8M)

^{*} For an explanation of static conductivity and conditions, refer to Thermoid's Installation and Maintenance Catalog.

GENERAL INFORMATION





GENERAL HOSE INFORMATION

The Thermoid® Brand Advantage! Thermoid® produces durable, top-quality hose products with lots

Thermoid® produces durable, top-quality hose products with lots of value-added features. The CONCURE® continuous manufacturing process was invented, developed and patented by HBD Industries, Inc. and helps us produce the finest hose products possible. Our CONCURE process assures dimensional stability from end to end, provides a contamination-free and smooth hose tube in long, unbroken lengths. This process and our continuous product quality monitoring give us improved dimensional control and allow for closer tolerance control of the I.D. and O.D. of the hose from the tube extruder to the finished reel on all our Flex Strength® hose products. This attention to manufacturing saves our customers time and money. Here are just a few of the benefits you receive by selecting Flex Strength hose products:

- Long Length Reels Over 90% of our reels contain one length of hose, absolutely no three-piece reels, giving you a 15-20% savings due to less scrap.
- **Product Flexibility/Kink Resistance** Our spiral hose construction offers improved hose flexibility, easy handling on the job and provides increased resistance to kinking.
- **Uncontaminated Tube** Flex Strength hose is cured with an air mandrel assuring a clean, smooth tube. No dirt or other contaminants to clog nozzles or damage air tools.
- Brighter Colors/Pin-Pricked Covers The CONCURE process provides for more vivid colors for increased visibility and easier identification. Usually present only on critical applications, most Flex Strength hose products have a pin-pricked cover.
- Wider Working Pressure Range/More Hose Grades Flex Strength
 hose is available with pressure ratings from 150 to 300 psi
 working pressure, assuring you have the right hose for the job.
 Our wide variety of products allows you to find the correct
 hose for every application.
- Convenience Branding Our industrial hose products are branded with size, working pressure, type, Made In USA. Optional branding information is available for private branding as well.

Thermoid®, Inc. – Leadership through Technology

Thermoid, Inc. has been and continues to be a leader in developing innovative hose product designs and manufacturing production techniques. This long-term commitment to hose manufacturing benefits all of our customers. Our production expertise provides customers with hose products that they can rely on to stand up to the roughest types of industrial and/or working environments. Outlined below are a few examples of the many hose products, design types and unique manufacturing techniques that assist customers with their daily hose product needs:

Handbuilt

With over 100 years of design experience, Thermoid, Inc. is the leader in handcrafted hose. The line is built by an experienced design team, using a computer-aided system that has received worldwide product approvals. This hose line is not your everyday water hose; it's one that encompasses products like submarine, rotary and the patented Hy-Flex™ dock hose.

Spiral

Thermoid's LX-200 production lines now produce a selection of Thermoid's most popular hoses in continuous lengths to 200 feet. The most notable example is the Transporter® line, which encompasses a wide variety of markets such as petroleum, material handling, chemical and food service.

Thermocure

With this process, Thermoid has become a potent force in the PED, Fuel Oil Delivery and LP Gas markets with such product lines like the Hi-Vac™ and Superlite® vapor recovery hoses, the Thermoid FOD hose and the Type 75 LP Gas hose, just to name a few. The Thermocure process gives these first class products, a showroom quality look.

RMA OIL RESISTANCE DATA

The effects of oil on rubber depend on a number of factors that include the type of rubber compound, the composition of the oil, the temperature and the length of exposure. The RMA (Rubber Manufacturers Association) has developed a classification of hose performance based on sample immersions in ASTM No. 3 oil (High Swell) at 212°F for 70 hours. Oil resistance classifications for rubber stocks are shown in the table below.

Hose Physical Properties After Exposure to Oil

Classification	Volume Change Maximum	Tensile Strength Retained
Class A		
(High Oil Resistance)	+25%	80%
Class B		
(Medium-High Oil Resistance)	+65%	50%
Class C		
(Medium Oil Resistance)	+100%	40%

RMA IP-8 (2002) Specification for Oil Suction and Discharge Hose definitions from section 8.3 for "ED" and "EC" hose as follows; Electrically Discontinuous (ED) hose assembly has a maximum allowable resistance of 100 obms as ascertained

a maximum allowable resistance of 100 ohms as ascertained bynusing a 9 volt ohmmeter. Electrically Continuous (EC) hose assembly has a minimum allowable resistance of 25,000 ohms as ascertained by using a 500 volt megger.

S.T.A.M.P.E.D.

- S stands for SIZE; I.D., O.D. and length.
- T stands for TEMPERATURE of the material conveyed and environmental.
- A stands for the APPLICATION, the conditions of use.
- **M** stands for the MATERIAL being conveyed, type and concentration.
- **P** stands for the PRESSURE to which the assembly will be exposed.
- **E** stands for ENDS; style, type, orientation, attachment methods, etc.
- **D** stands for DELIVERY; testing, quality, packaging, and delivery requirements.

^{*} Reprinted with permission from the Rubber Manufacturers Association (RMA)Hose Handbook, RMA/IP-2/2003.

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HOSE RESISTANCE CHARACTERISTICS REFERENCE

Thermoid®, Inc. has developed a quick reference system for identifying hose resistance characteristics within certain environmental conditions and physical properties. The chart to the right lists a number of specific conditions, each of which has been assigned a specific symbol to represent it. These symbols will be displayed for each hose product in this catalog to identify the various long-term, environmental resistance levels of that product.

For complete information on hose resistance characteristics and service performance in specific applications and/or environments, please consult your area Thermoid®, sales representative, review the product specification information listed on our WEBSITE at www.hbdthermoid.com or contact our technical service department at 800-543-8070.

ENVIRONMENTAL/ PHYSICAL PROPERTY	SYMBOL	ENVIRONMENTAL/ PHYSICAL PROPERTY	SYMBOL
Abrasions	©	Kerosene	ĸ
Aging	8	Kinking	ॐ
Chemical/Acids	6	Non-Conductive/ Non-Static	8
Collapsing	6	Oil	6
Coolant	*	Ozone	OZONE
Diesel Aromatic Fuels	•	Sunlight	0
Fats/Oily Edibles	FATS	Vibrations	6
Gasoline	G	Water	₩
Heat	0	Weathering	•

MINIMUM HOSE BEND RADIUS DATA (MBR)



The Bend Radius is the radius of the bent section of a hose measured to the innermost surface of the curved portion. It is important because the minimum bend radius is the maximum amount a hose can be bent without being kinked or damaged.

General formula to determine bend length:

Anale of Rend

360°

x 2πr = minimum length of hose to make bend r = given bend radius of hose

Example: to make a 90° bend with a hose with a 2"I.D.

Given r = 4.5 inches

 $\frac{90^{\circ}}{360^{\circ}}$ [2 x 3.14 x 4.5]

 $.25 \times 2 \times 3.14 \times 4.5 = 7''$ (inches)

7 inches is the minimum length the hose can be bent without damaging it. Remember that the bend should take place over the entire minimum length and not a portion of it. In addition, the formula does not mean that 7 inches will be long enough to meet application needs. It only means that if the 90° bend takes place in less than 7 inches, the hose could be damaged.

BASIC SAFETY CONSIDERATIONS & WARNINGS

The user is responsible for ensuring that the correct hose and couplings are selected to meet the requirements of the application and that all safety precautions are followed. Failure to exercise proper safety precautions may result in serious bodily injury, death, property damage or other loss from hazardous chemicals, elevated temperature materials, explosive or flammable materials, sparking or static electricity, contamination of material conveyed, impelled couplings, whipping hose, and high pressure or high velocity discharge of materials.

Users should review information provided by Thermoid in its product catalogs and on the Thermoid website **(www.hbdthermoid.com)** and contact a Thermoid marketing or technical representative if further information is needed.

- 1. All hose has a limited life for a given application and is subject to fail without warning This is true even if the proper hose has been selected for the application; it is used within rated pressures, temperatures and environmental conditions; and it is properly inspected and maintained. This is because the elastomers and reinforcement used to construct the hose will break down over time and with use. This process is accelerated if the hose is used in severe applications or is subject to abuse. The user should conduct testing and other analysis to determine the service life of the hose assembly in a given application. Keep in mind, however, that even with extensive testing and analysis, it is not always possible to accurately determine the service life of a hose due to the number of variables involved in any given application. Regularly inspect and replace hose assemblies.
- 2. Critical Applications <u>Careful consideration is required when using</u>
 <u>hose instead of hard piping in any application where failure could cause</u>
 <u>bodily injury, property damage or other loss.</u> If hose is used, the user is responsible for determining the service life and implementing adequate safety measures including:
- Regular Inspections and Replacement. Hose assemblies used in such applications should be inspected at frequent intervals based on the seriousness of the risk. These inspections should include: tube and cover examinations for hardening, brittleness, abrasions, kinks, twisting, crushed areas, cracks, cuts, leaking, blisters, peeling or soft cover, braid exposure and other evidence of damage or deterioration; seepage, leaking, slipped or damaged couplings; and proof testing. Damaged or suspect hose and fittings should be immediately replaced. Hose assemblies should also be replaced at regular intervals, well in advance of the expected service life of the hose.
- Personal Protective Equipment and Other Safeguards. Always
 use proper protective equipment (for example, gloves, eye
 protection, protective suits, hardhats, etc.) that will protect the
 user in the event of hose failure or other accident. Systems



- should be designed, hose lines should be routed and safeguards put in place so that if a failure does occur, damage and injury persons or property will be avoided.
- **Operator Training.** All operators must be thoroughly trained in the proper care and use of hoses, the hazards of any material conveyed, and accidental release response measures.
- **3. External Abuse** Kinking, bending, high end pull, crushing, abrasion, exceeding the recommended minimum bend radius, exceeding the rated working pressure, exposure to chemicals, exposure to temperature extremes, and other abuse or damage will reduce the service life and performance of the hose. This may be the case even though the hose may appear to be undamaged from exterior appearance. Hoses should not be stretched, run over by equipment, or used to hoist, carry or pull objects. Hoses should not be bent beyond recommended minimum bend radius. This could result in kinks which could increase pressure and cause damage that could reduce pressure resistance. Larger or more heavily loaded hoses may require additional support to reduce stretching, kinking and external abuse.
- **4. System Pressures** Never use hose at pressures that exceed its working pressure ratings. A system (or device or application) can have varied pressures caused by source, operator action or mechanical components. It is the responsibility of the user to accurately determine the maximum system pressure and to eliminate any system pressures that exceed the lowest rated working pressure of any of the system components. Steady state pressure can be measured readily by gauges. Surge and hammer effect pressures are often momentary and may require the use of electronic pressure sensing devices to detect and measure. A "hammer effect" is a pressure spike that results from a sudden blockage or stoppage of the system. Hammer effects can damage or even cause catastrophic failure of the hose or system.

Note: The burst value is NOT the maximum working pressure for a hose. Burst values are used as one factor in the establishment of a reasonable and safe maximum working pressure. MAXIMUM WORKING PRESSURE IS ONE OF THE ESSENTIAL OPERATING CHARACTERISTICS THAT A HOSE USER MUST KNOW AND RESPECT TO ASSURE SAFE SERVICE AND OPTIMUM LIFE. Do not exceed maximum rated working pressure even if the burst value is higher.

- **5. Suction Applications** Not all hose is suitable for suction applications as vacuum pressures may cause the hose to collapse. Be sure to select a hose that is rated for suction or vacuum applications.
- **6. Temperatures** Never use hose at temperatures that exceed or are below its ratings. **High temperatures can degrade a hose very quickly**, resulting in shortened service life. For example, radiant heat from hot manifolds, heat shields and molten materials can bake rubber hose making it brittle. Low temperatures cause the hose to crack or break. The allowable temperature ranges are shown on the product catalog pages. These are for **internal product temperatures** and assume external or ambient temperatures are within the same temperature ranges. If external temperatures are higher or lower than these ranges, contact your Thermoid Customer Service Representative for recommendations. **Fluid and environmental temperatures that are high or low, but within working temperature of hose, will still shorten hose life.**
- **7. Misapplication** Thermoid designs and supplies a variety of hoses. Select the correct hose for the application. Be sure the hose cover, tube, reinforcement and fittings are compatible with the material conveyed and the conditions to which the hose assembly will be exposed.
- Chemical Compatibility Chart. Consult the Thermoid Chemical Resistance Chart for information on the suitability of various tube and cover compounds for use conveying or when exposed to various chemicals and substances.

- Temperature Compatibility. Consult the hose product pages for information on the temperature ranges for various hose types.
- Other. Other compatibility factors discussed below and elsewhere, may affect hose life and performance. Certain conveyed materials or substances for example abrasive, high velocity, concentrated, unstable or extreme temperature materials may present unique compatibility issues. Exposure to environmental conditions such as extreme temperatures, sunlight, ozone, UV radiation, atomic radiation, oil, moisture, salt water and other chemicals must also be considered.
- **8. Internal Abrasion** Applications involving abrasive or high velocity media can result in premature degradation of the tube and reduced service life, particularly where the hose makes one or more bends.
- **9. Flexing and Vibration** Flexing, twisting, vibration or other movement of the hose may shorten service life.
- **10. Modifications to the Hose** Repairing the hose, improperly coupling or re-coupling of the hose, or use of inappropriate fittings and other modifications to the hose will shorten service life and possibly cause immediate failure.
- **11. Improper Installation** Installing hose assemblies in a manner where the hose is subjected to a torqued condition (twisted lay line); will reduce the life of the hose significantly.
- **12. Permeation** The molecular structure of rubber hose is permeable, allowing small amounts of the internally conveyed media to migrate through the tube and into and through the cover of the hose. This is a particular concern when hazardous or explosive gases are being conveyed. Likewise, external gases, moisture or liquids, if not abated, may penetrate the cover of the hose and progress into the tube. When permeation is present (in either direction), special precautions may be needed.

Additional warnings and information follow.

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STEAM HOSE WARNINGS

Steam heat is hotter than boiling water (212°F, 100°C) and increases in temperature as pressure increases. The danger from steam in industrial applications is due to the great heat and pressures involved. Water changes to steam at higher temperatures when under pressure. If the steam escapes, massive quantities of heat are released. This, combined with high pressures, can prove to be dangerous for the operator.

Use only steam hoses designed for these applications. A steam hose should never be used to carry pressures or temperatures higher than it is rated to handle, in spite of any safety factor.

When making a selection for this type of application, keep safety in mind. Be sure to **select a hose identified as steam hose**. There should be a permanent form of branding on the hose and not just on the package. The manufacturer's name, hose type and operating pressure should be readable. If not, don't use the hose. Also, be sure to identify the type of service the steam hose will be required to accomplish. What will the temperature of the steam be? Will the steam be superheated (dry) or saturated (wet)? What environment will this hose be used in? Be sure that you can recognize that spillage or accumulations of corrosive materials can have a detrimental effect on the hose cover.

Make sure the hose is installed properly by using hose couplings designed for steam service. Check the tightness with each use. Installing and using a shut-off valve between the steam source and the hose will maximize service life and operator safety.

STEAM CHART 450 400 Superheated Steam 350 TEMPERATURE, °F 300 Hnt Water 250 200 50 100 150 200 250 **GAUGE PRESSURE, PSI**

The dotted line shows the process of saturated steam being transformed into superheated steam. If a steam line is at a pressure of 150 psi, and a temperature of 366°F, it contains saturated steam. If the pressure is substantially reduced by the expansion of the steam (such as the sudden opening of a valve or the steam passing into a larger pipe or hose), the condition of the steam follows the dotted line to some point X in the superheated steam area. This condition may not last very long, but the superheated steam tends to deteriorate the tube stock in ordinary steam hose intended for use with saturated steam. This usually results in hose failure.

Properties of Saturated Steam

(Abridged from Handbook of Chemistry and Physics – 39th Edition.)

Gauge Pressure (psi)	*Temperature of Saturated Steam (°F)	Gauge Pressure (psi)	*Temperature of Saturated Steam (°F)
10	239	155	368
25	267	160	371
30	274	165	373
35	281	170	375
40	287	175	377
45	292	180	380
50	298	185	382
55	303	190	384
60	307	195	386
65	312	200	388
70	316	205	390
75	320	210	392
80	324	215	394
85	328	220	395
90	331	225	397
95	335	230	399
100	338	235	401
105	341	240	403
110	344	245	404
115	347	250	406
120	350	255	408
125	353	260	409
130	356	265	411
135	358	270	413
140	361	275	414
145	363		
150	366		

^{*} Based on an atmosphere pressure of 14.7 psi.

Provide operators with adequate clothing which would include rubber boots, gloves, eye protection and full length protective clothing. **Do not** allow the hose to remain under pressure when not in service. Failure to depressurize and he hose. Continue to monitor hose to ensure it has not deteriorated to the point to where it can no longer provide safe service. Most, if not all steam hoses are date-coded by the manufacturer. It is recommended that assemblies be tagged with a date that it went into service. This information will be helpful in identifying those hoses that should be replaced due to age.

Couplings: Hose couplings are extremely important when steam is being handled. High temperatures and pressures inside steam hose act like a pressure cooker and cause the inside and outside diameters to shrink during use. Couplings must be specifically designed to combat this effect. **Only couplings designed for steam hose should be used.**



CHEMICAL HOSE WARNING

Do not use chemical hose at pressures or temperatures above those recommended by Thermoid. All operators must be thoroughly trained in the care and use of these hoses, and must, at all times, wear protective clothing and other appropriate safety equipment. A hose or system failure could cause the release of corrosive, flammable or poisonous material. Never allow chemicals to drip on the exterior of the hose or allow the hose to lie in a pool of chemicals since the hose cover may not have the same chemical resistance as the inner tube. If kinking or crushing occurs, immediately subject the assembly to the Hydrostatic Pressure Test and Examination. If the Hydrostatic Test is not an option, immediately replace the assembly. If the reduction of the I.D. is greater than 20%, replace the assembly.

Extreme care must be taken when flushing out a chemical hose with water or removing clogs. Some chemicals, such as concentrated acids may react with the water. Spattering may occur which could result in serious injury to the eyes or other areas of the body. When flushing the hose, care must be taken so that all chemicals or flushing fluids are disposed of according to EPA recommended guidelines.

STATIC ELECTRICITY WARNING

Serious bodily injury, death, property damage or other loss can result from the use of hose in hazardous or explosive atmospheres due to the buildup of static electricity from the movement of conveyed materials through the hose as well as movement or vibration of the hose against the other surfaces. Hose, as well as the entire system or application, used in such atmospheres must be properly grounded or bonded.

Static electricity, as a source of ignition for flammable vapors, gases and dusts, is a hazard common to a wide variety of industries. A static spark can occur when an electrical charge accumulates on the surfaces of two materials that have been brought together and then separated (between two solids, between a solid and a liquid, or between two immiscible liquids, i.e., incapable of mixing). One surface becomes charged positively and the other surface becomes charged negatively. If the materials are not bonded or grounded, they will eventually accumulate a sufficient electrical charge capable of producing a static spark that could ignite flammable vapors, gases and dusts. Some common processes capable of producing a static ignition are as follows:

- The flow of liquids (for example, petroleum or mixtures of petroleum and water as well as any flammable fluids) through hose, pipes or fine filters.
- The settling of a solid or an immiscible liquid through a liquid (e.g. rust or water through petroleum).
- The ejection of particles or droplets from a nozzle (e.g. water washing operations or the initial stages of filling a tank with oil).
- The vigorous rubbing together and subsequent separation of certain synthetic polymers (e.g. the sliding of a Polypropylene rope through PVC gloved hands).

Preventing and/or dissipating static electricity as an ignition source can be accomplished through bonding, grounding or possibly selecting a different non-static conducting material. Bonding is the process of connecting two or more conductive objects together by means of a conductor. Grounding, or earthing, is the process of connecting one or more conductive objects to the ground. **

Certain Thermoid hose incorporates a static wire, which if properly coupled can be used to ground the hose assembly. Other parts of the application or equipment may have to be grounded as well. Hose that does not contain a ground wire will nevertheless have to be grounded if used in an explosive or hazardous atmosphere. In all applications, it is the user's responsibility to ensure the hose assembly and equipment it is used on, is properly grounded to earth.

** Excerpts from Process Safety Handling Hazardous Chemicals, 1/97: Standards & Guidelines – Occupational Safety and Health Administration.

CARE, MAINTENANCE & STORAGE

Hose has a limited life and the user must be alert to signs of impending failure, particularly when the conditions of service include high working pressures and/or the conveyance or containment of hazardous materials. The periodic inspection and testing procedures described here provide a schedule of specific measures which constitute a minimum level of user action to detect signs indicating hose deterioration or loss of performance before conditions leading to malfunction or failure is reached.

SAFETY WARNING: Failure to properly follow the manufacturer's recommended procedures for the care, maintenance and storage of a particular hose might result in its failure to perform in the manner intended and might result in possible damage to property and serious bodily injury.

General instructions are also described for the proper storage of hose to minimize deterioration from exposure to elements or environments which are known to be deleterious to rubber products. Proper storage conditions can enhance and extend substantially the ultimate life of hose products. Hose should be stored to facilitate first-in and first-out usage based on the hose date of manufacture.

GENERAL CARE AND MAINTENANCE OF HOSE

Hose should not be subjected to any form of abuse in service. It should be handled with reasonable care. Hose should not be dragged over sharp or abrasive surfaces unless specifically designed for such service. Care should be taken to protect hose from severe end loads for which the hose or hose assembly were not designed. Hose should be used at or below its rated working pressure; any changes in pressure should be made gradually so as to not subject the hose to excessive surge pressures. Hose should not be kinked or be run over by equipment. In handling large size hose, dollies should be used whenever possible; slings or handling rigs, properly placed, should be used to support heavy hose used in oil suction and discharge service.

GENERAL TEST AND INSPECTION PROCEDURES FOR HOSE

An inspection and hydrostatic test should be made at periodic intervals to determine if a hose is suitable for continued service.

A visual inspection of the hose should be made for loose covers, kinks, bulges, or soft spots which might indicate broken or displaced reinforcement.

The couplings or fittings should be closely examined and, if there is any sign of movement of the hose from the couplings, the hose should be removed from service.

The periodic inspection should include a hydrostatic test for one minute at 150% of the recommended working pressure of the hose. An exception to this would be woven jacketed fire hose.* During the hydrostatic test, the hose should be straight, not coiled or in a kinked position.

Water is the usual test medium and, following the test, the hose may be flushed with alcohol to remove traces of moisture. A regular schedule for testing should be followed and inspection records maintained.

SAFETY WARNING: Before conducting any pressure tests on hose, provision must be made to ensure the safety of the personnel performing the tests and to prevent any possible damage to property. Only trained personnel using proper tools and procedures should conduct any pressure tests.

- Air or any other compressible gas must never be used as the test media because of the explosive action of the gas should a failure occur. Such a failure might result in possible damage to property and serious bodily injury.
- 2. Air should be removed from the hose by bleeding it through an outlet valve



while the hose is being filled with the test medium.

- 3. Hose to be pressure tested must be restrained by placing steel rods or straps close to each end and at approximate 10 foot (3 m) intervals along its length to keep the hose from "whipping" if failure occurs; the steel rods or straps are to be anchored firmly to the test structure but in such a manner that they do not contact the hose which must be free to move.
- 4. The outlet end of hose is to be bulwarked so that a blown out fitting will be stopped.
- 5. Provisions must be made to protect testing personnel from the forces of the pressure media if a failure occurs.
- Testing personnel must never stand in front of or in back of the ends of a hose being pressure tested.
- If liquids such as gasoline, oil, solvent, or other hazardous fluids are used as the test fluid, precautions must be taken to protect against fire or other damage should a hose assembly fail and the test liquid are sprayed over the surrounding area.

STORAGE

Rubber hose products in storage can be affected adversely by temperature, humidity, ozone, sunlight, oils, solvents, corrosive liquids and fumes, insects, rodents and radioactive materials.

The appropriate method for storing hose depends to a great extent on its size (diameter and length), the quantity to be stored, and the way in which it is packaged. Hose should not be piled or stacked to such an extent that the weight of the stack creates distortions on the lengths stored at the bottom.

Since hose products vary considerably in size, weight, and length, it is not practical to establish definite recommendations on this point. Hose having a very light wall will not support as much load as could a hose having a heavier wall or hose having a wire reinforcement. Hose which is shipped in coils or bales should be stored so that the coils are in a horizontal plane.

Whenever feasible, rubber hose products should be stored in their original shipping containers, especially when such containers are wooden crates or cardboard cartons which provide some protection against the deteriorating effects of oils, solvents, and corrosive liquids; shipping containers also afford some protection against ozone and sunlight.

Certain rodents and insects will damage rubber hose products, and adequate protection from them should be provided.

Cotton jacketed hose should be protected against fungal growths if the hose is to be stored for prolonged periods in humidity conditions in excess of 70%.

The ideal temperature for the storage of rubber products ranges from 50° to 70°F (10-21°C) with a maximum limit of 100°F (38°C). If stored below 32°F (0°C), some rubber products become stiff and would require warming before being placed in service. Rubber products should not be stored near sources of heat, such as radiators, base heaters, etc., nor should they be stored under conditions of high or low humidity.

To avoid the adverse effects of high ozone concentration, rubber hose products should not be stored near electrical equipment that may generate ozone or be stored for any lengthy period in geographical areas of known high ozone concentration.

Hose should not be stored in locations where the ozone level exceeds the National Institute of Occupational Safety and Health's upper limit of 0.10 ppm. Exposure to direct or reflected sunlight – even through windows – should also be avoided. Uncovered hose should not be stored under fluorescent or mercury lamps which generate light waves harmful to rubber.

Storage areas should be relatively cool and dark, and free of dampness and mildew. Items should be stored on a first-in, first-out basis, since even under the best of conditions; an unusually long shelf life could deteriorate certain rubber products.

*Woven jacket fire hose should be tested in accordance with the service test provisions contained in the current edition of National Fire Protection Association Bulletin No. 1962 – Standard for the Care, Use and Service Testing of Fire Hose.

* Reprinted with permission from the Rubber Manufacturers Association (RMA) Hose Handbook RMA/IP-7/2003

HOSE TESTING

SAFETY WARNING: Testing can be dangerous and should be done only by trained personnel using proper tools and procedures. Failure to follow such procedures might result in damage to property and/or serious bodily injury

The Rubber Manufacturers Association (RMA) recognizes, accepts and recommends the testing methods of the American Society for Testing and Materials (ASTM).

Unless otherwise specified, all hose tests are to be conducted in accordance with ASTM Method No. D-380 (latest version). Where an ASTM D-380 test is not available, another test method should be selected and described in detail.

RMA participates with ASTM under the auspices of the American National Standards Institute (ANSI) in Technical Committee 45 (TC45) of The International Organization for Standardization (ISO) in developing both hose product and hose test method standards. Many of the hose test method standards published by ISO duplicate or closely parallel those shown in ASTM D-380. Many are unique and, in those cases, the RMA may be able to provide the necessary test standard references which may be purchased from the American National Standards Institute (ANSI).

HYDROSTATIC PRESSURE TESTS

Hydrostatic pressure tests are classified as follows:

- DESTRUCTIVE TYPE
 - a. Burst test
 - b. Hold test
- 2. NON-DESTRUCTIVE TYPE
 - a. Proof pressure test
 - b. Change in length test (elongation or contraction)
 - c. Change in outside diameter or circumference test
 - d. Warp test
 - e. Rise test
 - f. Twist test
 - g. Kink test
 - h. Volumetric expansion test

Destructive Tests

Destructive tests are conducted on short specimens of hose, normally 18 inches (460 mm) to 36 inches (915 mm) in length and, as the name implies, the hose is destroyed in the performance of the test.

- a. Burst pressure is recorded as the pressure at which actual rupture of a hose occurs.
- b. A hold test, when required, is a means of determining whether weakness will develop under a given pressure for a specified period of time.

Non-Destructive Tests

Non-destructive tests are conducted on a full length of a hose or hose assembly. These tests are for the purpose of eliminating hose with defects which cannot be seen by visual examination or in order to determine certain characteristics of the hose while it is under internal pressure.

a. A proof pressure test is normally applied to hose for a



specified period of time. On new hose, the proof pressure is usually 50% of the minimum specified burst except for woven jacket fire hose where the proof pressure is twice the service test pressure marked on the hose (67% of specified minimum burst). Hydrostatic tests performed on fire hose in service should be no higher than the service test pressure referred to above. The regulation of these pressures is extremely important so that no deteriorating stresses will be applied, thus weakening a normal hose.

b. With some type of hose, it is useful to know how a hose will act under pressure. All change in length tests, except when performed on wire braid or wire spiraled hose, are made with original length measurements taken under a pressure of 10 psi (0.069 MPa). The specified pressure, which is normally the proof pressure, is applied and immediate measurement of the characteristics desired are taken and recorded.

Percent length change (elongation or contraction) is the difference between the length at 10 psi (0.069 MPa) (except wire braided or wire spiraled) and that at the proof pressure times 100 divided by the length at 10 psi (0.069 MPa). Elongation occurs if the length of the hose under the proof pressure is greater than at a pressure of 10 psi (0.069 MPa). Contraction occurs if the length at the proof pressure is less than at 10 psi (0.069 MPa). In testing wire braided or spiraled hose, the proof pressure is applied and the length recorded. The pressure is then released and, at the end of 30 seconds, the length is measured; the measurement obtained is termed the "original length."

- c. Percent change in outside diameter or circumference is the difference between the outside diameter or circumference at 10 psi (0.069 MPa) and that obtained under the proof pressure times 100 divided by the outside diameter or circumference at 10 psi (0.069 MPa). Expansion occurs if the measurement at the proof pressure is greater than at 10 psi (0.069 MPa). Contraction occurs if the measurement at the proof pressure is less than at 10 psi (0.069 MPa).
- d. Warp is the deviation from a straight line drawn from fitting to fitting; the maximum deviation from this line is warp. First, a measurement is taken at 10 psi (0.069 MPa) and then again at the proof pressure. The difference between the two, in inches, is the warp. Normally, this is a feature measured on woven jacket fire hose only.
- e. Rise is a measure of the height a hose rises from the surface of the test table while under pressure. The difference between the rise at 10 psi (0.069 MPa) and at the proof pressure is reported to the nearest 0.25 inch (6.4 mm). Normally, this is a feature measured on woven jacket fire hose only.
- f. Twist is a rotation of the free end of the hose while under pressure. A first reading is taken at 10 psi (0.069 MPa) and a second reading at proof pressure. The difference, in degrees, between the 10 psi (0.069 MPa) base and that at the proof pressure is the twist. Twist is reported as right twist (to tighten couplings) or left twist. Standing at the pressure inlet and looking toward the free end of a hose, a clockwise turning is right twist and counterclockwise is left twist.
- g. Kink test is a measure of the ability of woven jacket hose to withstand a momentary pressure while the hose is bent back sharply on itself at a point approximately 18 inches (457 mm) from one end. Test is made at pressures ranging from 62% of the proof pressure on sizes 3 inches (76 mm) and 3.5 inches (89 mm) to 87% on sizes under 3 inches (76 mm). This is a test applied to woven jacket fire hose only.
- h. Volumetric expansion test is applicable only to specific types of hose, such as hydraulic or power steering hose, and is a measure of its volumetric expansion under ranges of internal pressure.

It should be noted that design ratios are dependent on more than the minimum burst. The hose technologist must anticipate natural decay in strength of reinforcing materials, and the accelerated decay induced by the anticipated environments in which the hose will be used and the dynamic situations that a hose might likely encounter in service.

Including all considerations, the following recommended design ratios are given for newly manufactured hose:

- 1. Water Hose up to 150 psi WP: 3:1
- 2. Hose for all other liquids, solid materials suspended in liquids or air, and water hose over 150 psi WP: 4:1
- 3. Hose for compressed air and other gases: 4:1
- 4. Hose for liquid media that immediately changes into gas under standard atmospheric conditions: 5:1
- 5. Steam Hose: 10:1

HOSE SELECTION GUIDE

GENERAL

A number of hose specifications have been developed for general application in various industrial, agricultural, automotive or other services. These specifications are based on generally successful performance of the hose in the field as reported by consumers, manufacturers and governmental agencies. The RMA has published a number of hose specifications which are recommended for use.

Often, additional or new requirements may be imposed on hose because of the severity of service conditions, a change in service conditions, a change in the materials handled or in the method of handling, or the development of new uses or procedures. Hose specifications must then be prepared based on the expected service conditions.

Thermoid does not warrant the suitability or fitness of its hose for any specific application or particular purpose, and the user is responsible for selecting a hose with specifications to meet the service conditions under which it is to be used. Before deciding on size, type, and quality of hose, the user should gather and analyze complete information on the actual service conditions and requirements.

SERVICE CONSIDERATIONS FOR HOSE IN CRITICAL APPLICATIONS

Hose is often used in locations and/or to convey materials where property damage or human injury could occur if the hose and/or associate fittings failed while in service.

The user must insure that the service conditions are known to himself and to the hose supplier. The improper use of hose or the use of a hose for service applications for which it was not designed may result in serious consequences.

INFORMATION NEEDED

Hose Dimensions

- a. I.D.
- b. O.D.
- Length (state whether overall length or length excluding couplings)
- d. Tolerance limitations (if normal RMA tolerances cannot be used)

Types of Service

- a. Material to be conveyed through hose
 - 1. Chemical name
 - 2. Concentration
 - 3. Temperature extremes (low and high)
 - 4. Solids, description and size
- b. Working pressure (including surge)

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- c. Suction or vacuum requirements
- d. Velocity
- e. Flow Ráte

Operating Conditions

- a. Intermittent or continuous service
- b. Indoor and outdoor use
- c. Movement and geometry of use
- d. Flexibility Minimum bend radius
- e. External conditions
 - 1. Abrasion
 - 2. Oil (Specify type)
 - 3. Solvents (Specify type)
 - 4. Acid (Specify type and concentration)
 - 5. Temperaturé Range

Normal

Highest Lowest

6. Ozone

Uncoupled Hose

- a. Bulk or cut to length
- h Ends
- Straight or enlarged
 - 2. Capped or raw (uncapped)
 - 3. Soft ends or wire to end

Coupled Hose, Fittings

- a. Factory applied
- b. Field applied
- c. Type of Fitting
 - 1. Type of thread
 - 2. Male or female
 - 3. Reusable/field attachable
 - 4. Non-reusable
- d. Material for Fittings
 - 1. ANSI (or SAE or ASTM) metal composition specifications

Hose with Built-in Fittings

- a. Ends
 - 1. 1. Threaded (type of thread)
 - 2. 2. Grooved
 - 3. 3. Beveled for welding
 - 4. 4. Integral flange
- b. Flanges
 - 1. Type (threaded, slip-on, welding neck, lap joint)
 - 2. Pressure rating
 - 3. Drilling
- c. Materials and Dimensions
 - 1. ANSI (or SAE or ASTM) composition and specifications
 - 2. Treatment for specific services

Hose Now in Use

- a. Type of hose
- b. Service life being obtained and description of failure
- c. Service life desired

Special Requirements or Properties

- a. Electrical and static conductive
- b. Flame resistant
- c. Sub-zero exposure
- d. Non-contaminating to material

ORGANIZATIONS HAVING REGULATIONS OR SPECIFICATIONS FOR HOSE

U.S. Government Agencies

DOD Department of Defense
DOT Department of Transportation
FDA Food and Drug Administration
MSHA Mine Safety and Health Admini

MSHA Mine Safety and Health Administration
NHTSA National Highway Traffic Safety Administration
OSHA Occupational Safety and Health Administration

PHA Public Health Administration USCG U.S. Coast Guard

USDA U.S. Department of Agriculture

Canadian Agencies and Organizations

CGA Canadian Gas Association

CGSB Canadian Government Specifications Board

RAC Rubber Association of Canada

Other Organizations

ABS	American Bureau of Shipping
ANSI	American National Standards Institute
API	American Petroleum Institute
ASTM	American Society for Testing and Materials
BIA	Boating Industry Association
BSI	British Standards Institute

CGA Compressed Gas Association
DIN Deutches Institut for Normung – German Standards

DNV Det Norske Veritas
EN European Norms
FM Factory Mutual Research
FPS Fluid Power Society

ISO International Organization for Standardization

JIC Joint Industrial Council (defunct)
JIS Japanese Industrial Standards

NAHAD National Association of Hose and Accessories Distributors

NFPA National Fire Protection Association
National Fluid Power Association
RMA Rubber Manufacturers Association
SAE Society of Automotive Engineers
The Fertilizer Institute

TFI The Fertilizer Institute
UL Underwriters Laboratories

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COMMONLY USED RUBBER COMPOUNDS

ASTM Designation D1418	Common Name	Composition
CM	СРЕ	Chloronated Polyethylene
CR	Neoprene**	Chloroprene
CSM	Hypalon	Chloro-sulfonyl-polyethylene
ECO	Hydrin	Ethylene oxide and Chloromethyl oxirane
EPDM	Ethylene Propoylene Rubber	Ethylene-propylene-diene-terpolymer
FKM	Fluoroelastomer Viton	Hexafluoropropylene vinylidene fluoride
IIR	Butyl	Isobutylene-isoprene
IR	Polyisoprene	Isoprene, synthetic
NBR	Buna N, Nitrile	Nitrile-butadiene
NR	Natural Rubber	Isoprene, natural
SBR	SBR	Styrene-butadiene
UHMWPE	Ultra-High Molecular Weight Polyethylene	Polyethylene
XLPE	Cross-Linked Polyethylene	Polyethylene and cross-linking agent

■ AIR/MULTIPRPOSE



Thermoid®

VALUFLEX®/GS - RED

Valuflex®/GS is one of the most versatile general service air and water hoses available today. Featuring multiple plies of rubber, spiral reinforced polyester fiber and an EPDM tube and cover, it is both lightweight and flexible, and resists abrasion, heat and ozone, making it useful in various applications, including industrial, agriculture and construction. Valuflex is available in a wide variety of sizes and colors to provide constant working pressures of 150, 200, 250, or 300 psi and offer color coding for safety and operational improvement. Not recommended as a steam hose or where oil is present.



RESISTANCE

BRANDING Thermoid Valuflex/GS Size PSI WP Made In USA Month/Day/Year-DOM

Cover Color: Red Oil Resistance: Limited

Construction:

Tube: EPDM Cover: EPDM

Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +200°F
Packaging: -40°C to +93°C

Product	Nominal I.D.		Nominal O.D.		Reinforcement	Working Pressure		Min. Ben	d Radius	Weight	
Number	(inches)	(mm)	(inches)	(mm)	Spirals	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00114503200▲	3/16	4.76	0.44	11.11	2	200	1.38	N/A	N/A	0.08	0.12
00114504100▲	1/4	6.35	0.49	12.45	2	150	1.03	1.50	38.10	0.08	0.12
00114504200	1/4	6.35	0.49	12.45	2	200	1.38	1.50	38.10	0.08	0.12
00114504300	1/4	6.35	0.50	14.22	2	250	1.72	1.50	38.10	0.08	0.12
00114504400	1/4	6.35	0.50	15.75	2	300	2.07	1.50	38.10	0.08	0.12
00114505200	5/16	7.94	0.58	14.73	2	200	1.38	2.00	50.80	0.09	0.13
00114505400	5/16	7.94	0.58	15.75	2	300	2.07	2.00	50.80	0.09	0.13
00114506100▲	3/8	9.53	0.69	17.53	2	150	1.03	2.25	57.15	0.15	0.22
00114506200	3/8	9.53	0.69	17.53	2	200	1.38	2.25	57.15	0.15	0.22
00114506251†	3/8	9.53	0.69	17.53	2	200	1.38	2.25	57.15	0.15	0.22
00114506300	3/8	9.53	0.69	17.53	2	250	1.72	2.25	57.15	0.15	0.22
00114506400	3/8	9.53	0.69	17.53	2	300	2.07	2.25	57.15	0.15	0.22
00114506451†	3/8	9.53	0.69	17.53	2	300	2.07	2.25	57.15	0.15	0.22
00114508100	1/2	12.70	0.81	20.64	2	150	1.03	3.00	76.20	0.20	0.30
00114508200	1/2	12.70	0.81	20.64	4	200	1.38	3.00	76.20	0.25	0.37
00114508300	1/2	12.70	0.84	21.43	4	250	1.72	3.00	76.20	0.25	0.37
00114508400	1/2	12.70	0.84	21.43	4	300	2.07	3.00	76.20	0.25	0.37
00114510100	5/8	15.88	0.93	23.62	4	150	1.03	3.75	95.25	0.24	0.36
00114510200	5/8	15.88	0.93	23.62	4	200	1.38	3.75	95.25	0.30	0.45
00114510300▲	5/8	15.88	1.00	25.40	4	250	1.72	3.75	95.25	0.30	0.45
00114510400	5/8	15.88	1.00	25.40	4	300	2.07	3.75	95.25	0.30	0.45
00114512100	3/4	19.05	1.12	28.45	4	150	1.03	4.50	114.30	0.34	0.51
00114512200	3/4	19.05	1.15	29.21	4	200	1.38	4.50	114.30	0.38	0.57
00114512251†	3/4	19.05	1.15	29.21	4	200	1.38	4.50	114.30	0.38	0.57
00114512500	3/4	19.05	1.15	29.21	4	250	1.72	4.50	114.30	0.38	0.57
00114512550†	3/4	19.05	1.15	29.21	4	250	1.72	4.50	114.30	0.38	0.57
00114512400	3/4	19.05	1.15	29.21	4	300	2.07	4.50	114.30	0.41	0.61
00114512451†	3/4	19.05	1.15	29.21	4	300	2.07	4.50	114.30	0.41	0.61
00114516200	1	25.40	1.37	34.80	4	150	1.03	7.00	177.80	0.43	0.64
00114516300	1	25.40	1.37	34.80	4	200	1.38	7.00	177.80	0.51	0.76
00114516400	1	25.40	1.43	36.20	4	300	1.38	7.00	177.80	0.51	0.76
00114520200	1-1/4	31.75	1.75	44.45	4	200	1.38	8.75	222.25	0.81	1.21
00114524200	1-1/2	38.10	2.00	50.80	4	200	1.38	10.50	266.70	0.89	1.34
00114532200	2	50.80	2.55	64.77	4	200	1.38	14.00	355.60	1.28	1.90

^{▲ =} Make To Order (MTO)

 $[\]dagger$ = 50 ft. length –1 per carton



VALUFLEX®/GS - BLACK

Valuflex®/GS is one of the most versatile general service air and water hoses available today. Featuring multiple plies of rubber, spiral reinforced polyester fiber and an EPDM tube and cover, it is both lightweight and flexible, and resists abrasion, heat and ozone, making it useful in various applications, including industrial, agriculture and construction. Valuflex is available in a wide variety of sizes and colors to provide constant working pressures of 150, 200, 250, or 300 psi and offer color coding for safety and operational improvement. Not recommended as a steam hose or where oil is present.



RESISTANCE **BRANDING**

Thermoid Valuflex/GS Size PSI WP Made In USA Month/Day/Year-DOM

Black **Cover Color:** Limited Oil Resistance:

Construction:

Tube: **EPDM EPDM** Cover:

Reinforcement: Spiral polyester yarn -40°F to +200°F **Temperature Range:** -40°C to +93°C Packaging:

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
00114603200▲	3/16	4.76	0.44	11.11	2	200	1.38	N/A	N/A	0.07	0.11
00114604100▲	1/4	6.35	0.49	12.45	2	150	1.03	1.50	38.10	0.08	0.12
00114604200	1/4	6.35	0.49	12.45	2	200	1.38	1.50	38.10	0.08	0.12
00114604300▲	1/4	6.35	0.50	14.22	2	250	1.72	1.50	38.10	0.08	0.12
00114604400	1/4	6.35	0.50	15.75	2	300	2.07	1.50	38.10	0.08	0.12
00114605200	5/16	7.94	0.58	14.73	2	200	1.38	2.00	50.80	0.09	0.13
00114605400	5/16	7.94	0.58	15.75	2	300	2.07	2.00	50.80	0.09	0.13
00114606100▲	3/8	9.53	0.69	17.53	2	150	1.03	2.25	57.15	0.15	0.22
00114606200	3/8	9.53	0.69	17.53	2	200	1.38	2.25	57.15	0.15	0.22
00114606300▲	3/8	9.53	0.69	17.53	2	250	1.72	2.25	57.15	0.15	0.22
00114606400	3/8	9.53	0.69	17.53	2	300	2.07	2.25	57.15	0.15	0.22
00114608100	1/2	12.70	0.81	20.64	2	150	1.03	3.00	76.20	0.19	0.28
00114608200	1/2	12.70	0.81	20.64	4	200	1.38	3.00	76.20	0.24	0.36
00114608300▲	1/2	12.70	0.84	21.43	4	250	1.72	3.00	76.20	0.24	0.36
00114608400	1/2	12.70	0.84	21.43	4	300	2.07	3.00	76.20	0.24	0.36
00114610100	5/8	15.88	0.93	23.62	4	150	1.03	3.75	95.25	0.23	0.34
00114610200	5/8	15.88	0.93	23.62	4	200	1.38	3.75	95.25	0.29	0.43
00114610400	5/8	15.88	1.00	25.40	4	300	2.07	3.75	95.25	0.29	0.43
00114612100	3/4	19.05	1.12	28.45	4	150	1.03	4.50	114.30	0.33	0.49
00114612200	3/4	19.05	1.15	29.21	4	200	1.38	4.50	114.30	0.36	0.54
00114612251†	3/4	19.05	1.15	29.21	4	200	1.38	4.50	114.30	0.36	0.54
00114612300▲	3/4	19.05	1.15	29.21	4	250	1.72	4.50	114.30	0.36	0.54
00114612400	3/4	19.05	1.15	29.21	4	300	2.07	4.50	114.30	0.40	0.60
00114612454†	3/4	19.05	1.15	29.21	4	300	2.07	4.50	114.30	0.40	0.60
00114616100	1	25.40	1.37	34.80	4	150	1.03	7.00	177.80	0.41	0.61
00114616200	1	25.40	1.37	34.80	4	200	1.38	7.00	177.80	0.49	0.73
00114616400	1	25.40	1.43	36.32	4	300	2.07	7.00	177.80	0.49	0.73
00114620200	1-1/4	31.75	1.75	44.45	4	200	1.03	8.75	222.25	0.79	1.18
00114624200	1-1/2	38.10	2.00	50.80	4	200	1.03	10.50	266.70	0.90	1.34
00114632200	2	50.80	2.55	64.77	4	200	1.03	14.00	355.60	1.08	1.61

 $[\]blacktriangle$ = Make To Order (MTO)

 $[\]dagger$ = 50 ft. length –1 per carton

VALUFLEX®/GS-GREEN, YELLOW OR BLUE

Valuflex®/GS is one of the most versatile general service air and water hoses available today. Featuring multiple plies of rubber, spiral reinforced polyester fiber and an EPDM tube and cover, it is both lightweight and flexible, and resists abrasion, heat and ozone, making it useful in various applications, including industrial, agriculture and construction. Valuflex is available in a wide variety of sizes and colors to provide constant working pressures of 150, 200, 250, or 300 psi and offer color coding for safety and operational improvement. Not recommended as a steam hose or where oil is present.



RESISTANCE **BRANDING**

Thermoid Valuflex/GS Size PSI WP Made In USA Month/Day/Year-DOM

Cover Color: Green, Yellow or Blue

Oil Resistance:

Limited

Construction:

EPDM

Tube: Cover: **EPDM**

Spiral polyester yarn

Reinforcement: Temperature Range:

-40°F to +200°F

-40°C to +93°C Packaging:

Product Number	Nominal I.D. (inches) (mm)		Nominal O.D. (inches) (mm)		Reinforcement Spirals	Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		Weight (lb/ft) (Kg/m)	
Green											
00114806300	3/8	9.53	0.69	17.53	2	250	1.73	2.25	57.15	0.18	0.27
00114808300	1/2	12.70	0.84	21.34	4	250	1.73	3.00	76.20	0.25	0.37
00114808400▲	1/2	12.70	0.84	21.34	4	300	2.07	3.00	76.20	0.25	0.37
00114812500	3/4	19.05	1.15	29.21	4	250	1.73	4.50	114.30	0.37	0.55
00114812400	3/4	19.05	1.15	29.21	4	300	2.07	4.50	114.30	0.41	0.61
00114812551†	3/4	19.05	1.15	29.21	4	250	1.73	4.50	114.30	0.37	0.55
00114812455†	3/4	19.05	1.15	29.21	4	300	2.07	4.50	114.30	0.41	0.61
00114816300▲	1	25.40	1.43	36.20	4	250	1.73	7.00	177.80	0.54	0.80
00114816400	1	25.40	1.43	36.20	4	300	2.07	7.00	177.80	0.54	0.80
Yellow											
00114912356▲	3/4	19.05	1.15	29.21	4	250	1.73	4.50	114.30	0.37	0.55
00114912351†	3/4	19.05	1.15	29.21	4	250	1.73	4.50	114.30	0.37	0.55
Blue											
00115008300▲	1/2	12.70	0.84	21.43	4	250	1.73	3.00	76.20	0.25	0.37
00115012300	3/4	19.05	1.15	29.21	4	250	1.73	4.50	114.30	0.37	0.55
00115012355†	3/4	19.05	1.15	29.21	4	250	1.73	4.50	114.30	0.37	0.55
00115016300	1	25.40	1.43	36.20	4	250	1.73	7.00	177.80	0.54	0.80

^{▲ =} Make To Order (MTO)

 $[\]dagger$ = 50 ft. length -1 per carton



MAINLINER®

The Mainliner® air and multipurpose hose is designed to handle the oily mists used to lubricate pneumatic tools. Featuring a medium oil-resistant tube with multi-spiral polyester reinforcement, the hose remains flexible even in extreme temperatures. Its durable cover resists abrasion, cracking, weathering and ozone. Mainliner offers constant working pressures of 200, 250 and 300 psi.

Not recommended for handling fuels



BRANDING





Thermoid Mainliner Size PSI WP Made In USA

Cover Color: Red Oil Resistance: Medium

Construction:

Tube: Cover: EPDM, RMA Class C EPDM - Limited Spiral polyester yarn

Reinforcement: Temperature Range: Packaging:

-40°F to +200°F -40°C to +93°C

Product Number	Nomin (inches)	ial I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ight (Kg/m)
00225504200▲	1/4	6.35	0.50	12.70	2	200	1.38	1.50	38.10	0.09	0.13
00225504400	1/4	6.35	0.50	12.70	2	300	2.07	1.50	38.10	0.15	0.22
00225505400	5/16	7.94	0.62	15.75	4	300	2.07	2.00	50.80	0.14	0.21
00225506200▲	3/8	9.53	0.69	17.53	2	200	1.38	2.25	57.15	0.15	0.22
00225506400	3/8	9.53	0.69	17.53	2	300	2.07	2.25	57.15	0.18	0.27
00225508200▲	1/2	12.70	0.81	20.64	2	200	1.38	3.00	76.20	0.19	0.28
00225508400	1/2	12.70	0.84	21.34	4	300	2.07	3.00	76.20	0.25	0.37
00225510400	5/8	15.88	1.00	25.40	4	300	2.07	3.75	95.25	0.30	0.45
00225512300	3/4	19.05	1.15	29.21	4	250	1.72	4.50	114.30	0.37	0.55
00225512351†▲	3/4	19.05	1.15	29.21	4	250	1.72	4.50	114.30	0.37	0.55
00225512400	3/4	19.05	1.15	29.21	4	300	2.07	4.50	114.30	0.37	0.55
00225512451†▲	3/4	19.05	1.15	29.21	4	300	2.07	4.50	114.30	0.37	0.55
00225516200▲	1	25.40	1.37	34.80	4	200	1.38	7.00	177.80	0.42	0.62
00225516400	1	25.40	1.43	36.20	4	300	2.07	7.00	177.80	0.50	0.74
00225520200	1-1/4	31.75	1.75	44.45	4	200	1.38	8.75	222.25	0.81	1.21
00225524200	1-1/2	38.10	2.00	50.80	4	200	1.38	10.50	266.70	0.94	1.40
00225532200	2	50.80	2.55	64.77	4	200	1.38	14.00	355.60	1.12	1.67

^{▲ =} Make To Order (MTO)

^{+ = 50} ft. length -1 per carton

AIRFLEX™

Airflex[™] hose is the quality choice for any application where a medium oil resistant tube is needed to lubricate air tools. Airflex[™] has a working pressure to 300 psi in a full range of sizes from 1/4" I.D. to 3/4" I.D. It has a durable 4-spiral construction and a highly visible yellow cover that is weather, ozone and abrasion resistant.



RESISTANCE **BRANDING**





Thermoid Size WP Airflex Made In USA

Cover Color: Yellow Oil Resistance: Medium

Construction: Tube:

Cover:

EPDM, RMA Class C EPDM - Limited Reinforcement: Spiral polyester yarn

-40°F to +200°F Temperature Range: Packaging: -40°C to +93°C

Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
00235504400▲	1/4	6.35	0.62	15.75	4	300	2.07	1.50	38.10	0.15	0.22
00235506400	3/8	9.53	0.69	17.53	4	300	2.07	2.25	57.15	0.18	0.27
00235508400	1/2	12.70	0.84	21.34	4	300	2.07	3.00	76.20	0.25	0.37
00235512400	3/4	19.05	1.15	29.21	4	300	2.07	4.50	114.30	0.37	0.55
00235512451†	3/4	19.05	1.15	29.21	4	300	2.07	4.50	114.30	0.37	0.55
00235516400	1	25.40	1.43	36.20	4	300	2.07	7	177.80	0.54	0.80

^{▲ =} Make To Order (MTO)

 $[\]dagger$ = 50 ft. length -1 per carton



DURA-RED™

Dura-Red™ is the premium non-conductive multipurpose hose that handles oil mist, air, water and mild chemicals. While not recommended for fuels, Dura-Red™ meets the electrical resistance portion of the Alcoa Potroom air and water specs (30.4.2), and features 4-spiral, 300 psi construction to handle harsh applications.



RESISTANCE 😂 🚳 **BRANDING**

Thermoid Dura-Red™

Non-conductive Size PSI WP

Made In USA

Cover Color: Red Medium Oil Resistance: Construction: Non-conductive EPDM, RMA Class C Tube: Cover: **EPDM Class C** Reinforcement: Spiral polyester yarn -40°F to +200°F Temperature Range: -40°C to +93°C Packaging:

Packaging: Reels or †50 ft. length – 1 per carton (3/4" I.D. only)

Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
00275504400▲	1/4	6.35	0.62	15.75	4	300	2.07	1.50	38.10	0.16	0.24
00275506400	3/8	9.53	0.71	18.03	4	300	2.07	2.25	57.15	0.18	0.27
00275508400	1/2	12.70	0.84	21.34	4	300	2.07	3.00	76.20	0.25	0.37
00275512400	3/4	19.05	1.15	29.21	4	300	2.07	4.50	114.30	0.38	0.57
00275516400	1	25.40	1.43	36.20	4	300	2.07	7.00	177.80	0.51	0.76

^{▲ =} Make To Order (MTO)

 $[\]dagger$ = 50 ft. length –1 per carton

Ihermoid[®]

MAXECON™/GP

Maxecon[™] is a versatile general purpose air and water service hose that can be used across all industries. It is incredibly durable and flexible, ideal for uses in mining, steel and petroleum applications. It is nonconductive and offers a medium-high oil resistance, as well as dependable performance with two working pressures: 250 or 300 psi in varying sizes up to 1-1/2" I.D. Not recommended for fuel applications.

It is tested to have a minimum of 1,000,000 ohms per inch resistance when tested with a 1,000 volt D.C. meggar.



RESISTANCE **BRANDING**





Thermoid Maxecon /GP Non-conductive Size PSI WP Made In USA

Cover Color: Red

Cover (Medium) — Tube (High) Oil Resistance:

Construction: Non-conductive

> Tube: Nitrile blend, RMA Class A Cover: Nitrile blend, RMA Class B Reinforcement: Spiral polyester yarn

-20°F to +160°F or 180°F (intermittent) **Temperature Range:** -29°C to +71°C or 82°C (intermittent) Packaging:

Reels or †50 ft. length

Product Number	Nomin (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ight (Kg/m)
00336504300	1/4	6.35	0.50	12.70	2	250	1.72	1.50	38.10	0.08	0.12
00336504400	1/4	6.35	0.62	15.75	4	300	2.07	1.50	38.10	0.13	0.19
00336505300	5/16	7.94	0.63	15.88	2	250	1.72	2.00	50.80	0.14	0.21
00336506300	3/8	9.53	0.69	17.53	4	250	1.72	2.25	57.15	0.17	0.25
00336506400	3/8	9.53	0.69	17.53	4	300	2.07	2.25	57.15	0.17	0.25
00336508300	1/2	12.70	0.84	21.34	4	250	1.72	3.00	76.20	0.24	0.36
00336508400	1/2	12.70	0.84	21.34	4	300	2.07	3.00	76.20	0.24	0.36
00336510400	5/8	15.88	1.00	25.40	4	300	2.07	3.75	95.25	0.28	0.42
00336512300	3/4	19.05	1.15	29.21	4	250	1.72	4.50	114.30	0.36	0.54
00336512400	3/4	19.05	1.15	29.21	4	300	2.07	4.50	114.30	0.40	0.60
00336516300	1	25.40	1.43	36.20	4	250	1.72	7.00	177.80	0.49	0.73
00336516400	1	25.40	1.43	36.20	4	300	2.07	7.00	177.80	0.58	0.86
00336520300	1-1/4	31.75	1.78	45.24	4	250	1.72	8.75	222.25	0.78	1.16
00336524300	1-1/2	38.10	2.03	51.59	4	250	1.72	10.50	266.70	0.90	1.34

 \dagger = 50 ft. length –1 per carton



VERSICON®

Versicon® is designed to stand up to the tough working conditions found in shipyards, steel processing automotive plants and construction industries, as well as aluminum reduction and other applications where a high degree of electrical non-conductivity is required. Its spiral polyester reinforcing cords provide strength and flexibility even in extreme temperatures, and its NBR tube and synthetic cover can convey oil, diesel, kerosene, fuel oil and other petroleum based products while resisting oil, solvents, cracking, abrasion and ozone. It provides a constant pressure of either 250 or 300 psi 1/4" through the 1-1/2" sizes. Not recommended for a variety of unleaded gasoline.

It is tested to have a minimum of 1,000,000 ohms per inch resistance when tested with a 1,000 volt D.C. meggar.



RESISTANCE 6 6 6 **BRANDING**

Thermoid Versicon Non-conductive Size WP Made In USA

Cover Color: Red Oil Resistance: High

Non-conductive **Construction:** Tube: NBR, RMA Class A Cover: Nitrile/PVC Class A Reinforcement: Spiral polyester yarn -20°F to +180°F Temperature Range:

-29°C to +82°C

Product Number	Nominal I.D. (inches) (mm)				Reinforcement Spirals	Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		Weight (lb/ft) (Kg/m)	
00447504400	1/4	6.35	0.62	15.75	4	300	2.07	1.50	38.10	0.16	0.24
00447506400	3/8	9.53	0.69	17.53	4	300	2.07	2.25	57.15	0.18	0.27
00447508400	1/2	12.70	0.84	21.34	4	300	2.07	3.00	76.20	0.25	0.37
00447512400	3/4	19.05	1.15	29.21	4	300	2.07	4.50	114.30	0.42	0.62
00447516400	1	25.40	1.43	36.20	4	300	2.07	7.00	177.80	0.63	0.94
00447520300	1-1/4	31.75	1.78	45.24	4	250	1.72	8.75	222.25	0.81	1.21
00447524300	1-1/2	38.10	2.03	51.59	4	250	1.72	10.50	266.70	0.95	1.41

MAXECON™ PLUS

Maxecon™ Plus is rated high in oil resistance and can be used to convey oil, fuel oil, diesel, kerosene and other petroleum derived products in mining, steel and petroleum industrial applications. It has a working pressure of 300 psi to 1"I.D, and features a durable oil and solvent resistant brown cover capable of standing up to abrasion, weathering and ozone. Not recommended for a variety of unleaded gasoline.

It is tested to have a minimum of 1,000,000 ohms per inch resistance when tested with a 1,000 volt D.C. meggar.



RESISTANCE **BRANDING**





Thermoid Versicon/Maxecon Plus Non-conductive Size WP Made In USA

Cover Color: Brown High Oil Resistance:

Construction: Non-conductive Tube: NBR, RMA Class A Cover: NBR/PVC RMA Class A Reinforcement: Spiral polyester yarn -20°F to +180°F **Temperature Range:** -29°C to +82°C

Product Number	Nomir (inches)	nal I.D. (mm)			Reinforcement Spirals	Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		Weight (lb/ft) (Kg/m)	
00447404400	1/4	6.35	0.62	15.75	4	300	2.07	1.50	38.10	0.16	0.24
00447406400	3/8	9.53	0.71	18.03	4	300	2.07	2.25	57.15	0.18	0.27
00447408400	1/2	12.70	0.84	21.34	4	300	2.07	3.00	76.20	0.25	0.37
00447412400	3/4	19.05	1.15	29.21	4	300	2.07	4.50	114.30	0.42	0.62
00447416400	1	25.40	1.43	36.20	4	300	2.07	7.00	177.80	0.61	0.91



BLACK MAX® M.R.O.

The Black Max® M.R.O. features a fuel line quality that will convey oil, fuel oil, diesel, kerosene and other petroleum derived products, while its tough, black cover resists oils and solvents, as well as weathering, ozone and abrasion. It is tested to have a minimum of 1,000,000 ohms per inch resistance when tested with a 1,000 volt D.C. meggar.

Not recommended for a variety of unleaded gasoline.



RESISTANCE 6 6 6 6 **BRANDING**

Thermoid Versicon/Black Max

MRO Non-conductive Size WP

Made In USA

Black **Cover Color:** High Oil Resistance:

Construction: Non-conductive NBR, RMA Class A Tube: Cover: NBR/PVC RMA Class A Reinforcement: Spiral polyester yarn -20°F to +180°F Temperature Range:

-29°C to +82°C

Packaging: Reels

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ight (Kg/m)
00447604400▲	1/4	6.35	0.62	15.75	4	300	2.07	1.50	38.10	0.16	0.24
00447606400▲	3/8	9.53	0.71	18.03	4	300	2.07	2.25	57.15	0.18	0.27
00447608400	1/2	12.70	0.84	21.34	4	300	2.07	3.00	76.20	0.25	0.37
00447612400▲	3/4	19.05	1.15	29.21	4	300	2.07	4.50	114.30	0.42	0.62
00447616400▲	1	25.40	1.43	36.20	4	300	2.07	7.00	177.80	0.60	0.89

▲ = Make To Order (MTO)

Ihermoid^e

GOLDENAIR®

The Goldenair® is the quality general purpose, nonconductive hose choice for air, petroleum products and nitrogen service. Designed for the harsh conditions found in steel mills, shipyards, foundries, auto plants and construction sites, Goldenair® resists weathering, ozone and abrasion. It provides a constant working pressure to 350 psi in 3/4" size and is kink resistant.

Not recommended for a variety of unleaded gasoline.

It is tested to have a minimum of 1,000,000 ohms per inch resistance when tested with a 1,000 volt D.C. meggar.



RESISTANCE **BRANDING**



Thermoid Versicon/Goldenair Non-conductive Size PSI WP Made In USA (For Nitrogen Use)

Cover Color: Yellow Oil Resistance: High

Construction: Non-conductive Tube: NBR, RMA Class A Cover: NBR/PVC RMA Class A Reinforcement: Spiral polyester yarn -20°F to +180°F Temperature Range: -29°C to +82°C

Reels

Packaging:

Product Number	Nominal I.D. (inches) (mm)		Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
00447312600	3/4	19.05	1.15	29.21	4	350	2.41	4.50	114.30	0.38	0.57
00447316400	1	25.40	1.43	36.20	4	300	2.07	7.00	177.80	0.61	0.91



AIR POWER™ JACKHAMMER

This durable, rugged hose can tackle the job that only a jackhammer can dish out. It features a 4-spiral construction available in 200, 250 or 300 psi, and an EPDM tube and cover that handles heat, ozone and weather cracking better than other compounds. Domestic or foreign manufactured crimped steel fittings available.



RESISTANCE **BRANDING**



Thermoid Air Power 3/4" Made In USA

Cover Color: Red (also available in yellow)

Oil Resistance:

Limited

Construction:

EPDM Tube: **EPDM** Cover:

Reinforcement: Spiral polyester yarn -40°F to +200°F Temperature Range:

-40°C to +93°C

Packaging: 3/4" Sold 28 lengths per carton/pallet

1" Sold 20 lengths per carton/pallet

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ight (Kg/m)
00114562258	3/4	19.05	1.15	29.21	4	200	1.38	4.50	114.30	0.38	0.57
00114562558	3/4	19.05	1.15	29.21	4	250	1.38	4.50	114.30	0.38	0.57
00114562458	3/4	19.05	1.15	29.21	4	300	2.07	4.50	114.30	0.41	0.61
00114566358	1	25.40	1.37	34.80	4	200	1.38	7	177.80	0.51	0.76

RED AIR TOOL COUPLED

This tough, versatile factory coupled air hose is specifically designed to stand up to the harsh working conditions found on most project construction sites and industrial environments. Available in either 200 or 300 psi working pressures, this air hose can be cut to lengths and is coupled with Male x Male fittings with 1/4" or 3/8" threads per customer requirements.



RESISTANCE

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Thermoid Air Power Size WP 4 SP **BRANDING** Made In USA

Cover Color: Red Oil Resistance: Limited

Construction:

EPDM

Tube: Cover:

EPDM

Reinforcement: **Temperature Range:**

Spiral polyester yarn -40°F to +200°F

-40°C to +93°C

Packaging: **Contact Customer Service**

Product	Nominal I.D. (inches) (mm)		Nominal O.D. (inches) (mm)		Reinforcement		Pressure	Lengths (feet) (meters)		
Number	(inches)	(mm)	(inches)	(mm)	Spirals	(psi)	(Mpa)	(reet)	(meters)	
00114586454▲	1/4	6.35	0.49	12.45	4	200	1.38	50	15.25	
00114587454▲	1/4	6.35	0.62	15.75	4	300	2.07	50	15.25	
00114586624▲	3/8	9.53	0.68	17.27	4	200	1.38	25	7.62	
00114587624▲	3/8	9.53	0.71	18.03	4	300	2.07	25	7.62	
00114587628▲	3/8	9.53	0.71	18.03	4	300	2.07	25	7.62	
00114586654▲	3/8	9.53	0.68	17.27	4	200	1.38	50	15.25	
00114586658▲	3/8	9.53	0.68	17.27	4	200	1.38	50	15.25	
00114587654	3/8	9.53	0.71	18.03	4	300	2.07	50	15.25	
00114587658▲	3/8	9.53	0.71	18.03	4	300	2.07	50	15.25	

^{▲ =} Make To Order (MTO)



FLEX-LOC™ PUSH-ON

Flex-Loc™ is a highly oil-resistant push-on hose with a 250 psi working pressure, designed for safe and reliable performance in the most demanding and harsh working conditions. It allows push-on fittings to be inserted into place easily and quickly without the need for special crimping tools are required. Its tube and cover make it effective for industrial, warehouse and other applications where a convenient push-on hose fitting could be used.

Not recommended for unleaded gasoline.



Cover Color: Black, Blue, Gray, Red, Green or Yellow

Oil Resistance: High

Construction:

Tube:Nitrile, RMA Class ACover:Nitrile/PVC RMA Class AReinforcement:Spiral polyester

Temperature Range: -20°F to +180°F

-29°C to +82°C

Packaging: Reels 500 - 700 ft. or 250 ft.

Product Number	Product Number	Nomin		Nomin		Reinforcement		Pressure		d Radius		ight
(500 - 700 ft. reels)	(250 ft. reels)	(inches)	(mm)	(inches)	(mm)	Spirals	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
Black	Black											
00338404300	00338404398	1/4	6.35	0.50	12.70	2	250	1.72	1.50	38.10	0.09	0.13
00338406300	00338406398	3/8	9.53	0.63	15.88	2	250	1.72	2.25	57.15	0.12	0.18
00338408300	00338408398	1/2	12.70	0.75	19.05	2	250	1.72	3.00	76.20	0.16	0.24
00338410300	00338410398	5/8	15.88	0.91	23.02	2	250	1.72	3.75	95.25	0.22	0.33
00338412300	00338412398	3/4	19.05	1.03	26.19	2	250	1.72	4.50	114.30	0.25	0.37
Blue	Blue											
00338504300	00338504398▲	1/4	6.35	0.50	12.70	2	250	1.72	1.50	38.10	0.09	0.13
00338506300	00338506398	3/8	9.53	0.63	15.88	2	250	1.72	2.25	57.15	0.12	0.18
00338508300	00338508398▲	1/2	12.70	0.75	19.05	2	250	1.72	3.00	76.20	0.16	0.24
Gray	Gray											
00338604300	00338604398▲	1/4	6.35	0.50	12.70	2	250	1.72	1.50	38.10	0.09	0.13
00338606300	00338606398▲	3/8	9.53	0.63	15.88	2	250	1.72	2.25	57.15	0.12	0.18
00338608300	00338608398▲	1/2	12.70	0.75	19.05	2	250	1.72	3.00	76.20	0.16	0.24
Red	Red											
00338704300	00338704398▲	1/4	6.35	0.50	12.70	2	250	1.72	1.50	38.10	0.09	0.13
00338706300	00338706398▲	3/8	9.53	0.63	15.88	2	250	1.72	2.25	57.15	0.12	0.18
00338708300	00338708398▲	1/2	12.70	0.75	19.05	2	250	1.72	3.00	76.20	0.16	0.24
Green	Green											
00338804300▲	00338804398▲	1/4	6.35	0.50	12.70	2	250	1.72	1.50	38.10	0.09	0.13
00338806300	00338806398▲	3/8	9.53	0.63	15.88	2	250	1.72	2.25	57.15	0.12	0.18
00338808300▲	00338808398▲	1/2	12.70	0.75	19.05	2	250	1.72	3.00	76.20	0.16	0.24
Yellow	Yellow							•		•		
00338904300▲	00338904398▲	1/4	6.35	0.50	12.70	2	250	1.72	1.50	38.10	0.09	0.13
00338906300▲	00338906398▲	3/8	9.53	0.63	15.88	2	250	1.72	2.25	57.15	0.12	0.18
00338908300▲	00338908398▲	1/2	12.70	0.75	19.05	2	250	1.72	3.00	76.20	0.16	0.24

 $[\]blacktriangle$ = Make To Order (MTO)

FLEX-LOC™ 300 PUSH-ON

Designed specifically for use with robotic welders and industrial applications requiring an MSHA approved flame-resistant cover, Flex-Loc™ 300 is a premium 300 psi oil-resistant, non-conductive push-on hose that provides safe and reliable performance in oily and harsh conditions. It features an excellent coupling retention and a superior hold created by a unique spiral angle design and polyester reinforcement that firmly grips the fitting and will not give under pressure.

Not recommended for unleaded gasoline.



RESISTANCE

Packaging:

BRANDING Thermoid - Flex-Loc 300

Non-conductive Size 300 PSI WP Made In USA MSHA 1C

Cover Color: Black, Blue, Gray, Red, Green or Yellow

Oil Resistance: High

Construction: Non-conductive Tube: Nitrile, RMA Class A Nitrile/PVC RMA Class A Cover:

Reinforcement: Spiral polyester **Temperature Range:** -30°F to +180°F

-34°C to +82°C

Reels 500 - 700 ft.

Product Number	Nomin (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Weight (lb/ft) (Kg/ı	
	(ilicites)	(111111)	(IIICIIC3)	(111111)	əpiidis	(þ3i)	(IVIPA)	(IIICIIE3)	(111111)	(10/11)	(Ng/111)
Black											
00318404400	1/4	6.35	0.50	12.70	2	300	2.07	1.50	38.10	0.10	0.15
00318406400	3/8	9.53	0.63	15.88	2	300	2.07	2.25	57.15	0.13	0.19
00318408400	1/2	12.70	0.75	19.05	2	300	2.07	3.00	76.20	0.16	0.24
00318410400	5/8	15.88	0.91	23.02	2	300	2.07	3.75	95.25	0.23	0.34
00318412400	3/4	19.05	1.03	26.19	2	300	2.07	4.50	114.30	0.26	0.39
Blue											
00318504400	1/4	6.35	0.50	12.70	2	300	2.07	1.50	38.10	0.10	0.15
00318506400▲	3/8	9.53	0.63	15.88	2	300	2.07	2.25	57.15	0.13	0.19
00318508400	1/2	12.70	0.75	19.05	2	300	2.07	3.00	76.20	0.16	0.24
Gray											
00318604400	1/4	6.35	0.50	12.70	2	300	2.07	1.50	38.10	0.10	0.15
00318606400	3/8	9.53	0.63	15.88	2	300	2.07	2.25	57.15	0.13	0.19
00318608400	1/2	12.70	0.75	19.05	2	300	2.07	3.00	76.20	0.16	0.24
Red	.,_	12.70	0.75	17.03	_	300	2.07	5.00	70.20	0.10	0.2.
00318704400	1/4	6.35	0.50	12.70	2	300	2.07	1.50	38.10	0.10	0.15
00318706400	3/8	9.53	0.63	15.88	2	300	2.07	2.25	57.15	0.13	0.19
00318708400	1/2	12.70	0.75	19.05	2	300	2.07	3.00	76.20	0.15	0.13
Green	1/2	12.70	0.75	15.05	2	300	2.07	3.00	70.20	0.10	0.27
00318804400	1/4	6.35	0.50	12.70	2	300	2.07	1.50	38.10	0.10	0.15
							*				*
00318806400	3/8	9.53	0.63	15.88	2	300	2.07	2.25	57.15	0.13	0.19
00318808400▲	1/2	12.70	0.75	19.05	2	300	2.07	3.00	76.20	0.16	0.24
Yellow	2 (0	0.53	0.63	15.00	2	200	2.07	2.25	F7.1F	0.13	0.10
00318906400▲ - Make To Order (I	3/8	9.53	0.63	15.88	2	300	2.07	2.25	57.15	0.13	0.19

▲ = Make To Order (MTO)



EXCALIBUR™ MULTIPURPOSE

Excalibur™ is a highly versatile hose designed for environments prone to high pressure and extreme temperatures, particularly air, water and petroleum applications in heavy construction, mining or quarry operations, as well as washer operations in meat and poultry plants or agricultural sprays. It is nonconductive, flame resistant and MSHA approved with a Class A RMA rating, and provides a constant 500 psi working pressure in temperatures ranging from -40°F to +212°F. The Excalibur™ features highly visible yellow, NBR/PVC blend cover that provides excellent resistance to fats, oils, kerosene and gasoline.



BRANDING

RESISTANCE 6 6 6 6

Thermoid Excalibur Multipurpose Hose Size I.D. 500 PSI WP MSHA 1C-114/1 Made In USA Electrically

Non-conductive

Cover Color: Yellow Oil Resistance: High

Construction: Tube:

Packaging:

NBR/PVC, RMA Class A

Cover: NBR/PVC, RMA Class A, MSHA Approved

Reinforcement: Spiral polyester yarn **Temperature Range:** -40°F to +212°F -40°C to +100°C

Reels

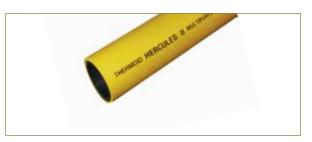
Product Number	Nomin (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
22574168662	1/4	6.35	0.63	15.88	4	500	3.45	1.50	38.10	0.16	0.24
22574248662	3/8	9.53	0.75	19.05	4	500	3.45	2.25	57.15	0.22	0.33
22574328662	1/2	12.70	0.91	23.02	4	500	3.45	3.00	76.20	0.24	0.36
22574488662	3/4	19.05	1.19	30.16	4	500	3.45	4.50	114.30	0.37	0.55
22574648662	1	25.40	1.50	38.10	4	500	3.45	7.00	177.80	0.51	0.76

▲ = Make To Order (MTO)

Ihermoid^e

HERCULES® II

Hercules II... the latest addition to our high working pressure multipurpose hoses is a cost effective alternative to our very successful and popular Hercules® 500 Multipurpose Hose. Hercules II was value-engineered to offer customers superior performance in harsh work sites like factories, foundries, manufacturing plants, mines, quarries and numerous other industrial applications. Non-conductive and MSHA approved with a Class A RMA rating, Hercules II has a 4-spiral yarn reinforcement. This construction provides 500 psi working pressure in sizes 1/4" through 2", all with a 4:1 burst safety factor. Hercules II's yellow, XNBR cover provides exceptional resistance to abrasion, oils and other petroleum based products. Hercules II is the best value and a great selection for any OEM or MRO application requiring long life and exceptional performance in material transfer situations.



RESISTANCE **BRANDING**





Thermoid Hercules II Multipurpose Hose Size I.D. 500 PSI WP MSHA 1C-209/7 Non-conductive Made In USA

Yellow **Cover Color:** Oil Resistance: High

Construction:

Tube: NBR, RMA Class A Cover: XNBR, RMA Class A Reinforcement: 4-spiral yarn **Temperature Range:** -40°F to +212°F

-40°C to +100°C

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
45454168662	1/4	6.35	0.63	15.88	4	500	3.45	1.50	38.10	0.14	0.21
45454248662	3/8	9.53	0.75	19.05	4	500	3.45	2.25	57.15	0.21	0.31
45454328662	1/2	12.70	0.91	23.02	4	500	3.45	3.00	76.20	0.24	0.36
45454488662	3/4	19.05	1.19	30.16	4	500	3.45	4.50	114.30	0.36	0.54
45454648662	1	25.40	1.50	38.10	4	500	3.45	7.00	177.80	0.51	0.76
00454520500	1-1/4	31.75	1.75	44.45	4	500	3.45	8.75	222.25	0.71	1.04
00454524500	1-1/2	38.10	2.09	53.09	4	500	3.45	10.50	266.70	1.00	1.49
00454532400	2	50.80	2.64	67.06	4	500	3.45	16.00	406.40	1.41	2.08



HERCULES® 500

Hercules® 500 is a durable, abrasion-resistant hose engineered to withstand harsh conditions and temperatures ranging from -40°F to +212°F, ideal for use in agriculture, factory, foundry, mining, quarry and even the toughest construction applications. It is nonconductive and MSHA approved with a Class A RMA rating, providing a constant 500 psi working pressure and a 4:1 burst safety factor. Its highly visible, fluorescent yellow, XNBR cover provides superior resistance to abrasion, oils and other petroleum based products.



RESISTANCE 🐼 🚳 📾 🕏 📵 **BRANDING**

Thermoid Hercules Multipurpose Hose Size I.D. 500 PSI WP MSHA 1C-114/1 Made In USA Non-conductive

Cover Color: Yellow Oil Resistance: High

Construction:

NBR, RMA Class A Tube: Cover: XNBR, RMA Class A

Reinforcement: 4-spiral polyester yarn - 1/4", 3/8", 1/2" sizes

Temperature Range: -40°F to +212°F

-40°C to +100°C

Product Number	Nomin (inches)	(inches) (mm) (inc		al O.D. (mm)	Reinforcement Spirals	Working Pressure (psi) (Mpa)		Min. Ben (inches)	d Radius (mm)	Weight (lb/ft) (Kg/m)	
22454168662	1/4	6.35	0.63	15.88	4	500	3.45	1.50	38.10	0.14	0.21
22454248662	3/8	9.53	0.75	19.05	4	500	3.45	2.25	57.15	0.21	0.31
22454328662	1/2	12.70	0.91	23.02	4	500	3.45	3.00	76.20	0.24	0.36
22454488662	3/4	19.05	1.19	30.16	4	500	3.45	4.50	114.30	0.36	0.54
22454648662	1	25.40	1.50	38.10	4	500	3.45	7.00	177.80	0.51	0.76
22454808662	1-1/4	31.75	1.75	44.45	4	500	3.45	8.75	222.25	0.66	0.98
22454968662	1-1/2	38.10	2.09	53.18	4	500	3.45	10.50	266.70	0.70	1.04

HERCULES® 1000

Hercules® 1000 is a highly versatile, multipurpose hose designed for high pressure applications and extreme temperature environments ranging from -40°F to +212°F. It is ideal for use in rock drilling, air hammer and water jetting applications in heavy construction, mining or quarry operations, as well as the transfer of petroleum or other solvent solutions, and washer operations. The Hercules® 1000 is nonconductive and MSHA approved with a Class A RMA rating, providing a constant 1000 psi working pressure, with a minimum 4:1 burst safety factor.



RESISTANCE **BRANDING**

Thermoid Hercules 1000 Multipurpose Hose Size I.D. 1000 PSI WP MSHA 1C-114/1 Made In USA Non-conductive

Cover Color: Yellow Oil Resistance: High

Construction:

Tube: NBR, RMA Class A

Cover: XNBR, RMA Class A (Pin Pricked)

4-spiral polyester yarn - 1/4", 3/8", 1/2" sizes Reinforcement:

4-spiral aramid fiber - 3/4" and 1" sizes

Temperature Range: -40° F to $+212^{\circ}$ F

-40°C to +100°C

Product Number	Nomin (inches)	(inches) (mm)		Nominal I.D. (inches) (mm)		al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
22544168662	1/4	6.35	0.63	15.88	4	1000	6.89	1.50	38.10	0.16	0.24		
22544248662	3/8	9.53	0.75	19.05	4	1000	6.89	2.25	57.15	0.22	0.33		
22544328662	1/2	12.70	0.94	23.81	4	1000	6.89	3.00	76.20	0.24	0.36		
22544488662	3/4	19.05	1.13	28.58	4	1000	6.89	4.50	114.30	0.35	0.52		
22544648662	1	25.40	1.50	38.10	4	1000	6.89	7.00	177.80	0.47	0.70		

^{▲ =} Make To Order (MTO)



GLACIER™ MULTIPURPOSE

Glacier™ is a cold weather hose specifically engineered for use in sub-zero applications ranging from -65°F to +180°F while maintaining its kink-resistant flexibility and easy-reeling characteristics. Featuring an oil-resistant, synthetic rubber tube that is reinforced with a spiraled high tensile polyester cord, Glacier™ provides a constant working pressure of 300 psi and a 4:1 burst safety factor, capable of handling air, oil, gasoline, diesel, kerosene, fuel oil and some chemicals.



RESISTANCE

(

BRANDING Thermoid Glacier MP Hose Size I.D. WP Made In USA

Cover Color: Blue - ALSO AVAILABLE IN BLACK COVER

Oil Resistance: High Construction:

Tube:

ECO low temperature oil resistant

synthetic rubber

Cover: RMA Class A

Reinforcement: ECO low temperature oil resistant

synthetic rubber RMA Class A

Temperature Range: Spira

Spiral polyester yarn -65°F to +180°F

-54°C to +82°C

-34 (10 +0

Packaging: Reels

Product Number	Nomin (inches)	` , ` ,		(inches) (mm)		(inches) (mm)		al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Bend Radius (inches) (mm)	We (lb/ft)	ight (Kg/m)
22554166662	1/4	6.35	0.63	15.88	4	300	2.07	1.50	0.15	0.22				
22554246662	3/8	9.53	0.75	19.05	4	300	2.07	2.25	0.21	0.31				
22554326662	1/2	12.70	0.94	23.81	4	300	2.07	3.00	0.30	0.45				
22554486662	3/4	19.05	1.25	31.75	4	300	2.07	4.50	0.39	0.58				
22554646662	1	25.40	1.50	38.10	4	300	2.07	7.00	0.49	0.73				
22554806662	1-1/4	31.75	1.78	45.24	4	300	2.07	8.75	0.61	0.91				
22554886662	1-3/8	34.93	1.88	47.63	4	300	2.07	9.25	0.68	1.01				
225549666624	1-1/2	38.10	2.09	53.18	4	300	2.07	10.50	0.83	1.23				

▲ = Make To Order (MTO)



AUTOMOTIVE/MARINE COOLANT



BLACK STANDARD HEATER & OEM HEATER SAE 20R3, CLASS D2 TYPE

The Black Standard Heater & OEM Heater feature kink-resistant EPDM tube and covers that resist cracking and weather checking and can withstand the abuse of corrosive additives, ozone and abrasion. Their multi-spiral polyester is reinforced to maintain flexibility even in extreme temperatures.



RESISTANCE **BRANDING**

4703 Thermoid (Size) OEM Heater

Hose Made In USA

4709 Thermoid (Size) Heater Hose

Made In USA

Cover Color: Black Oil Resistance: Limited

Construction:

EPDM Tube: **EPDM** Cover:

Spiral polyester yarn Reinforcement:

 -40° F to $+212^{\circ}$ F ($+257^{\circ}$ F intermittent) Temperature range: Packaging: Reels, †50 ft. length – 1 per carton

Product Number	Nomin (inches)	ial I.D. (mm)	Nominal O.D.) (inches) (mm)		Reinforcement Spirals	Working Pressure (psi) (Mpa)				Weight (lb/ft) (Kg/m)	
00470308151+	1/2	12.70	0.80	20.24	2	62	0.43	3.00	76.20	0.18	0.27
00470310199	5/8	15.88	0.94	23.81	2	62	0.43	3.75	95.25	0.22	0.33
00470310151†	5/8	15.88	0.94	23.81	2	62	0.43	3.75	95.25	0.22	0.33
00470312199	3/4	19.05	1.06	26.99	2	50	0.34	4.50	114.30	0.25	0.37
00470312151†	3/4	19.05	1.06	26.99	2	50	0.34	4.50	114.30	0.25	0.37
00470316199▲	1	25.40	1.34	34.13	2	44	0.30	7.00	177.80	0.38	0.57
00470316151†	1	25.40	1.34	34.13	2	44	0.30	7.00	177.80	0.38	0.57
00470908199	1/2	12.70	0.81	20.64	2	35	0.24	3.00	76.20	0.16	0.24
00470908151†	1/2	12.70	0.81	20.64	2	35	0.24	3.00	76.20	0.16	0.24
00470910199	5/8	15.88	0.88	22.23	2	35	0.24	3.75	95.25	0.20	0.30
00470910151†	5/8	15.88	0.88	22.23	2	35	0.24	3.75	95.25	0.20	0.30
00470912199	3/4	19.05	1.03	26.19	2	35	0.24	4.50	114.30	0.23	0.34
00470912151†	3/4	19.05	1.03	26.19	2	35	0.24	4.50	114.30	0.23	0.34
00470916199	1	25.40	1.34	34.13	2	25	0.17	7.00	177.80	0.39	0.58
00470916151†	1	25.40	1.34	34.13	2	25	0.17	7.00	177.80	0.39	0.58

^{▲ =} Make To Order (MTO)

 $[\]dagger$ = 50 ft. length –1 per carton



AIR BRAKE, TYPE A- SAE J1402 & D.O.T. FMVSS 106

Designed for truck and trailer manufacturers, aftermarket packagers and wholesalers, this Air Brake hose conveys air in truck and trailer brake systems. It is certified to meet D.O.T. FMVSS 106 and SAE J1402A requirements and features an EPDM tube and cover with 4-spiral reinforcement making this hose virtually kink proof.



RESISTANCE BRANDING

Air Brake 3/8" A SAE J1402 Made In USA D.O.T. KX 3/8 (9.5mm) A Air Brake 1/2" SP A SAE J1402 Made In USA D.O.T. KX 1/2" SP (12.7mm) A

Cover Color: Black **Oil Resistance:** Medium

Construction:

Packaging:

Tube: EPDM, RMA Class C
Cover: EPDM, RMA Class C
Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +200°F

-40°C to +93°C Reels, 500 ft. length

Product	Product Nominal I.D. Number (inches) (mm)		Nominal O.D. (inches) (mm)		Reinforcement Spirals	Working Pressure (psi) (Mpa)		Min. Ben (inches)		Weight (lb/ft) (Kg/m	
Nullibei	(ilicites)	(111111)	(ilicites)	(mm)	Spirais	(h2i)	(Mpa)	(illicites)	(mm)	(10/11)	(Kg/m)
						Min. Burst					
00482106499	3/8	9.53	0.75	19.05	4	900	6.20	2.25	57.15	0.17	0.25
						Min. Burst					
00482106498†	3/8	9.53	0.75	19.05	4	900	6.20	2.25	57.15	0.17	0.25
						Min. Burst					
00482106451**	3/8	9.53	0.75	19.05	4	900	6.20	2.25	57.15	0.17	0.25
						Min. Burst					
00482108500	1/2	12.70	0.88	22.23	4	900	6.20	3.00	76.20	0.20	0.30
						Min. Burst					
00482108498†	1/2	12.70	0.88	22.23	4	900	6.20	3.00	76.20	0.20	0.30
	.,_					Min. Burst	•				
00482108451**	1/2	12 70	0.88	22.23	4	900	6.20	3.00	76.20	0.20	0.30

† = Maximum 2 pc. 250 ft. reel ** = 50 ft. length – 1 per carton

Thermoid®

FUEL LINE, VAPOR EMISSION & CRANKCASE VENTILATION(30R7)

This durable, aftermarket standard hose is used for conveying most automobile, truck and bus fuel and is ideal for equipment, wholesalers, aftermarket packagers and auxiliary tank manufacturers. It provides superior service in temperatures ranging from -29°F to +257°F. Featuring an NBR tube and an NBR/PVC cover reinforced with multiple spiral polyester, the hose remains flexible and resistant to oil, grease, ozone and under-hood temperatures generated by today's automotive engines.



RESISTANCE BRANDING Size SAE 30R7-KX Date Made In USA

Cover Color: Black
Oil Resistance: Medium-High

 ${\bf Construction:}$

Tube: NBR, RMA Class A
Cover: NBR/PVC, RMA Class B
Reinforcement: Spiral polyester yarn

Temperature Range: -40°F to +257°F

-40°C to +125°C

Packaging: See below chart

SAE 30R7: Not recommended for recirculating fuel systems. Product conforms to all SAE 30R7 requirements for non-recirculating systems. SAE 30R9 recommended for recirculating systems.

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
25 ft. Coil											
00667503225	3/16	4.76	0.41	10.32	2	50	0.34	1.25	31.75	0.07	0.10
00667504225	1/4	6.35	0.50	12.70	2	50	0.34	1.50	38.10	0.09	0.13
00667505225▲	5/16	7.94	0.56	14.29	2	50	0.34	2.00	50.80	0.11	0.16
00667506225▲	3/8	9.53	0.63	15.88	2	50	0.34	2.25	57.15	0.12	0.18
50 ft. Coil											
00667503252▲	3/16	4.76	0.41	10.32	2	50	0.34	1.25	31.75	0.07	0.10
00667504252▲	1/4	6.35	0.50	12.70	2	50	0.34	1.50	38.10	0.09	0.13
00667505252▲	5/16	7.94	0.56	14.29	2	50	0.34	2.00	50.80	0.11	0.16
00667506252▲	3/8	9.53	0.63	15.88	2	50	0.34	2.25	57.15	0.12	0.18
250 ft. Reel											
00667503298▲	3/16	4.76	0.41	10.32	2	50	0.34	1.25	31.75	0.07	0.10
00667504298	1/4	6.35	0.50	12.70	2	50	0.34	1.50	38.10	0.09	0.13
00667505298	5/16	7.94	0.56	14.29	2	50	0.34	2.00	50.80	0.11	0.16
00667506298	3/8	9.53	0.63	15.88	2	50	0.34	2.25	57.15	0.12	0.18
500 - 700 ft. Reel											
00667503299	3/16	4.76	0.41	10.32	2	50	0.34	1.25	31.75	0.07	0.10
00667504299	1/4	6.35	0.50	12.70	2	50	0.34	1.50	38.10	0.09	0.13
00667505299	5/16	7.94	0.56	14.29	2	50	0.34	2.00	50.80	0.11	0.16
00667506299	3/8	9.53	0.63	15.88	2	50	0.34	2.25	57.15	0.12	0.18
00667508299	1/2	12.70	0.781	19.83	2	35	0.24	3.00	76.20	0.16	0.24

 \blacktriangle = Make To Order (MTO)



VAPOR-LOC™ FUEL LINE (30R7)

Thermoid Vapor-Loc Fuel Line Hose is approved by CARB (California Air Resources Board). This hose is similar to SAE J30R7 Fuel Line Hose Types. It traps/prevents up to 99% of all fuel vapors from permeating through the hose walls (see Vapor-Loc Fuel Line versus Standard fuel Line hose comparison illustration on page 50). These hoses are designed to carry fuel in cars, trucks, motorcycles, lawn and garden equipment and all gasoline and/or gasoline/bio-fuel engines. This hose is designed to resist gasoline/ethanol blends, oils and the caustic effects of bio-fuels, cover abrasion and ozone.



RESISTANCE BRANDING VAPOR-LOC FI

Thermoid VAPOR-LOC Fuel Line Size I.D. Date Made In USA

Cover Color: Black with White Branding

Oil Resistance: Medium – High

Construction:

Tube: NBR

Cover: Chlorinated Polymer
Reinforcement: Two Spiral Polyester
VAPOR-LOC System
Temperature Range: -40°F to +257°F

-40°C to +125°C

Packaging: Cartons and Reels. Made to Order all sizes

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Bend Radius (inches) (mm)		We (lb/ft)	ight (Kg/m)
22612161662	1/4	6.30	0.50	12.70	2 spiral	50	0.69	1.50	38.90	0.09	0.13
22612201662	5/16	7.94	0.56	14.29	2 spiral	50	0.34	2.00	50.80	0.11	0.16
22612241662	3/8	9.53	0.56	14.29	2 spiral	50	0.34	2.25	57.15	0.12	0.18

VAPOR-LOC™ FUEL INJECTION

Thermoid Vapor-Loc Fuel Injection Hose is approved by CARB (California Air Resources Board). This hose meets and exceeds all SAE J30R9 Fuel Injection Hose Specifications. It traps/prevents up to 99% of all fuel vapors from permeating through the hose walls (see Vapor-Loc Fuel Line versus Standard fuel Line hose comparison illustration shown below). These hoses are designed to carry fuel in cars, trucks, motorcycles, lawn and garden equipment and all gasoline and/or gasoline/bio-fuel engines. This hose is designed to resist gasoline/ethanol blends, oils and the caustic effects of bio-fuels, cover abrasion and ozone.



RESISTANCE

6 € 0

BRANDING Thermoid VAPOR-LOC Fuel Injection

Size I.D. Date Made In USA

Cover Color: Black with White Branding Medium - High

Oil Resistance:

Construction:

Tube: FKM

Cover: **Chlorinated Polymer** Reinforcement: Two Spiral Polyester VAPOR-LOC System **Barrier: Temperature Range:** -40°F to +257°F -40°C to +125°C Packaging: **Cartons and Reels**

Product Number	Nomin (inches)	al I.D. (mm)	Nominal O.D. (inches) (m	. I Plies	Workin (psi)	Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		ight (Kg/m)
22602161662	1/4	6.30	0.50 12.	70 2 spiral	100	0.69	1.50	38.90	0.09	0.13
22612201662	5/16	7.94	0.56 14.	29 2 spiral	100	0.69	2.00	50.80	0.11	0.16
22612241662	3/8	9.53	0.56 14.	29 2 spiral	100	0.69	2.25	57.15	0.12	0.18

As shown in the fuel line hose comparison illustration below, Thermoid's Vapor-Loc System integrates a multilayer vapor barrier between the hose components that locks in virtually all the fuel vapors that would normally permeate through the hose.

VAPOR-LOC FUEL LINE HOSE VERSUS STANDARD FUEL LINE HOSE VAPOR-LOC FUEL LINE VAPOR-LOC FUEL LINE SAE J30R7 TYPE HOSE SAE J30R9 HOSE Cover Cover Cover Fabric Fabric Reinforcement Reinforcement Fabric Reinforcement Vapor-Loc Vapor-Loc Barrier Tube Tube



7318 SOFT WALL FUEL FILL (SAE 30R7)

Often used as a fill neck hose, Style 7318 can carry leaded, unleaded, diesel fuel, gasohol and oxygenated fuels with aromatics of up to 30%. Its rugged construction helps prevent hose collapse, making it suitable for a variety of applications including passenger cars, light trucks, boats and auxiliary fuel tanks on RVs. This hose meets all the requirements of the 30R7 specification.



Cover Color: Black **Oil Resistance:** High

Construction:

Tube: NBR Cover: CR

Reinforcement: Nylon screen
Temperature Range: -34°F to +257°F

-37°C to +125°C

Packaging: 60 ft.

Other lengths available – 5% cutting charge Contact customer service for minimum run

requirements

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		ight (Kg/m)
16731815060▲	1-1/2	38.10	1.87	47.50	2	35	0.24	n/a	n/a	0.62	0.92
16731817560▲	1-3/4	44.45	2.15	54.61	2	35	0.24	n/a	n/a	0.71	1.06
16731818760▲	1-7/8	47.63	2.25	57.15	2	35	0.24	n/a	n/a	0.76	1.13
16731820060▲	2	50.80	2.39	60.71	2	35	0.24	n/a	n/a	0.80	1.19
16731822560▲	2-1/4	57.15	2.67	67.82	2	35	0.24	n/a	n/a	0.93	1.38
16731823760▲	2-3/8	60.33	2.79	70.87	2	35	0.24	n/a	n/a	0.98	1.46

▲ = Make To Order (MTO) n/a = Not Applicable

1158 SOFTWALL AROMATIC **FUEL SAE 30R2, TYPE 2**

This multipurpose hose is designed for use in fuel transfer applications, such as filler neck, where aromatic fuel resistance is required. It features a CR cover that is oil, heat, and ozone resistant.



RESISTANCE **BRANDING**

Thermoid, Fuel Fill, Size, Made In USA, Caution Statement

Cover Color: Black Oil Resistance: High

Construction:

NBR Tube: Cover: CR Reinforcement: Tire cord

Temperature Range: -40°F to +212°F

-40°C to +100°C

Packaging: Make to Order (MTO)

Contact Salisbury for details 6 ft., 12 ft and 60 ft. lengths available 1/2" and 5/8" I.D. – 25 ft. maximum Other lengths – 5% cutting charge

	Product Number	Product Number		nal I.D.		nal O.D.	Plies	Working		Min. Bend	d Radius		ight
6 Feet	12 Feet	60 Feet	(inches)	(mm)	(inches	(mm)	Liles	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
16115805006	16115805012▲	16115805025▲	1/2	12.70	1.00	25.40	2	175	1.21	n/a	n/a	0.36	0.54
16115806206▲	16115806212▲	16115806225▲	5/8	15.88	1.13	28.58	2	125	0.86	n/a	n/a	0.41	0.61
16115807506▲	16115807512▲	16115807560▲	3/4	19.05	1.25	31.75	2	125	0.86	n/a	n/a	0.46	0.68
16115808706	16115808712	16115808760	7/8	22.23	1.38	34.93	2	125	0.86	n/a	n/a	0.52	0.77
16115810006	16115810012	16115810060	1	25.40	1.50	38.10	2	125	0.86	n/a	n/a	0.59	0.88
16115811206	16115811212▲	16115811260▲	1-1/8	28.58	1.63	41.28	2	100	0.69	n/a	n/a	0.62	0.92
16115812506	16115812512	16115812560	1-1/4	31.75	1.75	44.45	2	100	0.69	n/a	n/a	0.68	1.01
16115813706▲	16115813712▲	16115813760▲	1-3/8	34.93	1.88	47.63	2	100	0.69	n/a	n/a	0.73	1.09
16115815006	16115815012	16115815060	1-1/2	38.10	2.00	50.80	2	100	0.69	n/a	n/a	0.79	1.18
16115816206▲	16115816212	16115816260	1-5/8	41.28	2.13	53.98	2	62	0.43	n/a	n/a	0.84	1.25
16115817506	16115817512	16115817560	1-3/4	44.45	2.25	57.15	2	62	0.43	n/a	n/a	0.90	1.34
16115818706	16115818712	16115818760	1-7/8	47.63	2.38	60.33	2	62	0.43	n/a	n/a	0.95	1.41
16115820006	16115820012	16115820060	2	50.80	2.50	63.50	2	62	0.43	n/a	n/a	1.00	1.49
16115821206▲	16115821212▲	16115821260▲	2-1/8	53.98	2.63	66.68	2	62	0.43	n/a	n/a	1.06	1.58
16115822506	16115822512	16115822560	2-1/4	57.15	2.75	69.85	2	50	0.34	n/a	n/a	1.11	1.65
16115823706	16115823712	16115823760	2-3/8	60.33	2.88	73.03	2	50	0.34	n/a	n/a	1.17	1.74
16115825006	16115825012	16115825060	2-1/2	63.50	3.00	76.20	2	50	0.34	n/a	n/a	1.22	1.82
16115826206▲	16115826212▲	16115826260▲	2-5/8	66.68	3.13	79.38	2	50	0.34	n/a	n/a	1.27	1.89
16115827506▲	16115827512▲	16115827560▲	2-3/4	69.85	3.25	82.55	2	50	0.34	n/a	n/a	1.33	1.98
16115828706	16115828712	16115828760	2-7/8	73.03	3.38	85.73	2	50	0.34	n/a	n/a	1.39	2.07
16115830006	16115830012	16115830060	3	76.20	3.50	88.90	2	50	0.34	n/a	n/a	1.44	2.14
16115831206▲	16115831212▲	16115831260▲	3-1/8	79.38	3.63	92.08	2	37	0.25	n/a	n/a	1.49	2.22
16115832506▲	16115832512▲	16115832560▲	3-1/4	82.55	3.75	95.25	2	37	0.25	n/a	n/a	1.55	2.31
16115835006	16115835012	16115835060	3-1/2	88.90	4.00	101.60	2	37	0.25	n/a	n/a	1.66	2.47
16115837506	16115837512▲	16115837560▲	3-3/4	95.25	4.25	107.95	2	37	0.25	n/a	n/a	1.76	2.62
16115840006▲	16115840012▲	16115840060▲	4	101.60	4.50	114.30	2	37	0.25	n/a	n/a	1.87	2.78
16115842506	16115842512▲	16115842560▲	4-1/4	107.95	4.75	120.65	2	25	0.17	n/a	n/a	1.98	2.95
16115845006	16115845012▲	16115845060▲	4-1/2	114.30	5.00	127.00	2	25	0.17	n/a	n/a	2.09	3.11
16115850006	16115850012▲	16115850060▲	5	127.00	5.50	139.70	2	12	0.08	n/a	n/a	2.31	3.44
16115855006▲	16115855012▲	16115855060▲	5-1/2	139.70	6.00	152.40	2	12	0.08	n/a	n/a	2.52	3.75
16115860006	16115860012▲	16115860060▲	6	152.40	6.50	165.10	2	10	0.07	n/a	n/a	2.74	4.08

 \blacktriangle = Make To Order (MTO)

n/a = Not Applicable



GENERAL PURPOSE COOLANT& DISCHARGE 100 & 100A

This 2-ply "workhorse" hose is designed for use in engine cooling systems as a flexible connector between the engine and radiator. Its tube is heat and coolant resistant, and the hose is fabric-reinforced, intended for use as an upper radiator hose that operates under pressure only. It is available in virtually all standard pipe sizes and because of its versatility and durability it is capable of being used in hundreds of industrial, automotive and marine applications.



RESISTANCE

0

BRANDING Thermoid Coolant I.D.

Made In USA foot and inch marks

Cover Color: Black

Oil Resistance: Medium to Medium-High

Construction:

Tube: NBR/SBR
Cover: CR/NBR blend
Reinforcement: 2-ply polyester cord
Temperature Range: 0°F to +212°F

-18°C to +100°C

Packaging: Make to Order (MTO)

Contact Salisbury for details 3 ft. and 10 ft. lengths available Other lengths – 5% cutting charge

Product Number	Product Number	Nomin	ıal I.D.	Nomin	al O.D.	Plies	Working	Pressure	Min. Bend	l Radius	Wei	ight	Std. Case	Std. Case
3 Feet	12 Feet	(inches)	(mm)	(inches)	(mm)	riies	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)	Ea. (3 ft)	Ea. (10 ft)
16010006203	16010006210	5/8	15.88	1.00	25.40	2	56	0.39	n/a	n/a	0.34	0.51	10	6
16010007503	16010007510	3/4	19.05	1.13	28.58	2	56	0.39	n/a	n/a	0.37	0.55	10	6
16010008703	16010008710	7/8	22.23	1.25	31.75	2	56	0.39	n/a	n/a	0.41	0.61	10	6
16010010003	16010010010	1	25.40	1.38	34.93	2	53	0.37	n/a	n/a	0.45	0.67	10	5
16010011203	16010011210	1-1/8	28.58	1.50	38.10	2	53	0.37	n/a	n/a	0.50	0.74	10	5
16010012503	16010012510	1-1/4	31.75	1.63	41.28	2	51	0.35	n/a	n/a	0.54	0.80	10	5
16010013103▲	16010013110▲	1-5/16	33.34	1.69	42.86	2	51	0.35	n/a	n/a	0.56	0.83	10	5
16010013703	16010013710	1-3/8	34.93	1.75	44.45	2	51	0.35	n/a	n/a	0.58	0.86	10	5
16010015003	16010015010	1-1/2	38.10	1.88	47.63	2	49	0.34	n/a	n/a	0.63	0.94	10	2
16010016203	16010016210	1-5/8	41.28	2.00	50.80	2	49	0.34	n/a	n/a	0.67	1.00	10	2
16010017503	16010017510	1-3/4	44.45	2.13	53.98	2	48	0.33	n/a	n/a	0.71	1.06	10	2
16010018703	16010018710	1-7/8	47.63	2.25	57.15	2	45	0.31	n/a	n/a	0.76	1.13	10	2
16010020003	16010020010	2	50.80	2.38	60.33	2	45	0.31	n/a	n/a	0.80	1.19	10	2
16010021203▲	16010021210▲	2-1/8	53.98	2.50	63.50	2	44	0.30	n/a	n/a	0.84	1.25	6	2
16010022503	16010022510	2-1/4	57.15	2.63	66.68	2	43	0.30	n/a	n/a	0.89	1.32	6	2
16010023703	16010023710	2-3/8	60.33	2.75	69.85	2	39	0.27	n/a	n/a	0.93	1.38	6	2
16010025003	16010025010	2-1/2	63.50	2.88	73.03	2	39	0.27	n/a	n/a	0.99	1.47	6	2
16010026203▲	16010026210▲	2-5/8	66.68	3.00	76.20	2	38	0.26	n/a	n/a	1.02	1.52	6	2
16010027503	16010027510	2-3/4	69.85	3.13	79.38	2	38	0.26	n/a	n/a	1.05	1.56	6	2
16010028703	16010028710	2-7/8	73.03	3.25	82.55	2	35	0.24	n/a	n/a	1.11	1.65	6	2
16010030003	16010030010	3	76.20	3.38	85.73	2	33	0.23	n/a	n/a	1.15	1.71	4	1
16010031203	16010031210	3-1/8	79.38	3.50	88.90	2	33	0.23	n/a	n/a	1.20	1.79	4	1
16010032503▲	16010032510▲	3-1/4	82.55	3.63	92.08	2	33	0.23	n/a	n/a	1.24	1.85	4	1
16010035003	16010035010	3-1/2	88.90	3.88	98.43	2	28	0.19	n/a	n/a	1.33	1.98	4	1
16010037503▲	16010037510▲	3-3/4	95.25	4.13	104.78	2	25	0.17	n/a	n/a	1.43	2.13	4	1
16010040003	16010040010	4	101.60	4.38	111.13	2	19	0.13	n/a	n/a	1.51	2.25	4	1
16010042503▲	16010042510▲	4-1/4	107.95	4.63	117.48	2	18	0.12	n/a	n/a	1.60	2.38	4	1
16010045003	16010045010	4-1/2	114.30	4.88	123.83	2	16	0.11	n/a	n/a	1.69	2.52	4	1
16010047503▲	16010047510▲	4-3/4	120.65	5.13	130.18	2	16	0.11	n/a	n/a	1.78	2.65	4	1
16010050003▲	16010050010▲	5	127.00		136.53	2	15	0.10	n/a	n/a	1.87	2.78	2	1
16010055003▲	16010055010▲	5-1/2	139.70	5.88	149.23	2	14	0.10	n/a	n/a	2.04	3.04	2	1
16010060003▲	16010060010▲	6	152.40	6.38	161.93	2	12	0.08	n/a	n/a	2.22	3.30	2	1

▲ = Make To Order (MTO) n/a = Not Applicable

Ihermoid^e

HEAVY DUTY COOLANT & DISCHARGE 101 & 101B

This multi-ply, heavy-duty coolant and discharge hose is suitable for use in engine cooling systems on heavy equipment, buses, trucks or other applications where a heavy-duty hose is required. It can also be used as a general purpose discharge hose, pipe connector, conveyor or vibration isolator in piping systems. The tube is heat and coolant resistant and the cover is heat and ozone resistant.



RESISTANCE **BRANDING**

Thermoid Coolant I.D.

Made In USA foot and inch marks

Cover Color: Black

Oil Resistance: Medium to Medium-High

Construction:

Tube: NBR/SBR blend CR/NBR blend Cover: Reinforcement: 3-ply polyester cord **Temperature Range:** 0°F to +212°F

-18°C to +100°C

Packaging: Make to Order (MTO)

> **Contact Salisbury for details** 3 ft. and 12 ft. lengths available Other lengths – 5% cutting charge

Product Number 3 Feet	Product Number 12 Feet	Nomina (inches)	l I.D. (mm)	Nomin (inches)		Plies	Working (psi)	Pressure (Mpa)	Min. Beno (inches)		Wei (lb/ft)	ight (Kg/m)	Std. Case Ea. (3 ft)	Std. Case Ea. (12 ft)
16010106203▲	16010106212▲	5/8	15.88	1.13	28.58	3	56	0.39	n/a	n/a	0.46	0.68	10	6
16010107503▲	16010107512▲	3/4	19.05	1.25	31.75	3	56	0.39	n/a	n/a	0.50	0.74	10	6
16010108703▲	16010108712▲	7/8	22.23	1.38	34.93	3	56	0.39	n/a	n/a	0.54	0.80	10	6
16010110003▲	16010110012▲	1 .	25.40	1.50	38.10	3	88	0.61	n/a	n/a	0.59	0.88	10	6
16010111203▲	16010111212▲	1-1/8	28.58	1.63	41.28	3	88	0.61	n/a	n/a	0.65	0.97	10	6
16010112503	16010112512	1-1/4	31.75	1.75	44.45	3	88	0.61	n/a	n/a	0.70	1.04	10	6
16010113103▲	16010113112▲	1-5/16	33.34	1.81	46.04	3	88	0.61	n/a	n/a	0.73	1.09	10	6
16010113703▲	16010113712▲	1-3/8	34.93	1.88	47.63	3	88	0.61	n/a	n/a	0.75	1.12	10	5
16010115003	16010115012		38.10	2.00	50.80	3	81	0.56	n/a	n/a	0.81	1.21	10	2
16010116203	16010116212	1-5/8	41.28	2.13	53.98	3	81	0.56	n/a	n/a	0.86	1.28	10	2
16010117503	16010117512		44.45	2.25	57.15	3	81	0.56	n/a	n/a	0.91	1.35	10	2
16010118703▲	16010118712▲		47.63	2.38	60.33	3	75	0.52	n/a	n/a	0.97	1.44	10	2
16010120003	16010120012		50.80	2.50	63.50	3	75	0.52	n/a	n/a	1.02	1.52	10	1
16010121203▲	16010121212▲		53.98	2.63	66.68	3	75	0.52	n/a	n/a	1.08	1.61	10	1
16010122503▲	16010122512▲		57.15	2.75	69.85	3	70	0.48	n/a	n/a	1.13	1.68	10	1
16010123703	16010123712		60.33	2.88	73.03	3	70	0.48	n/a	n/a	1.19	1.77	6	1
16010125003	16010125012		63.50	3.00	76.20	3	68	0.47	n/a	n/a	1.24	1.85	6	1
16010126203▲	16010126212▲		66.68	3.13	79.38	3	62	0.43	n/a	n/a	1.30	1.93	6	1
16010127503▲	16010127512▲	, .	69.85	3.25	82.55	3	62	0.43	n/a	n/a	1.35	2.01	6	1
16010128703▲	16010128712▲		73.03	3.38	85.73	3	62	0.43	n/a	n/a	1.41	2.10	6	1
16010130003	16010130012		76.20	3.50	88.90	3	58	0.40	n/a	n/a	1.46	2.17	4	1
16010131203▲	16010131212▲	, -	79.38	3.63	92.08	3	55	0.38	n/a	n/a	1.51	2.25	4	1
16010132503▲	16010132512▲	, .	82.55	3.75	95.25	3	53	0.37	n/a	n/a	1.57	2.34	4	1
16010135003	16010135012		88.90		101.60	3	50	0.34	n/a	n/a	1.68	2.50	4	1
16010137503▲	16010137512▲		95.25		104.78	3	50	0.34	n/a	n/a	1.80	2.68	4	1
16010140003▲	16010140012▲		101.60		114.30	3	45	0.31	n/a	n/a	1.90	2.83	4	1
16010142503▲	16010142512▲		107.95		120.65	3	43	0.30	n/a	n/a	2.01	2.99	4	1
16010145003▲	16010145012▲		14.30		127.00	3	41	0.28	n/a	n/a	2.12	3.16	4	1
16010147503▲	16010147512▲		20.65		133.35	3	41	0.28	n/a	n/a	2.22	3.30	4	1
16010150003▲	16010150012▲		27.00		139.70	3	36	0.25	n/a	n/a	2.31	3.44	1	1
16010155003▲	16010155012▲		39.70		152.40	3	34	0.23	n/a	n/a	2.55	3.80	1	1
16010160003▲ - Make To Order	16010160012▲	6 1	52.40	6.50	165.10	3	30	0.21	n/a	n/a	2.77	4.12	1	1

 \blacktriangle = Make To Order (MTO) n/a = Not Applicable



2012 STANDARD WALL 3/16" COOLANT SAE 20R1

The Type 2012 hose is used where heavy-duty service is required for engine cooling systems such as Class 7 and 8 trucks and off-road equipment and can also be used as a general purpose discharge hose and for other applications. The Class B tube, Class C cover and tire cord reinforcement withstand the most corrosive elements in diesel engines, including oil, coolants, coolant additives and heat.

Note: This hose is not suitable for oil or fuel transfer.



RESISTANCE ()

BRANDING

Similar to SAE 20R1, Standard Wall

Cover Color: Black

Oil Resistance: Medium to Medium-High

Construction:

Tube: Class B/LT Cover: Class C/LT Reinforcement: Tire cord -65°F to +212°F **Temperature Range:**

-54°C to +100°C

Packaging: Make to Order (MTO)

Contact Salisbury for details 12 ft. and 60 ft. lengths available 1/2" and 5/8" I.D.s are 25 ft. maximum Other lengths – 5% cutting charge

Product Number	Product Number	Nomir	nal I.D.	Nomin	al O.D.	Plies	Working	Pressure	Min. Ben	d Radius	Weight		
12 Feet	60 Feet	(inches)	(mm)	(inches)	(mm)	Piles	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)	
16201205012▲	16201205025▲	1/2	12.70	0.88	22.23	2	106	0.73	n/a	n/a	0.29	0.43	
16201206212	16201206225	5/8	15.88	1.00	25.40	2	94	0.65	n/a	n/a	0.31	0.46	
16201207512▲	16201207560▲	3/4	19.05	1.13	28.58	2	81	0.56	n/a	n/a	0.36	0.54	
16201208712	16201208760	7/8	22.23	1.25	31.75	2	81	0.56	n/a	n/a	0.39	0.58	
16201210012▲	16201210060▲	1	25.40	1.38	34.93	2	75	0.52	n/a	n/a	0.43	0.64	
16201211212	16201211260	1-1/8	28.58	1.50	38.10	2	75	0.52	n/a	n/a	0.48	0.71	
16201212512	16201212560	1-1/4	31.75	1.63	41.28	2	69	0.48	n/a	n/a	0.52	0.77	
16201213712▲	16201213760▲	1-3/8	34.93	1.75	44.45	2	69	0.48	n/a	n/a	0.55	0.82	
16201215012	16201215060	1-1/2	38.10	1.88	47.63	2	69	0.48	n/a	n/a	0.58	0.86	
16201216212▲	16201216260▲	1-5/8	41.28	2.06	52.39	2	69	0.48	n/a	n/a	0.63	0.94	
16201217512	16201217560	1-3/4	44.45	2.25	57.15	2	69	0.48	n/a	n/a	0.71	1.06	
16201218712▲	16201218760▲	1-7/8	47.63	2.25	57.15	2	50	0.34	n/a	n/a	0.72	1.07	
16201220012	16201220060	2	50.80	2.38	60.33	2	50	0.34	n/a	n/a	0.77	1.15	
16201221212▲	16201221260▲	2-1/8	53.98	2.50	63.50	2	47	0.32	n/a	n/a	0.82	1.22	
16201222512	16201222560	2-1/4	57.15	2.63	66.68	2	44	0.30	n/a	n/a	0.86	1.28	
16201223712▲	16201223760▲	2-3/8	60.33	2.75	69.85	2	44	0.30	n/a	n/a	0.91	1.35	
16201225012	16201225060	2-1/2	63.50	2.88	73.03	2	38	0.26	n/a	n/a	0.95	1.41	
16201227512	16201227560	2-3/4	69.85	3.13	79.38	2	31	0.21	n/a	n/a	1.04	1.55	
16201230012▲	16201230060▲	3	76.20	3.38	85.73	2	25	0.17	n/a	n/a	1.12	1.67	
16201231212▲	16201231260▲	3-1/8	79.38	3.50	88.90	2	18	0.12	n/a	n/a	1.17	1.74	
16201232512▲	16201232560▲	3-1/4	82.55	3.63	92.08	2	18	0.12	n/a	n/a	1.21	1.80	
16201235012▲	16201235060▲	3-1/2	88.90	3.88	98.43	2	19	0.13	n/a	n/a	1.29	1.92	
16201237512▲	16201237560▲	3-3/4	95.25	4.13	104.78	2	13	0.09	n/a	n/a	1.38	2.05	
16201240012▲	16201240060▲	4	101.60	4.38	111.13	2	13	0.09	n/a	n/a	1.47	2.19	
16201242512▲	16201242560▲	4-1/4	107.95	4.63	117.48	2	13	0.09	n/a	n/a	1.55	2.31	
16201245012▲	16201245060▲	4-1/2	114.30	4.88	123.83	2	13	0.09	n/a	n/a	1.64	2.44	
16201250012▲	16201250060▲	5	127.00	5.38	136.53	2	13	0.09	n/a	n/a	1.82	2.71	
16201255012▲	16201255060▲	5-1/2	139.70	5.88	149.23	2	13	0.09	n/a	n/a	1.99	2.96	
16201260012▲	16201260060▲	6	152.40	6.38	161.93	2	13	0.09	n/a	n/a	2.16	3.21	

^{▲ =} Make To Order (MTO) n/a = Not Applicable

2015 HEAVY WALL 1/4" COOLANT SAE 20R1

This hose is used where heavy-duty service is required for engine cooling systems such as Class 7 and 8 trucks, marine, and off-road equipment and as a general purpose discharge hose. Available in various sizes: 1/2" to 6 ft and can be made to order (for complete information, contact Customer Service or visit our website: www.hbdthermoid.com)



BRANDING

RESISTANCE 6 6 0

Similar to SAE 20R1, Heavy Wall



2007 STANDARD WALL 3/16" COOLANT SAE 20R1

Thermoid's 2007 Standard Wall Coolant Hose is used when heavy-duty service and superior resistance to high temperatures is required in the enclosed spaces of engine cooling systems on various heavy-duty construction machinery, large trucks, off-road vehicles and many other applications. The Class D-2 (EPDM) Tube and cover on these hoses have low oil resistance as specified by SAE J20R1, Class-2 Requirements.

Note: This hose is not suitable for oil or fuel transfer.



RESISTANCE ()

BRANDING

SAE J20R1/D2 2007 COOLANT HOSE

Cover Color: Black

Oil Resistance: Medium to Medium-High

Construction:

Tube: **EPDM EPDM** Cover:

2 Plies of Polyester Cord Reinforcement:

Temperature Range: -40°F to +257°F

-40°C to +125°C

Packaging: Consult coupling manufacturers for specifics on

recommended couplings. Make to Order (MTO)

1/2" and 5/8" I.D Sizes are available in lengths up to 25 ft. All other hose sizes are available in lengths of 12 ft. and 60 ft.

12 foot lengths are boxed. 25 ft. and 60 ft. lengths are

coiled and wrapped in plastic.

Product	Nomin	al I.D.	Nomin	al 0.D.	DI:	Working	Pressure	Min. Ber	nd Radius	We	ight
Number	(inches)	(mm)	(inches)	(mm)	Plies	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
16200705012▲	1/2	12.7	0.88	22.2	2	106	0.73	n/a	n/a	0.30	0.41
16200706212▲	5/8	15.9	1.00	25.4	2	94	0.65	n/a	n/a	0.34	0.47
16200707512▲	3/4	19.1	1.13	28.6	2	81	0.56	n/a	n/a	0.37	0.51
16200708712▲	7/8	22.2	1.25	31.8	2	81	0.56	n/a	n/a	0.39	0.54
16200710012▲	1	25.4	1.38	34.9	2	75	0.52	n/a	n/a	0.41	0.57
16200710612▲	1-1/16	27.0	1.44	36.5	2	75	0.52	n/a	n/a	0.44	0.61
16200711212▲	1-1/8	28.6	1.50	38.1	2	69	0.48	n/a	n/a	0.46	0.64
16200712512▲	1-1/4	31.8	1.63	41.3	2	69	0.48	n/a	n/a	0.49	0.68
16200713212▲	1-5/16	33.3	1.69	42.8	2	69	0.48	n/a	n/a	0.52	0.72
16200713712▲	1-3/8	34.9	1.75	44.5	2	69	0.48	n/a	n/a	0.54	0.75
16200715012▲	1-1/2	38.1	1.88	47.6	2	69	0.48	n/a	n/a	0.57	0.79
16200716212▲	1-5/8	41.3	2.00	50.8	2	69	0.48	n/a	n/a	0.62	0.86
16200717512▲	1-3/4	44.5	2.13	54.0	2	69	0.48	n/a	n/a	0.66	0.91
16200718712▲	1-7/8	47.6	2.25	57.2	2	50	0.34	n/a	n/a	0.70	0.97
16200720012▲	2	50.8	2.38	60.3	2	47	0.32	n/a	n/a	0.73	1.01
16200721212▲	2-1/8	54.0	2.50	63.5	2	44	0.30	n/a	n/a	0.77	1.06
16200722512▲	2-1/4	57.2	2.63	66.7	2	44	0.30	n/a	n/a	0.81	1.12
16200723712▲	2-3/8	60.3	2.75	69.9	2	38	0.26	n/a	n/a	0.85	1.18
16200725012▲	2-1/2	63.5	2.88	73.0	2	31	0.21	n/a	n/a	0.91	1.26
16200726212▲	2-5/8	66.7	3.00	76.2	2	25	0.17	n/a	n/a	0.95	1.31
16200727512▲	2-3/4	69.9	3.13	79.4	2	18	0.12	n/a	n/a	0.97	1.34
16200728712▲	2-7/8	73.0	3.25	82.6	2	18	0.12	n/a	n/a	1.00	1.38
16200730012▲	3	76.2	3.38	85.7	2	13	0.09	n/a	n/a	1.06	1.46
16200731212▲	3-1/8	79.4	3.50	88.9	2	13	0.09	n/a	n/a	1.12	1.55
16200732512▲	3-1/4	82.6	3.63	92.1	2	13	0.09	n/a	n/a	1.16	1.60
16200735012▲	3-1/2	88.9	3.88	98.4	2	13	0.09	n/a	n/a	1.25	1.73
16200710012▲	4	101.6	4.38	111.1	2	13	0.09	n/a	n/a	1.41	1.94
16200715012▲	4-1/2	114.3	4.88	123.8	2	13	0.09	n/a	n/a	1.58	2.18
16200750012▲	5	127.0	5.38	136.5	2	13	0.09	n/a	n/a	1.76	2.43
16200755012▲	5-1/2	139.7	5.88	149.2	2	13	0.09	n/a	n/a	1.94	2.68
16200760012▲	6	152.4	6.38	161.9	2	13	0.09	n/a	n/a	2.12	2.93

Thermoid®

3003 SILICONE COOLANT STANDARD WALL (3/16")

Meeting the requirements of SAE J20R1, Class A, standard wall construction, this 2-ply hose is recommended for those heavy-duty applications such as Class 7 and 8 trucks and off-road equipment. Featuring a silicone tube and cover, this hose is tough and resistant to extreme heat (up to +347°F), chemicals, oils and other elements that attack coolant hoses in heavy-duty applications. This hose.

Note: This hose is not suitable for fuel or oil transfer.



RESISTANCE (

0 0

BRANDING Similar to SAE 20R1, Standard Wall

Cover Color: Blue Oil Resistance: High

Construction:

Tube: Silicone Cover: Silicone

Reinforcement: 2-ply polyester fabric, silicone coated

Temperature Range: $-67^{\circ}F$ to $+347^{\circ}F$

-55°C to +175°C

Packaging: 5/8" I.D. – 25 ft.

3/4" to 3" I.D. – 60 ft. 3-1/8" to 6" I.D. – 12 ft.

Other lengths available – 5% cutting charge

Product Number	Nomin (inches)	al I.D. (mm)	Nominal O.D. (inches) (mm)		Plies	Working (psi)	Pressure (Mpa)	Min. Bend (inches)	d Radius (mm)	Wei (lb/ft)	ght (Kg/m)
16300306212	5/8	15.88	1.00	25.40	2	94	0.65	n/a	n/a	0.30	0.45
16300300212 x	3/4	19.05	1.13	28.58	2	81	0.56	n/a	n/a	0.35	0.43
163003073124	7/8	22.23	1.15	31.75	2	81	0.56	n/a	n/a	0.40	0.60
16300310012	1	25.40	1.38	34.93	2	75	0.52	n/a	n/a	0.44	0.65
163003100124	1-1/8	28.58	1.50	38.10	2	71	0.49	n/a	n/a	0.48	0.71
163003112512▲	1-1/4	31.75	1.63	41.28	2	69	0.48	n/a	n/a	0.52	0.77
16300313712	1-3/8	34.93	1.75	44.45	2	66	0.45	n/a	n/a	0.56	0.83
16300315012▲	1-1/2	38.10	1.88	47.63	2	63	0.43	n/a	n/a	0.60	0.89
16300316212	1-5/8	41.28	2.00	50.80	2	59	0.41	n/a	n/a	0.64	0.95
16300317512▲	1-3/4	44.45	2.13	53.98	2	56	0.39	n/a	n/a	0.69	1.03
16300318712▲	1-7/8	47.63	2.25	57.15	2	54	0.37	n/a	n/a	0.74	1.10
16300320012▲	2	50.80	2.38	60.33	2	50	0.34	n/a	n/a	0.77	1.15
16300321212▲	2-1/8	53.98	2.50	63.50	2	46	0.32	n/a	n/a	0.81	1.21
16300322512▲	2-1/4	57.15	2.63	66.68	2	44	0.30	n/a	n/a	0.86	1.28
16300323712▲	2-3/8	60.33	2.75	69.85	2	41	0.28	n/a	n/a	0.90	1.34
16300325012▲	2-1/2	63.50	2.88	73.03	2	38	0.26	n/a	n/a	0.94	1.40
16300326212▲	2-5/8	66.68	3.00	76.20	2	31	0.21	n/a	n/a	0.98	1.46
16300327512▲	2-3/4	69.85	3.13	79.38	2	31	0.21	n/a	n/a	1.02	1.52
16300328712▲	2-7/8	73.03	3.25	82.55	2	22	0.15	n/a	n/a	1.07	1.59
16300330012▲	3	76.20	3.38	85.73	2	22	0.15	n/a	n/a	1.11	1.65
16300331212▲	3-1/8	79.38	3.50	88.90	2	19	0.13	n/a	n/a	1.22	1.82
16300332512▲	3-1/4	82.55	3.63	92.08	2	18	0.12	n/a	n/a	1.27	1.89
16300335012▲	3-1/2	88.90	3.88	98.43	2	18	0.12	n/a	n/a	1.33	1.98
16300337512▲	3-3/4	95.25	4.13	104.78	2	13	0.09	n/a	n/a	1.42	2.11
16300340012▲	4	101.60	4.38	111.13	2	12	0.08	n/a	n/a	1.50	2.23
16300342512▲	4-1/4	107.95	4.63	117.48	2	12	0.08	n/a	n/a	1.60	2.38
16300345012▲	4-1/2	114.30	4.88	123.83	2	12	0.08	n/a	n/a	1.67	2.49
16300350012▲	5	127.00	5.38	136.53	2	12	0.08	n/a	n/a	1.85	2.75
16300355012▲	5-1/2	139.70	5.88	149.23	2	11	0.08	n/a	n/a	2.04	3.04
16300360012▲ = Make To Order (I	6	152.40	6.38	161.93	2	10	0.07	n/a	n/a	2.20	3.27



3004 SILICONE COOLANT HEAVY WALL (1/4")

Meeting the requirements of SAE J20R1, Class A, heavy wall construction, this 3-ply hose is recommended for heavy-duty applications such as Class 7 and 8 trucks and off-road equipment. Featuring a silicone tube and cover, this hose is resistant to extreme heat (up to +347°F), chemicals, oils and other elements that attack coolant hoses, and provides a working pressure range of 25 to 125 psi. .

Note: This hose is not suitable for fuel or oil transfer.



RESISTANCE () (6) **BRANDING** Silicone Coolant, Style Number

Cover Color: Blue Oil Resistance: High **Construction:**

Tube:

Silicone Cover: Silicone

Reinforcement: 3-ply polyester fabric, silicone coated

Temperature Range: $-67^{\circ}F$ to $+347^{\circ}F$ -55°C to +175°C

5/8" I.D. - 25 ft. Packaging:

3/4" to 3" I.D. -60 ft. 3-1/8" to 6" I.D. - 12 ft.

Other lengths available – 5% cutting charge

Product	Nomir	nal I.D.	Nomin	al O.D.	Plies	Working	Pressure	Min. Ber	nd Radius	We	ight
Number	(inches)	(mm)	(inches)	(mm)	riies	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
16300406212▲	5/8	15.88	1.13	28.58	3	125	0.86	n/a	n/a	0.40	0.60
16300407512▲	3/4	19.05	1.25	31.75	3	125	0.86	n/a	n/a	0.44	0.65
16300408712▲	7/8	22.23	1.38	34.93	3	125	0.86	n/a	n/a	0.50	0.74
16300410012▲	1	25.40	1.50	38.10	3	125	0.86	n/a	n/a	0.55	0.82
16300411212▲	1-1/8	28.58	1.63	41.28	3	125	0.86	n/a	n/a	0.60	0.89
16300412512▲	1-1/4	31.75	1.75	44.45	3	125	0.86	n/a	n/a	0.65	0.97
16300413712▲	1-3/8	34.93	1.88	47.63	3	113	0.78	n/a	n/a	0.70	1.04
16300415012▲	1-1/2	38.10	2.00	50.80	3	113	0.78	n/a	n/a	0.74	1.10
16300416212	1-5/8	41.28	2.13	53.98	3	106	0.73	n/a	n/a	0.90	1.34
16300417512▲	1-3/4	44.45	2.25	57.15	3	100	0.69	n/a	n/a	0.85	1.27
16300418712▲	1-7/8	47.63	2.38	60.33	3	94	0.65	n/a	n/a	0.91	1.35
16300420012▲	2	50.80	2.50	63.50	3	88	0.61	n/a	n/a	0.95	1.41
16300421212▲	2-1/8	53.98	2.63	66.68	3	88	0.61	n/a	n/a	1.00	1.49
16300422512▲	2-1/4	57.15	2.75	69.85	3	88	0.61	n/a	n/a	1.05	1.56
16300423712▲	2-3/8	60.33	2.88	73.03	3	75	0.52	n/a	n/a	1.10	1.64
16300425012▲	2-1/2	63.50	3.00	76.20	3	63	0.43	n/a	n/a	1.15	1.71
16300426212▲	2-5/8	66.68	3.13	79.38	3	63	0.43	n/a	n/a	1.20	1.79
16300427512▲	2-3/4	69.85	3.25	82.55	3	63	0.43	n/a	n/a	1.25	1.86
16300428712▲	2-7/8	73.03	3.38	85.73	3	63	0.43	n/a	n/a	1.31	1.95
16300430012▲	3	76.20	3.50	88.90	3	63	0.43	n/a	n/a	1.36	2.02
16300431212▲	3-1/8	79.38	3.63	92.08	3	50	0.34	n/a	n/a	1.46	2.17
16300432512▲	3-1/4	82.55	3.75	95.25	3	50	0.34	n/a	n/a	1.52	2.26
16300435012▲	3-1/2	88.90	4.00	101.60	3	50	0.34	n/a	n/a	1.60	2.38
16300437512▲	3-3/4	95.25	4.25	107.95	3	38	0.26	n/a	n/a	1.70	2.53
16300440012	4	101.60	4.50	114.30	3	38	0.26	n/a	n/a	1.81	2.69
16300442512▲	4-1/4	107.95	4.88	123.83	3	38	0.26	n/a	n/a	1.92	2.86
16300445012▲	4-1/2	114.30	5.00	127.00	3	38	0.26	n/a	n/a	2.09	3.11
16300450012▲	5	127.00	5.50	139.70	3	25	0.17	n/a	n/a	2.22	3.30
16300455012	5-1/2	139.70	6.00	152.40	3	25	0.17	n/a	n/a	2.45	3.65
16300460012	6	152.40	6.50	165.10	3	25	0.17	n/a	n/a	2.65	3.94

Ihermoid

SILICONE HEATER SAE 20R3 CLASS A

Recommended for applications in the heavyduty market, this hose features a special silicone compound that meets the SAE 20R3, Class A specifications. It is highly resistant to the deteriorating effects of oil, ozone, coolants and coolant additives. The nylon reinforcement enables this hose to be extremely flexible while resisting temperatures up to +347° (+175°C).



RESISTANCE **BRANDING**

Silicone Heater Hose Made In USA

Cover Color: Blue Oil Resistance: High

Construction: Tube:

Cover:

Silicone Silicone Reinforcement: Textile

 $-67^{\circ}F$ to $+347^{\circ}F$ Temperature Range: -55°C to +175°C

Packaging: **Contact Customer Service**

Product Number	Nominal I.D. (inches) (mm)		Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ight (Kg/m)
16300502550▲	1/4	6.35	0.56	14.29	2	63	0.43	n/a	n/a	0.19	0.28
16300503750▲	3/8	9.53	0.69	17.46	2	63	0.43	n/a	n/a	0.25	0.37
16300505050▲	1/2	12.70	0.81	20.64	2	63	0.43	n/a	n/a	0.29	0.43
16300506250▲	5/8	15.88	0.94	23.81	2	63	0.43	n/a	n/a	0.35	0.52
16300507550▲	3/4	19.05	1.06	26.99	2	50	0.34	n/a	n/a	0.39	0.58
16300508750▲	7/8	22.23	1.19	30.16	2	50	0.34	n/a	n/a	0.44	0.65
16300510050	1	25.40	1.34	34.13	2	44	0.30	n/a	n/a	0.49	0.73



2400 WET EXHAUST SAE J2006

This soft wall hose was designed for use as a straight connection in wet exhaust systems on marine gasoline or diesel engines. It provides a working pressure range from 50 to 150 psi and can be used in other marine applications such as drains, replacement of metal piping and vibration absorption. Not designed for vacuum service.



RESISTANCE **BRANDING**



Wet Exhaust, SAE J2006R1, Date

Cover Color: Black

Oil Resistance: Medium to Medium-High

Construction:

Tube: NBR/SBR blend Cover: CR/NBR blend Tire Cord Reinforcement: **Temperature Range:** $0^{\circ}F$ to $+212^{\circ}F$

-18°C to +100°C

Packaging: 12 ft. and 60 ft. lengths available

Contact customer service for minimum run requirements

Other lengths available – 5% cutting charge

Product Number 12 Feet	Product Number 60 Feet	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)	Std. Case
16240007512▲	16240007560▲	3/4	19.05	1.25	31.75	2	150	1.03	n/a	n/a	0.51	0.76	2
16240008712	16240008760	7/8	22.23	1.38	35.05	2	150	1.03	n/a	n/a	0.58	0.86	2
16240010012	16240010060	1	25.40	1.50	38.10	2	150	1.03	n/a	n/a	0.60	0.89	2
16240010612▲	16240010660▲	1-1/16	26.99	1.56	39.62	2	150	1.03	n/a	n/a	0.65	0.97	2
16240011212▲	16240011260	1-1/8	28.58	1.63	41.40	2	150	1.03	n/a	n/a	0.71	1.06	2
16240012512	16240012560	1-1/4	31.75	1.75	44.45	2	150	1.03	n/a	n/a	0.74	1.10	2
16240013112▲	16240013160▲	1-5/16	33.34	1.81	45.97	2	150	1.03	n/a	n/a	0.77	1.15	2
16240013712	16240015060	1-3/8	34.93	2.08	52.83	2	150	1.03	n/a	n/a	0.82	1.22	2
16240015012	16240015060	1-1/2	38.10	2.20	55.88	2	150	1.03	n/a	n/a	0.88	1.31	2
16240016212	16240016260	1-5/8	41.28	2.33	59.18	2	150	1.03	n/a	n/a	0.93	1.38	2
16240017512▲	16240017560▲	1-3/4	44.45	2.45	62.23	2	150	1.03	n/a	n/a	0.94	1.40	2
16240018712	16240018760	1-7/8	47.63	2.57	65.28	2	150	1.03	n/a	n/a	1.05	1.56	2
16240020012	16240020060	2	50.80	2.70	68.58	2	100	0.69	n/a	n/a	1.11	1.65	2
16240021212▲	16240021260▲	2-1/8	53.98	2.82	71.63	2	100	0.69	n/a	n/a	1.16	1.73	1
16240022512▲	16240022560▲	2-1/4	57.15	2.95	74.93	2	100	0.69	n/a	n/a	1.22	1.82	1
16240023712	16240023760	2-3/8	60.33	3.07	77.98	2	100	0.69	n/a	n/a	1.28	1.90	1
16240025012	16240025060	2-1/2	63.50	3.20	81.28	2	100	0.69	n/a	n/a	1.33	1.98	1
16240026212▲	16240026260▲	2-5/8	66.68	3.33	84.58	2	100	0.69	n/a	n/a	1.39	2.07	1
16240027512▲	16240026260▲	2-3/4	69.85	3.43	87.12	2	100	0.69	n/a	n/a	1.44	2.14	1
16240028712▲	16240028760▲	2-7/8	73.03	3.57	90.68	2	100	0.69	n/a	n/a	1.50	2.23	1
16240030012	16240030060	3	76.20	3.70	93.98	2	100	0.69	n/a	n/a	1.56	2.32	1
16240032512▲	16240032560▲	3-1/4	82.55	3.95	100.33	2	100	0.69	n/a	n/a	1.62	2.41	1
16240035012	16240035060	3-1/2	88.90	4.20	106.68	2	100	0.69	n/a	n/a	1.73	2.57	1
16240037512▲	16240037560▲	3-3/4	95.25	4.45	113.03	2	100	0.69	n/a	n/a	1.84	2.74	1
16240040012	16240040060	4	101.60	4.70	119.38	2	100	0.69	n/a	n/a	1.96	2.92	1
16240045012	16240045060	4-1/2	114.30	5.20	132.08	2	100	0.69	n/a	n/a	2.18	3.24	1
16240050012▲	16240050060▲	5	127.00	5.70	144.78	2	100	0.69	n/a	n/a	2.41	3.59	1
16240055012▲	16240055060▲	5-1/2	139.70	6.20	157.48	2	100	0.69	n/a	n/a	2.63	3.91	1
16240055612▲	16240055660▲	5-9/16	141.29	6.26	159.00	2	100	0.69	n/a	n/a	2.66	3.96	1
16240060012▲	16240060060▲	6	152.40	6.76	159.00	2	100	0.69	n/a	n/a	2.86	4.26	1
16240066212▲		6-5/8	168.28	7.38	187.45	4	100	0.69	n/a	n/a	4.40	6.55	1
16240070012▲		7	177.80	7.75	196.85	4	100	0.69	n/a	n/a	4.54	6.76	1
16240080012▲		8	203.20	8.75	222.25	4	85	0.59	n/a	n/a	5.25	7.81	1
16240086212▲		8-5/8	219.08	9.38	238.25	4	85	0.59	n/a	n/a	5.64	8.39	1
16240001012▲		10	254.00	10.75	273.05	4	75	0.52	n/a	n/a	6.49	9.66	1
16240010712▲		10-3/4	273.05	11.50	292.10	4	70	0.48	n/a	n/a	7.05	10.49	1
16240012012▲		12	304.80	12.75	323.85	4	60	0.41	n/a	n/a	7.83	11.65	1
16240012712▲		12-3/4	323.85	13.50	342.90	4	50	0.34	n/a	n/a	8.26	12.29	1

Ihermoid

2428 MARINER PREMIUM WET EXHAUST SAE J2006

This top-of-the-line multi-plied soft wall hose is designed to be used as a straight connection in wet exhaust systems on marine gasoline or diesel engines. The CR/NBR blended cover is oil, heat and ozone resistant and the tube is an NBR/ SBR blend making it coolant and heat resistance. Its 2-, 4- or 6-Ply tire cord reinforcement provides a working pressure range from 50 to 200 psi.



RESISTANCE **BRANDING**

Thermoid Mariner Wet Exhaust

SAE J2006 R1, Date Made In USA

Cover Color:

Oil Resistance: Medium to Medium-High

Construction:

NBR/SBR blend Tube: Cover: CR/NBR blend Reinforcement: Tire Cord Temperature Range: 0°F to +212°F -18°C to +100°C

Packaging: 12 ft. and 60 ft. lengths available

Contact customer service for minimum run requirements

Other lengths available – 5% cutting charge

Product Number 12 Feet	Product Number 60 Feet	Nomina (inches)	l I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Beno (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)	Std. Case
16242807512▲	16242807560▲	3/4	19.05	1.38	34.93	2	200	1.38	n/a	n/a	0.61	0.91	2
162428087124	16242808760▲	7/8	22.23	1.50	38.10	2	200	1.38	n/a	n/a	0.68	1.01	2
16242810012▲	16242810060▲	1	25.40	1.63	41.28	2	200	1.38	n/a	n/a	0.75	1.12	2
16242810612▲	16242810660▲	1-1/16	26.99	1.69	42.86	2	200	1.38	n/a	n/a	0.78	1.16	2
16242811212▲	16242811260▲	1-1/8	28.58	1.75	44.45	2	200	1.38	n/a	n/a	0.82	1.22	2
16242812512▲	16242812560▲	1-1/4	31.75	1.88	47.63	2	200	1.38	n/a	n/a	0.89	1.32	2
162428131124	16242813160▲	1-5/16	33.34	1.94	49.21	2	200	1.38	n/a	n/a	0.93	1.38	2
16242813712▲	16242813760▲	1-3/8	34.93	2.00	50.80	2	200	1.38	n/a	n/a	0.95	1.41	2
16242815012▲	16242815060▲	1-1/2	38.10	2.13	53.98	2	200	1.38	n/a	n/a	1.02	1.52	2
16242816212▲	16242816260▲	1-5/8	41.28	2.25	57.15	2	200	1.38	n/a	n/a	1.05	1.56	2
16242817512▲	16242817560▲	1-3/4	44.45	2.38	60.33	2	200	1.38	n/a	n/a	1.12	1.67	2
16242818712▲	16242818760▲	1-7/8	47.63	2.50	63.50	2	200	1.38	n/a	n/a	1.19	1.77	2
16242820012▲	16242820060▲	2	50.80	2.63	66.68	2	200	1.38	n/a	n/a	1.25	1.86	2
16242821212▲	16242821260▲	2-1/8	53.98	2.75	69.85	2	200	1.38	n/a	n/a	1.32	1.96	1
16242822512▲	16242822560▲	2-1/4	57.15	2.88	73.03	4	200	1.38	n/a	n/a	1.59	2.37	1
16242823712▲	16242823760▲	2-3/8	60.33	3.00	76.20	4	175	1.21	n/a	n/a	1.67	2.49	1
16242825012▲	16242825060▲	2-1/2	63.50	3.25	82.55	4	175	1.21	n/a	n/a	1.73	2.57	1
16242826212▲	16242826260▲	2-5/8	66.68	3.38	85.73	4	175	1.21	n/a	n/a	1.81	2.69	1
16242827512▲	16242827560▲	2-3/4	69.85	3.50	88.90	4	175	1.21	n/a	n/a	1.88	2.80	1
16242828712▲	16242828760▲	2-7/8	73.03	3.63	92.08	4	175	1.21	n/a	n/a	1.95	2.90	1
16242830012▲	16242830060▲	3	76.20	3.75	95.25	4	150	1.03	n/a	n/a	2.03	3.02	1
16242831212▲	16242831260▲	3-1/8	79.38	3.88	98.43	4	150	1.03	n/a	n/a	2.10	3.13	1
16242832512▲	16242832560▲	3-1/4	82.55	4.00	101.60	4	150	1.03	n/a	n/a	2.18	3.24	1
16242835012▲	16242835060▲	3-1/2	88.90	4.25	107.95	4	150	1.03	n/a	n/a	2.32	3.45	1
16242837512▲	16242837560▲	3-3/4	95.25	4.50	114.30	4	150	1.03	n/a	n/a	2.47	3.68	11
16242840012▲	16242840060▲		101.60	4.75	120.65	4	150	1.03	n/a	n/a	2.62	3.90	1
16242845012▲	16242845060▲		114.30	5.25	133.35	4	150	1.03	n/a	n/a	2.91	4.33	1
16242850012▲	16242850060▲		127.00	5.75	146.05	4	150	1.03	n/a	n/a	3.21	4.78	1
16242855012▲	16242855060▲		139.70	6.25	158.75	4	150	1.03	n/a	n/a	3.50	5.21	1
16242860012▲	16242860060▲		152.40	6.63	168.28	4	150	1.03	n/a	n/a	3.79	5.64	1
16242866212▲			168.28	7.63	193.68	6	150	1.03	n/a	n/a	5.47	8.14	1
16242870012▲			177.80	8.00	203.20	6	150	1.03	n/a	n/a	5.75	8.56	1
16242880012▲			203.20	9.00	228.60	6	100	0.69	n/a	n/a	6.50	9.67	1
16242886212▲			219.08	9.63	244.48	6	100	0.69	n/a	n/a	6.98	10.39	1
16242810112			254.00	11.00	279.40	6	90	0.62	n/a	n/a	8.03	11.95	1
16242810712▲			273.05	11.75	298.45	6	75	0.52	n/a	n/a	8.64	12.86	1
16242812012			304.80	13.00	330.20	6	60	0.41	n/a	n/a	9.59	14.27	1
16242812712▲	==>	12-3/4	323.85	13.75	349.25	6	50	0.34	n/a	n/a	10.12	15.06	1



TYPE 2458 MARINE -BLACK COVER

This top-of-the-line multi-plied soft wall hose is designed to be used as a straight connection in wet exhaust systems on marine gasoline or diesel engines. The CR/NBR blended cover is oil, heat and ozone resistant and the tube is an NBR/ SBR blend making it coolant and heat resistance. Its 2-, 4- or 6-Ply tire cord reinforcement provides a working pressure range from 50 to 200 psi.



RESISTANCE 📀 🔘 🏶 😂 **BRANDING**

Thermoid HBD Industries Type 58 Marine Coolant Made In USA

Cover Color: Black Oil Resistance: Medium

Construction:

Tube: CR Cover: CR

Reinforcement: Multiple plies of polycord

Temperature Range: -40°F to +212°F

-40°C to +100°C

Packaging: 50 ft. maximum

Also available to meet SAE 20R1 Class C, standard or heavy wall construction

Product	Nomir	nal I.D.	Nomin	al O.D.	Fits Over	Pipe I.D.	Plies	Working	Pressure	Min. Ben	d Radius	We	ight
Number	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)	r iies	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
16245810650▲	1-1/16	26.99	1.53	38.89	3/4	19.05	3	150	1.03	n/a	n/a	0.60	0.89
16245813150▲	1-5/16	33.34	1.84	46.83	1	25.40	4	150	1.03	n/a	n/a	0.70	1.04
16245816250▲	1-5/8	41.28	2.16	54.77	1-1/4	31.75	4	150	1.03	n/a	n/a	0.90	1.34
16245818750▲	1-7/8	47.63	2.44	61.91	1-1/2	38.10	4	125	0.86	n/a	n/a	1.00	1.49
16245823750▲	2-3/8	60.33	2.97	75.41	2	50.80	4	100	0.69	n/a	n/a	1.30	1.93
16245828750▲	2-7/8	73.03	3.47	88.11	2-1/2	63.50	4	100	0.69	n/a	n/a	1.70	2.53
16245830050▲	3	76.20	3.59	91.28	_	_	4	100	0.69	n/a	n/a	1.80	2.68
16245835050▲	3-1/2	88.90	4.09	103.98	3	76.20	4	85	0.59	n/a	n/a	2.10	3.13
16245840050▲	4	101.60	4.66	118.27	3-1/2	88.90	5	75	0.52	n/a	n/a	2.60	3.87
16245845050▲	4-1/2	114.30	5.22	132.56	4	101.60	5	70	0.48	n/a	n/a	3.20	4.76
16245866212▲	6-5/8	168.28	7.19	182.56	6	152.40	4	100	0.69	n/a	n/a	2.90	4.32
16245886212▲	8-5/8	219.08	9.25	234.95	8	203.20	4	100	0.69	n/a	n/a	4.00	5.95
16245810712▲	10-3/4	273.05	11.38	288.93	10	254.00	4	100	0.69	n/a	n/a	4.90	7.29
16245812712▲	12-3/4	323.85	13.50	342.90	12	304.80	5	100	0.69	n/a	n/a	5.90	8.78

Ihermoid®

7910 BELLOWSFLEX "A" **COOLANT, MARINE, FUEL**

This incredibly versatile hose is used in applications where wire reinforcement is required to provide great flexibility and resist kinking. Considered an industry standard, some of its applications include bilge ventilation, bilge pump intake and discharge, toilet and bath connections, cabin heating, internal water systems, galleys and drains. It meets SAEJ1527 Type A2 and SAE J2006, R2 specification and is rated at full vacuum (30 inches Hg).



RESISTANCE **BRANDING**





Bellowsflex[™] -A(xxx) mm (INCA) I.D. SAEJ1527 Type A2 (xxx) MPA WP SAEJ2006 R2 Thermoid® Made In USA (year) — Caution Statement

Cover Color: Black Oil Resistance: High

Construction:

Tube: NBR Cover: CR

Reinforcement: Nylon screen with helical wire

Temperature Range: -20°F to +212°F

-29°C to +100°C

Packaging: 1/2" and 5/8" I.D. -25 ft. maximum, all others

Other lengths available – 5% cutting charge Contact customer service for minimum run

requirements

Product	Nomin	nal I.D.	Nomin	al 0.D.	Plies	Working	Pressure	Min. Ber	nd Radius	We	ight
Number	(inches)	(mm)	(inches)	(mm)	riies	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
16791005025	1/2	12.70	0.88	22.23	2	60	0.41	2.00	50.80	0.32	0.48
16791006225	5/8	15.88	1.00	25.40	2	60	0.41	2.00	50.80	0.36	0.54
16791007560	3/4	19.05	1.13	28.58	2	58	0.40	3.00	76.20	0.48	0.71
16791008760	7/8	22.23	1.25	31.75	2	55	0.38	3.00	76.20	0.55	0.82
16791010060	1	25.40	1.38	34.93	2	53	0.37	3.00	76.20	0.61	0.91
16791010660	1-1/16	26.99	1.44	36.51	2	53	0.37	3.00	76.20	0.63	0.94
16791011260	1-1/8	28.58	1.50	38.10	2	50	0.34	3.00	76.20	0.67	1.00
16791012560	1-1/4	31.75	1.63	41.28	2	44	0.30	3.00	76.20	0.72	1.07
16791013160	1-5/16	33.34	1.69	42.86	2	44	0.30	4.00	101.60	0.76	1.13
16791013760	1-3/8	34.93	1.75	44.45	2	44	0.30	4.00	101.60	0.79	1.18
16791015060	1-1/2	38.10	1.88	47.63	2	44	0.30	4.00	101.60	0.84	1.25
16791016260	1-5/8	41.28	2.00	50.80	2	41	0.28	5.00	127.00	0.90	1.34
16791017560	1-3/4	44.45	2.13	53.98	2	41	0.28	5.00	127.00	0.96	1.43
16791018760	1-7/8	47.63	2.25	57.15	2	38	0.26	5.00	127.00	1.02	1.52
16791020060	2	50.80	2.38	60.33	2	35	0.24	6.00	152.40	1.07	1.59
16791021260	2-1/8	53.98	2.50	63.50	2	34	0.23	6.00	152.40	1.13	1.68
16791022560	2-1/4	57.15	2.63	66.68	2	34	0.23	6.00	152.40	1.18	1.76
16791023760	2-3/8	60.33	2.75	69.85	2	33	0.23	7.00	177.80	1.19	1.77
16791025060	2-1/2	63.50	2.88	73.03	2	30	0.21	8.00	203.20	1.23	1.83
16791026260	2-5/8	66.68	3.00	76.20	2	30	0.21	10.00	254.00	1.28	1.90
16791027560	2-3/4	69.85	3.13	79.38	2	29	0.20	10.00	254.00	1.34	1.99
16791028760	2-7/8	73.03	3.25	82.55	2	29	0.20	11.00	279.40	1.40	2.08
16791030060	3	76.20	3.38	85.73	2	26	0.18	13.00	330.20	1.51	2.25
16791031260	3-1/8	79.38	3.50	88.90	2	23	0.16	13.00	330.20	1.57	2.34
16791032560	3-1/4	82.55	3.63	92.08	2	21	0.14	14.00	355.60	1.63	2.43
16791035060	3-1/2	88.90	3.88	98.43	2	20	0.14	14.00	355.60	1.75	2.60
16791040060	4	101.60	4.38	111.13	2	18	0.12	15.00	381.00	1.98	2.95
16791045060	4-1/2	114.30	4.88	123.83	2	16	0.11	16.00	406.40	2.21	3.29
16791050060	5	127.00	5.38	136.53	2	14	0.10	28.00	711.20	2.69	4.00
16791055060	5-1/2	139.70	5.88	149.23	2	13	0.09	31.00	787.40	2.94	4.38
16791060060	6	152.40	6.38	161.93	2	11	0.08	33.00	838.20	3.42	5.09

80



7951 SAE 100R4 **HYDRAULIC RETURN/ SUCTION**

Designed for use on suction or return lines on hydraulic systems, the 7951 hose meets all specification requirements for SAE 100R4 and features an NBR tube that is oil resistant and can handle petroleum or water based hydraulic fluids. It is rated at 25 inches of Hg vacuum and provides a working pressure up to 300 psi, depending on I.D.



RESISTANCE 6 **BRANDING**

SAE 100R4 I.D. Made In USA

Cover Color: Black Oil Resistance: High

Construction:

Tube: NBR Cover: CR

Reinforcement: Tire cord with helical wire

Temperature Range: -40°F to +212°F

-40°C to +100°C

60 ft. maximum Packaging:

> Other lengths available – 5% cutting charge Contact customer service for minimum run

requirements

Product Number	Nomir (inches)	ial I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ght (Kg/m)
16795107560	3/4	19.05	1.31	33.34	2	300	2.07	5.00	127.00	0.57	0.85
16795108760▲	7/8	22.23	1.44	36.51	2	300	2.07	5.50	139.70	0.63	0.94
16795110060	1	25.40	1.56	39.69	2	300	2.07	6.00	152.40	0.70	1.04
16795112560	1-1/4	31.75	1.81	46.04	2	300	2.07	8.00	203.20	0.83	1.24
16795115060	1-1/2	38.10	2.03	51.59	2	300	2.07	10.00	254.00	1.09	1.62
16795117560▲	1-3/4	44.45	2.31	58.74	2	300	2.07	11.00	279.40	1.24	1.85
16795120060▲	2	50.80	2.56	65.09	2	300	2.07	12.00	304.80	1.39	2.07
16795122560▲	2-1/4	57.15	2.81	71.44	2	300	2.07	13.00	330.20	1.47	2.19
16795125060▲	2-1/2	63.50	3.06	77.79	2	62	0.43	14.00	355.60	1.61	2.40
16795127560▲	2-3/4	69.85	3.31	84.14	2	60	0.41	16.00	406.40	1.75	2.60
16795130060▲	3	76.20	3.56	90.49	2	56	0.39	18.00	457.20	1.97	2.93

CHEMICAL





TRANSPORTER® - ULTRA CHEM™

Transporter Ultra-Chem hose has been engineered to be extremely flexible. This hose will handle 98% of all common industrial chemicals. Ultra-Chem is ideal for pressure, gravity flow and suction service. This hose has been rated at full vacuum. The green EPDM cover is abrasion and chemical resistant. This hose can also come with a black EPDM cover.

Note: Working pressures reflect a permanent type coupling such as swage or internally expanded. For banded type couplings, the working pressure should reflect 65% of the ratings listed.

See Chemical Hose Warnings, pages 29 and 148.



RESISTANCE

6

BRANDING

Thermoid HBD Industries
Transporter Ultra-Chem XXX PSI WP
Made In USA

Cover Color: Green

Oil Resistance: High at 70°F, not rated at 140°F

Construction:

Tube: UHMWPE (FDA approved) with compatible

rubber backing

Cover: EPDM

Reinforcement: Multiple synthetic textile cords

and a dual wire helix(es).

Temperature Range: Maximum temperature limitation +250°F

(121°C) for most chemicals.*

*CONTACT CUSTOMER SERVICE FOR

SPECIFIC APPLICATIONS.

Packaging: 100 ft. maximum

Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ght (Kg/m)
Green											
17709008002	1	25.40	1.47	36.75	2	250	1.72	4.00	101.60	0.53	0.79
17709009002	1-1/4	31.75	1.78	44.50	2	250	1.72	4.00	101.60	0.75	1.12
17709010002	1-1/2	38.10	2.08	52.00	2	250	1.72	4.00	101.60	0.96	1.43
17709012002	2	50.80	2.58	64.50	2	250	1.72	6.00	152.40	1.30	1.93
17709013002	2-1/2	63.50	3.13	78.25	2	200	1.38	8.00	203.20	1.77	2.63
17709014002	3	76.20	3.66	91.50	2	200	1.38	9.00	228.60	2.09	3.11
17709016002	4	101.60	4.70	117.50	2	200	1.38	12.00	304.80	2.99	4.45
17709018002▲	6	152.40	6.90	172.50	4	150	1.03	30.00	762.00	5.77	8.59
Black											
17709300002▲	1	25.40	1.47	36.75	2	250	1.72	4.00	101.60	0.52	0.77

▲ = Make To Order (MTO)

Consult coupling manufacturers for specific coupling recommendations/attachment procedures.

ALERT: Large size, industrial hoses have caution and/or safety usage printed information attached by tag to the product or this information is printed onto the hose.

Ihermoid

ATLAS™ ACID DISCHARGE

Designed solely as a discharge hose, the Atlas™ Acid Discharge hose is used in pinch valve service or in applications where acid forms a crust inside the hose that must be broken off. Capable of withstanding most inorganic salts and alkalis, this hose can also be used to handle various inorganic acids, with the exception of strong oxidizing agents such as nitric, chromic and concentrated sulphuric. Its black SBR/EPDM cover resists abrasion, sunlight and weathering.



BRANDING







Thermoid HBD Industries Atlas Acid Discharge Hose Made In USA

Cover Color: Black Oil Resistance: Limited

Construction:

Tube: 3/16" NR

Cover: Cover: SBR/EPDM

Reinforcement: Multiple plies of strong, square-woven duck

Temperature Range: -40° F to $+160^{\circ}$ F

-40°C to +71°C

Consult the Chemical Resistance Guide for specific chemical/ temperature recommendations.

Packaging: 50 ft. lengths

Minimum Run: Minimum Run: 500 ft./size

Product			Nomin	al O.D.	Plies	Working	Pressure	Min. Ben	d Radius	We	ight
Number	(inches)	(mm)	(inches)	(mm)	riies	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
21204420502	3/4	19.05	1.50	38.10	4	150	1.03	n/a	n/a	0.70	1.04
21204421502	1	25.40	1.75	44.45	4	150	1.03	n/a	n/a	0.80	1.19
21204422502	1-1/4	31.75	2.00	50.80	4	150	1.03	n/a	n/a	0.90	1.34
21204423502	1-1/2	38.10	2.25	57.15	4	100	0.69	n/a	n/a	1.10	1.64
21204424502	2	50.80	2.81	71.44	4	100	0.69	n/a	n/a	1.40	2.08
21204425502	2-1/2	63.50	3.31	84.14	4	75	0.52	n/a	n/a	1.70	2.53
21204426502	3	76.20	3.81	96.84	4	75	0.52	n/a	n/a	1.90	2.83



ATLAS™ ACID SUCTION & **DISCHARGE**

Designed for suction and discharge when handling many inorganic acids during suction and discharge service, this hose is also capable of withstanding most salts and alkalis, excluding strong oxidizing agents. It can be made with capped, straight, enlarged, Flexlock™ or Flexseal[™] ends, so that no metal comes into contact with corrosives. The helical wire and multiple plies of reinforcement enable this hose to maintain full vacuum and be able to handle the discharge pressures and the tube thickness can be specified according to the severity of the service.

See Chemical Hose Warnings, pages 30



RESISTANCE (1) 60 60 60 **BRANDING**







Thermoid HBD Industries Atlas Acid Suction and Discharge Made In USA

Cover Color: Black Oil Resistance: Limited

Construction:

Tube: 3/16" NR Cover: SBR/EPDM

Reinforcement: Multiple plies of strong, square-woven duck

with helical wire

Temperature Range: -40° F to $+160^{\circ}$ F

-40°C to +71°C

Consult the Chemical Resistance Guide for specific chemical/temperature recommendations.

Packaging: 50 ft. lengths maximum

Minimum Run: Varies with size. Contact customer service

for required minimums

Product	Nomir	nal I.D.	Nomin	al O.D.	Plies	Working	Pressure	Min. Ber	nd Radius	Wei	ght
Number	(inches)	(mm)	(inches)	(mm)	riies	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
21204482502	2	50.80	2.88	73.03	3	100	0.69	7.00	177.80	2.00	2.98
21204484502	2-1/2	63.50	3.50	88.90	3	75	0.52	8.00	203.20	2.60	3.87
21204486502	3	76.20	4.00	84.14	3	75	0.52	9.00	228.60	3.00	4.46
11404532502▲	3-1/2	88.90	4.50	114.30	3	75	0.52	12.00	304.80	3.40	5.06
11404534502▲	4	101.60	5.16	127.00	4	75	0.52	16.00	406.40	4.20	6.25
11404536502▲	4-1/2	114.30	5.56	141.29	4	75	0.52	18.00	457.20	5.20	7.74
11404538502▲	5	127.00	6.13	155.58	4	50	0.34	25.00	635.00	5.70	8.48
11404541502▲	6	152.40	7.13	180.98	4	50	0.34	30.00	762.00	6.90	10.27
11404543502▲	6-5/8	168.28	7.94	198.44	5	50	0.34	39.75	1009.65	8.00	11.91
11404546502▲	8	203.20	9.31	236.54	5	50	0.34	48.00	1219.20	11.40	16.97
11404548502▲	8-5/8	219.08	9.94	252.41	5	50	0.34	51.75	1314.45	12.40	18.45
11404550502▲	10	254.00	11.38	288.93	6	50	0.34	60.00	1524.00	14.10	20.98

^{▲ =} Make To Order (MTO)

Ihermoid®

COMMANDER® ACID DISCHARGE

Designed solely for discharge, the Commander® hose handles many highly corrosive acids such as sulphuric acid, chromic acid, nitric acid, sodium dichromate, sodium hydrochlorite and glacial acetic acid, and it is ideal in applications where acid slurry deposits on the hose. Its CR rubber cover resists abrasion, sunlight, weathering and scuffing.



RESISTANCE **BRANDING**







Thermoid HBD Industries **Commander Acid Discharge** Hose Hypalon Tube Made In USA

Cover Color: Black Oil Resistance: Medium

Construction:

3/16" CSM compound Tube:

Cover:

Multiple plies of strong, square-woven duck Reinforcement:

-40°F to +160°F

Temperature Range: -40°C to +71°C

Consult the Chemical Resistance Guide for specific chemical/temperature recommendations.

Packaging: 50 ft. lengths Minimum Run: 500 ft./size

Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ght (Kg/m)
21204435502	1/2	12.70	1.25	31.75	4	150	1.03	n/a	n/a	0.50	0.74
21204436502▲	3/4	19.05	1.50	38.10	4	150	1.03	n/a	n/a	0.60	0.89
21204437502	1	25.40	1.75	44.45	4	150	1.03	n/a	n/a	0.80	1.19
21204438502	1-1/4	31.75	2.00	50.80	4	150	1.03	n/a	n/a	0.90	1.34
21204439502	1-1/2	38.10	2.25	57.15	4	100	0.69	n/a	n/a	1.00	1.49
21204440502	2	50.80	2.81	71.44	4	100	0.69	n/a	n/a	1.40	2.08
21204441502	2-1/2	63.50	3.31	84.14	4	75	0.52	n/a	n/a	1.70	2.53
21204442502	3	76.20	3.81	96.84	4	75	0.52	n/a	n/a	2.00	2.98



COMMANDER® ACID SUCTION & DISCHARGE

Designed for suction and discharge when handling many highly corrosive acids and other materials such as sulphuric acid, chromic acid, nitric acid, sodium dichromate, sodium hypochlorite and glacial acetic acid, this hose can be assembled with Flexlock™ or Flexseal™ ends, so no metal comes into contact with corrosives. Its flexible construction keeps the hose round when bent, reducing kinking, while its tube thickness can be specified to meet various conditions.



RESISTANCE 🔘 🐨 🍪 🚳 **BRANDING**





Thermoid HBD Industries Commander Acid Suction and Discharge Hose Hypalon Tube Made In USA

Cover Color: Black Oil Resistance: Medium

Construction:

Tube: 3/16" CSM compound

Cover: CR

Reinforcement: Multiple plies of strong, square-woven duck

with helical wire

Temperature Range: -40° F to $+160^{\circ}$ F

-40°C to +71°C

Consult the Chemical Resistance Guide for specific chemical/temperature recommendations.

Packaging: 50 ft. lengths maximum

Minimum Run: Minimum Run: Varies with size. Contact

customer service for required minimums

Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ber (inches)	nd Radius (mm)	Wei (lb/ft)	ight (Kg/m)
21204462502	2	50.80	2.78	77.79	3	100	0.69	7.00	177.80	2.70	4.02
21204464502	2-1/2	63.50	3.50	88.90	3	75	0.52	8.00	203.20	3.20	4.76
21204466502	3	76.20	4.00	101.60	3	75	0.52	9.00	228.60	3.80	5.66
11404468502▲	3-1/2	88.90	4.50	114.30	3	75	0.52	12.00	304.80	4.20	6.25
11404470502▲	4	101.60	5.06	128.59	4	75	0.52	16.00	406.40	5.30	7.89
11404472502▲	4-1/2	114.30	5.69	144.46	4	75	0.52	18.00	457.20	6.40	9.52
11404474502	5	127.00	6.19	157.16	4	50	0.34	25.00	635.00	7.30	10.86
11404476502▲	6	152.40	7.19	182.56	4	50	0.34	30.00	762.00	8.50	12.65
11404478502▲	6-5/8	168.28	7.81	198.44	5	50	0.34	39.75	1009.65	9.80	14.58
11404480502▲	8	203.20	9.31	236.54	5	50	0.34	48.00	1219.20	13.30	19.79
11404482502▲	8-5/8	219.08	9.94	252.41	5	50	0.34	51.75	1314.45	15.00	22.32
11404485502▲	10	254.00	11.38	288.93	6	50	0.34	60.00	1524.00	17.00	25.30

CHEMICAL

Ihermoid^e

TRANSPORTER® CHEMICAL B

The Transporter Chemical B general purpose hose was designed to handle strong and oxidizing acids, esters, ketones and alcohols. This hose is rated at full vacuum and features a reinforcement of a spiral steel helix between synthetic textile plies, providing a working pressure of 100 to 150 psi.



RESISTANCE (A) (6) (7) **BRANDING**

Thermoid HBD Industries Transporter Chemical B WP Made In USA

Cover Color: Brown Oil Resistance: Limited

Construction:

CIIR Tube: **EPDM** Cover:

Reinforcement: Spiral steel wire helix(es) between synthetic

textile plies

Temperature Range: -40°F to +200°F

-40°C to +93°C

Consult the Chemical Resistance Guide for specific chemical/temperature recommendations.

Packaging: 1" I.D. - 50 ft.

Minimum Run: 1-1/2" - 4" I.D. - 100 ft.

Product Number	Nominal I.D. (inches) (mm)		Nominal O.D. (inches) (mm)		Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	nd Radius (mm)	Wei (lb/ft)	ght (Kg/m)
17704010002▲	1	25.40	1.56	38.10	2	150	1.03	2.50	63.50	0.63	0.92
17704015002▲	1-1/2	38.10	2.03	51.59	2	150	1.03	4.00	101.60	0.89	1.30
17704020002▲	2	50.80	2.56	65.09	2	150	1.03	6.00	152.40	1.26	1.83
17704030002▲	3	76.20	3.69	92.08	2	150	1.03	9.00	228.60	2.16	3.16
17704040002▲	4	101.60	4.69	119.06	2	100	0.69	12.00	304.80	3.02	4.46



TRANSPORTER® CHEMICAL H

The Transporter Chemical H hose is recommended for the handling of many inorganic acids, bases, alcohols, oils, fats, chemicals, greases and solvents. It features a CR cover that is weather, ozone and oil resistant, a tube compound that is chemical, heat and abrasion resistant. Its 2-ply synthetic textile with spiral steel wire helix provides a working pressure ranging from 100 to 200 psi.



RESISTANCE 🕡 🚭 🚳 🚳 **BRANDING**

HBD Industries Transporter Chemical HWP Made In USA

Cover Color: Yellow Oil Resistance: Medium

Construction: Tube:

CSM Black CR

Cover: Reinforcement: Spiral steel wire helix(es) between

synthetic textile plies

Temperature Range: -40°F to +250°F

-40°C to +121°C

Consult the Chemical Resistance Guide for specific chemical/temperature recommendations.

Packaging: 100 ft. maximum

Minimum Run: Available in straight ends, uncapped only

Product Number	Nominal I.D. (inches) (mm)		Nominal O.D. (inches) (mm)		Plies	Working (psi)	Pressure (Mpa)	Min. Ber (inches)	nd Radius (mm)	Wei (lb/ft)	ight (Kg/m)
17703010002▲	1	25.40	1.50	38.10	2	200	1.38	2.50	63.50	0.57	0.85
17703015002▲	1-1/2	38.10	2.00	50.80	2	150	1.03	4.00	101.60	0.83	1.24
17703020002	2	50.80	2.50	63.50	2	150	1.03	6.00	152.40	1.08	1.61
17703030002	3	76.20	3.56	90.49	2	150	1.03	9.00	228.60	1.81	2.69
17703040002▲	4	101.60	4.63	117.48	2	100	0.69	12.00	304.80	2.45	3.65

Ihermoid^e

TRANSPORTER® CHEMICAL V

The Transporter Chemical V hose is capable of handling aromatic and alphatic hydrocarbons and halo generated hydrocarbons, as well as animal oil, vegetable oil, and a wide range of chemicals. Its NBR/PVC cover is both oil and abrasion resistant, and its reinforcement of a spiral steel helix between synthetic textile plies enables this hose to be rated at full vacuum.



RESISTANCE **BRANDING**

6 6



HBD Industries Transporter Chemical V Made In USA

Cover Color: Orange Oil Resistance: Medium

Construction:

Tube: FKM, 1–1/2" and 2" I.D. – 1/8" thick

3'' I.D. and larger -3/16'' thick Exceeds RMA Class A

NBR/PVC Cover:

Reinforcement: Spiral steel wire helix(es) between

synthetic textile plies

Temperature Range: -20°F to +250°F

-29°C to +121°C

Consult the Chemical Resistance Guide for specific chemical/temperature recommendations.

Packaging: 100 ft. maximum

Minimum Run: Available in straight ends, uncapped only

Product Number	Nominal I.D. (inches) (mm)		Nominal O.D. (inches) (mm)		Plies	Working (psi)	Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		ght (Kg/m)
17701115002▲	1-1/2	38.10	2.06	52.39	2	150	1.03	4.00	101.60	1.20	1.79
17701120002▲	2	50.80	2.56	65.09	2	150	1.03	6.00	152.40	1.50	2.23
17701130002▲	3	76.20	3.69	93.66	2	150	1.03	9.00	228.60	2.40	3.57
17701140002▲	4	101.60	4.69	119.06	2	100	0.69	12.00	304.80	3.40	5.06



TRANSPORTER® MULTI-CHEM

The Transporter Multi-Chem hose has been designed for the transfer of chemicals and solvents. Featuring an XLPE tube, it is capable of resisting approximately 90% of all industrial chemicals (with the exception of strong oxidizing acids such as nitric acid and chromic), but its maximum temperature rating for most chemicals is 150°F. It is a full vacuum hose with a green EPDM cover that facilitates colorcoding and is abrasion and chemical resistant.



RESISTANCE BRANDING

6

Thermoid HBD Industries Transporter Multi-Chem Made In USA

Cover Color: Green

Oil Resistance: High at 70°F, not rated at 140°F

Construction:

Tube: XLPE Cover: EPDM

Reinforcement: Synthetic textile cords with wire helix(es)
Temperature Range: Maximum temperature limitation 150°F

(66°C) for most chemicals

Packaging: 100 ft. maximum

	Product Number	Nomin (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ght (Kg/m)
Black	Green											
N	17704600002▲	1	25.40	1.69	42.86	2	200	1.38	5.00	127.00	0.80	1.19
N	17704601002▲	1-1/4	31.75	1.94	49.21	2	200	1.38	7.00	177.80	1.00	1.49
N	17704602002▲	1-1/2	38.10	2.19	55.56	2	200	1.38	8.00	203.20	1.10	1.64
N	17704603002	2	50.80	2.81	71.44	2	200	1.38	9.00	228.60	1.70	2.53
N	17704608002▲	2-1/2	63.50	3.34	84.93	2	150	1.03	12.00	304.80	2.38	3.54
N	17704604002▲	3	76.20	3.91	99.22	2	150	1.03	16.00	406.40	2.70	4.02
N	17704605002▲	4	101.60	4.81	122.24	2	150	1.03	21.00	533.40	3.50	5.21

N = Non-Stock. All sizes available in black cover, contact Salisbury

 $[\]blacktriangle$ = Make To Order (MTO)

DOCK LOADING







BLACK RACER™ OS & D

The Black Racer™ Oil Suction and Discharge hose is designed for barge or dock service handling, gasoline, oil and other petroleum products, and meets the U.S. Coast Guard requirements. It features smooth bore construction with a polyester tire cord and wire helix reinforcement with a 200 psi working pressure and full vacuum rating. Available in 100 ft. lengths, this hose reduces the number of connection problems.



RESISTANCE

BRANDING

Thermoid HBD Industries Inc. Black Racer Oil S&D Made In USA

Cover Color: Black
Oil Resistance: High

 ${\bf Construction:}$

Tube: NBR, RMA Class A

Cover: CR

Reinforcement: Polyester tire cord, with a wire helix(es)

Temperature Range: -20°F to +200°F

-29°C to +93°C

Packaging: 100 ft. maximum

Hand built – \$250.00 minimum order per

size

Couplings: Constrictor swage couplings

Product Number	Nominal I.D. Nominal O.D. (inches) (mm) (inches) (mi		al O.D. (mm)	Plies	Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		Weight (lb/ft) (Kg/m)		
34854034002	4	101.60	5.00	127.00	4	200	1.38	22.00	558.80	4.20	6.25
34854036002▲	6	152.40	7.13	180.98	4	200	1.38	35.00	889.00	7.60	11.31
34854038002▲	8	203.20	9.19	233.36	4	200	1.38	46.00	1168.40	10.60	15.78

^{▲ =} Make To Order (MTO)

Fixed Flanges

Product Number	Size
34941040001▲	4
34941060001	6
34941080001▲	8

^{▲ =} Make To Order (MTO)

Floating Flanges

Product Number	Size
34942040001	4
34942060001	6
34942080001	8

^{▲ =} Make To Order (MTO)

ALERT: Large size, industrial hoses have caution and/or safety usage printed information attached by tag to the product or this information is printed onto the hose.

Ihermoid®

CHEMICAL / SOLVENT -UHMW POLYETHYLENE LINING (SMOOTH BORE)

This hose is used for the transfer of solvents and chemicals between dock and barges or dock and tankers, and like all Thermoid® dock loading hoses, this hose meets all U.S. Coast Guard requirements. Its CR cover is resistant to abrasion, weathering and ozone, and it maintains constant working pressure at 200 psi.



RESISTANCE **BRANDING**





Cover Color: Black

Oil Resistance: High at $+70^{\circ}$ F, not rated at $+140^{\circ}$ F

Construction:

UHMWPE Tube: Cover: CR

Reinforcement: Single steel wire helix(es) spiraled between

multiple plies of synthetic tire cord

Temperature Range: -20°F to +180°F

-29°C to +82°C

Packaging: 50 ft. maximum

Hand built – \$250.00 minimum order per size

Couplings: Swaged

Product Number	Nominal I.D. (inches) (mm)		Nominal O.D. (inches) (mm) Plies		Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		Weight (lb/ft) (Kg/m)		
11434456502	4	101.60	5.25	133.35	4	200	1.38	36.00	914.40	5.20	7.74
11434458502▲	6	152.40	7.38	187.33	4	200	1.38	48.00	1219.20	10.70	15.92
11434460502▲	8	203.20	9.63	244.48	4	200	1.38	64.00	1625.60	14.80	22.03
11434462502▲	10	254.00	11.94	303.21	6	200	1.38	80.00	2032.00	20.70	30.81

▲ = Make To Order (MTO)

ALERT: Large size, industrial hoses have caution and/or safety usage printed information attached by tag to the product or this information is printed onto the hose.

HY-FLEX™ 200 / 275/300 DOCK - NYLON/UHMPE TUBE (ROUGH BORE)

Ideal for use with chemicals, oils and hydrocarbons to 100%, the Hy-Flex™ Dock hose meets U.S. Coast Guard requirements and features a polyester tire cord with a steel wire helix reinforcement that enables three grades of working pressures: 200, 275 and 300 for higher pressure applications. Its nylon tube liner allows a smooth flow of product through the system.

Cover Color: Black Oil Resistance: Hiah

Construction:

Flow Velocity:

Temperature Range:

Tube: Tube: Round, galvanized bore wire, plain unbonded

nylon liner, UHMWPE liner

Cover: CR

Reinforcement: Polyester tire cord, high strength

> steel wire helix(es) 35 Ft/Second maximum -20°F to +180°F

-29°C to +82°C

Packaging: Crated

Couplings: Swage. Fixed or floating 150# or 300#

flange each end



RESISTANCE 6 6 **BRANDING**



Thermoid/HBD Industries Hy-Flex OS&D 275 psi WP Conforms to USCG 33 CFR 1545 suitable for up to 100% aromatics Made In USA



RESISTANCE **BRANDING**





Thermoid/HBD Industries Hy-Flex OS&D 300 psi WP Conforms to USCG 33 CFR 1545 suitable for up to 100% aromatics Made In USA

HY-FLEX 200

Product Number	Nomir (inches)	nal I.D. (mm)	Nominal O.D. (inches) (mm)		Plies	Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		Weight (lb/ft) (Kg/m)	
34854210502▲	4	101.60	5.19	131.76	2	200	1.38	14.00	355.60	4.50	6.70
34854215502▲	6	152.40	7.50	190.50	2	200	1.38	21.00	533.40	8.40	12.50
34854220502▲	8	203.20	9.75	247.65	4	200	1.38	29.00	736.60	14.00	20.84
34854225502▲	10	254.00	11.94	303.21	6	200	1.38	36.00	914.40	22.50	33.49

All sizes have 30 inches of mercury vaccuum

HY-FLEX 275

Product Number	Nominal I.D. (inches) (mm)		Nominal O.D. (inches) (mm)		Plies	Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		Weight (lb/ft) (Kg/m)	
34854240502▲	4	101.60	5.25	133.35	4	275	1.90	16.00	406.40	4.50	6.70
34854245502▲	6	152.40	7.50	190.50	4	275	1.90	21.00	533.40	8.40	12.50
34854250502▲	8	203.20	9.94	252.41	4	275	1.90	31.00	787.40	16.00	23.81
34854255502▲	10	254.00	11.94	303.21	6	275	1.90	38.00	965.20	22.50	33.49

All sizes have 30 inches of mercury vaccuum

HY-FLEX 300

Product	Nominal I.D.		Nominal O.D.		Plies	Working	Pressure	Min. Ben	d Radius		ight
Number	(inches)	(mm)	(inches)	(mm)	1 1163	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
34854240502▲	4	101.60	5.25	133.35	4	275	1.90	16.00	406.40	4.50	6.70
34854245502▲	6	152.40	7.50	190.50	4	275	1.90	21.00	533.40	8.40	12.50
34854250502▲	8	203.20	9.94	252.41	4	275	1.90	31.00	787.40	16.00	23.81
34854255502▲	10	254.00	11.94	303.21	6	275	1.90	38.00	965.20	22.50	33.49

All sizes have 30 inches of mercury vaccuum

Ihermoid

SAFETYFLEX®

Safetyflex® is a premium hose used in the loading and unloading of gasoline, oil, and other petroleum products at dock installations, and like all Thermoid® dock loading hoses, meets all U.S. Coast Guard requirements. With exceptional strength (a 13:1 safety factor) much greater than conventional hose, Safetyflex® features a unique coupling design that protects against blow-offs and leaks. Its reinforced layers of spiraled high-tensile steel wire and synthetic fabric plies between the wire and tube provide exceptional strength, durability, long life and maximum flexibility, and guards against bursting even at high working pressures.



RESISTANCE **BRANDING**







Thermoid HBD Industries Safetyflex Oil Service 300 PSI WP Made In USA

Cover Color: Black Oil Resistance: High

Construction: Tube:

NBR, RMA Class A- other elastomers available

upon request

Cover: CR

Reinforcement: Layers of spiraled high-tensile steel wire

embedded in the hose body with a rubber

cushion between each ply

Flow Velocity: 50 Ft/Second maximum **Temperature Range:** -20°F to +200°F

-29°C to +93°C

Packaging: 100 ft. maximum

Hand built – \$250.00 minimum order per size

Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		Wei	ight (Kg/m)
Nullibel	(IIICIIE3)	(111111)	(IIICIIC3)	(111111)		(hai)	(Mpa)	(IIICIIC3)	(111111)	(10/11)	(Ng/111)
34854430002▲	3	76.20	4.44	112.71	4	300	2.07	12.00	304.80	6.90	10.27
34854435002▲	4	101.60	5.19	131.76	4	300	2.07	16.00	406.40	7.50	11.16
34854440002▲	6	152.40	7.50	190.50	6	300	2.07	24.00	609.60	15.70	23.69
34854445002▲	8	203.20	9.69	246.06	8	300	2.07	32.00	812.80	22.70	40.38

▲ = Make To Order (MTO)

ALERT: Large size, industrial hoses have caution and/or safety usage printed information attached by tag to the product or this information is printed onto the hose.



SAFETYFLEX® WATER JETTING

This rugged, heavy-duty, wire reinforced hose is ideal for inland water ways and offshore high pressure water jetting service. It is suitable for high flow velocity (70 ft. per second) service and the multiple plies of plated steel wire reinforcement enable this hose to provide up to 1500 psi working pressure. Like all Thermoid® dock loading hoses, the SafetyFlex® Water Jetting hose meets all U.S. Coast Guard requirements and its CR cover provides resistance to abrasion, weathering and ozone.



RESISTANCE 6 6 6 6 6





Thermoid/HBD Industries,Inc. **BRANDING** 1500 PSI WP Jetting Made In USA

Cover Color: Black Oil Resistance: High

Construction: Tube:

NBR, RMA Class A

Cover: CR, taped, wrapped exterior finish Reinforcement: Multiple plies of plated steel wire

-20°F to +200°F Temperature Range:

-29°C to +93°C

Packaging: 100 ft. maximum

> Hand built – \$250.00 minimum order per size Pressures up to 2500 psi WP in sizes up to 8"

I.D. are also available.

Contact Salisbury customer service. Straight end hose or coupled assemblies

shipped on reels or in crates.

8" I.D. hose or assemblies over 60 ft. long require special packaging or shipping.

Product Number	Nomir (inches)	nal I.D. (mm)	Nominal O.D. (inches) (mm)		Plies	Working (psi)	Working Pressure (psi) (Mpa)		d Radius (mm)	Wei (lb/ft)	ght (Kg/m)
34854460002▲	4	101.60	5.19	131.76	4	1500	10.34	16.00	406.40	7.80	11.61
34854465002▲	6	152.40	7.50	190.50	6	1500	10.34	24.00	609.60	14.10	23.69
34854470002▲	8	203.20	9.75	247.65	8	1500	10.34	32.00	812.80	22.40	40.38

▲ = Make To Order (MTO)

ALERT: Large size, industrial hoses have caution and/or safety usage printed information attached by tag to the product or this information is printed onto the hose.

Ihermoid

SUBMARINE 225 PSI

Meeting all U.S. Coast Guard requirements, our Submarine 225 hose is recommended for oil transfer applications in submarine installations where the hose is either partially or totally submerged (even for long periods of time). It features an abrasionresistant double CR cover, a breaker strip and a tough inner cover. The galvanized steel helix with multiple plies of steel cord enables this hose to handle up to 225 psi in working pressure, and its extra heavy construction is kink resistant and resists end pulls.

SUBMARINE 225 HOSE:

- Meets all U.S.Coast Guard requirements.
- **Meets OCIMF 4th Edition 1991** Guide to Purchasing, Manufacturing and **Testing of Loading and Discharge Hose for** Offshore Mooring.
- Safety Factor 5:1
- Product offered in three styles:
 - 1. Mainline
 - 2. Plem
 - 3. Tanker Rail
- Lifting lugs are supplied for built-in nipples with Tanker Rail construction
- Other working pressures available: 250, 275 and 300 psi.



RESISTANCE 6 😂 🚭 **BRANDING**





Thermoid HBD Industries Submarine Service 225# PSI Made In USA

Cover Color: Black Oil Resistance: High

Construction:

Tube: NBR, RMA Class A- other elastomers avail-

Cover: able upon request

Reinforcement: CR, double thickness (.282" with nylon

breaker)

Flow Velocity: Galvanized steel wire helix(es) spiraled Temperature Range: between multiple plies of synthetic cord

70 Ft/Second maximum

Packaging: -20°F to +180°F

-29°C to +82°C

Couplings: 50 ft. maximum

Hand built – \$250.00 minimum order per

BIN. Available to meet OCIMF specifications with galvanized weld neck flanges plus

x-ray tested welds.

Other options include ANSI 150# or 300# class floating flanges. Assemblies are presumed to be Electrically Continuous unless Electrically Discontinuous assemblies are requested.

Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ber (inches)	nd Radius (mm)	Wei (lb/ft)	ight (Kg/m)
11436006002▲	6	152.40	8.34	423.86	6	225	1.55	24.00	609.60	15.70	23.37
11436008002▲	8	203.20	10.44	265.11	6	225	1.55	32.00	812.80	22.30	33.19
11436010002	10	254.00	12.38	314.33	6	225	1.55	40.00	1016.00	29.10	43.31
11436012002▲	12	304.80	14.88	377.83	8	225	1.55	48.00	1219.20	39.40	58.64



TANKMASTER® HOT ASPHALT (SMOOTH BORE)

The Tankmaster® Hot Asphalt hose is designed to handle the transfer of petroleum based materials such as tar, hot oils and asphalt (not to exceed +350°F). The reinforcement of multiple plies of synthetic cord with a wire helix enables this hose to work at a top working pressure of 200 psi, and its CR tube and cover provide excellent resistance to weathering and oils. Like all Thermoid® dock loading hoses, the Tankmaster® meets the U.S. Coast Guard requirements.



RESISTANCE

6

BRANDING Thermoid HBD Industries

Tankmaster Hot Asphalt Made In USA -20°F to +350°F

Cover Color: Black
Oil Resistance: High
Construction:

Tube: CR Cover: CR

Reinforcement: Single wire helix(es) spiraled between

multiple plies of synthetic cord.

Temperature Range: -20°F to +350°F

-29°C to +177°C

Packaging: 100 ft. maximum

Hand built – \$250.00 minimum order per size

Couplings: Swaged couplings or built-in nipples

Product			Nominal O.D.		Plies	Working Pressure		Min. Ben	d Radius	We	ight
Number	(inches)	(mm)	(inches)	(mm)	riies	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11434720502▲	4	101.60	5.06	128.59	4	200	1.38	24.00	609.60	5.40	8.04
11434722502▲	6	152.40	7.56	192.09	4	200	1.38	36.00	914.40	11.50	17.11
11434724502▲	8	203.20	9.63	244.48	6	200	1.38	48.00	1219.20	17.50	26.04
11434726502▲	10	254.00	11.88	301.63	8	200	1.38	60.00	1524.00	22.50	33.49



TANKMASTER® K200 OIL **SUCTION & DISCHARGE 200 PSI (SMOOTH BORE)**

The Tankmaster K200 Oil Suction and Discharge hose is recommended for the transfer of petroleum based products. Its smooth bore promotes an even flow through the system and the reinforcement of multiple plies of spiral tire cords with a dual steel helix allows this hose to handle up to 200 psi working pressure. The Tankmaster® K200 meets all specifications of the USCG and RMA Type 1, Class 2 regulations.



RESISTANCE

Thermoid HBD Industries **BRANDING**

6

Tankmaster K200 Oil Suction & Discharge 200 PSI Smooth Bore

Made In USA

Cover Color: Black Oil Resistance: High

Construction:

Tube: NBR, RMA Class A

Cover: CR - corrugated, double pitch

Reinforcement: Dual steel wire helix(es) spiraled between

multiple plies of spiral tire cords

Flow Velocity: 50 Ft/Second maximum

Temperature Range: -20°F to +200°F

-29°C to +93°C

100 ft. maximum Packaging:

Hand built – \$250.00 minimum order per size

Couplings: Swaged couplings or built-in nipples

Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ght (Kg/m)
11434520502▲	4	101.60	5.00	127.00	4	200	1.38	15.00	381.00	5.00	7.44
11434521502▲	6	152.40	7.31	185.74	4	200	1.38	22.00	558.80	9.30	13.84
11434523502▲	8	203.20	9.63	244.48	4	200	1.38	30.00	762.00	14.20	21.13
11434525502▲	10	254.00	11.88	301.63	6	200	1.38	40.00	1016.00	20.00	29.77

 \blacktriangle = Make To Order (MTO)



TANKMASTER® OIL **DISCHARGE (SMOOTH BORE)**

Designed for use solely in discharge applications, this hose handles gasoline, oils and other petroleum distillates and meets the requirements of the U.S. Coast Guard regulations . It is lightweight and resistant to petroleum products with aromatic content up to 50%. The multiple plies of synthetic cord reinforcement enable this hose to operate smoothly even up to working pressures of 200 psi. The CR cover and NBR tube are resistant to abrasions, weathering and ozone.



RESISTANCE 6 6 6 6



Thermoid HBD Industries **BRANDING** Tankmaster Oil Discharge Made In USA

Cover Color: Black Oil Resistance: High

Construction: Tube:

NBR, RMA Class A

Cover: CR

Multiple plies of synthetic cord

Reinforcement: 50 Ft/Second maximum Flow Velocity: **Temperature Range:** -20°F to +200°F

-29°C to +93°C

Packaging: 100 ft. maximum

Couplings: Swaged couplings through 10" I.D. or built-in

nipples through 12" I.D.

Product Number	Nomir (inches)	nal I.D. (mm)	Nominal O.D. (inches) (mm)		Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ght (Kg/m)
11434650502▲	4	101.60	4.88	123.83	4	200	1.38	n/a	n/a	2.80	4.17
11434655502▲	6	152.40	7.00	177.80	4	200	1.38	n/a	n/a	4.90	7.29
11434660502	8	203.20	9.31	236.54	6	200	1.38	n/a	n/a	7.70	11.46
11434665502▲	10	254.00	11.19	284.16	6	200	1.38	n/a	n/a	8.30	12.35
11434670502▲	12	304.80	13.41	340.52	6	200	1.38	n/a	n/a	13.30	19.79



TANKMASTER® 200/225- FKM LINING (SMOOTH BORE)

Tankmaster 200/225 hose is recommended for the transfer of aromatic hydrocarbons. This hose has been designed to handle full vacuum applications. Also, the Tankmaster 200/225 hose will handle discharge applications up to 200 psi. The multiple plies of synthetic cord with a helical wire reinforcement allow this hose to maintain its roundness. Tankmaster 200/225 hose meets all U.S. Coast Guard requirements.



RESISTANCE

6

BRANDING Thermoid HBD Industries Tankmaster 200

Made In USA

Cover Color: Black
Oil Resistance: High

Construction: Tube:

FKM Fluoroelastomer

Exceeds RMA Class A

Cover: CR

Reinforcement: Single wire helix(es) spiraled between multiple

plies of synthetic cord

Flow Velocity: 50 Ft/Second maximum

Temperature Range: $-20^{\circ}F$ to $+200^{\circ}F$

-29°C to +93°C

Packaging: 100 ft. maximum

Couplings: Swaged

Product Number	Nomir (inches)	nal I.D. (mm)	Nominal O.D. (inches) (mm)		Plies	Working (psi)	Pressure (Mpa)	Min. Ber (inches)	nd Radius (mm)	Wei (lb/ft)	ight (Kg/m)
11434950502▲	4	101.60	5.31	134.94	4	200	1.38	24.00	609.60	7.50	11.16
11434955502▲	6	152.40	7.63	193.68	4	200	1.38	36.00	914.40	11.60	17.26
11434960502▲	8	203.20	9.63	244.48	4	200	1.38	48.00	1219.20	20.30	30.21
11434965502▲	10	254.00	11.88	301.63	6	200	1.38	60.00	1524.00	28.10	41.82



TANKMASTER® OS & D NBR LINING 200 (SMOOTH BORE)

The Tankmaster® NBR Lining 200 hose is designed to handle full vacuum or suction and discharge for barge or dock service, including the loading or unloading of gasoline, oils and other petroleum products. Its multiple ply synthetic cord with a wire helix reinforcement gives a constant working pressure of 200 psi for all sizes. All U.S. Coast Guard requirements are met by this hose.



RESISTANCE

BRANDING

Thermoid HBD Industries Tankmaster 200 Smooth Bore Oil Suction & Discharge 200 PSI Made In USA

Cover Color: Black
Oil Resistance: High

6

Construction:

Packaging:

Tube: NBR, RMA Class A - other elastomers available

upon request

Cover: CR

Reinforcement: Multiple plies of synthetic cord with wire

helix(es) embedded in the hose body

Flow Velocity:]50 Ft/Second maximum

Temperature Range: -20°F to +200°F -29°C to +93°C

100 ft. maximum

Couplings: Hand built – \$250.00 minimum order per size

Ends: Built-in

Built-in nipples through 12"I.D. Swaged couplings through 10"I.D.

Product Number	Nomir (inches)	nal I.D. (mm)	Nominal O.D. (inches) (mm)		Plies	Working (psi)	Pressure (Mpa)	Min. Ber (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
11434480502▲	4	101.60	5.00	127.00	4	200	1.38	24.00	609.60	6.00	8.93
11434482502▲	6	152.40	7.31	185.74	4	200	1.38	36.00	914.40	10.50	15.63
11434484502	8	203.20	9.63	244.48	4	200	1.38	48.00	1219.20	15.10	22.47
11434486502▲	10	254.00	11.88	301.63	6	200	1.38	60.00	1524.00	22.00	32.74
11434488502▲	12	304.80	14.03	356.39	6	200	1.38	72.00	1828.80	30.50	45.39

FOOD INDUSTRY





FISH SUCTION

Designed for the vacuum removal of fish from a ship's hold, our Fish Suction hose features a CR tube and cover that are cut and abrasion resistant. Available with a variety of ends, including enlarged, straight or BIN with flanges, it is rated at full vacuum as a result of its reinforced spring steel wire helix between multiple plies of reinforcement.



RESISTANCE

FATS

BRANDING Thermoid HBD Industries

Fish Suction Hose100 psi WP CR Tube

Made In USA

Cover Color: Black
Oil Resistance: Medium

Construction:

Tube: 1/4" CR Cover: CR

Reinforcement: Spring steel wire helix(es) spiraled between

multiple plies of polyester cord

Temperature Range: -40°F to +180°F

-40°C to +82°C

Packaging: Make To Order

Hand built – \$250.00 minimum order per size

Product Number	Nomin (inches)	nal I.D. (mm)	Nominal O.D. (inches) (mm)		Plies	Working Pressure (psi) (Mpa)		Min. Ber (inches)	nd Radius (mm)	Wei (lb/ft)	ight (Kg/m)
11465520502 🛦	8	203.20	9.63	244.48	4	100	0.69	80.00	2032.00	19.00	28.28
11465522502 🛦	10	254.00	12.00	304.80	5	100	0.69	100.00	2540.00	25.00	37.21
11465524502 🛦	12	304.80	14.13	358.78	6	100	0.69	120.00	3048.00	31.00	46.14

 \blacktriangle = Make To Order (MTO)

Thermoid®

TRANSPORTER® FOOD DISCHARGE

The Transporter Food Discharge hose has been designed to handle liquid products, including oily edibles. Meeting FDA requirements, its white nitrile tube will not impart taste or odor to the liquids being transferred, and its 100 ft. lengths help reduce connection problems.



RESISTANCE BRANDING FATS

Thermoid HBD Industries Transporter Food Discharge FDA Nitrile Tube Made In USA

Cover Color: Gray **Oil Resistance:** Limited

Construction:

Tube:RMA Class A/B, FDA White, NBRCover:Gray NBR/PVC with green stripe

Reinforcement: Synthetic textile plies
Temperature Range: -30°F to +200°F
-34°C to +93°C

Packaging: Packaging: 100 ft. lengths

Product			Nominal O.D.		Plies	Working Pressure		Min. Ben	d Radius	Wei	ight
Number	(inches)	(mm)	(inches)	(mm)	riies	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17752020002▲	2	50.80	2.41	61.12	2	150	1.03	n/a	n/a	0.80	1.19
17752025002▲	2-1/2	63.50	2.94	74.61	2	150	1.03	n/a	n/a	1.00	1.49
17752030002▲	3	76.20	3.44	87.31	2	150	1.03	n/a	n/a	1.20	1.79
17752040002▲	4	101.60	4.44	112.71	2	100	0.69	n/a	n/a	1.70	2.53



TRANSPORTER® FOOD SUCTION (WHITE CORRUGATED COVER)

The Transporter® Food Suction hose is designed to handle a wide variety of liquid products, including oily edibles. Meeting FDA requirements, its white nitrile tube will not impart taste or odor to the liquids being transferred. Its reinforcement of a spiral steel wire between synthetic textile plies allows this hose to perform at full vacuum, and its corrugated NBR/PVC cover is abrasion resistant, flexible and easy to handle.



RESISTANCE

FATS 🕝

BRANDING Thermo

Thermoid HBD Industries
Transporter Food Suction
White Nitrile Tube WP Made In USA

Cover Color: White Oil Resistance: Limited

Construction:

Tube: RMA Class A/B, FDA White, NBR

Cover: NBR/PVC Corrugated

Reinforcement: Spiral steel wire between synthetic textile plies

Temperature Range: $-30^{\circ}F$ to $+200^{\circ}F$ $-34^{\circ}C$ to $+93^{\circ}C$

Packaging: 100 ft. lengths; minimum run 1200 ft. per size

Product	Nomin	al I.D.	Nomin	al 0.D.	Plies	Working	Pressure	Min. Ben	d Radius	We	ight
Number	(inches)	(mm)	(inches)	(mm)	riies	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17751112502▲	1-1/4	31.75	1.81	46.04	2	150	1.03	4.00	101.60	0.80	1.19
17751115002▲	1-1/2	38.10	2.06	52.39	2	150	1.03	4.50	114.30	1.00	1.49
17751120002▲	2	50.80	2.56	65.09	2	150	1.03	6.00	152.40	1.20	1.79
17751125002▲	2-1/2	63.50	3.13	79.38	2	150	1.03	7.50	190.50	1.70	2.53
17751130002▲	3	76.20	3.63	92.08	2	150	1.03	9.00	228.60	2.10	3.13
17751140002▲	4	101.60	4.69	119.06	2	100	0.69	12.00	304.80	2.80	4.17

Thermoid®

TRANSPORTER® FOOD SUCTION (GREY SMOOTH COVER)

The Transporter® Food Suction hose is designed to handle a wide variety of liquid products, including oily edibles. Meeting FDA requirements, its white nitrile tube will not impart taste or odor to the liquids being transferred. Its reinforcement of a spiral steel wire between synthetic textile plies allows this hose to perform at full vacuum, and its smooth NBR/PVC cover is abrasion resistant.



RESISTANCE BRANDING

FATS 🐼

Thermoid HBD Industries
Transporter Food Suction

White Nitrile Tube WP Made In USA

Cover Color: Gray
Oil Resistance: Limited

Construction:

Tube: RMA Class A/B, FDA White, NBR Cover: Gray NBR/PVC Smooth

Reinforcement: Spiral steel wire between synthetic textile plies

Temperature Range: $-30^{\circ}F$ to $+200^{\circ}F$

-34°C to +93°C

Packaging: 100 ft. lengths

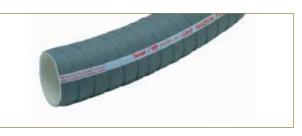
Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ight (Kg/m)
17750015002▲ 17750020002	1-1/2	38.10 50.80	2.06 2.56	52.39 65.09	2	150 150	1.03 1.03	4.50 6.00	114.30 152.40	1.00 1.20	1.49 1.79
17750020002	3	76.20	3.63	92.08	2	150	1.03	9.00	228.60	2.20	3.27
17750040002▲	4	101.60	4.69	119.06	2	100	0.69	12.00	304.80	2.90	4.32

 \blacktriangle = Make To Order (MTO)



TRANSPORTER® GRAY **SHADOW FOOD SUCTION**

This hose is designed to handle a wide variety of liquid products, including oily edibles. Meeting both FDA and USDA regulations, its white nitrile tube will not impart taste or odor to the liquids being transferred. Its dual wire helix in the multiple plies of reinforcement, maintains the roundness of the hose and enables its full vacuum rating, as well as a constant 150 psi working pressure on all sizes.



RESISTANCE 🙉 🐼 🥌 **BRANDING**

Thermoid/HBD Industries Inc. Gray Shadow Food 150 PSI WP Made In USA

Cover Color: Gray Oil Resistance: Limited

Construction:

Tube: Sizes 1-1/2", 2", 2-1/2" have a 3/32" thick tube

RMA Class A/B, NBR

Cover: NBR/PVC, gray, deep corrugations with a flat

hose exterior

Reinforcement: Multiple synthetic textile colors with dual

wire helix(es)

Temperature Range: -30°F to +200°F

-34°C to +93°C

Packaging: 100 ft. lengths; minimum run is 1200 ft.

per size

Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	ial O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
17751240002	1-1/2	38.10	2.19	55.56	2	150	1.03	3.00	76.20	1.20	1.79
17751250002	2	50.80	2.69	68.26	2	150	1.03	4.00	101.60	1.60	2.38
17751260002	2-1/2	63.50	3.22	81.76	2	150	1.03	5.00	127.00	2.00	2.98
17751270002	3	76.20	3.72	94.46	2	150	1.03	6.00	152.40	2.30	3.42
17751280002	4	101.60	4.80	121.84	2	150	1.03	8.00	203.20	3.40	5.06

Ihermoid[®]

TYPE 95 FOOD – GRAY COVER

The Type 95 Food hose has been engineered to handle sugar and flour bulk truck usage and other pneumatically conveyed non-fat food handling services. Capable of handling a vacuum rating of 15 inches of mercury, it can be used for plastic pellets and powders where contamination is a problem. This hose complies with current FDA regulations regarding aqueous foods, and depending on the application, this hose can be furnished with or without a static wire.



RESISTANCE **BRANDING**





Thermoid HBD Industries Type 95 Food Handling Hose Made In USA

Cover Color: Gray Oil Resistance: Limited

Construction: Tube:

Cover:

3/16" thick amber colored NR, non-toxic 1/16" thick gray SBR rubber — corrugated Reinforcement: Two to three plies of fabric with helical wire

 -40° F to $+160^{\circ}$ F **Temperature Range:**

-40°C to +71°C

Packaging: 50 ft. lengths maximum, for flour use 25 ft.

maximum

Hand built – \$250.00 minimum order per size Specify static ground wire, if required. Will be

built and grounded - no charge

Product Number	Nomin (inches)	nal I.D. (mm)	Nominal O.D. (inches) (mm)		Plies	Workin (psi)	g Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ght (Kg/m)
11454533502▲	3	75.20	3.88	98.43	2	15	0.10	18.00	457.20	2.20	3.27
11454534502▲	4	101.60	4.88	123.83	2	15	0.10	24.00	609.60	2.70	4.02
11454535502▲	5	127.00	6.00	152.40	3	15	0.10	30.00	762.00	3.40	5.06
11454536502▲	6	152.40	7.00	177.80	3	15	0.10	36.00	914.40	4.20	6.25



TYPE 96 FOOD – GRAY COVER

The Type 96 Food hose is the right hose for pneumatic handling of bulk, non-fat foods and gravity-drop service, and it can be used for handling plastic pellets and powders where contamination is a problem. This hose is excellent for plant process and switch lines and complies with FDA regulations for aqueous foods. It is designed to handle a vacuum rating of 15 inches of mercury and depending on the application, Type 96 Food hose can be furnished with or without a static wire.



RESISTANCE BRANDING



Thermoid HBD Industries Type 96 Food Handling Hose Made In USA

Cover Color: Gray
Oil Resistance: Limited

Construction: Tube:

Sizes 1-1/2", 2", 2-1/2" have a 3/32" thick tube

All other sizes have a 1/8" thick tube

Amber colored NR

Cover: Cover: 1/16" thick gray SBR rubber – corrugated Reinforcement: Two to three plies of fabric with

helical wire

Temperature Range: $-40^{\circ}F$ to $+160^{\circ}F$

-40°C to +71°C

Packaging: 50 ft. lengths maximum, for flour use 25 ft.

maximum

Hand built – \$250.00 minimum order per size Specify static ground wire, if required. Will be

built and grounded — no charge

Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ber (inches)	nd Radius (mm)	Wei (lb/ft)	ght (Kg/m)
11454468502▲	1-1/2	38.10	2.00	50.80	2	15	0.10	8.00	203.20	1.00	1.49
11454469502▲	2	50.80	2.50	63.50	2	15	0.10	10.00	254.00	1.10	1.64
11454470502	2-1/2	63.50	3.06	77.79	2	15	0.10	13.00	330.20	1.30	1.93
11454471502▲	3	76.20	3.63	92.08	2	15	0.10	15.00	381.00	1.50	2.23
11454472502▲	4	101.60	4.63	117.48	2	15	0.10	20.00	508.00	2.70	4.02
11454473502▲	5	127.00	5.69	144.46	2	15	0.10	25.00	635.00	3.30	4.91
11454474502▲	6	152.40	6.69	169.86	2	15	0.10	30.00	762.00	3.80	5.66
11454476502▲	8	203.20	8.75	222.25	2	15	0.10	40.00	1016.00	6.00	8.93

TYPE 120 FOOD – GRAY COVER

The Type 120 Food hose is designed for bulk truck discharge and pneumatic handling of non-fat food grade materials, plastic pellets and powders, and it complies with current FDA regulations. It can be furnished with or without a static wire and is available with straight or enlarged ends. Its natural rubber tube and SBR cover are both abrasion resistant, and in service, this hose will round out when fully pressurized.



RESISTANCE

FATS O

BRANDING Thermoid HBD Industries
Type 120 Food Handling Hose

Made In USA

Cover Color: Gray
Oil Resistance: Limited

Construction:

Tube: 1/8" thick amber colored NR-FDA
Cover: 1/16" thick gray SBR rubber
Reinforcement: Two plies of cord fabric
Temperature Range: -40°F to +160°F

-40°C to +71°C

Packaging: 50 ft. lengths maximum, for flour use 25 ft.

maximum

Hand built – \$250.00 minimum order per size

Product Number	Nominal I.D. (inches) (mm)	Nominal O.D. (inches) (mm)	Plies	Working Pressure (psi) (Mpa)	Min. Bend Radius (inches) (mm)	Weight (lb/ft) (Kg/m)
A	5 127.00	5.56 141.29	2	15 0.10	n/a n/a	2.50 3.72
A	6 152.40	6.56 166.69	2	15 0.10	n/a n/a	3.00 4.46

■ MATERIAL HANDLING



DREDGING SLEEVES

Recommended for the flexible connection between pipes used in dredging service, our Dredging Sleeve hose features a high strength polyester reinforcement that gives enables a high working pressure (125 psi) with less plies. Its SBR/NR tube and cover compound is highly abrasion resistant, and its SBR/EPDM cover is also weather resistant.



RESISTANCE BRANDING Thermoid HBD Industries Dredge Sleeves Made In USA

Cover Color: Black
Oil Resistance: Limited

Construction:

Tube:SBR/NR - 3/8" thickCover:SBR/EPDM - 3/32" thickReinforcement:High strength polyester cord

Temperature Range: $-40^{\circ}\text{F to} + 160^{\circ}\text{F}$

-40°C to +71°C

Packaging: 50 ft. lengths maximum

Hand built – \$250.00 minimum order per size

Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al 0.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ber (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
Hullibel	(IIICHE3)	(111111)	(IIICIIE3)	(111111)		(hai)	(Mpa)	(IIICIIC3)	(111111)	(10/11)	(Ng/111)
11444520502▲	4-1/2	114.30	5.88	149.23	4	125	0.86	45.00	1143.00	5.70	8.48
11444524502▲	6-5/8	168.28	8.00	203.20	4	125	0.86	66.25	1682.75	8.20	12.20
11444525502▲	8-5/8	219.08	10.19	258.76	6	125	0.86	86.25	2190.75	11.60	17.26
11444527502▲	10-3/4	273.05	12.31	312.74	6	125	0.86	107.50	2730.50	14.60	21.73
11444528502▲	12-3/4	323.85	14.50	368.30	8	125	0.86	127.50	3238.50	18.60	27.68
11444529502▲	14	355.60	15.88	403.23	8	125	0.86	140.00	3556.00	22.32	30.36
11444535502▲	16	406.40	17.75	450.85	10	125	0.86	160.00	4064.00	24.40	36.31
11444537502▲	18	457.20	20.00	508.00	12	125	0.86	180.00	4572.00	37.10	55.21
11444539502▲	20	508.00	22.25	565.15	14	125	0.86	200.00	5080.00	49.70	73.97
11444540502▲	24	609.60	27.50	698.50	18	125	0.86	240.00	6096.00	72.40	107.75

▲ = Make To Order (MTO)

ALERT: Large size, industrial hoses have caution and/or safety usage printed information attached by tag to the product or this information is printed onto the hose.

SAND SUCTION

Designed for severe suction service, sand, gravel and other abrasive materials, this hose provides a flexible member on the suction side of a dredge for ease of movement of the dredge ladder. It is available in a wide variety of sizes and two tube thicknesses (3/8" and 1/2"), all of which have excellent weathering abrasion resistance, and it has been designed to hold a vacuum rating of 30 inches of mercury for every size.



RESISTANCE



BRANDING

Thermoid HBD Industries
Sand Suction Made In USA

Cover Color: Black
Oil Resistance: Limited

Construction:

Tube: NR - 3/8" or 1/2" thick

Cover: SBR/EPDM

Reinforcement: Single steel helix spiralled between multiple

plies of high tensile square woven polyester

Temperature Range: $-40^{\circ}F$ to $+160^{\circ}F$

-40°C to +71°C

Packaging: 50 ft. lengths maximum

Hand built — \$250.00 minimum order per size

Ends: Built-in nipples, straight or enlarged

Straight only for 6-5/8", 8-5/8", 10-3/4" and

12-3/4"

3/8" Inner Tube, 30 Inch Hg. Vacuum

Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ber (inches)	nd Radius (mm)	Wei (lb/ft)	ght (Kg/m)
11444456502▲	6	152.40	7.88	200.03	5	125	0.86	60.00	1524.00	12.40	18.45
11444457502▲	6-5/8	168.28	8.56	242.89	5	125	0.86	66.25	1682.75	13.90	20.69
11444458502▲	8	203.20	10.00	254.00	5	125	0.86	80.00	2032.00	16.10	23.96
11444459502▲	8-5/8	219.08	10.69	271.46	6	125	0.86	86.25	2190.75	19.50	29.02
11444460502▲	10	254.00	12.25	311.15	6	125	0.86	100.00	2540.00	24.70	36.76
11444461502▲	10-3/4	273.05	13.00	330.20	6	125	0.86	107.50	2730.50	26.40	39.29
11444462502▲	12	304.80	14.31	363.54	7	125	0.86	120.00	3047.00	30.70	45.69
11444463502▲	12-3/4	323.85	15.06	382.59	7	125	0.86	127.50	3238.50	33.00	49.11
11444464502▲	14	355.60	16.44	417.51	8	125	0.86	140.00	3556.00	38.20	56.85
11444466502▲	16	406.40	18.63	473.08	9	125	0.86	160.00	4064.00	45.70	68.01
11444468502▲	18	457.20	20.75	527.05	10	125	0.86	180.00	4572.00	54.60	81.26
11444470502▲	20	508.00	23.06	585.79	11	125	0.86	200.00	5080.00	68.40	101.80

^{▲ =} Make To Order (MTO)

1/2" Inner Tube, 30 Inch Hg. Vacuum

Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
11444586502▲	6	152.40	8.13	206.38	5	125	0.86	60.00	1524.00	14.10	20.98
11444587502	6-5/8	168.28	8.81	249.24	5	125	0.86	66.25	1682.75	15.70	23.37
11444588502▲	8	203.20	10.25	260.35	5	125	0.86	80.00	2032.00	19.10	28.43
11444589502▲	8-5/8	219.08	11.00	279.40	6	125	0.86	86.25	2190.75	21.70	32.30
11444590502▲	10	254.00	12.50	317.50	6	125	0.86	100.00	2540.00	27.20	40.48
11444591502	10-3/4	273.05	13.25	336.55	6	125	0.86	107.50	2730.50	28.30	42.12
11444592502▲	12	304.80	14.63	371.48	7	125	0.86	120.00	3047.00	33.80	50.30
11444593502▲	12-3/4	323.85	15.38	390.53	7	125	0.86	127.50	3238.50	35.70	53.13
11444594502▲	14	355.60	16.69	423.86	8	125	0.86	140.00	3556.00	41.60	61.91
11444596502	16	406.40	18.94	481.01	9	125	0.86	160.00	4064.00	49.50	73.67
11444598502▲	18	457.20	21.00	533.40	10	125	0.86	180.00	4572.00	58.50	87.06
11444599502▲	20	508.00	23.38	593.73	11	125	0.86	200.00	5080.00	73.20	108.94

^{▲ =} Make To Order (MTO)

Ihermoid[®]

SAND & CEMENT DISCHARGE (BLACK COVER)

Designed for cement and concrete placement, as well as sand slurry discharge applications, this hose is available with two tube thicknesses (1/4" and 1/2") and a black SPR/EPDM cover, both of which offer superior abrasion, moisture, weathering and aging resistance. The 4 to 10 plies of reinforcement allow for a range of working pressures from 60 to 100 psi.



RESISTANCE 🐼 😂 😭 🔀 **BRANDING**





Thermoid HBD Industries Sand and Cement Discharge Made In USA

Cover Color: Black Oil Resistance: Limited

Construction:

Tube: SBR - 1/4" or 1/2" thick

SBR/EPDM Cover:

Wrapped construction with 4 to 10 plies of Reinforcement:

medium weight duck fabric

Temperature Range: -40°F to +160°F

-40°C to +71°C

Packaging: 50 ft. lengths maximum

Hand built – \$250.00 minimum order per size

Product	Nomir	nal I.D.	Nomin	al O.D.	Plies	Working	Pressure	Min. Ben	d Radius	Wei	ight
Number	(inches)	(mm)	(inches)	(mm)	riies	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11444632502▲	3	76.20	4.19	106.36	4	100	0.69	n/a	n/a	4.40	6.55
11444633502▲	4	101.60	5.19	131.76	4	75	0.52	n/a	n/a	5.60	8.33
11444634502▲	5	127.00	6.81	173.04	5	75	0.52	n/a	n/a	10.20	15.18
11444635502▲	6	152.40	7.81	198.44	5	75	0.52	n/a	n/a	11.90	17.71
11444636502▲	8	203.20	9.88	250.83	6	60	0.41	n/a	n/a	16.30	24.26
11444637502▲	10	254.00	12.13	307.98	8	60	0.41	n/a	n/a	23.90	35.57
11444638502▲	12	304.80	14.25	361.95	10	60	0.41	n/a	n/a	28.00	41.67



TRANSPORTER® HOT AIR **BLOWER**

Used for the transfer of hot air tanks on dry bulk material trucks, the Transporter® Hot Air Blower hose is designed to handle air supply service up to 150 psi. It features an EPDM tube and cover which offer excellent heat resistance and withstand the effects of ozone and weathering. Its construction resists customary transport conditions and the hose is rated at full vacuum.

101.60

4.63



RESISTANCE () 👀 🕡 **BRANDING**

Packaging:

150



Thermoid HBD Industries Hot Air Blower Made In USA. -20F to +350F

Cover Color: Brown Oil Resistance: Limited **Construction:**

EPDM Tube: **EPDM** Cover:

Reinforcement: Spiral steel wire helix(es) between synthetic

textile plies

Temperature Range: -30°F to +350°F

1.03

-34 C to +177°C 100 ft. maximum

12.00

304.80

2.51

3.64

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
17717025002▲	2-1/2	63.50	3.06	77.79	2	150	1.03	7.00	177.80	1.47	2.15
17717030002	3	76.20	3 56	90 <u>4</u> 9	2	150	1 03	9.00	228.60	1 72	2 49

117.48

TRANSPORTER® MATERIAL DISCHARGE

Our Transporter® Material Discharge hose is an incredibly versatile discharge hose, capable of handling non-oily edibles, organic acids and abrasive products. Its distinguishing blue SBR cover is abrasion and weather resistant and the hose features a 3/16" thick white natural rubber tube that meets all FDA requirements.



RESISTANCE





Thermoid HBD Industries Material Discharge FDA White Natural Rubber Tube WP Made In USA

Cover Color: Blue **Oil Resistance:** Limited

Construction:

Tube: NR, FDA white, nominal 3/16 "thick

Cover: SBR

Reinforcement: Multiple plies of synthetic cord and static wire

Temperature Range: -40°F to +160°F

-40°C to +71°C

Packaging: 100 ft. maximum

Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ght (Kg/m)
17772020002▲	2	50.80	2.69	68.26	2	150	1.03	n/a	n/a	1.20	1.79
17772030002▲	3	76.20	3.69	93.66	2	150	1.03	n/a	n/a	1.70	2.53
17772040002	4	101.60	4.69	119.06	2	100	0.69	n/a	n/a	2.40	3.57



TRANSPORTER® MATERIAL SUCTION

The Transporter® Material Suction hose is an extremely versatile suction hose that will handle non-oily edibles, organic acids and abrasive products. Its distinguishing blue SBR corrugated cover is abrasion and weather resistant, and the hose is rated at full vacuum and features a 3/16" thick white natural rubber tube that meets all FDA requirements.



RESISTANCE



BRANDING Thermoid HBD Industries
Material Suction FDA White
Natural Rubber Tube WP

Made In USA

Cover Color: Blue Oil Resistance: Limited

Construction:

Tube: NR, FDA white, nominal 3/16 "thick

Cover: SBR

Reinforcement: Multiple plies of synthetic cord and static wire

Temperature Range: $-40^{\circ}F$ to $+160^{\circ}F$ $-40^{\circ}C$ to $+71^{\circ}C$

Packaging: 100 ft. maximum

Product			Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
Number	(inches)	(mm)	(inches)	(mm)	riies	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17771115002▲	1-1/2	38.10	2.22	56.36	2	150	1.03	5.00	127.00	1.30	1.93
17771120002▲	2	50.80	2.75	69.85	2	150	1.03	7.00	177.80	1.60	2.38
17771125002▲	2-1/2	63.50	3.38	85.73	2	150	1.03	8.00	203.20	2.30	3.42
17771130002▲	3	76.20	3.88	98.43	2	150	1.03	9.00	228.60	2.70	4.02
17771140002▲	4	101.60	4.88	123.83	2	100	0.69	12.00	304.80	4.00	5.95

Ihermoid®

TRANSPORTER® OIL FIELD VACUUM

This economical, lightweight, rugged yet flexible hose is designed for the transfer of crude oil, brine water, drilling mud, and diluted solutions of hydrochloric acids and diesel fuels. It features a special fuel and oil resistant NBR/SBR blended compound that meets all the RMA IP-2, Class B oil resistance requirements. The reinforcement of multiple synthetic textile cords with a dual wire helix enables this hose to have a constant working pressure of 150 psi regardless of hose I.D.



RESISTANCE



BRANDING Thermo

Thermoid/HBD Industries, Inc. Transporter Oilfield Vacuum Service 150 PSI WP Not for Refined Fuels Made In USA

Cover Color: Black
Oil Resistance: Medium

Construction:

Tube: NBR/SBR, RMA IP-2, Class B Cover: SBR/EPDM, corrugated

Reinforcement: Multiple synthetic textile cords with dual wire

helix(es)

Temperature Range: $-30^{\circ}F$ to $+180^{\circ}F$

-34°C to +82°C

Packaging: Packaging: 100 ft. maximum

Product			Nominal O.D.		Plies	Working Pressure		Min. Bend Radius		Weight	
Number	(inches)	(mm)	(inches)	(mm)	riies	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17814461002	1-1/2	38.10	1.94	49.21	2	150	1.03	1.50	38.10	0.70	1.04
17814462002	2	50.80	2.44	61.91	2	150	1.03	2.00	50.80	0.90	1.34
17814463002▲	2-1/2	63.50	2.97	75.41	2	150	1.03	2.50	63.50	1.20	1.79
17814464002	3	76.20	3.47	88.11	2	150	1.03	3.00	76.20	1.40	2.08
17814465002	4	101.60	4.55	115.49	2	150	1.03	4.00	101.60	2.30	3.42



TRANSPORTER® PLASTER & CONCRETE

The Transporter® Plaster and Concrete hose is designed for rugged service in conveying concrete, grout and plaster-like materials being pumped to construction placement sites at high pressure. This hose features an SBR/NR tube that is static dissipative and abrasion resistant. Its black SBR/ EPDM cover is abrasion, weather and ozone resistant.



BRANDING





Thermoid HBD Industries Plaster and Concrete "XXX" PSI Made In USA

Cover Color: Black Oil Resistance: Limited

Construction: Tube:

Cover:

SBR/NR SBR/EPDM

Multiple plies of high strength polyester Reinforcement:

Temperature Range: -40°F to +160°F -40°C to +71°C

Packaging: 100 ft. maximum

Product Number	Nominal I.D. (inches) (mm)		Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ight (Kg/m)
17779500002▲	1-1/4	31.75	1.88	47.63	4	1,233	8.50	11.00	279.40	0.90	1.34
17779510002▲	1-1/2	38.10	2.28	57.94	4	1,233	8.50	13.50	342.90	1.30	1.93
17779515002▲	2	50.80	2.81	71.44	4	1,233	8.50	18.00	457.20	1.70	2.53
17779520002▲	2-1/2	63.50	3.50	88.90	6	1,233	8.50	20.00	508.00	2.50	3.72

 \blacktriangle = Make To Order (MTO)

TRANSPORTER® TYPE 120 DRY CEMENT

The Transporter® Type 120 Dry Cement hose is recommended for the unloading of dry bulk cement from trailer to storage silo by means of air pressure created in the trailer tank. It is static conductive and features a collapsible construction for easier handling and clean-up. The tube compound of SBR/NR blend resists the abrasive action of cement.



RESISTANCE BRANDING

Thermoid HBD Industries Tube Size Type 120 Dry Cement/Dry Material Made In USA

Cover Color: Black **Oil Resistance:** Limited

Construction:

Tube: SBR/NR

Cover: SBR/EPDM, 1/16" thick Reinforcement: Two plies of cord fabric -40°F to +160°F -40°C to +71°C

Packaging: 100 ft. maximum

Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ight (Kg/m)
17774454002	4	101.60	4.44	112.71	2	50	0.34	n/a	n/a	1.50	2.23
17774456002	4	101.60	4.56	115.89	2	50	0.34	n/a	n/a	2.00	2.98
17774458002	4	101.60	4.70	119.46	2	50	0.34	n/a	n/a	2.60	3.87

Product Number	Tube Thickness (nominal)
17774454002	1/8
17774456002	3/16
17774458002	1/4

Consult coupling manufacturers for specific coupling recommendations/attachment procedures.



TYPE 101 MATERIAL HANDLING – BLACK COVER

The Type 101 Material Handling hose was designed to handle applications in which a vacuum rating of 20 inches of Hg is required for discharge of open-end services, as well as the handling of airsuspended materials such as hay, silage, canning waste, dried leaves and street litter. It is lightweight, extremely easy to handle, provides a working pressure of 10 to 20 psi and is available with straight or enlarged ends.



RESISTANCE

D 6

BRANDING

Thermoid HBD Industries
Type 101 Material Handling
Made In USA

Cover Color: Black **Oil Resistance:** Limited

Construction: Tube:

SBR/NR - 1/16" thick SBR/EPDM - corrugated

Cover: SBR/EPDM - corrugated
Reinforcement: One wrapped ply of very lightweight fabric.

Steel helix(es) wire resists collapse. Extra ply reinforcement at the ends. Standard 3" long straight blank ends.

Temperature Range: $-40^{\circ}F$ to $+160^{\circ}F$

-40°C to +71°C

Packaging: 30 ft. lengths maximum

Hand built – \$250.00 minimum order per size

Product Number	Nomin (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
11470020502▲	2	50.80	2.50	63.50	1	20	0.14	6.00	152.40	0.60	0.89
11470025502▲	2-1/2	63.50	3.00	76.20	1	20	0.14	8.00	203.20	0.70	1.04
11470030502	3	76.20	3.50	88.90	1	20	0.14	9.00	228.60	0.80	1.19
11470035502▲	3-1/2	88.90	4.00	101.60	1	20	0.14	11.00	279.40	1.00	1.49
11470040502▲	4	101.60	4.50	114.30	1	20	0.14	12.00	304.80	1.10	1.64
11470050502▲	5	127.00	5.50	139.70	1	15	0.10	15.00	381.00	1.30	1.93
11470060502▲	6	152.40	6.50	165.10	1	15	0.10	18.00	457.20	1.60	2.38
11470080502▲	8	203.20	8.50	215.90	1	15	0.10	24.00	609.60	2.30	3.42
11470100502▲	10	254.00	10.50	266.70	1	10	0.07	30.00	762.00	2.90	4.32
11470120502▲	12	304.80	12.50	317.50	1	10	0.07	36.00	914.40	3.50	5.21
11470140502▲	14	355.60	14.50	368.30	1	10	0.07	42.00	1066.80	4.30	6.40
11470160502▲	16	406.40	16.50	419.10	1	10	0.07	48.00	1219.20	5.20	7.74

TYPE 102 MATERIAL HANDLING

The Type 102 Material Handling hose is used in those areas where those applications require either a full vacuum rating or 150 psi working pressure. This hose has been specifically designed for compatibility with two-piece aluminum coupling for ease of field installation. The reinforcement of polyester plies with a helical wire allows the Type 102 Material Handling hose to resist crushing, kinking or collapsing.



RESISTANCE BRANDING



Thermoid HBD Industries
Type 102 Material Handling
Made In USA

Cover Color: Black
Oil Resistance: Limited

Construction:

Tube: NR - tan. 40 durometer Cover: SBR/EPDM - corrugated

Reinforcement: Wrapped construction with polyester plies and a

steel wire helix(es)

Temperature Range: $-40^{\circ}F$ to $+160^{\circ}F$

-40°C to +71°C

Packaging: 30 ft. lengths maximum

Hand built – \$250.00 minimum order per size

Product Number	Nomir (inches)	` ' ` '		al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ber (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
11476003502▲	3	76.20	4.50	114.30	3	150	1.03	18.00	457.20	5.10	7.59
11476004502▲	4	101.60	5.25	133.35	3	150	1.03	24.00	609.60	5.50	8.19
11476005502▲	5	127.00	6.44	163.51	3	150	1.03	30.00	762.00	8.00	11.91
11476006502▲	6	152.40	7.50	190.50	4	150	1.03	36.00	914.40	11.40	16.97
11476007502▲	8	203.20	9.50	241.30	4	150	1.03	48.00	1219.20	16.00	23.81
11476010502▲	10	254.00	11.50	292.10	4	150	1.03	60.00	1524.00	19.80	29.47
11476012502	12	304.80	13.50	342.90	4	150	1.03	72.00	1828.80	24.20	36.02

 \blacktriangle = Make To Order (MTO)



TYPE 103 EXHAUST (BLACK COVER)

The Type 103 Exhaust hose is recommended for full vacuum and low pressure discharge service for exhausting toxic and corrosive fumes from working areas. While not designed to carry abrasives, the wrapped construction with two to four plies of medium weight, loosely woven fabric and steel wire helix allows this hose to resist crushing, kinking or collapsing. This hose features a corrugated construction which makes it very flexible, and it is available with straight or enlarged ends depending on the application.



RESISTANCE

D 6

BRANDING

Thermoid HBD Industries Type 103 Exhaust Made In USA

Cover Color: Black **Oil Resistance:** Limited

Construction: Tube:

SBR/NR - 3/64" thick SBR/EPDM - corrugated

Cover: SBR/EPDM - corrugated
Reinforcement: Wrapped construction with two to four plies

with a helical wire

Temperature Range: $-40^{\circ}F$ to $+160^{\circ}F$

-40°C to +71°C

Packaging: 50 ft. lengths maximum

Hand built – \$250.00 minimum order per size

Product Number	Nomin (inches)			al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ght (Kg/m)
11474020502▲	2	50.80	2.50	63.50	2	25	0.17	12.00	304.80	0.90	1.34
11474025502▲	2-1/2	63.50	3.00	76.20	2	25	0.17	15.00	381.00	1.20	1.79
11474030502▲	3	76.20	3.50	88.90	2	25	0.17	18.00	457.20	1.40	2.08
11474035502▲	3-1/2	88.90	4.00	101.60	2	25	0.17	21.00	533.40	1.80	2.68
11474040502▲	4	101.60	4.50	114.30	2	25	0.17	24.00	609.60	2.00	2.98
11474050502▲	5	127.00	5.75	146.05	3	25	0.17	30.00	762.00	2.80	4.17
11474060502▲	6	152.40	6.75	171.45	3	25	0.17	36.00	914.40	3.30	4.91
11474080502▲	8	203.20	8.75	222.25	3	25	0.17	48.00	1219.20	4.90	7.29
11474100502▲	10	254.00	10.94	277.81	4	25	0.17	60.00	1524.00	7.00	10.42
11474120502▲	12	304.80	12.94	328.61	4	25	0.17	72.00	1828.80	8.70	12.95
11474140502	14	355.60	14.94	379.41	4	25	0.17	84.00	2133.60	10.10	15.03
11474160502▲	16	406.40	16.94	430.21	4	25	0.17	96.00	2438.40	11.50	17.11

TYPE 105 COLLECTOR (BLACK COVER)

The Type 105 Collector hose has been designed for applications that require full vacuum and low pressure discharge service to conduct dust and abrasive materials suspended in the air, as well as the handling of dust collectors, metal machining tools, graphite, marble chipping tools and some grains. Featuring a wrapped construction with either two or four plies of medium weight, loosely woven fabric and a helical steel wire, this hose easily resists crushing, kinking or collapsing.



RESISTANCE BRANDING



Thermoid HBD Industries Type 105 Collector Made In USA

Cover Color: Black **Oil Resistance:** Limited

Construction:

Tube: SBR/NR - 1/8" thick Cover: SBR/NR - corrugated

Reinforcement: Wrapped construction with two to four plies

with a helical wire

Temperature Range: -40°F to +160°F

-40°C to +71°C

Packaging: 50 ft. lengths maximum

Hand built – \$250.00 minimum order per size

Product	Nomir	nal I.D.	Nomin	al 0.D.	Plies	Working	Pressure	Min. Ber	ıd Radius	Wei	ight
Number	(inches)	(mm)	(inches)	(mm)	riies	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11474660502▲	2	50.80	2.75	69.85	2	25	0.17	12.00	304.80	1.20	1.79
11474661502▲	2-1/2	63.50	3.25	82.55	2	25	0.17	15.00	381.00	1.50	2.23
11474662502▲	3	76.20	3.75	95.25	2	25	0.17	18.00	457.20	1.80	2.68
11474657502▲	3-1/2	88.90	4.25	107.95	2	25	0.17	21.00	533.40	2.00	2.98
11474664502▲	4	101.60	4.75	120.65	2	25	0.17	24.00	609.60	2.40	3.57
11474665502▲	5	127.00	5.88	149.23	3	25	0.17	30.00	762.00	3.30	4.91
11474666502▲	6	152.40	6.88	174.63	3	25	0.17	36.00	914.40	4.00	5.95
11474668502▲	8	203.20	8.88	225.43	3	25	0.17	48.00	1219.20	5.80	8.63
11474670502▲	10	254.00	11.13	282.58	4	25	0.17	60.00	1524.00	8.10	12.05
11474672502▲	12	304.80	13.13	333.38	4	25	0.17	72.00	1828.80	10.00	14.88
11474674502▲	14	355.60	15.13	384.18	4	25	0.17	84.00	2133.60	11.60	17.26
11474676502▲	16	406.40	17.18	434.98	4	25	0.17	96.00	2438.40	13.20	19.65



CONVERTAPIPE® (BLACK COVER)

Convertapipe® is a flexible rubber hose used for process piping in suction or discharge service. It is frequently used for handling ore in water suspension, dry or water suspended grain, chemicals, metal shavings, wood particles, fish, shells and some sand and gravel. Rated at full vacuum, Convertapipe® features a black SBR/EPDM cover that is resistant to snagging, abrasion and weather aging. It is available in a variety of tube gauges, compounds and end types.



RESISTANCE **BRANDING**

Thermoid HBD Industries Convertapipe WP Made In USA

Cover Color: Black Oil Resistance: Limited Construction:

> SBR/NR Tube: SBR/EPDM Cover:

Cover Thickness: 25 lb. WP and 50 lb. WP - 3/64"

75 lb. through 250 lb. - 1/16"

For other thicknesses, contact Salisbury for details Reinforcement: Square woven fabric plies with helical wire(s)

embedded in a cushion of rubber

Temperature Range: -40°F to +160°F

-40°C to +71°C

Make to Order (MTO), minimum order \$250.00 Packaging:

Contact Salisbury for details

Type Ends:

4. Flexseal™ 1. Straight 5. Built-In Nipple 2. Enlarged Flexlock™ 6. Soft Cuffs

1/4" Tube	Nomin (inches)	nal I.D. (mm)	Nomin (inches)	nal O.D. (mm)	Fits Over	Pipe I.D. (mm)		Ту	pe End:	5	Min. Ben	d Radius (mm)	Wei (lb/ft)	ght (Kg/m)
	1	25.40	1.94	49.21			1	2			25	0.17	1.20	1.79
	1-1/2	38.10	2.44	61.91			1	2	3		25	0.17	1.70	2.53
	2	50.80	3.00	76.20			i	2	3	5	25	0.17	2.70	4.02
	2-3/8	60.33	3.38	85.73	2	50.80	1	_			25	0.17	2.70	4.02
	2-1/2	63.50	3.50	88.90			1	2	3	5	25	0.17	2.80	4.17
	2-7/8	73.03	3.88	98.43	2-1/2	63.50	1				25	0.17	3.20	4.76
	3	76.20	4.06	103.19			1	2	3	5	25	0.17	3.70	5.51
	3-1/2	88.90	4.56	115.89	3	76.20	1	2	3	5	25	0.17	4.10	6.10
	4	101.60	5.06	128.59			1	2	3	5	25	0.17	5.00	7.44
	4-1/2	114.30	5.56	141.29	4	101.60	1				25	0.17	5.50	8.18
	5	127.00	6.25	158.75			1	2	3	5	25	0.17	6.10	9.08
	6	152.40	7.31	185.74			1	2	3	5	25	0.17	8.10	12.05
	6-5/8	168.28	7.94	201.61	6	152.40	1				25	0.17	8.60	12.80
	8	203.20	9.44	239.71			1	2	3	5	25	0.17	10.80	16.07
	8-5/8	219.08	10.06	255.59	8	203.20	1				25	0.17	11.80	17.56
	10	254.00	11.50	292.10			1	2	3	5	25	0.17	14.60	21.72
	10-3/4	273.05	12.25	311.15	10	254.00	1				25	0.17	16.90	25.15
	12	304.80	13.56	344.49			1	2	3	5	25	0.17	18.20	27.08
	12-3/4	323.85	14.31	363.54	12	304.80	1				25	0.17	21.00	31.25
	14	355.60	15.81	401.64	14" OD	355.60	1		3	5	25	0.17	25.10	37.35
	16	406.40	17.81	458.79	16" OD	406.40	1		3	5	25	0.17	31.80	47.31



1/4" Tube	Nomin (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Fits Over (inches)	Pipe I.D. (mm)		Ту	pe Ends		Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ght (Kg/m)
	1	25.40	1.94	49.21			1	2			50	0.35	1.20	1.79
	1-1/2	38.10	2.44	61.91			1	2	3		50	0.35	1.70	2.53
	2	50.80	3.00	76.20			1	2	3	5	50	0.35	2.50	3.72
	2-3/8	60.33	3.38	85.73	2	50.80	1				50	0.35	2.80	4.17
	2-1/2	63.50	3.50	88.90			1	2	3	5	50	0.35	3.00	4.46
	2-7/8	73.03	3.88	98.43	2-1/2	63.50	1				50	0.35	3.50	5.21
	3	76.20	4.06	103.19			1	2	3	5	50	0.35	3.70	5.51
	3-1/2	88.90	4.56	115.89	3	76.20	1	2	3	5	50	0.35	4.00	5.95
	4	101.60	5.06	128.59			1	2	3	5	50	0.35	4.90	7.29
	4-1/2	114.30	5.56	141.29	4	101.60	1				50	0.35	5.50	8.18
	5	127.00	6.25	158.75			1	2	3	5	50	0.35	6.30	9.37
	6	152.40	7.31	185.74			1	2	3	5	50	0.35	8.10	12.05
	6-5/8	168.28	8.13	206.38	6	152.40	1				50	0.35	8.90	13.24
	8	203.20	9.44	239.71			1	2	3	5	50	0.35	11.20	16.66
	8-5/8	219.08	10.06	255.59	8	203.20	1				50	0.35	13.10	19.49
	10	254.00	11.50	292.10			1	2	3	5	50	0.35	15.70	23.36
	10-3/4	273.05	12.31	312.74	10	254.00	1				50	0.35	17.00	25.29
	12	304.80	13.63	346.08			1	2	3	5	50	0.35	19.20	28.57
	12-3/4	323.85	14.38	365.13	12	304.80	1				50	0.35	19.80	29.46
	14	355.60	15.81	401.64	14" OD	355.60	1		3	5	50	0.35	25.10	37.35
	16	406.40	17.81	452.44	16" OD	406.40	1		3	5	50	0.35	31.90	47.46

1/4″ Tube	Nomin (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Fits Over (inches)	Pipe I.D. (mm)		Ту	pe E	nds		Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ght (Kg/m)
	1	25.40	1.94	49.21		, ,	1	2		4		75	0.52	1.20	1.79
	1-1/2	38.10	2.44	61.91			1	2	3			75 75	0.52	1.70	2.53
	2	50.80	3.06	77.79			1	2	3		5	75	0.52	2.70	4.02
	2-3/8	60.33	3.44	87.31	2	50.80	1	_				75	0.52	3.00	4.46
	2-1/2	63.50	3.56	90.49			1	2	3		5	75	0.52	3.20	4.76
	2-7/8	73.03	3.94	100.01	2-1/2	63.50						75	0.52	3.50	5.21
	3	76.20	4.13	104.78			1	2	3		5	75	0.52	3.70	5.51
	3-1/2	88.90	4.63	117.48	3	76.20	1	2	3		5	75	0.52	4.10	6.10
	4	101.60	5.19	131.76			1	2	3		5	75	0.52	5.30	7.89
	4-1/2	114.30	5.69	144.46	4	101.60	1					75	0.52	5.80	8.63
	5	127.00	6.25	158.75			1	2	3		5	75	0.52	6.40	9.52
	6	152.40	7.38	187.33			1	2	3		5	75	0.52	8.40	12.50
	6-5/8	168.28	8.13	206.38	6	152.40	1					75	0.52	9.40	13.99
	8	203.20	9.44	239.71			1	2	3		5	75	0.52	11.90	17.71
	8-5/8	219.08	10.06	255.59	8	203.20	1					75	0.52	13.80	20.53
	10	254.00	11.56	293.69			1	2	3		5	75	0.52	16.40	24.40
	10-3/4	273.05	12.31	312.74	10	254.00	1					75	0.52	18.10	26.93
	12	304.80	13.75	349.25			1	2	3		5	75	0.52	23.80	35.41
	12-3/4	323.85	14.50	368.30	12	304.80	1					75	0.52	25.70	38.24
	14	355.60	16.00	406.40	14" OD	355.60	1		3		5	75	0.52	30.90	45.98
	16	406.40	18.06	458.79	16" OD	406.40	1		3		5	75	0.52	42.40	63.09



CONVERTAPIPE® (BLACK COVER) (CONTINUED)

1/4" Tube	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Fits Over (inches)	Pipe I.D. (mm)		Ту	pe Ends		Min. Beno (inches)	l Radius (mm)	Wei (lb/ft)	ght (Kg/m)
	1	25.40	1.94	49.21			1	2			100	0.69	1.20	1.79
	1-1/2	38.10	2.44	61.91			1	2			100	0.69	1.60	2.38
	2	50.80	3.06	77.79			1	2		5	100	0.69	2.70	4.02
	2-3/8	60.33	3.44	87.31			1				100	0.69	2.80	4.17
	2-1/2	63.50	3.56	90.49			1	2		5	100	0.69	3.10	4.61
	2-7/8	73.03	3.94	100.01	2-1/2	63.50	1				100	0.69	3.30	4.91
	3	76.20	4.19	106.36			1	2		5	100	0.69	3.70	5.51
	3-1/2	88.90	4.69	119.06	3	76.20	1	2		5	100	0.69	4.10	6.10
	4	101.60	5.19	131.76			1	2		5	100	0.69	5.20	7.74
	4-1/2	114.30	5.69	144.46	4	101.60	1				100	0.69	5.80	8.63
	5	127.00	6.31	160.34			1	2		5	100	0.69	6.40	9.52
	6	152.40	7.38	187.33			1	2		5	100	0.69	8.70	12.94
	6-5/8	168.28	8.13	206.38	6	152.40	1				100	0.69	9.50	14.13
	8	203.20	9.56	242.89			1	2		5	100	0.69	12.50	18.60
	8-5/8	219.08	10.19	258.76	8	203.20	1				100	0.69	13.90	20.68
	10	254.00	11.69	296.86			1	2		5	100	0.69	17.50	26.04
	10-3/4	273.05	12.44	315.91	10	254.00	1				100	0.69	18.70	27.82
	12	304.80	13.88	352.43			1	2		5	100	0.69	25.30	37.64
	12-3/4	323.85	14.63	371.48	12	304.80	1				100	0.69	25.80	38.39
	14	355.60	16.13	409.58	14" OD	355.60	1			5	100	0.69	31.10	46.27
	16	406.40	18.31	465.14	16" OD	406.40	1			5	100	0.69	42.50	63.24

1/4″ Tube	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Fits Over (inches)	Pipe I.D. (mm)		Ту	pe Ends		Min. Beno (inches)	d Radius (mm)	Wei (lb/ft)	ght (Kg/m)
	1-1/2	38.10	2.56	65.09			1	2			150	1.03	2.00	2.98
	2	50.80	3.06	77.79			1	2	3	5	150	1.03	2.60	3.87
	2-3/8	60.33	3.44	87.31	2		1				150	1.03	3.00	4.46
	2-1/2	63.50	3.56	90.49			1	2	3	5	150	1.03	3.10	4.61
	2-7/8	73.03	3.94	100.01	2-1/2	63.50	1				150	1.03	3.50	5.21
	3	76.20	4.25	107.95			1	2	3	5	150	1.03	3.60	5.36
	3-1/2	88.90	4.75	120.65	3	76.20	1	2	3	5	150	1.03	4.10	6.10
	4	101.60	5.31	134.94			1	2	3	5	150	1.03	5.80	8.63
	4-1/2	114.30	5.81	147.64	4	101.60	1				150	1.03	6.60	9.82
	5	127.00	6.44	163.51			1	2	3	5	150	1.03	7.10	10.56
	6	152.40	7.56	192.09			1	2	3	5	150	1.03	9.50	14.13
	6-5/8	168.28	8.19	207.96	6	152.40	1				150	1.03	10.50	15.62
	8	203.20	9.81	249.24			1	2	3	5	150	1.03	14.80	22.02
	8-5/8	219.08	10.44	265.11	8	203.20	1				150	1.03	16.30	24.25
	10	254.00	12.06	306.39			1	2	3	5	150	1.03	20.00	29.76
	10-3/4	273.05	12.81	325.44	10	254.00	1				150	1.03	22.10	32.88
	12	304.80	14.31	363.54			1			5	150	1.03	28.90	43.00
	12-3/4	323.85	15.06	382.59	12	304.80	1				150	1.03	30.40	45.23
	14	355.60	16.56	420.69	14" OD	355.60	1			5	150	1.03	36.20	53.86

1/4" Tube	Nominal I.D. (inches) (mm)		Nomin (inches)	al O.D. (mm)	Fits Over (inches)	Pipe I.D. (mm)	Type Ends		pe Ends Min. Bend Radius (inches) (mm		Weight (lb/ft) (Kg/m)	
	2	50.80						5	250	1.72	12.00	17.85
	2-1/2	63.50						5	250	1.72	21.80	32.44
	3	76.20						5	250	1.72	27.20	40.47
	4	101.60						5	250	1.72	32.90	48.95
	5	127.00						5	250	1.72	39.70	59.07

FLEXLOCK™ ENDS (FULL FACE FLANGES)

Flexlock™ Ends are a Thermoid patented method of joining hoses that produces a flexible, strong rubber-to-rubber seal that eliminates the need for a gasket. It is a rubber flange, reinforced with heavy hose fabric that forms a continuation of the hose tube and is backed by a solid steel ring with either 150 lb. or 300 lb. drilling.

Offering a rubber seal, any metal contact with the contents of the hose is eliminated.

Nomir	nal I.D.	Working	Pressure
(inches)	(mm)	(psi)	(Mpa)
1-1/2" to 10"	38.1 to 254	150	1.03
12	304.80	125	0.86
14	355.60	90	0.62
16	406.40	90	0.62
18	457.20	75	0.52
20	508.00	75	0.52



RESISTANCE Varies

BRANDING Duck & Rubber Ends

Cover Color: N/A

Oil Resistance: Varies, depending on polymer used in compound

Construction:

Tube: N/A Cover: N/A Reinforcement: N/A

Temperature Range: Varies, depending on polymer used in compound

Packaging: Hand built – \$250.00 minimum order per size



FLEXLOCK™ CONNECTORS

Flexlock™ Connectors are short lengths of hose designed to join metal piping. Made of thick flexible rubber, they absorb vibrations and prevent the transmission of noise and damaging vibrations through the metal pipes, thereby extending the life of pumps, controls, valves and other equipment. Flexlock™ Connectors are designed for working pressures from 100 to 150 psi with a natural rubber tube that is abrasion and acid resistant.

		Non-wire	Reinforced	Wire Re	nforced
Nomin (inches)	nal I.D. (mm)	Working (psi)	Pressure (Mpa)	Working (psi)	Pressure (Mpa)
1-1/2	38.10	150	1.03	150	1.03
2	50.80	150	1.03	150	1.03
2-1/2	63.50	150	1.03	150	1.03
3	76.20	100	0.69	150	1.03
4	101.60	100	0.69	150	1.03
5	127.00	100	0.69	150	1.03
6	152.40	100	0.69	150	1.03
8	203.20	100	0.69	150	1.03
10	254.00	100	0.69	150	1.03
12	304.80	100	0.69	100	0.69



Cover Color: N/A
Oil Resistance: Limited

Construction:

Tube: Natural rubber, 3/16" thick

Cover: SBR Reinforcement: N/A

Temperature Range: -40° to +160°F

-40°C to +71°C

Packaging: Hand built – \$250.00 minimum order per size

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FLEXSEAL™ ENDS (BEADED ENDS)

Flexseal™ Ends were designed for use in applications that require the joining of one hose to another that carries acids and other chemicals, abrasive materials and fluids that must be kept uncontaminated by metals. Two Flexseal™ Ends can be joined together without twisting the hose, but rather inserting bolts and drawing them tight, thus compressing the rubber hose ends together, making a leak proof seal.

Nomin	ial I.D.	Working	Pressure
(inches)	(mm)	(psi)	(Mpa)
1-1/2" to 10"	38.1 to 254	100	0.69
12	304.80	70	0.48
14	355.60	60	0.41
18	457.20	50	0.34
20	508.00	50	0.34



RESISTANCE Varies **Beaded Ends BRANDING**

Cover Color: N/A

Oil Resistance: Varies, depending on polymer used in compound

Construction:

Tube: N/A Cover: Reinforcement: N/A

Temperature Range: Varies, depending on polymer used in compound

Hand built – \$250.00 minimum order per size Packaging:



FLEXSEAL™ CONNECTORS (BEADED CONNECTORS)

Flexseal™ Connectors are short lengths of hose used to join metal piping, resulting in the placement of non-rigid couplings into the lines. Made of thick flexible rubber, they absorb vibrations and prevent the transmission of noise and damaging vibrations through the metal pipes, thereby extending the life of pumps, controls, valves and other equipment. These connectors allow full flow in the pipeline and prevent contact between metal and the material inside the hose.

		Non-wire	Reinforced	Wire Re	inforced		
Nomii (inches)	nal I.D. (mm)	Working (psi)	Pressure (Mpa)	Working Pressure (psi) (Mpa)			
1-1/2	38.10	100	0.69	100	0.69		
2	50.80	100	0.69	100	0.69		
2-1/2	63.50	100	0.69	100	0.69		
3	76.20	75	0.52	75	0.52		
4	101.60	75	0.52	75	0.52		
5	127.00	70	0.48	60	0.41		
6	152.40	60	0.41	50	0.34		
8	203.20	50	0.34	50	0.34		
10	254.00	50	0.34	50	0.34		
12	304.80	50	0.34	50	0.34		



Cover Color: N/A
Oil Resistance: Limited
Construction:

Tube: Natural rubber, 3/16" thick

Cover: SBR Reinforcement: N/A

Temperature Range: -40°F to +160°F

-40°C to +71°C

Packaging: Hand built – \$250.00 minimum order per size

PETROLEUM/LPG





BOTTOM LOADING

This hose is engineered specifically for bottom loading, high pressure tank truck service. The Bottom Loading hose is rated at full vacuum and its black CR cover has excellent resistance to abrasion, weathering and ozone, while its NBR tube is resistant to oil. Construction of this hose has been stabilized to prevent elongation during service.



BRANDING





Cover Color: Black Oil Resistance: High

Construction:

Tube: NBR with an aromatic range up to 55%

Cover:

Reinforcement: Tire cord with dual wire helix(es)

-20°F to +200°F **Temperature Range:**

-29°C to +93°C

Packaging: 100 ft. maximum. Minimum run of 1200 ft.

per size.

Product Number	Nominal I.D. (inches) (mm)		Nominal O.D. (inches) (mm)		Plies	Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		We (lb/ft)	Weight (lb/ft) (Kg/m)	
17811503002▲	3	76.20	3.75	95.25	4	250	1.72	12.00	304.80	2.30	3.42	
17811504002▲	4	101.60	4.88	123.83	4	250	1.72	18.00	457.20	3.51	5.22	

▲ = Make To Order (MTO)

ALERT: Large size, industrial hoses have caution and/or safety usage printed information attached by tag to the product or this information is printed onto the hose.

THERMOID® FUEL OIL **DELIVERY**

Thermoid Fuel Oil Delivery hose is designed for the delivery and transfer of a wide variety of fuels, oils, and other petroleum-based products for home delivery, marine, commercial and industrial service*. This hose's unique spiral construction adds strength and flexibility to the hose while making it easy to handle, kink resistant and its smooth, durable cover resists oil and abrasion plus is less resistant to dragging. These tough features help make Thermoid, the driver's choice for fuel oil delivery hose.

Note: A static wire is included on all sizes as a safety precaution

* Compatible fuels are kerosene, commercial unleaded gasoline and ethanol blends (up to E-85), diesel, Bio-diesel and Bio-diesel blends (based on bio-diesel fuel equivalent to ASTM D 6751.



RESISTANCE 6 6 6

Thermoid Fuel Oil Hose WP 250 **BRANDING** PSI Made In USA Month/Year

Cover Color: Red Oil Resistance: High

Construction: Tube:

Cover:

NBR, RMA Class A NBR/PVC, RMA Class A

Reinforcement: High tensile spiral polyester cord Fuel Oils -40°F (-40°C) to +150°F (+70°C) Temperature Range:

Gasoline/Gasoline Blends -40°F (-40°C) to

+104°F (40°C)

Packaging: Reels

Use in Gasoline or Ethanol Blend Applications

+104°F (40°C) is not recommended

Reels (Thermocure)

Product Number	(inches) (mm) (inch		Nomin (inches)	al O.D. Reinforcement (mm) Spirals		Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		Weight (lb/ft) (Kg/m)	
22564642662	1	25.40	1.50	38.10	4	250	1.72	7.00	177.80	0.47	0.70
22564802662	1-1/4	31.75	1.78	45.24	4	250	1.72	8.75	222.25	0.59	0.88
22564882662	1-3/8	34.93	1.88	47.63	4	250	1.72	9.25	234.95	0.65	0.97
22564962662	1-1/2	38.10	2.09	53.18	4	250	1.72	10.50	266.70	0.80	1.19

Cut and Coupled Lengths

Product	Number	Nomi	nal I.D.	Lend	ıths
Uncoupled	Coupled	(inches)	(mm)	(feet)	(meters)
22564642102	22564642111	1	25.40	100.00	30.48
22564642122	22564642131	1	25.40	125.00	38.10
22564642152	22564642141	1	25.40	150.00	45.72
22564642172	22564642171	1	25.40	175.00	53.34
22564802102	22564802111	1-1/4	31.75	100.00	30.48
22564802122	22564802131	1-1/4	31.75	125.00	38.10
22564802152	22564802141	1-1/4	31.75	150.00	45.72
22564802162	22564802171	1-1/4	31.75	175.00	53.34
22564882102	22564882111	1-3/8	34.93	100.00	30.48
22564882122	22564882131	1-3/8	34.93	125.00	38.10
22564882152	22564882141	1-3/8	34.93	150.00	45.72
22564882162	22564882201	1-3/8	34.93	175.00	53.34
22564962102	22564962111	1-1/2	38.10	100.00	30.48
22564962122	22564962131	1-1/2	38.10	125.00	38.10
22564962152	22564962141	1-1/2	38.10	150.00	45.72
22564962162	22564962171	1-1/2	38.10	175.00	53.34



TRANSPORTER® FUEL **TRANSFER 150**

Designed for gasoline/fuel oil delivery type applications, this hose features a polyester cord and dual lead stainless steel static wire reinforcement that enables a constant working pressure of 150 psi regardless of hose size. Its NBR/PVC cover is both oil and abrasion resistant, and its NBR tube offers high fuel and oil resistance.



RESISTANCE 6

BRANDING

Thermoid HBD Industries Inc. Transporter® Fuel Transfer& Discharge Made In USA Warning: Caution Statement

Cover Color: Black Oil Resistance: High

Construction: Tube:

Cover:

NBR, RMA Class A NBR/PVC, RMA Class B

Reinforcement: Polyester cord, dual lead stainless steel static wire

-20°F to +200°F -29°C to +93°C

Temperature Range: 100 ft. maximum

Packaging: Minimum run of 1200 ft. per size

Product Number	Nominal I.D. (inches) (mm)		Nominal O.D. (inches) (mm)		Plies	Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		Weight (lb/ft) (Kg/m)	
17817002002▲	2	50.80	2.50	63.50	2	150	1.03	14.00	355.60	1.00	1.49
17817006002▲	3	76.20	3.50	88.90	2	150	1.03	24.00	609.60	1.50	2.23
17817008002▲	4	101.60	4.63	117.48	2	150	1.03	32.00	812.80	2.40	3.57

PREMIER FARM TANK

This economical hose was engineered for use in agricultural, industrial and construction maintenance applications for dispensing gasoline, kerosene and oil from farm or barrel-type pumps where UL approval is not required. It features 2-spiral, high-tensile, polyester cord reinforcement with an NBR tube and a NBR/PVC cover that is oil and abrasion resistant.



RESISTANCE BRANDING 6

Thermoid Premier Farm Tank, Size, Made in USA with static wire

Cover Color: Black
Oil Resistance: High

Construction:

Tube:NBR, RMA Class ACover:NBR/PVC RMA Class AReinforcement:Spiral high tensile polyester cord

Temperature Range: $-20^{\circ}F$ to $+160^{\circ}F$

-29°C to +71°C **Packaging:** 3/4" coupled - 10

ging: 3/4" coupled - 10 per carton 1" coupled - 5 per carton

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ght (Kg/m)
00667212200	3/4	19.05	1.13	28.58	2	60	0.41	4.50	114.30	0.29	0.43
00667216200	1	25.40	1.38	34.93	2	60	0.41	7.00	177.80	0.45	0.67

Coupled Lengths – Male x Male Coupling – With Static Wire

Product Number	Nomir (inches)	nal I.D. (mm)	Lengths (feet) (meters)			
00667212208	3/4	19.05	8.00	2.44		
00667212210	3/4	19.05	10.00	3.05		
00667212212	3/4	19.05	12.00	3.66		
00667212214	3/4	19.05	14.00	4.27		
00667216208	1	25.40	8.00	2.44		
00667216210	1	25.40	10.00	3.05		
00667216212	1	25.40	12.00	3.66		
00667216214	1	25.40	14.00	4.27		





PUMPFLEX® I-SOFTWALL

The Pumpflex® I was designed for curb pump self-service stations and highly sensitive electronic fuel pumps and is the longest lasting automotive refueling hose in use at service stations today. The durable construction of this hose resists. deterioration from fuel, ozone, sunlight and cracking around/behind the nozzle end coupling. Its 2-spiral polyester cord with static wire provides a working pressure of 150 to 200 psi. Now available with new, crimped aluminum fittings that are built to withstand the rough treatment received at curb pump self-service stations.

Note: Do not use reusable couplings with this product.



RESISTANCE 😂 🔘 🗟 🔞 📵 🕏 **BRANDING**

Thermoid Size Pumpflex I Gasoline Hose UL Listed 97MO Made In USA Month/Year

Cover Color: Black

Oil Resistance: High, Medium-High

Construction:

Tube: NBR/PVC, RMA Class A

Cover: Thermalon™, U/L approved, Class B

Reinforcement: Spiral polyester cord with

static wire (Softwall)

Temperature Range: -40°F to +180°F

-40°C to +82°C

Packaging: Reels, coupled lengths

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	Wei (lb/ft)	ght (Kg/m)
22462401662	5/8	15.88	1.03	26.19	2	200	1.38	3.75	95.25	0.27	0.40
22462481662	3/4	19.05	1.13	28.58	2	200	1.38	4.50	114.30	0.32	0.48
22464641662	1	25.40	1.50	38.10	4	150	1.03	7.00	177.80	0.62	0.92

Coupled Lengths, Male x Male Permanent Fittings*

Coupled Lengths, Male x Male Permanent Fittings"									
Aluminum	Chrome-Plated	Nomir	sal I D	Lon	athe				
Crimped Coupling Product Number	Brass Coupling Product Number	(inches)	(mm)	Lengths (feet) (meters					
22762401111	22462401111	5/8	15.88	11.00	3.35				
22762401121	22462401121	5/8	15.88	12.00	3.66				
22762401131	22462401131	5/8	15.88	13.00	3.96				
22762401141	22462401141	5/8	15.88	14.00	4.27				
22762401151	22462401151	5/8	15.88	15.00	4.57				
22762401161	22462401161	5/8	15.88	16.00	4.88				
22762401171	22462401171	5/8	15.88	17.00	5.18				
22762401181	22462401181	5/8	15.88	18.00	5.49				
22762401201	22462401201	5/8	15.88	20.00	6.10				
22762481301	22462481301	3/4	19.05	10.50	3.20				
22762481111	22462481111	3/4	19.05	11.00	3.35				
22762481121	22462481121	3/4	19.05	12.00	3.66				
22762481131	22462481131	3/4	19.05	13.00	3.96				
22762481141	22462481141	3/4	19.05	14.00	4.27				
22762481151	22462481151	3/4	19.05	15.00	4.57				
22762481161	22462481161	3/4	19.05	16.00	4.88				
22762481171	22462481171	3/4	19.05	17.00	5.18				
22762481181	22462481181	3/4	19.05	18.00	5.49				
22762481191	22462481191	3/4	19.05	19.00	5.79				
22762481201	22462481201	3/4	19.05	20.00	6.10				
22764641111	22464641111	1	25.40	11.00	3.35				
22764641131	22464641131	1	25.40	13.00	3.96				
22764641161	22464641161	1	25.40	16.00	4.88				
22764641171	22464641171	1	25.40	17.00	5.18				
22764641181	22464641181	1	25.40	18.00	5.49				
22764641191	22464641191	1	25.40	19.00	5.79				
22764641201	22464641201	1	25.40	20.00	6.10				





The Pumpflex® I was designed for curb pump self-service stations and highly sensitive electronic fuel pumps and is the longest lasting automotive refueling hose in use at service stations today. The durable construction of this hose resists deterioration from fuel, ozone, sunlight and cracking around/behind the nozzle end coupling. Its one wire braid steel reinforcement provides a working pressure of 150 to 200 psi. Now available with new, crimped aluminum fittings that are built to withstand the rough treatment received at curb pump self-service stations.

Note: Do not use reusable couplings with this product.



RESISTANCE BRANDING

Thermoid Size Pumpflex II Gasoline Hose UL Listed 97MO Made In USA Month/Year

Cover Color: Black

Oil Resistance: High, Medium-High

Construction:

Tube: NBR/PVC, RMA Class A

Thermalon™, U/L approved, Class B Cover:

Reinforcement: 1 wire braid (Hardwall) -40°F to +180°F **Temperature Range:**

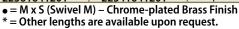
-40°C to +82°C

Packaging: Reels, Coupled Lengths

Product	Nomin	al I.D.	Nomin	al O.D.	Reinforcement	Working	Pressure	Min. Ben	d Radius	Wei	ight
Number	(inches)	(mm)	(inches)	(mm)	Spirals	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
22341401662	5/8	15.88	1.03	26.19	1	200	1.38	3.75	95.25	0.40	0.60
22341481662	3/4	19.05	1.13	28.58	1	200	1.38	4.50	114.30	0.44	0.65
22341641662	1	25.40	1.50	38.10	1	150	1.03	7.00	177.80	0.69	1.03

Coupled Lengths, Male x Male Permanent Fittings*

Aluminum	Chrome-Plated	Nominal I.D.		Lengths		
Crimped Coupling	Brass Coupling			(feet)		
Product Number	Product Number	(inches)	(mm)	(leet)	(meters)	
22361401591	22341401591•	5/8	15.88	9.00	2.74	
22361401231	22341401231	5/8	15.88	9.50	2.90	
22361401071	22341401071	5/8	15.88	9.50	2.90	
22361401351	22341401351•	5/8	15.88	10.00	3.05	
22361401211	22341401211	5/8	15.88	10.50	3.20	
22361401111	22341401111	5/8	15.88	11.00	3.35	
22361401121	22341401121	5/8	15.88	12.00	3.66	
22361401391	22341401391•	5/8	15.88	12.00	3.66	
22361401131	22341401131	5/8	15.88	13.00	3.96	
22361401141	22341401141	5/8	15.88	14.00	4.27	
22361401151	22341401151	5/8	15.88	15.00	4.57	
22361401161	22341401161	5/8	15.88	16.00	4.88	
22361401171	22341401171	5/8	15.88	17.00	5.18	
22361401181	22341401181	5/8	15.88	18.00	5.49	
22361401191	22341401191	5/8	15.88	19.00	5.79	
22361401201	22341401201	5/8	15.88	20.00	6.10	
22361481651	22341481651	3/4	19.05	8.50	2.59	
22361481581	22341481581•	3/4	19.05	9.00	2.74	
22361481221	22341481221	3/4	19.05	9.50	2.90	
22361481301	22341481301	3/4	19.05	10.50	3.20	
22361481111	22341481111	3/4	19.05	11.00	3.35	
22361481131	22341481131	3/4	19.05	13.00	3.96	
22361481141	22341481141	3/4	19.05	14.00	4.27	
22361481241	22341481141•	3/4	19.05	14.00	4.27	
22361481151	22341481151	3/4	19.05	15.00	4.57	
22361481161	22341481161	3/4	19.05	16.00	4.88	
22361481171	22341481171	3/4	19.05	17.00	5.18	
22361481181	22341481181	3/4	19.05	18.00	5.49	
22361481201	22341481201	3/4	19.05	20.00	6.10	
22361641011	22341641091	1	25.40	1.00	0.30	
22361641301	22341641301	1	25.40	10.50	3.20	
22361641111	22341641111	1	25.40	11.00	3.35	
22361641131	22341641131	1	25.40	13.00	3.96	
22361641161	22341641161		25.40	16.00	4.88	
22361641171	22341641171	1	25.40	17.00	5.18	
22361641181	22341641181		25.40	18.00	5.49	
22361641191	22341641191	1	25.40	19.00	5.79	
22361641201	22341641201		25.40	20.00	6.10	









TROLEUM/LPG



PUMPFLEX® II – JUMPER

Primarily designed for the dual low hose dispenser converted to Stage II vapor recovery external liquid line connection, this hose is used in conjunction with the Pumpflex II hose. It features a Thermalon, Class B cover offering medium-high oil, ozone and sunlight resistance, as well as a one wire braid steel reinforcement that provides a working pressure of 150 to 250 psi.

Note: Do not use reusable couplings with this product.



RESISTANCE **BRANDING**

Thermoid Size Pumpflex II Gasoline Hose UL Listed 97MO Made In USA Month/Year

Cover Color: Black

Oil Resistance: High, Medium-High

Construction:

Tube: NBR/PVC, RMA Class A Cover: Thermalon™, U/L approved, RMA Class B

Reinforcement: 1 wire braid (Hardwall)

-40°F to +180°F Temperature Range:

-40°C to +82°C

Packaging: Coupled lengths

Coupled Lengths – Male x Swivel Coupling – With Static Wire

Product	Nominal I.D.		Len	gths	Weight per Length		
Number	(inches)	(mm)	(feet)	(meters)	(lbs)	(Kgs)	
22341481271	3/4	19.05	14.00	355.60	1.42	0.64	
22341481051	3/4	19.05	16.00	406.40	1.47	0.67	
22341481561	3/4	19.05	18.00	457.20	1.56	0.71	
22341481061	3/4	19.05	21.00	533.40	1.63	0.74	
22341481261	3/4	19.05	24.00	609.60	1.72	0.78	

 \blacktriangle = Make To Order (MTO)

Ihermoid®

PUMPFLEX® MARINA – SOFTWALL

Color coded green primarily for marina use, this durable hose is designed to handle severe weather conditions, rough deck or dock use. It has a durable four spiral construction and static wire for continuity, and its UL-approved cover is oil and weather resistant. The Pumpflex® Marina can be used for all types of gasoline, oil and other petroleum products.



RESISTANCE **BRANDING**

6 6

Thermoid Size Pumpflex Marina Hose UL Listed 97MO Made In USA Month/Year

Cover Color: Green

Oil Resistance: High, Medium-High

Construction:

NBR/PVC, RMA Class A Tube: Cover: CM, RMA Class B

Reinforcement: Spiral polyester yarn with static wire (Softwall)

-40°F to +180°F **Temperature Range:** -40°C to +82°C

Packaging: Reels

Product	Nomin	al I.D.	Nomin	al O.D.	Reinforcement	Working	Pressure	Min. Ben	d Radius	We	ight
Number	(inches)	(mm)	(inches)	(mm)	Spirals	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
22463484662	3/4	19.05	1.13	28.58	4	200	1.38	4.50	114.30	0.32	0.48
22464644662	1	25.40	1.50	38.10	4	150	1.03	7.00	177.80	0.62	0.92

Consult coupling manufacturers for specific coupling recommendations/attachment procedures.

HI-VAC™ CO-AX®

The Hi-Vac™ CO-AX® hose is designed for new vacuum assist systems that utilize a bootless nozzle. Benefitting from an uncomplicated, well-balanced and exceptionally easy to handle construction, its inverted design efficiently pulls the vapor through the inner hose while fuel is dispensed in the outer hose. Hi-Vac is UL listed, CARB certified and delivers up to 12 gpm.



RESISTANCE 6 6

BRANDING

Manufacturer's Identification, **Product Name UL Listed**

Cover Color: Black

Oil Resistance: High, Medium-High

Construction:

NBR/PVC Inner Hose Tube:

NBR/PVC, RMA Class A Outer Hose Tube:

NBR/PVC Inner Hose Cover: CSM, RMA Class B Outer Hose Cover: Reinforcement: Braided steel wire Temperature Range: -40° F to $+180^{\circ}$ F

 -40° C to $+82^{\circ}$ C

Packaging: Depends on the order quantity

HI-VAC™ S CO-AX®

The Hi-Vac[™] S CO-AX[®] is a premium, advanced design hose for vacuum-assist Stage II systems using a bootless nozzle. This hose was developed for high volume, intensely competitive markets. Its lightweight and easy handling properties were designed without sacrificing performance, strength or service life. Hi-Vac-S is UL listed, CARB certified and delivers up to 11 gpm.



RESISTANCE

6 6

Manufacturer's Identification, **BRANDING Product Name UL Listed**

Cover Color: Black

Oil Resistance: High, Medium-High

Construction:

Inner Hose Tube: NBR/PVC

Outer Hose Tube: NBR/PVC, RMA Class A

Inner Hose Cover: NBR/PVC Outer Hose Cover: CSM, RMA Class B Reinforcement: Braided steel wire Temperature Range: -40° F to $+180^{\circ}$ F

-40°C to +82°C

Packaging: Individual carton, 6 per master carton



HI-VAC™ CO-AX® & HI-VAC™ S CO-AX® (CONTINUED)

	Nomin	al I.D.	Nomin	al O.D.	Steel Braid	Working	Pressure	Min. Ben	d Radius	We	ight
	(inches)	(mm)	(inches)	(mm)	Reinforcement	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
7/8" I.D. Hi-Vac											
Inner Hose	5/16	7.94	0.52	13.08	1						
Outer Hose	7/8	22.23	1.25	31.75	1	250	1.72	4.00	101.60	0.12	0.18
3/4" I.D. Hi-Vac-S											
Inner Hose	5/16	7.94	0.52	13.08	1						
Outer Hose	4/5	20.32	1.13	28.58	1	250	1.72	4.00	101.60	0.23	0.34

Coupled Lengths - Swivel x Swivel (Chrome Plated Brass Metric Thread - M34)

Hi-Vac 7/8"	Len	gth
Product Number	(feet)	(meters)
22473222041	4.00	1.22
22473222061▲	5.00	1.52
22473222291▲	6.00	1.83
22473222251▲	6.50	1.98
22473222221▲	7.00	2.13
22473222231▲	7.50	2.29
22473222071▲	8.00	2.44
22473222081▲	8.50	2.59
22473222091▲	9.00	2.74
22473222101▲	9.50	2.90
22473222111▲	10.00	3.05
22473222121▲	10.50	3.20
22473222131▲	11.00	3.35
22473222141▲	11.50	3.51
22473222151▲	12.00	3.66
22473222161▲	12.50	3.81
22473222171▲	13.00	3.96
22473222181▲	13.50	4.11
22473222191▲	14.00	4.27

Hi-Vac-S 3/4"	Len	gth
Product Number	(feet)	(meters)
22471111041	4.00	1.22
22471111061	5.00	1.52
22471111291	6.00	1.83
22471111251▲	6.50	1.98
22471111221	7.00	2.13
22471111231▲	7.50	2.29
22471111071	8.00	2.44
22471111081	8.50	2.59
22471111091	9.00	2.74
22471111101	9.50	2.90
224711111114	10.00	3.05
22471111121▲	10.50	3.20
22471111131	11.00	3.35
22471111141	11.50	3.51
22471111151	12.00	3.66
22471111161	12.50	3.81
22471111171	13.00	3.96
22471111181	13.50	4.11
22471111191	14.00	4.27

^{▲ =} Make To Order (MTO)

^{▲ =} Make To Order (MTO)



HI-VAC™ WHIP

Primarily designed for "breakaway" connection from the pump to the primary hose assembly, this hose is used in conjunction with the Hi-Vac™ Co-Ax® hose assembly. It features an NBR/PVC cover offering high oil resistance, and a one braid steel reinforcement for both inner and outer hoses that provides a working pressure to 250 psi.



RESISTANCE 6 6

BRANDING

Manufacturer's Identification, Product name UL Listed

Cover Color: Black

Construction:

Inner Hose Tube: NBR/PVC

Outer Hose Tube: NBR/PVC, RMA Class A

Inner Hose Cover: NBR/PVC Outer Hose Cover: CSM, RMA Class B Reinforcement: Braided steel wire Temperature Range: -40°F to +180°F

-40°C to +82°C

Packaging: Depends on the order quantity

Hi-Vac Whip	Nomi	nal I.D.	Leng	jths
Product Number	(inches)	(mm)	(inches)	(mm)
22471111031 ▲	3/4	19.05	10	254.00
22471111011 🛦	3/4	19.05	12	304.80
22473222021 🛦	7/8	22.23	10	254.00
22473222011 🛦	7/8	22.23	12	304.80

Ihermoid®

TRANSPORTER® EBONITE™ **CORRUGATED TANK TRUCK**

The Transporter® Ebonite™ Corrugated Tank Truck is recommended for hydrocarbons with aromatic content up to 55% maximum, fats, greases, animal oil, vegetable oil, hydraulic fluid and a wide range of chemicals. It features a flat corrugated NBR/PVC cover which is ideal for those applications where flexibility is important. The reinforcement of two plies of polyester cord with a dual wire helix enables this hose to be rated at full vacuum and provides a constant working pressure of 150 psi, regardless of hose size.



RESISTANCE **BRANDING**

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Thermoid HBD Industries Inc. Ebonite[™] 150 PSI WP Made In USA

Cover Color: Black Oil Resistance: High

Construction:

Tube: NBR, RMA Class A

NBR/PVC corrugated, RMA Class B Cover:

Reinforcement: 2 plies of polyester cord with a dual wire helix-

(es) between plies

Temperature Range: -30°F to +200°F

-34°C to +93°C

Packaging: 100 ft. maximum

Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
1	25.40	1.53	38.89	2	150	1.03	2.00	50.80	0.60	0.89
1-1/4	31.75	1.78	45.24	2	150	1.03	2.50	63.50	0.70	1.04
1-1/2	38.10	2.06	52.39	2	150	1.03	3.00	76.20	0.90	1.34
2	50.80	2.56	65.09	2	150	1.03	4.50	114.30	1.20	1.79
3	76.20	3.56	90.49	2	150	1.03	6.00	152.40	1.80	2.68
4	101.60	4.66	118.27	2	150	1.03	8.00	203.20	2.70	4.02
	(inches) 1 1-1/4	1 25.40 1-1/4 31.75 1-1/2 38.10 2 50.80 3 76.20	(inches) (mm) (inches) 1 25.40 1.53 1-1/4 31.75 1.78 1-1/2 38.10 2.06 2 50.80 2.56 3 76.20 3.56	(inches) (mm) (inches) (mm) 1 25.40 1.53 38.89 1-1/4 31.75 1.78 45.24 1-1/2 38.10 2.06 52.39 2 50.80 2.56 65.09 3 76.20 3.56 90.49	(inches) (mm) (inches) (mm) Piles 1 25.40 1.53 38.89 2 1-1/4 31.75 1.78 45.24 2 1-1/2 38.10 2.06 52.39 2 2 50.80 2.56 65.09 2 3 76.20 3.56 90.49 2	(inches) (mm) (inches) (mm) Plies (psi) 1 25.40 1.53 38.89 2 150 1-1/4 31.75 1.78 45.24 2 150 1-1/2 38.10 2.06 52.39 2 150 2 50.80 2.56 65.09 2 150 3 76.20 3.56 90.49 2 150	(inches) (mm) (inches) (mm) Plies (psi) (Mpa) 1 25.40 1.53 38.89 2 150 1.03 1-1/4 31.75 1.78 45.24 2 150 1.03 1-1/2 38.10 2.06 52.39 2 150 1.03 2 50.80 2.56 65.09 2 150 1.03 3 76.20 3.56 90.49 2 150 1.03	(inches) (mm) (inches) (mm) Plies (psi) (Mpa) (inches) 1 25.40 1.53 38.89 2 150 1.03 2.00 1-1/4 31.75 1.78 45.24 2 150 1.03 2.50 1-1/2 38.10 2.06 52.39 2 150 1.03 3.00 2 50.80 2.56 65.09 2 150 1.03 4.50 3 76.20 3.56 90.49 2 150 1.03 6.00	(inches) (mm) (inches) (mm) Plies (psi) (Mpa) (inches) (mm) 1 25.40 1.53 38.89 2 150 1.03 2.00 50.80 1-1/4 31.75 1.78 45.24 2 150 1.03 2.50 63.50 1-1/2 38.10 2.06 52.39 2 150 1.03 3.00 76.20 2 50.80 2.56 65.09 2 150 1.03 4.50 114.30 3 76.20 3.56 90.49 2 150 1.03 6.00 152.40	(inches) (mm) (inches) (mm) Piles (psi) (Mpa) (inches) (mm) (lb/ft) 1 25.40 1.53 38.89 2 150 1.03 2.00 50.80 0.60 1-1/4 31.75 1.78 45.24 2 150 1.03 2.50 63.50 0.70 1-1/2 38.10 2.06 52.39 2 150 1.03 3.00 76.20 0.90 2 50.80 2.56 65.09 2 150 1.03 4.50 114.30 1.20 3 76.20 3.56 90.49 2 150 1.03 6.00 152.40 1.80

Consult coupling manufacturers for specific coupling recommendations/attachment procedures.



TRANSPORTER® EBONITE™ LT CORRUGATED TANK TRUCK

This hose is designed to handle suction and discharge applications for tank truck, tank car and bulk stations. It is used to convey gasoline, distilled kerosene, diesel and other fuels with a maximum aromatic content of 30% to -65°F. Featuring a flat corrugated NBR cover, it is a benefit in applications where flexibility and weight are important. The reinforcement of two plies of polyester cord with a dual wire helix enables this hose to be rated at full vacuum and provides a working pressure of 150 psi, regardless of hose size.



RESISTANCE G & **BRANDING**

Thermoid HBD Industries Inc. Ebonite™ LT 150 PSI WP

Made In USA

Cover Color: Oil Resistance:

Black Medium-High

Construction: Tube: Cover:

NBR (low temperature) NBR/PVC corrugated

Reinforcement:

2 plies of polyester cord with a dual wire

helix(es) between plies

Temperature Range:

-65°F to +180°F -54°C to +82°C

Packaging:

100 ft. maximum

Product	Nomir	nal I.D.	Nomin	al 0.D.	Plies	Working	Pressure	Min. Ben	d Radius	We	ight
Number	(inches)	(mm)	(inches)	(mm)	riies	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17813057002▲	1-1/2	38.10	2.06	52.39	2	150	1.03	3.00	76.20	0.90	1.34
17813058002	2	50.80	2.56	65.09	2	150	1.03	4.00	101.60	1.20	1.79
17813060002	3	76.20	3.56	90.49	2	150	1.03	5.50	139.70	1.80	2.68
17813065002	4	101.60	4.66	118.27	2	150	1.03	8.00	203.20	2.70	4.02
17813055002	4	101.60	4.66	118.27	2	150	1.03	8.00	203.20	2.70	4.02

Consult coupling manufacturers for specific coupling recommendations/attachment procedures.

ALERT: Large size, industrial hoses have caution and/or safety usage printed information attached by tag to the product or this information is printed onto the hose.

TRANSPORTER® RED/BLACK TANK TRUCK

The Transporter® Red Tank Truck hose is recommended for handling the bulk transfer of petroleum products and it will also handle most hydrocarbons with aromatic content up to 55% maximum, fats, greases, animal oil, vegetable oil, hydraulic fluid and a wide range of chemicals. Its NBR tube offers excellent resistance to oil, while the NBR/PVC cover is both oil and weather resistant. Both the red and black versions are rated at full vacuum.



RESISTANCE 6 (ATS) 6 (ATS) **BRANDING**







Thermoid HBD Industries Inc. Transporter Tank Truck Made In USA

Red Tank Truck

Cover Color: Red Oil Resistance: High

Construction:

NBR, RMA Class A Tube: Cover: NBR/PVC, RMA Class B

Reinforcement: Spiral steel wire helix(es) between synthetic

textile plies

Temperature Range: -30°F to +200°F

-34°C to +93°C

Packaging: 100 ft. maximum

Black Tank Truck

Cover Color: Black Oil Resistance: High

Construction:

Tube: NBR, RMA Class A Cover: NBR/PVC, RMA Class B

Reinforcement: Spiral steel wire helix(es) between synthetic

textile plies

Temperature Range: -30°F to +200°F

-34°C to +93°C

Packaging: 1"-4" I.D. - 100 ft. maximum

6" l.D. – 50 ft.; 100 ft. available upon request

Red Tank Truck

Product Number	Nomii (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ber (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
17813015002	1-1/2	38.10	2.00	50.80	2	150	1.03	4.50	114.30	0.80	1.19
17813020002	2	50.80	2.47	62.71	2	150	1.03	6.00	152.40	1.00	1.49
17813025002	2-1/2	63.50	3.06	77.79	2	150	1.03	7.50	190.50	1.50	2.23
17813030002	3	76.20	3.56	90.49	2	150	1.03	9.00	228.60	1.70	2.53
17813040002	4	101.60	4.63	117.48	2	150	1.03	12.00	304.80	2.50	3.72

Black Tank Truck

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ber (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
17811008002	1	25.40	1.50	38.10	2	200	1.38	2.50	63.50	0.50	0.74
17811010002	1-1/4	31.75	1.75	44.45	2	200	1.38	3.00	76.20	0.70	1.04
17811015002	1-1/2	38.10	2.00	50.80	2	150	1.03	4.50	114.30	0.80	1.19
17811020002	2	50.80	2.47	62.71	2	150	1.03	6.00	152.40	1.00	1.49
17811025002	2-1/2	63.50	3.06	77.79	2	150	1.03	7.50	190.50	1.50	2.23
17811030002	3	76.20	3.56	90.49	2	150	1.03	9.00	228.60	1.70	2.53
17811040002	4	101.60	4.63	117.48	2	150	1.03	12.00	304.80	2.50	3.72
17811060002▲	6	152.40	6.78	172.24	2	100	0.69	30.00	762.00	5.00	7.44

▲ = Make To Order (MTO)

Consult coupling manufacturers for specific coupling recommendations/attachment procedures.



TYPE 924 PETROLEUM TRANSFER

The Type 924 Petroleum Transfer hose is perfect for applications that require the bulk transfer of petroleum products, and it can also be used to handle most hydrocarbons with aromatic content up to 55% maximum, fats, greases, animal oil, vegetable oil, hydraulic fluid and a wide range of chemicals. Its black NBR tube has excellent resistance to oil and the cover compound of NBR/ PVC is both oil and abrasion resistant. This hose is rated at full vacuum, providing a working pressure range of 100 to 200 psi.



RESISTANCE 6 FATS 6 FATS **BRANDING**

Packaging:





Thermoid HBD Industries Inc. Type 924 Petroleum Transfer WP Made In USA

Cover Color: Black Oil Resistance: High **Construction:**

Tube: NBR, RMA Class A NBR/PVC, RMA Class B Cover:

Reinforcement: Spiral steel wire helix(es) between synthetic

textile plies

Temperature Range: -30°F to +200°F

-34°C to +93°C 100 ft. maximum

Product Number	Nomin (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
17812008002	1	25.40	1.50	38.10	2	200	1.38	2.50	63.50	0.50	0.74
17812010002	1-1/4	31.75	1.75	44.45	2	200	1.38	3.00	76.20	0.70	1.04
17812015002	1-1/2	38.10	2.00	50.80	2	150	1.03	4.50	114.30	0.80	1.19
17812020002	2	50.80	2.47	62.71	2	150	1.03	6.00	152.40	1.00	1.49
17812025002	2-1/2	63.50	3.06	77.79	2	150	1.03	7.50	190.50	1.50	2.23
17812030002	3	76.20	3.56	90.49	2	150	1.03	9.00	228.60	1.70	2.53
17812040002	4	101.60	4.63	117.48	2	150	1.03	12.00	304.80	2.50	3.72
17812060002▲	6	152.40	6.75	171.45	2	100	0.69	30.00	762.00	5.00	7.44

Ihermoid^e

$\mathsf{TRANSPORTER}^{ ext{@}}\;\mathsf{FLEX-DEVIL}^{ ext{ iny}}$

The Transporter® Flex-Devil™ is a transfer hose for gasoline, a wide range of oils and chemicals and petroleum based products. It is made from special rubber compounds that produce an exceptional lightweight and flexible hose for use in temperatures down to -40°F (-40°C). Rated at **full vacuum** (30"Hg), Flex-Devil™ is compatible with gasoline grades up to 50% aromatic content. This hose accepts a range of coupling types: swaged crimped, internally expanded or banded shank.



RESISTANCE **BRANDING**

Thermoid/HBD Industries Transporter Flex-Devil 150 PSI WP Made In USA — Caution Statement

Cover Color: Red Oil Resistance: High

Construction:

Tube: NBR, RMA Class A (low temperature) Cover: CR, RMA Class B (corrugated)

Reinforcement: Multiple ply synthetic textile cords with dual

helix wire

Temperature Range: -40°F to +200°F

-40°C to +93°C

Packaging: 100 ft. lengths, straight ends only Couplings: Accepts variety of types. Consult coupling

manufacturers for proper procedures.

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
17814532002	2	50.80	2.43	61.70	2	150	1.03	4.00	101.60	0.90	1.35
17814534002	3	76.20	3.47	88.70	2	150	1.03	6.00	152.40	1.56	2.32
17814536002	4	101.60	4.54	115.30	2	150	1.03	8.00	203.40	2.24	3.34



TRANSPORTER® VAPOR-LOC™

Transporter VAPOR-LOC Bio-Fuels tank truck hose is designed to meet and exceed today's demanding needs for standard fuel and bio-fuel bulk transfer applications. Where standard tank truck hoses fail to meet the requirement of safely transferring bio-fuels, most petroleum based products, various types of fats, oils, hydraulic fluids and some chemicals, Vapor-Loc™ Bio-Fuels tank truck hose is built to last.

Using a unique, multi-layered permeation barrier system, VAPOR-LOC™ Bio-Fuels tank truck hose reduces media permeation into the hose carcass over time, a common cause of standard tank truck hose failures. It virtually eliminates smelly media odors. It is lightweight, flexible, handles easily and is ideal for outdoor work conditions. Thermoid's VAPOR-LOC Bio Fuels Tank Truck Hose was designed for use on trucks and in-plant operations to transfer diesel, bio-diesel blends up to B-100, ethanol blends, gasoline, oil, most petroleum base products up to 60% aromatic content, various types of fats, hydraulic fluids and some chemicals.



RESISTANCE **BRANDING**







Thermoid Vapor-Loc™ Bio-Fuels 150/200 PSI WP. Made In USA

Thermoid, Inc. **Caution Statement**

Size: 1"- 4" I.D. Size:

Working Pressure: 200 psi, Vacuum Rating — Full (30" HG) — 1"-1-1/4" I.D.

150 psi, Vacuum Rating — Full (30" HG) — 1-1/2"-4" I.D.

Cover Color: Black Oil Resistance: High

Construction:

NBR, RMA Class A Tube: Cover: Cover: Smooth — NBR/PVC

Reinforcement: Spiral steel wire helix(es) between synthetic textile

Barrier: Unique, 3-ply, multi-layer vapor barrier

Temperature Range: -30°F to +200°F

-34°C to +93°C

Couplings: Swaged, crimped, internally expanded or banned shank

Consult coupling manufacturer for proper hose

assembly-coupling procedures.

Packaging: 1"- 4" I.D. - 100 ft. maximum

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Bend Radius (inches) (mm)	We (lb/ft)	ight (Kg/m)
17814811002	1	25.40	1.53	38.86	2	200	1.38	2.50 63.50	0.61	0.91
17814812002▲	1-1/4	31.75	1.80	44.72	2	200	1.38	3.00 76.20	0.77	1.14
17814813002▲	1-1/2	38.10	2.04	51.82	2	150	1.03	4.50 114.30	0.88	1.31
17814814002	2	50.80	2.54	64.52	2	150	1.03	6.00 152.40	1.14	1.69
17814815002▲	2-1/2	63.50	3.10	78.74	2	150	1.03	7.50 190.50	1.62	2.41
17814816002	3	76.20	3.60	91.44	2	150	1.03	9.00 228.60	1.89	2.81
17814818002▲	4	101.60	4.68	118.87	2	150	1.03	12.00 304.80	2.73	4.06



TRANSPORTER® VAPOR RECOVERY

Lightweight and easy to maneuver, this hose is recommended for the transfer of vapors with maximum aromatic content of 55% back to the tank truck during loading operations. It is rated at full vacuum and features an NBR tube, an NBR/PVC cover and includes a reinforcement of two plies of synthetic cord with spiral wire helix between the plies.



RESISTANCE BRANDING Thermoid HBD Industries Inc.
Transporter® Vapor Recovery

Made In USA

Cover Color: Black Oil Resistance: High

Construction:

Tube: NBR, RMA Class A Cover: NBR/PVC, RMA Class B

Reinforcement: Two plies of synthetic cord with a spiral wire

helix(es) between plies

Temperature Range: -30°F to +200°F

-34°C to +93°C

Packaging: 100 ft. maximum

Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
17811130002▲	3	76.20	3.44	87.31	2	100	0.69	9.00	228.60	1.30	1.93
17811140002▲	4	101.60	4.44	112.71	2	80	0.55	12.00	304.80	1.80	2.68



LP GAS/PROPANE **TANKMASTER®**

The LP Gas/Propane Tankmaster® is a high strength hose with a design safety factor of 5:1 that is specifically designed for the transfer of LP Gas and propane between the docks and tankers. This hose meets the NFPA-58 and USCG specifications of 46 CFR 38.15-5 for non-refrigerated transfer of compressed LP Gas and Propane from -20°F to +150°F temperatures. It features a string vented carcass to avoid blistering due to gas permeation and the CR cover resists abrasion, weathering and ozone.



RESISTANCE **BRANDING**







Thermoid HBD Industries Inc. LP Gas/Propane - 350 WP Made In USA Date Code Warning Label

Cover Color: Black

Oil Resistance: High, Medium-High

Construction: Tube:

Nitrile/Hydrin blend CR (See note in box)

Cover: Reinforcement: Multiple synthetic textile cord plies with helix(es) wire.

String vented carcass

Temperature Range: -20°F to +150°F

-29°C to +66°C

Packaging: 2" I.D. through 6" I.D. — 100 ft. maximum length

8" I.D. or larger, up to 60 ft. long

Hand built – \$250.00 minimum order per size

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Bend Radius (inches) (mm)	We (lb/ft)	ight (Kg/m)
11434602002▲	2	76.99	3.03	76.99	4	350	2.41	12.00 304.80	3.10	4.61
11434603002▲	3	105.57	4.16	105.57	4	350	2.41	18.00 457.20	3.70	5.51
11434604002	4	140.49	5.53	140.49	6	350	2.41	24.00 609.60	6.50	9.67
11434606002▲	6	193.68	7.63	193.68	6	350	2.41	36.00 914.40	11.70	17.41
11434608002▲	8	259.16	10.20	259.16	8	350	2.41	54.00 1371.60	19.30	28.72

▲ = Make To Order (MTO)

Note: Two black covers offered:

- 1. CR for Electrically Discontinuous (ED) hose assemblies.
- NBR/PVC for Electrically Continuous (EC) hose assemblies.

Please specify electrical property of hose required when ordering a hose assembly.

Ihermoid®

POLAR-FLEX / CGA TYPE 1 BUTANE-PROPANE — THERMOCURE

Polar-Flex is a cold weather hose specifically engineered for use in transferring liquefied petroleum gases at peak efficiency even in extreme sub-zero temperatures. Featuring an oil-resistant and flame-retardant cover, it is ideal for moving propane or butane from bulk storage to tank cars or cylinders, or from bobtails trucks to residential home storage tanks. Polar-Flex is UL 21 File MH12585 listed and is approved to CGA (Canadian Gas Association) Type 1 requirements, and it meets all hose and hose assembly requirements of the Canadian Gas Association (CSA).



RESISTANCE



BRANDING

Thermoid Polar-Flex, CGA Type 1 UL Listed LP Gas Hose Issue No. (Quarter) MH12585 350 PSI Max. WP Made In USA

Cover Color: Black

Oil Resistance: High, Medium-High

Construction: Tube:

NBR, RMA Class A CM, RMA Class B

Cover: CM, RMA Class B
Reinforcement: 2 and 4 spiral polyester yarn

-50°F to +180°F -46°C to +82°C

Temperature Range: Packaging:

Reels, *Coupled Lengths

1"I.D. can be ordered with coupled (M x M) Pro-Sur™ brass fittings. The D.O.T. test certificate is included Hose assemblies tested/approved to 7/1/99 D.O.T. req.

CGA approval on 1"I.D. assemblies only

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
22071161662	1/4	6.35	0.58	14.68	2	350	2.41	1.50	38.10	0.13	0.19
22071241662	3/8	9.53	0.69	17.46	2	350	2.41	2.25	57.15	0.16	0.24
22073321662	1/2	12.70	0.94	23.81	4	350	2.41	3.00	76.20	0.30	0.45
22073481662	3/4	19.05	1.25	31.75	4	350	2.41	4.50	114.30	0.43	0.64
22073641662	1	25.40	1.50	38.10	4	350	2.41	6.00	152.40	0.58	0.86

^{▲ =} Make To Order (MTO)

Coupled, Male x Male with Thermoid® PRO SUR™ Brass Fittings

Product	Nomi	nal I.D.	Len	gths
Number	(inches)	(mm)	(feet)	(meters)
22073641101	1	25.40	100.00	30.48
22073641121	1	25.40	125.00	38.10
22073641151	1	25.40	150.00	45.72

^{*}Hose proof tested to 700 psi



TYPE 65 BUTANE-PROPANE

The Type 65 Butane-Propane hose is designed to transfer LP Gas from bulk storage to tank cars or cylinders. It is lightweight and flexible, and features a black CR cover that is oil resistant and also resists snagging, abrasion and weather. All sizes have a flexible static wire and this hose meets all UL requirements.



RESISTANCE 6 6 **BRANDING**





Thermoid HBD Industries Inc. Type 65 UL Listed LPG Hose MH12585 Issue Number 350 PSI Max.WP Quarter/Year Made In USA

Cover Color:

Black

High, Medium-High Oil Resistance:

Construction:

CR

Tube: Cover:

CR High tensile cord

Reinforcement: **Temperature Range:**

-40°F to +180°F -40°C to +82°C

Packaging: 100 ft.

Product Number	Nomin (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies**	Working (psi)	Pressure (Mpa)	Min. Bend Radius (inches) (mm)	We (lb/ft)	ight (Kg/m)
17814605*	1-1/4	31.75	1.81	46.04	4	350	2.41	8.00 203.20	0.92	1.37
17814610*	1-1/2	38.10	2.19	55.56	4	350	2.41	9.00 228.60	1.21	1.80
17814615*	2	50.80	2.75	69.85	4	350	2.41	12.00 304.80	1.77	2.63

^{*} To order 50/100 ft., use product number and 002 = 100 ft. and 502 = 50 ft.

^{**} Includes dual stainless steel static wire, spiral applied, in all sizes.

Ihermoid[®]

TYPE 75 BUTANE-PROPANE (THERMOCURE)

The Type 75 Butane-Propane hose was engineered for transferring liquefied propane gas from bulk storage tank cars or cylinder, or from bobtails trucks, to home storage tanks. This hose has been pinpricked to permit gas diffusion, and its smooth black cover resists oil, snagging and abrasion and, making it a driver's choice.



RESISTANCE **BRANDING**





Thermoid Type 75 LPG Hose **UL Listed Gas Hose Issue Number** (Quarter) MH12585 350 PSI Maximum WP Made In USA

Cover Color: Black

Oil Resistance: High, Medium-High

Construction: Tube:

NBR, RMA Class A

CM, RMA Class B - 3/4" & 1", NBR/PVC-1/4"-1/2" Cover:

Reinforcement: 2 or 4 spiral polyester yarn

-40°F to +180°F Temperature Range:

-40°C to +82°C

Packaging: Reels, *Coupled lengths

D.O.T. test certificate included with assemblies.

Hose assemblies tested/approved to

7/1/99 D.O.T. regulations.

Product	Nomin	al I.D.	Nomin	al O.D.	Reinforcement	Working	Pressure	Min. Bend Radius		Weight	
Number	(inches)	(mm)	(inches)	(mm)	Spirals	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00667304600	1/4	6.35	0.63	15.88	4	350	2.41	1.50	38.10	0.14	0.22
00667306600	3/8	9.53	0.75	19.05	4	350	2.41	2.25	57.15	0.18	0.30
00667308600	1/2	12.70	0.94	23.81	4	350	2.41	3.00	76.20	0.29	0.43
22074481662	3/4	19.05	1.25	31.75	4	350	2.41	4.50	114.30	0.27	0.61
22074641662	1	25.40	1.50	38.10	4	350	2.41	7.00	177.80	0.58	0.86

Coupled, Male x Male with Thermoid® PRO SUR™ Brass Fittings

Product	Nomi	nal I.D.	Len	gths
Number	(inches)	(mm)	(feet)	(meters)
22074481101	3/4	19.05	100.00	30.48
22074481121	3/4	19.05	125.00	38.10
22074481151	3/4	19.05	150.00	45.72
22074481171	3/4	19.05	175.00	53.34
22074641101	1	25.40	100.00	30.48
22074641121	1	25.40	125.00	38.10
22074641151	1	25.40	150.00	45.72
22074641171	1	25.40	175.00	53.34



SPECIAL APPLICATIONS



Thermoid®

TRANSPORTER® HOT TAR & ASPHALT

The Transporter® Hot Tar and Asphalt hose has been designed to handle the transfer of hot asphaltic materials between trucks, rail transport cars, storage tanks and disposing units. Its specially compounded CR tube and cover are exceptionally heat resistant (tube to +350°F), strong and durable. The spiral synthetic cord and helical wire reinforcement allow provide a constant working pressure of 150 psi.



RESISTANCE

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BRANDING Thermoid HBD Industries

Hot Tar&Asphalt 150WP 350°F Max. Temp. Made In USA

Cover Color: Black
Oil Resistance: Medium

Construction:

Tube: CR, suitable to $+350^{\circ}$ F

Cover: CF

Reinforcement: Spiral synthetic cord with spiral helix(es)

inserted

Temperature Range: $-20^{\circ}F$ to $+350^{\circ}F$

-29°C to +177°C

Packaging: 100 ft. maximum

Minimum order is 1200 ft. per size

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
- Italiae	(iiiciics)	(,	(ilitiles)	(,	5piruis	(621)	(mpa)	(iiitiics)	(,	(18/14)	(119, 111,
17771515002▲	1-1/2	38.10	2.13	53.98	2	150	1.03	6.00	152.40	1.30	1.93
17771520002	2	50.80	2.63	66.68	2	150	1.03	8.00	203.20	1.50	2.23
17771525002▲	2-1/2	63.50	3.19	80.96	2	150	1.03	10.00	254.00	2.30	3.42
17771530002	3	76.20	3.75	95.25	2	150	1.03	14.00	355.60	2.80	4.17
17771540002▲	4	101.60	4.75	120.65	2	150	1.03	18.00	457.20	4.00	5.95

▲ = Make To Order (MTO)

Consult coupling manufacturers for specific coupling recommendations/attachment procedures.

ALERT: Large size, industrial hoses have caution and/or safety usage printed information attached by tag to the product or this information is printed onto the hose.



ELEPHANT TRUNK

Recommended for the gravity flow transfer of dry bulk materials, this hose features an SBR/NR tube and SBR/EPDM cover compound with a polyester cord reinforcement which enables its lightweight and flexible characteristics. Its 2-ply nylon cord reinforcement provides a working pressure of 15 psi. Other benefits include resistance to moisture absorption, weathering, aging and sun-checking.



RESISTANCE BRANDING HBD Industries

Cover Color: Black **Oil Resistance:** Limited

Construction:

Tube:SBR/NR - 1/8" thickCover:SBR/EPDM - 1/32" thickReinforcement:Polyester cord

Temperature Range: -40°F to +160°F -40°C to +71°C

Packaging: 50 ft. maximum

Hand built — \$250.00 minimum order per size

Straight ends

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
11474600502▲	4	101.60	4.44	112.71	2	15	0.10	n/a	n/a	1.60	2.38
11474602502▲	5	127.00	5.44	138.11	2	15	0.10	n/a	n/a	1.90	2.83
11474603502▲	6	152.40	6.44	163.51	2	15	0.10	n/a	n/a	2.30	3.42
11474604502▲	6-5/8	168.28	7.06	179.39	2	15	0.10	n/a	n/a	2.50	3.72
11474605502▲	8	203.20	8.44	214.31	2	15	0.10	n/a	n/a	3.00	4.46
11474606502▲	8-5/8	219.08	9.06	230.19	2	15	0.10	n/a	n/a	3.30	4.91
11474607502▲	10	254.00	10.44	265.11	2	15	0.10	n/a	n/a	3.70	5.51
11474608502▲	10-3/4	273.05	11.19	284.16	2	15	0.10	n/a	n/a	4.00	5.95
11474609502▲	12	304.80	12.44	315.91	2	15	0.10	n/a	n/a	4.50	6.70
11474610502▲	12-3/4	323.85	13.19	331.79	2	15	0.10	n/a	n/a	4.80	7.14
11474612502▲	14	355.60	14.44	366.71	2	15	0.10	n/a	n/a	5.40	8.04
11474614502▲	16	406.40	16.44	417.51	2	15	0.10	n/a	n/a	6.20	9.23
11474618502▲	18	457.20	18.44	468.31	2	15	0.10	n/a	n/a	7.00	10.42
11474619502▲	20	508.00	20.44	519.11	2	15	0.10	n/a	n/a	7.70	10.72
11474620502▲	24	690.60	24.56	623.89	2	15	0.10	n/a	n/a	9.30	13.84
11474621502▲	26	660.40	26.44	671.51	2	15	0.10	n/a	n/a	10.00	14.88

▲ = Make To Order (MTO) n/a = Not Applicable

Thermoid®

FURNACE DOOR (WIRE BRAID)

The Furnace Door hose is used as a water cooling hose on open hearth steel mill furnaces. It is so light and flexible that only one person is required when replacing. It features reinforcement braids of high-tensile carbon steel wire with a heat resistant textile layer, providing an insulating layer against severe external heat. The flexible braid of stainless steel used for the cover prevents the build-up of metal spattering, and its cover resists the tendency for molten metal to cling to the hose.



RESISTANCE

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BRANDING Furnace Door 250 PSI WP

Made In USA

Cover Color: Black
Oil Resistance: Limited

Construction:

Tube: EPDM

Cover: Flexible braid of stainless steel wire **Reinforcement:** One braid of high-tensile carbon steel wire

Temperature Range: $-40^{\circ}F$ to $+600^{\circ}F$ $-40^{\circ}C$ to $+315^{\circ}C$

With cooling water flowing through the hose at

a velocity of 20 feet per second 50 ft. maximum, all lengths.

Packaging: 50 ft. maximum, all lengths. Minimum order is 500 ft. per size

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Bend Radius (inches) (mm)	We (lb/ft)	ight (Kg/m)
01164461502▲	1	25.40	1.69	42.86	3	250	1.72	8.00 203.20	0.61	0.91
01164462502	1-1/4	31.75	1.88	47.63	3	250	1.72	10.00 254.00	0.80	1.19
01164463502	1-1/2	38.10	2.13	53.98	3	250	1.72	12.00 304.80	0.95	1.41
01164464502	2	50.80	2.63	66.68	3	250	1.72	16.00 406.40	1.20	1.79



TRANSPORTER® GP FRAC HOSE

Transporter® GP FRAC Hoses are oil and gas exploration oilfield application products. These GP Fracturing Hoses are rugged, abrasion resistant discharge products engineered to provide top performance and long term service around oilfield and gas exploration worksites.

The GP FRAC Hose is an economical and cost effective complement to our highly successful, premium, Transporter® Oilfield Fracturing Hose. These hoses have a blended, strong synthetic rubber tube and deliver solid working pressure of 400 PSIG. They can provide exceptional service and are designed for use with 98% water and sand mixtures, and oil slurries for FRAC Tank Connections.



BRANDING













Thermoid/HBD Industries, Inc. -Transporter GP FRAC Hose -400 psig, M.A. W.P., Made in USA, **Caution Statement**

Cover Color: Black Oil Resistance: High Construction:

Tube: NBR/SBR Blend SBR/EPDM Cover:

Reinforcement: Four high strength synthetic cord plies

-25°F to +200°F Temperature Range: -32°C to +93°C

Packaging: 100 ft. maximum

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
17777013002 🛦	3	76.20	3.78	19.83	4	400	2.76	n/a	n/a	2.18	4.81
17777014002	4	101.60	4.78	19.83	4	400	2.76	n/a	n/a	2.83	6.24

▲ = Make To Order (MTO) n/a = Not Applicable

Ihermoid

OILFIELD FRACTURING

Thermoid has always been a leader in the development of quality, petroleum and fuel drilling and exploration hose and rubber products. Thermoid's Oilfield Fracturing Hose with its unique, abrasion resistance cover and tube has been copied, but never duplicated.

These products provide you the superior, reliable long-term service. Our Fracturing Hoses are rugged, abrasion resistant discharge products specifically engineered to provide top performance in oilfield and gas exploration applications. These hoses are built to withstand the extended exposure to abrasive, harsh working conditions found on drilling job sites.



RESISTANCE **BRANDING**









Thermoid Transporter Oilfield Fracturing Hose W.P. 400 PSI Made in USA Month/Year

Cover Color: Black Oil Resistance: High

Construction:

Tube: Special compound with high resistance to

abrasion, oil and water

Cover: Special compound with high resistance to

abrasion, oil and water

Reinforcement: Four high Strength Synthetic Cord Plies **Temperature Range:** -25°F (-32°C) to +200°F (93°C) Packaging: 100 ft. maximum, all lengths.

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
17777003002 🛦	3	76.20	3.78	86.70	4	400	2.75	15.00	381.00	3.10	4.61
17777004002	4	101.60	4.78	12.24	4	400	2.75	20.00	508.00	4.10	6.10



HY-FLEX GRADE D ROTARY DRILLING

Recommended for the high pressure rotary drilling requirements of API Spec 7K and ISO 6807, this hose is also used in higher pressure applications which exceed the capabilities of the Grade C Rotary Drilling hose, and for the flexible connection between standpipe and swivel for pumping mud at very high pressure in oil drilling and exploration. The HY-FLEX Grade D Rotary Drilling hose features multiple plies of high strength bead wire reinforcement to exceed the minimum burst requirements of 12,500 psig, yet provide for the maximum hose flexibility.



RESISTANCE () (6) © (6) **BRANDING**



HBD Industries, Inc.

HY-FLEX Rotary-(month)-(Year) 5000 psig W.P.-Grade D-Made In USA + Warning: Caution Statement

Cover Color: Black Oil Resistance: High

Construction: Tube:

NBR, RMA Class A CR, Class C

Cover: Reinforcement: Multiple plies of bead wire (8 or 10) and

synthetic cord fabric

Temperature Range: -20°F to +200°F

-29°C to +93°C

Packaging: Lengths over 30 ft. shipped on metal reels

Shorter pieces shipped straight — slat packed

Couplings: Only uncoupled hose is available at this time

Product Number	Nomin (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
34844473002▲	2-1/2	63.50	4.00	101.60	8	5000	34.48	48.00	1219.20	8.81	12.77
34844475002▲	3	76.20	4.68	118.87	8	5000	34.48	48.00	1219.20	12.72	18.57
34844478002▲	3-1/2	88.90	5.36	136.14	10	5000	34.48	54.00	1371.60	17.04	24.88

Ihermoid®

THERMOID® MUD PUMP **SUCTION**

This how is designed for use as the flexible connection between mud pits and slush pumps. It features a construction of multiple plies of synthetic cord fabric with a helical steel wire which gives it its flexibility, helps prevent collapse and enables a full vacuum rating. Its CR cover and tube are resistant to abrasion, sunlight, weather and oil.



RESISTANCE





Thermoid HBD Industries Inc. **BRANDING** Made In USA

Cover Color: Black Oil Resistance: Medium

Construction:

 CR Tube: CR Cover:

Reinforcement: Multiple plies of synthetic cord fabric with a

helical wire

Temperature Range: -30°F to +200°F

-34°C to +93°C

Packaging: 50 ft. maximum

Hand built – \$250.00 minimum order per size

Couplings: **Built-in nipples**

Product	Nomin	al I.D.	Nomin	al O.D.	Plies		Pressure	Min. Ben	d Radius		ight
Number	(inches)	(mm)	(inches)	(mm)	1 lies	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
11560006002▲	6	152.40	7.50	190.50	3	100	0.69	36.00	914.40	9.70	14.44
11560008002▲	8	203.20	9.63	244.48	4	100	0.69	48.00	1219.20	15.90	23.66
11560010002▲	10	254.00	11.75	298.45	5	100	0.69	60.00	1524.00	22.00	32.74
11560012002▲	12	304.80	13.88	352.43	6	100	0.69	72.00	1828.80	28.30	42.12
14 L T O L (14)	TO)										

 $[\]blacktriangle$ = Make To Order (MTO)



HY-FLEX GRADE C ROTARY VIBRATOR DRILLING & **DECOKER**

The HY-FLEX Decoker hose is used in applications that call for a flexible connection between standpipe and swivel for pumping mud at a very high pressure in oil drilling and exploration. It is also ideal for refinery decoker service when coupled with HY-FLEX Full Flow Couplings. This hose features high strength spiral steel wire reinforcement which provides a very flexible connection capable of withstanding high pumping pressures. The CR cover and NBR tube offer excellent resistance to heat, oil, drilling muds, abrasion and weather.



RESISTANCE **BRANDING**





Thermoid HBD Industries HY-FLEX Rotory 4000 PSIG Grade C Made In USA Month Year + Warning: Caution Statement

Cover Color: Black Oil Resistance: High

Construction: Tube:

NBR, RMA Class A and ISO 6807: 2nd Edition

Cover: CR Grade C and ISO 6807: 2nd Edition with white layline

Reinforcement:

Multiple layers of spiralled high tensile carbon steel wire **Temperature Range:**

-20°F to +212°F

Packaging: -29°C to +100°C

100 ft. lengths maximum

Lengths for Coupled Assemblies hose are measured overall from threaded end to threaded end of the couplings Lengths tolerance is \pm 1% for the over-all length of the hose

or hose assembly.

Couplings: Highflex special internal expanded and swaged-on

> couplings for hose made to length. 3" male API line pipe thread on 2-1/2" size hose. 4" male API line pipe thread on

3" and 3-1/2" size hose.

Flanges or Hammer Unions can also be added to couplings.

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
34844402002▲	2-1/2	63.50	4.06	103.1	6	4000	27.59	48.00	1219.20	9.73	14.48
34844403002▲	3	76.20	4.63	117.6	8	4000	27.59	48.00	1219.20	11.26	16.76
34844404002	3-1/2	88.90	5.15	130.8	8	4000	27.59	54.00	1371.60	15.21	22.64

^{▲ =} Make To Order (MTO)

^{*} Test Pressure is 8,000 psi, a 2:1 ratio to working pressure. Minimum burst is 10,000 psi for each size, a 2.5:1 ratio to working pressure.



SLIM HOLE ROTARY DRILLING

Designed specifically for rotary drilling on portable drilling rigs, workover rigs, slim hole and seismograph rigs, this hose features a CR cover and an NBR tube which offer excellent resistance to heat, oil, abrasion and weather. This hose has a reinforcement of multiple layers of high tensile steel wire and two fabric plies which improve its strength and flexibility. This hose is also available with 3,000 psi WP.



RESISTANCE **BRANDING**

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Thermoid HBD Industries Slim Hole Rotary 2500 PSI WP Serial Number Made In USA

Cover Color: Black Oil Resistance: High

Construction:

Tube: NBR, RMA Class A

CR with white layline stripe - pinpricked Cover: Reinforcement: Multiple layers of spiralled high tensile steel

wire, plus two fabric plies under the wire

Temperature Range: -20°F to +200°F

-29°C to +93°C

Packaging: 100 ft. lengths maximum

Couplings: Swaged on high pressure carbon steel male

NPT or API threaded ends or reusable couplings

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
34844487002▲	2	50.80	3.13	79.38	4	2500	17.24	18.00	457.20	5.00	7.44
34844488002▲	2-1/2	63.50	3.64	92.46	4	2500	17.24	24.00	609.60	5.77	8.42
34844489002▲	3	76.20	4.19	106.36	4	2500	17.24	30.00	762.00	7.00	10.42

^{▲ =} Make To Order (MTO)

^{*} Test Pressure is 8,000 psi, a 2:1 ratio to working pressure. Minimum burst is 10,000 psi for each size, a 2.5:1 ratio to working pressure.



BLAST-FLEXTM SAND BLAST

This hose has been engineered to handle the cleaning, cutting or finishing of stone, glass and metal surfaces. It will conduct sand, steel, shot or other sharp abrasives at high velocity, and it features a 1/4" thick, SBR/NR tube that resists abrasion in sandblast service. The static-conducting properties of this hose prevent the build-up of electrical charges, and the reinforcement of four spiral plies of heavy fabric resists collapsing and kinking when the hose is bent.



RESISTANCE 🐼 🛣



BRANDING

HBD Industries Sand Blast Made In USA

Cover Color: Black Oil Resistance: Limited

Construction: Tube:

SBR/NR, 1/4" thick SBR/EPDM

Cover: Reinforcement: Multiple plies of heavy fabric

-40°F to +160°F **Temperature Range:** -40°C to +71°C

Packaging: 50 ft. maximum, all lengths

Minimum order is 500 ft. per size

Product	Nominal I.D.		Nominal O.D.		Plies	Working	Pressure	Min. Ben	d Radius		ight
Number	(inches)	(mm)	(inches)	(mm)	1 1163	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
17776010502	3/4	19.05	1.50	38.10	4	150	1.03	n/a	n/a	0.70	1.04
17776015502▲	1	25.40	1.88	47.63	4	150	1.03	n/a	n/a	1.00	1.49
17776025502▲	1-1/4	31.75	2.16	54.77	4	150	1.03	n/a	n/a	1.20	1.79
17776035502	1-1/2	38.10	2.38	60.33	4	150	1.03	n/a	n/a	1.30	1.93
17776040502	2	50.80	2.88	73.03	4	100	0.69	n/a	n/a	1.70	2.53
17776045502▲	2-1/2	63.50	3.41	86.52	4	100	0.69	n/a	n/a	2.00	2.98
17776050502	3	76.20	3.91	99.22	4	100	0.69	n/a	n/a	2.40	3.57

▲ = Make To Order (MTO) n/a = Not Applicable

Ihermoid^e

WRAPPED SAND BLAST

The Wrapped Sand Blast hose has been engineered to handle the cleaning, cutting or finishing of stone, glass and metal surfaces. This hose will conduct sand, steel, shot or other sharp abrasives at high velocity, and its 1/4" thick, SBR/NR tube resists abrasion in sandblast service. The static-conducting properties of this hose prevent the build-up of electrical charges, and the reinforcement of four spiral plies of heavy fabric resists collapsing and kinking when the hose is bent.



BRANDING



Thermoid HBD Industries Sand Blast Hose WP Made In USA

Cover Color: Black Oil Resistance: Limited

Construction: Tube:

SBR/NR, 1/4" thick

SBR/EPDM Cover:

Reinforcement: Multiple plies of heavy fabric 50 ft. maximum, all lengths Packaging:

Minimum order is 500 ft. per size

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
21224407502	1/2	12.70	1.19	30.16	4	150	1.03	n/a	n/a	0.50	0.74
21224400502	3/4	19.05	1.50	38.10	4	150	1.03	n/a	n/a	0.70	1.04
21224401502	1	25.40	1.88	47.63	4	150	1.03	n/a	n/a	1.00	1.49
21224402502	1-1/4	31.75	2.16	54.77	4	150	1.03	n/a	n/a	1.20	1.79
21224403502	1-1/2	38.10	2.38	60.33	4	150	1.03	n/a	n/a	1.30	1.93
21224404502	2	50.80	2.88	73.03	4	100	0.69	n/a	n/a	1.70	2.53
AA L T O L /AA	TO										

▲ = Make To Order (MTO) n/a = Not Applicable

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BURSTPROOF™ OIL RESISTANT STEAM (THERMOCURE)

This hose is designed for saturated steam service up to +406°F and super-heated service up to +450°F where the cover may encounter petroleum products. Available in black or red, this hose's EPDM cover is reinforced with two braids of carbon steel wire providing flexibility and abrasion resistance. This durable hose provides a constant working pressure of 250 psi and is available in a range of sizes.



RESISTANCE

0 6

BRANDING

DING BP Steam, 250# PSI WP Oil Resistant Made In USA

Cover Color: Black or Red Oil Resistance: Medium

Construction:

Tube: EPDM, RMA Class C Cover: EPDM, RMA Class C

Reinforcement: Two braids of carbon steel wire

Temperature Range: For saturated steam service to $+406^{\circ}F$ ($+208^{\circ}C$)

Super-heated steam to $+450^{\circ}F$ ($+232^{\circ}C$)

Packaging: Reels –1/2"-1" I.D. or 50 ft. lengths

2-1/2" I.D. — 50 ft. lengths

Product Number	Nomin (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Braids	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
Black		`								, ,	
22062321662	1/2	12.70	1.06	26.99	2	250	1.72	3.00	76.20	0.38	0.57
22062481662	3/4	19.05	1.28	32.54	2	250	1.72	4.50	114.30	0.52	0.77
22062641662	1	25.40	1.53	38.89	2	250	1.72	7.00	177.80	0.77	1.15
01104426502	2-1/2	63.50	3.13	79.38	2	250	1.72	17.00	431.80	2.00	2.98
Red											
22062322662	1/2	12.70	1.06	26.99	2	250	1.72	3.00	76.20	0.38	0.57
22062482662	3/4	19.05	1.28	32.54	2	250	1.72	4.50	114.30	0.52	0.77
22062642662	1	25.40	1.53	38.89	2	250	1.72	7.00	177.80	0.77	1.15

BURSTPROOF™ REGULAR STEAM (THERMOCURE)

This hose is designed for saturated steam service up to +406°F and super-heated steam service up to +450°F where petroleum products will not contact the hose. This hose meets MIL H 28596B, Type 1, Grade A specifications. Available in black or red, this hose's EPDM cover is reinforced with two braids of carbon steel wire providing flexibility and abrasion resistance. This durable hose provides a constant working pressure of 250 psi and is available in a range of sizes.



RESISTANCE ()



BRANDING

Thermoid HBD Industries BP Steam Hose Made In USA

Cover Color: Black or Red Oil Resistance: Limited

Construction:

Packaging:

EPDM

Tube: **EPDM** Cover:

Reinforcement: Two braids of carbon steel wire

Temperature Range: For saturated steam service to +406°F (+208°C)

Super-heated steam to +450°F (+232°C) Reels - 1/2"-1" I.D. or 50 ft. lengths

1-1/4" - 2" I.D. - 50 ft. lengths

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Braids	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
Black											
22052321662	1/2	12.70	1.00	25.40	2	250	1.72	3.00	76.20	0.38	0.57
22052481662	3/4	19.05	1.28	32.54	2	250	1.72	4.50	114.30	0.52	0.77
22052641662	1	25.40	1.53	38.89	2	250	1.72	7.00	177.80	0.77	1.15
01104413502	1-1/4	31.75	1.88	47.63	2	250	1.72	8.75	222.25	1.10	1.64
01104414502	1-1/2	38.10	2.11	53.58	2	250	1.72	10.50	266.70	1.23	1.83
01104415502	2	50.80	2.66	67.47	2	250	1.72	14.00	355.60	1.62	2.41
Red											
22052322662	1/2	12.70	1.00	25.40	2	250	1.72	3.00	76.20	0.38	0.57
22052482662	3/4	19.05	1.28	32.54	2	250	1.72	4.50	114.30	0.52	0.77
22052642662	1	25.40	1.53	38.89	2	250	1.72	7.00	177.80	0.77	1.15

Thermoid®

PILE DRIVER STEAM

The Pile Driver Steam hose is recommended for applications that require saturated steam service up to +388°F on driving systems. It features an EPDM tube that is specifically compounded to resist permeation and prevent premature failure. The multiple plies of tire cord with plated steel cable reinforcement enable this hose to maintain a working pressure of 200 psi, regardless of hose size.



RESISTANCE BRANDING

O S

Thermoid HBD Industries
Pile Driver Steam Hose 200 PSI
WP Serial Number Made In USA

Cover Color: Black **Oil Resistance:** Limited

Construction:

Tube: EPDM, also available in CR for oil resistance
Cover: EPDM, also available in CR for oil resistance
Reinforcement: Multiple plies of tire cord and plated steel cable
Temperature Range: Saturated steam service to +388°F (+198°C)

Packaging: 100 ft. maximum
Minimum order 300 ft.

Product Number	Nomin (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working Pressure (psi) (Mpa)		Min. Ben (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
Nullibel	(IIICIIES)	(111111)	(IIICIIE3)	(111111)		(þsi)	(Mpa)	(IIICIIES)	(111111)	(10/11)	(Ng/III)
34854634002▲	2	50.80	3.13	79.38	4	200	1.38	20.00	508.00	4.10	6.10
34854636002▲	2-1/2	63.50	3.38	85.73	4	200	1.38	25.00	635.00	5.40	8.04
34854638002▲	3	76.20	4.50	114.30	4	200	1.38	30.00	762.00	6.40	9.52
34854640002▲	4	101.60	5.63	142.88	4	200	1.38	40.00	1016.00	9.30	13.84
34854642002▲	6	152.40	7.81	198.44	6	200	1.38	60.00	1524.00	18.60	27.68

▲ = Make To Order (MTO)

ALERT: Large size, industrial hoses have caution and/or safety usage printed information attached by tag to the product or this information is printed onto the hose.

■ WATER/FIRE



Thermoid®

BLACK HEAVY-DUTY CONTRACTORS WATER – COUPLED

Designed for professional grade contractor use, this heavy-duty water hose is engineered to remain flexible even in extreme temperatures ranging from -40°F to +180°F. It is coupled (Male x Female) with crush resistant octagonal nut rod brass garden hose couplings and brass ferrules. This hose is virtually kink-proof, features an EPDM tube and cover with multi-spiral reinforcement that is heat, ozone and sunlight resistant, and has a constant working pressure of 150 psi through all sizes.



RESISTANCE OF SOME

Cover Color: Black
Oil Resistance: Limited

Construction:

Tube: EPDM Cover: EPDM

Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +180°F
-40°C to +82°C

Packaging: 50 ft. lengths – 5 per carton

Product Number	Nominal I.D. (inches) (mm)		Nominal O.D. (inches) (mm)		Reinforcement Braids	Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		We (lb/ft)	ight (Kg/m)
00512281248	5/8	15.88	0.94	23.81	2	150	1.03	3.75	95.25	0.23	0.34
00512281255▲	3/4	19.05	1.06	26.98	2	150	1.03	4.50	114.30	0.27	0.40



BLACK HEAVY-DUTY WATER – COUPLED

This hose is suitable for water pressures up to 150 psi and is coupled with Male x Female octagonal nut spun brass garden hose couplings with brass ferrules. Manufactured using the Air Mandrel Manufacturing Process, this hose is produced with no internal contamination of the inside diameter due to the lubricant, eliminating the need for customers to flush the hose.



RESISTANCE () () () **BRANDING** None

Cover Color: Black Oil Resistance: Limited

Construction:

EPDM Tube: Cover: **EPDM**

Reinforcement: Spiral polyester yarn Temperature Range: -40°F to +180°F -40°C to +82°C

Packaging: 50 ft. lengths – 5 per carton

Product	Nomin	al I.D.	Nominal O.D.		Reinforcement	Working Pressure		Min. Bend Radius		We	ight
Number	(inches)	(mm)	(inches) (mm)		Braids	(psi) (Mpa)		(inches) (mm)		(lb/ft)	(Kg/m)
00512180769	5/8	15.88	0.94	23.81	2	150	1.03	3.75	95.25	0.23	0.34
00512180771	3/4	19.05	1.06	26.98	2	150	1.03	4.50	114.30	0.27	0.40

Water

Ihermoid®

BLACK MUNICIPAL WATER – COUPLED

This economical water hose was designed to provide general water pressure service for municipalities and general construction. It features an EPDM tube and cover that stand up to the effects of heat, abrasion, weathering and ozone. The multispiral reinforcement keeps the hose flexible even in extreme temperatures and helps minimize kinks. It can be used by consumers or in construction and this hose will handle city water pressure.



BRANDING None





Limited



Cover Color: Black

Oil Resistance: Construction:

> **EPDM** Tube: **EPDM** Cover:

Reinforcement: Spiral polyester yarn -40°F to +180°F Temperature Range: -40°C to +82°C

Packaging: 25 ft. or 50 ft. lengths – 5 per carton

Product Number	Nomin (inches)	al I.D. (mm)	Nominal O.D. (inches) (mm)		Reinforcement Braids	Working (psi)	Working Pressure (psi) (Mpa)		d Radius (mm)	We (lb/ft)	ight (Kg/m)
25 ft.											
00511780744	5/8	15.88	0.88	22.23	2	100	0.69	3.75	95.25	0.18	0.27
00511780745▲	3/4	19.05	1.03	26.19	2	100	0.69	4.50	114.30	0.24	0.36
50 ft.											
00511780769▲	5/8	15.88	0.88	22.23	2	100	0.69	3.75	95.25	0.18	0.27
00511780770▲	3/4	19.05	1.03	26.19	2	100	0.69	4.50	114.30	0.24	0.36



GREEN GARDEN – COUPLED

Designed for home use, Thermoid's rubber Green Garden hose handles city water pressure and is coupled with Male x Female spun brass couplings. Its EPDM tube and cover resist abrasion, ozone, cracking and weather checking. The multi-spiral polyester reinforcement helps keep it flexible even in extreme temperatures and is virtually kink-proof.



BRANDING None



Cover Color: Green (other colors available)

Oil Resistance: Limited

Construction:

Packaging:

EPDM Tube: Cover: **EPDM**

Reinforcement: Spiral polyester yarn -40°F to +180°F Temperature Range: -40°C to +82°C

50 ft. lengths – 5 per carton

Product	Nomina	ıl I.D.	Nomin	al O.D.	Reinforcement	Working	Pressure	Min. Ben	d Radius	We	ight
Number	(inches)	(mm)	(inches)	(mm)	Braids	(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
00549680102 ▲	5/8	15.88	0.88	22.23	2	100	0.69	3.75	95.25	0.19	0.28

Water

WASHING MACHINE DRAIN

This hose is specifically designed to withstand the heat and service life requirements needed for washing machine applications both in domestic and commercial use. It features an EPDM tube and cover with multi-spiral polyester construction which contributes to the hose's kink resistance and ease of use. Its flexibility makes it ideal for curves and bends.



RESISTANCE None

Cover Color: Black
Oil Resistance: Limited

Construction:

Tube: EPDM Cover: EPDM

Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +200°F
-40°C to +93°C

Packaging: 50 ft. lengths –1 per carton

Product Number	Nominal I.D. (inches) (mm)		Nominal O.D. (inches) (mm)		Reinforcement Braids	Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		We (lb/ft)	ight (Kg/m)
00548610250▲	5/8	15.88	0.91	23.02	2	62	0.43	3.75	95.25	0.19	0.28
00548614250	7/8	22.23	1.22	30.96	2	37	0.25	5.25	133.35	0.35	0.52



NYLAIR 44 WATER DISCHARGE

Recommended for water discharge service requiring a rugged, light to medium weight hose, the Nylair 44 hose can be used with hot (+180°F) or cold water. Its 3/32" thick SBR tube is resistant to water absorption, while its 1/16" thick black SBR/EPDM cover resists abrasions and water absorption.





BRANDING

Thermoid HBD Industries Nylair 44 Water Discharge Made In USA

Cover Color: Black Oil Resistance: Limited

Construction: Tube:

Cover:

SBR, 3/32" thick SBR/EPDM, 1/16" thick Reinforcement: Multiple plies of cord -40°F to +160°F **Temperature Range:** -40°C to +71°C

Packaging: 50 ft. maximum

Straight ends only

1/2" to 2-1/2" I.D., minimum order of 500 ft. 3"I.D. or larger, \$250.00 minimum order

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
21324480502	1/2	12.70	1.00	25.40	4	200	1.38	n/a	n/a	0.27	0.40
21324481502▲	3/4	19.05	1.25	31.75	4	200	1.38	n/a	n/a	0.30	0.45
21324482502	1	25.40	1.50	38.10	4	200	1.38	n/a	n/a	0.44	0.65
21324483502▲	1-1/4	31.75	1.75	44.45	4	200	1.38	n/a	n/a	0.60	0.89
21324484502	1-1/2	38.10	2.06	52.39	4	200	1.38	n/a	n/a	0.78	1.16
21324485502	2	50.80	2.56	65.09	4	200	1.38	n/a	n/a	1.00	1.49
21324486502	2-1/2	63.50	3.06	77.79	4	150	1.03	n/a	n/a	1.38	2.05
11524488502▲	3	76.20	3.56	90.49	4	150	1.03	n/a	n/a	1.58	2.35
11524490502▲	4	101.60	4.63	117.48	4	150	1.03	n/a	n/a	2.10	3.13
11524491502▲	4-1/2	114.30	5.06	128.59	4	125	0.86	n/a	n/a	2.49	3.71
11524492502▲	5	127.00	5.56	141.29	4	125	0.86	n/a	n/a	2.69	4.00
11524494502▲	6	152.40	6.56	166.69	4	100	0.69	n/a	n/a	3.18	4.73
11524495502▲	8	203.20	8.75	222.25	6	100	0.69	n/a	n/a	5.68	8.45
11524497502▲	8	203.20	9.00	228.60	8	150	1.03	n/a	n/a	6.57	9.78
11524498502▲	10	254.00	10.81	274.64	6	75	0.52	n/a	n/a	7.20	10.72
11524499502▲	10	254.00	11.00	279.40	8	100	0.69	n/a	n/a	7.71	11.47

▲ = Make To Order (MTO) n/a = Not Applicable

Ihermoid®

PAPER MILL-TYPE 1788 (GRAY COVER)

Ideal for use in paper and pulp mills and other processing plants, this hose was designed for hot (up to +200°F) or cold water. Its gray SBR cover is smooth, thick, soft and resilient, and the SBR tube resists water absorption, as well as chemicals, acids, scuffing and abrasions. The Paper Mill Type 1788 hose is available with a lightweight, flexible end which reduces damage if accidentally dropped.



RESISTANCE **BRANDING**







Thermoid HBD Industries Type 1788 Paper Mill Made In USA

Cover Color: Gray Oil Resistance: Limited

Construction:

SBR Tube: SBR Cover:

Reinforcement: Multiple plies of medium weight fabric

-40°F to +160°F Temperature Range:

-40°C to +71°C

Packaging: 50 ft. lengths

Product Number		Nominal I.D. (inches) (mm)				Working Pressure (psi) (Mpa)		Min. Bend Radius (inches) (mm)		We (lb/ft)	ight (Kg/m)
Nullibel	(IIICIIE3)	(111111)	(iliciies)	(111111)	Braids	(þ3i)	(Mpa)	(IIICIIC3)	(111111)	(10/11)	(Ng/III)
21284434502	3/4	19.05	1.31	33.34	3	150	1.03	n/a	n/a	0.35	0.52
21284435502	1	25.40	1.47	37.31	4	150	1.03	n/a	n/a	0.49	0.73
21284436502	1-1/4	31.75	1.75	44.45	4	150	1.03	n/a	n/a	0.64	0.95
21284437502	1-1/2	38.10	2.00	50.80	4	125	0.86	n/a	n/a	0.74	1.10

▲ = Make To Order (MTO) n/a = Not Applicable



CASCADE PAPER MILL

Cascade Paper Mill hose is designed for those applications where there is hot water (+200°F) wash-up paper and pulp mills and other processing mills. The SBR tube is resistant to water absorption. The 2-ply or 4-ply reinforcement is a feature that allows this hose to work unencumbered at 150 psi, no matter what size hose is being used.



RESISTANCE



BRANDING

Thermoid HBD Industries Cascade Paper Mill Washdown WP Made In USA

Cover Color: Gray Limited Oil Resistance:

Construction: Tube:

SBR, 1/8" thick for 2-ply and

3/32" thick for 4-ply Cover: SBR

Reinforcement:

Multiple plies of polyester cord Temperature Range: -40°F to +160°F **Temperature Range:**

-40°C to +71°C

Packaging: Packaging: Tapered end – 50 ft.

Straight end – 50 ft. to 100 ft. Tapered end – one end only

Other colors available, 1200 ft. minimum

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Spirals/ Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
17828030502	3/4	19.05	1.16	29.36	2	150	1.03	n/a	n/a	0.34	0.51
17828031502	1	25.40	1.41	35.71	2	150	1.03	n/a	n/a	0.43	0.64
17828032502	1-1/4	31.75	1.75	44.45	2	150	1.03	n/a	n/a	0.66	0.98
17828033502	1-1/2	38.10	2.00	50.80	2	150	1.03	n/a	n/a	0.74	1.10
17828034502▲	2	50.80	2.50	63.50	2	150	1.03	n/a	n/a	0.92	1.37
17828035502▲	2-1/2	63.50	3.03	76.96	2	150	1.03	n/a	n/a	1.29	1.92
17828001502	3/4	19.05	1.16	29.36	4	150	1.03	n/a	n/a	0.38	0.57
17828002502	1	25.40	1.41	35.71	4	150	1.03	n/a	n/a	0.56	0.83
17828000502	1-1/4	31.75	1.75	44.45	4	150	1.03	n/a	n/a	0.69	1.03
17828003502▲	1-1/2	38.10	2.00	50.80	4	150	1.03	n/a	n/a	0.80	1.19
17828004502▲	2	50.80	2.50	63.50	4	150	1.03	n/a	n/a	0.96	1.43
17828005502▲	2-1/2	63.50	3.03	76.96	4	150	1.03	n/a	n/a	1.35	2.01

TRANSPORTER® WATER DISCHARGE

This hose is ideal for irrigation and construction applications. It is extremely lightweight, flexible and easy to handle, and features an EPDM tube and cover which is resistant to water absorption, heat and sunlight. Regardless of the I.D., the synthetic cord reinforcement allows this hose to work at a constant working pressure of 100 psi.



RESISTANCE BRANDING



Thermoid HBD Industries Transporter Water Discharge Made In USA

Cover Color: Black **Oil Resistance:** Limited

Construction:

Tube: EPDM Cover: EPDM

Reinforcement: Synthetic cord **Temperature Range:** -40° F to $+180^{\circ}$ F

-40°C to +82°C

Packaging: 100 ft. maximum

Product Number	Nomin (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
17825015002 17825020002▲	1-1/2	38.10 50.80	1.72 2.22	43.66 56.36	2	100 100	0.69 0.69	n/a n/a	n/a n/a	0.30 0.40	0.45 0.60
17825020002	3	76.20	3.22	81.76	2	100	0.69	n/a	n/a	0.60	0.89
17825040002	4	101.40	4.22	107.16	2	100	0.69	n/a	n/a	0.90	1.34
17825060002▲	6	152.40	6.34	161.13	4	100	0.69	n/a	n/a	2.00	2.98



WD-150 WATER DISCHARGE

WD-150 is a heavy-duty water discharge hose suitable for construction sites, work boats and mines where abrasion resistance and higher working pressures are required. This hose features a reinforcement of 2- or 4-plies of polyester cord that allows this hose to work at a constant working pressure of 150 psi regardless of hose I.D. The EPDM tube and cover offer excellent heat and water resistance.



RESISTANCE () 🚳 😂 **BRANDING**



Thermoid/HBD Industries Water Discharge 150 PSI WP Made In USA

Cover Color: Black Oil Resistance: Limited

Construction: Tube:

Cover:

EPDM EPDM

Reinforcement: Heavy plies of polyester cord in sizes

> 1" to 4" I.D. — 2 plies 5" and 6" I.D. – 4 plies

Temperature Range: -40°F to +180°F

-40°C to +82°C

Packaging: 100 ft. maximum

Product Number	Nomin (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
17826010002▲	1	25.40	1.28	32.54	2	150	1.03	n/a	n/a	0.27	0.40
17826012502▲	1-1/4	31.75	1.53	38.89	2	150	1.03	n/a	n/a	0.32	0.48
17826015002▲	1-1/2	38.10	1.78	53.18	2	150	1.03	n/a	n/a	0.38	0.57
17826020002▲	2	50.80	2.28	57.94	2	150	1.03	n/a	n/a	0.56	0.83
17826025002▲	2-1/2	63.50	2.80	71.04	2	150	1.03	n/a	n/a	0.70	1.04
17826030002▲	3	76.20	3.28	83.34	2	150	1.03	n/a	n/a	0.76	1.13
17826040002▲	4	101.60	4.31	109.54	2	150	1.03	n/a	n/a	1.13	1.68
17826050002▲	5	127.00	5.50	139.70	4	150	1.03	n/a	n/a	2.45	3.65
17826060002▲	6	152.40	6.50	165.10	4	150	1.03	n/a	n/a	2.77	4.12



TRANSPORTER® WATER SUCTION & DISCHARGE

This hose was specifically designed to serve as a connector on paper machines. It features a corrugated CR tube and cover which are resistant to oil, abrasions, weathering and ozone. Rated at full vacuum, the Paper Machine Suction Box resists kinking or collapsing and is extremely flexible.



RESISTANCE BRANDING 0 @ @

Thermoid HBD Industries Transporter Water Suction & Discharge Hose WP Made In USA

Cover Color: Black **Oil Resistance:** Limited

Construction:

Tube: EPDM Cover: EPDM

Reinforcement: Synthetic cord with spiral wire helix(es) wire

Temperature Range: inserted

 -40° F to $+180^{\circ}$ F

Packaging: $-40^{\circ}\text{C to} +82^{\circ}\text{C}$

100 ft. maximum

Product Number	Nomin (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
17834010002▲	1	25.40	1.44	36.51	2	200	1.38	2.50	63.50	0.50	0.74
17834012502▲	1-1/4	31.75	1.69	42.86	2	200	1.38	3.00	76.20	0.60	0.89
17834015002	1-1/2	38.10	1.94	49.21	2	200	1.38	4.00	101.60	0.70	1.04
17834020002	2	50.80	2.44	61.91	2	150	1.03	6.00	152.40	0.90	1.34
17834025002	2-1/2	63.50	3.00	76.20	2	150	1.03	8.50	215.90	1.30	1.93
17834030002	3	76.20	3.56	90.49	2	150	1.03	11.00	279.40	1.80	2.68
17834040002	4	101.60	4.63	117.48	2	150	1.03	14.00	355.60	2.60	3.87
17830600002▲	6	152.40	6.67	169.47	2	100	0.69	30.00	762.00	4.10	6.10

▲ = Make To Order (MTO)



PAPER MACHINE SUCTION BOX

This hose was specifically designed to serve as a connector on paper machines. It features a corrugated CR tube and cover which are resistant to oil, abrasions, weathering and ozone. Rated at full vacuum, the Paper Machine Suction Box resists kinking or collapsing and is extremely flexible.



Cover Color: Black **Oil Resistance:** Medium

Construction:

Tube: CR, corrugated Cover: CR, corrugated

Reinforcement: Multiple plies of synthetic fabric with spiral wire

helix(es)

Temperature Range: -40°F to +180°F

-40°C to +82°C

Packaging: Minimum 12" and maximum 120" lengths

available on all sizes. \$250.00 minimum order Ends: 2" soft cuff with capped ends

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Spirals/ Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
11484045502▲	4-1/2	114.30	5.31	134.94	2	n/a	n/a	4.50	114.30	3.90	5.80
11484050502▲	5	127.00	5.81	147.64	2	n/a	n/a	5.00	127.00	4.20	6.25
11484060502▲	6	152.40	6.81	173.04	2	n/a	n/a	6.00	152.40	4.90	7.29
11484070502▲	6-5/8	168.28	7.44	188.91	2	n/a	n/a	6.63	168.28	6.10	9.08
11484080502▲	8	203.20	8.81	223.84	2	n/a	n/a	8.00	203.20	6.20	9.23
11484090502▲	8-5/8	219.08	9.44	239.71	2	n/a	n/a	8.63	219.08	6.60	9.82
11484100502▲	10	254.00	10.81	274.64	2	n/a	n/a	10.00	254.00	8.90	13.25
11484108502▲	10-3/4	273.05	11.56	293.69	2	n/a	n/a	10.75	273.05	9.40	13.99
11484120502▲	12	304.80	12.88	327.03	3	n/a	n/a	12.00	304.80	11.00	16.37
11484128502▲	12-3/4	323.85	13.63	346.08	3	n/a	n/a	12.75	323.85	11.30	16.82
11484140502▲	14	355.60	14.94	379.41	3	n/a	n/a	14.00	355.60	14.20	21.13
11484160502▲	16	406.40	16.94	430.21	3	n/a	n/a	16.00	406.40	15.90	23.66
11484180502▲	18	457.20	19.00	482.60	3	n/a	n/a	18.00	457.20	17.70	26.34

^{▲ =} Make To Order (MTO)

^{*}All sizes are rated at full vacuum

Ihermoid®

DARI-PREEN CREAMERY

The Dari-Preen Creamery hose is designed for washdown service in creameries, dairies, packing houses, canneries and food processing plants. It features an EPDM tube and cover that resists scuffing and cracking and is color coded white to indicate washdown service and cleanliness. Dari-Preen handles hot water up to 200°F at 50 psi, and is rated for working pressures up to 250 psi on 1/2" I.D.



RESISTANCE **BRANDING**

Size WP Dari-Preen Made In USA

Cover Color: White Oil Resistance: Limited

Construction:

EPDM Tube: **EPDM** Cover:

Reinforcement: Spiral polyester yarn -40°F to +180°F Temperature Range: -40°C to +82°C

Packaging: Reels, †50 ft. length – 1 per carton

Product Number	Nomir (inches)	nal I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
00544808400	1/2	12.70	0.91	23.02	4	250	1.72	3.00	76.20	0.29	0.43
00544812400	3/4	19.05	1.25	31.75	4	200	1.38	4.50	114.30	0.50	0.74
00544812450†	3/4	19.05	1.25	31.75	4	200	1.38	4.50	114.30	0.50	0.74



SANI-WHITE® WASHDOWN

The Sani-White® Washdown hose is recommended for open-end washdown service in food processing plants where service is not too severe, such as dairies, canneries, packing houses and bottling plants. This hose features an SBR tube that is heat resistant and stands up to the action of hot water and steam. It also resists saturated steam pressure up to 40 psi (287°F) in open end service. Sani-White® Washdown hose is available in tapered and straight ends and its white NBR/PVC cover resists oil, grease and cleaning compounds.



RESISTANCE () (a) (b)

BRANDING

Thermoid HBD Industries Sani-White Washdown Made In USA

Cover Color: White Oil Resistance: Limited

Construction: Tube:

Cover:

SBR NBR/PVC

Reinforcement: Plies of strong fabric -20°F to +160°F **Temperature Range:** -29°C to +71°C

Packaging: Tapered end – 50 ft. lengths

> Will not cut tapered ends Minimum run – 1200 ft. per size.

Straight End

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Plies	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
21284460502	1/2	12.70	0.94	23.81	3	150	1.03	n/a	n/a	0.25	0.37
21284461502	3/4	19.05	1.16	29.37	3	125	0.86	n/a	n/a	0.33	0.49
21284462502	1	25.40	1.47	37.31	4	100	0.69	n/a	n/a	0.46	0.68

▲ = Make To Order (MTO) n/a = Not Applicable

Tapered End

Product	Nomir	nal I.D.	Nomin	al O.D.	Plies	Working	Pressure	Min. Ben	d Radius	We	ight
Number	(inches)	(mm)	(inches)	(mm)		(psi)	(Mpa)	(inches)	(mm)	(lb/ft)	(Kg/m)
21284465502▲	3/4	19.05	1.16	29.37	3	125	0.86	n/a	n/a	0.33	0.49

ALARM® BOOSTER – THERMOCURE

Our Alarm® Booster hose is a high quality, all-purpose fire engine booster hose product. Built to take rugged treatment, this hose has a red, NBR/PVC cover that resists abrasion while providing a smooth surface for easy handling, making it the driver's choice. Engineered to be dimensionally stable and not flatten or crush reels, it features an SBR/Nitrile tube that is reinforced with multiple spiral aramid yarns. Alarm® Booster is designed to provide a constant working pressure up to 800 psi for maximum safety.



RESISTANCE BRANDING





Size WP Made In USA

Cover Color:

Red

Oil Resistance: Construction: Medium, high

. NBR/PVC, RMA Class A

Tube: Cover:

NBR/PVC, RMA Class A, 1-1/2"I.D. EPDM

Reinforcement: 2

2-spiral aramid yarn

Temperature Range:

-20°F to +190°F, 1-1/2″I.D. -40°F to +190°F

Packaging:

 -29° C to $+88^{\circ}$ C, 1-1/2''I.D. -40° C to $+88^{\circ}$ C Reels, coupled lengths available on a make-to-

order basis

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
22212482662	3/4	19.05	1.19	30.16	2	800	5.51	4.50	114.30	0.41	0.61
22214642662	1	25.40	1.50	38.10	2	800	5.51	7.00	177.80	0.51	0.76
00142524301	1-1/2	38.10	2.00	50.80	4	250	1.72	10.50	266.70	0.71	1.06

* Reattachable chrome-plated aluminum NST spanner hole couplings available to fit 3/4" and 1" I.D.

WELDING



TULINE WELDING, GRADE R

The Flex Strength® Tuline Welding hose is lightweight, flexible and available from stock in a wide range of sizes. The hoses come in two popular grades, R and T. Both grades come in single line and tuline styles, with or without corrugated covers. Each of these styles and grades feature multi-spiral construction for maximum kink resistance. The Grade R hose features an EPDM tube and cover that are heat resistant.



RESISTANCE BRANDING



Red #495 Size, Grade R Acetylene Only Std. Duty KX WP 200 PSI RMA 1P-7-2008 (Date)

Green #501

Cover Color: Red, Green

Oil Resistance: Limited - (Acetylene Only)

Construction:

Tube: EPDM Cover: EPDM

Reinforcement: Spiral polyester yarn
Temperature Range: -40°F to +180°F

-40°C to +82°C

Packaging: Reels, Cut and coupled lengths



RESISTANCE



BRANDING

Red #495 Size, Grade R Acetylene Only Std. Duty KX WP 200 PSI RMA 1P-7-2008 (Date) Green #501

Cover Color: Red, Green

Oil Resistance: Limited - (Acetylene Only)

Construction:

Tube: EPDM Cover: EPDM

Reinforcement: Spiral polyester yarn **Temperature Range:** -40°F to +180°F

-40°C to +82°C

Packaging: Reels, Cut and coupled lengths



TULINE WELDING, GRADE R

Red is for acetylene use only, and where cover must resist abrasion, weather and ozone.

Product Number	Nomina (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
00521403200	3/16	4.76	0.44	11.11	2	200	1.38	1.25	31.75	0.15	0.22
00521404200	1/4	6.35	0.53	13.49	2	200	1.38	1.50	38.10	0.21	0.32
00521405200▲	5/16	7.94	0.59	15.08	2	200	1.38	2.00	50.80	0.25	0.37
00521406200	3/8	9.53	0.66	16.67	2	200	1.38	2.25	57.15	0.28	0.41

^{▲ =} Make To Order (MTO)

TULINE WELDING, GRADE R

Cut & Coupled (B&B)

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)
00521403215▲	3/16	4.76	12.50	3.81
00521403225	3/16	4.76	25.00	7.62
00521403249	3/16	4.76	50.00	15.24
00521403291	3/16	4.76	100.00	30.48
00521484212▲	1/4	6.35	12.50	3.81
00521484225	1/4	6.35	25.00	7.62
00521484250	1/4	6.35	50.00	15.24
00521484290	1/4	6.35	100.00	30.48
00521405226▲	5/16	7.94	25.00	7.62
00521405252	5/16	7.94	50.00	15.24
00521405291▲	5/16	7.94	100.00	30.48
00521406226▲	3/8	9.53	25.00	7.62
00521406251▲	3/8	9.53	50.00	15.24
00521406290▲	3/8	9.53	100.00	30.48
- Make To Order (M	TO)			



All lengths packaged 5 per box except 100 ft. Lengths are packaged 1 per box.

SINGLE LINE CORRUGATED WELDING, GRADE R, TYPE S

Red or Green. Red is for acetylene use only, and where cover must resist abrasion, weather and ozone.

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	nd Radius (mm)	We (lb/ft)	ight (Kg/m)
Green											
00521803205	3/16	4.76	0.44	11.11	2	200	1.38	1.25	31.75	0.08	0.12
00521804205	1/4	6.35	0.53	13.49	2	200	1.38	1.50	38.10	0.11	0.16
00521804405	1/4	6.35	0.59	15.08	4	200	1.38	1.50	38.10	0.14	0.21
00521805400▲	5/16	7.94	0.66	16.69	4	200	1.38	2.00	50.80	0.16	0.24
00521806400	3/8	9.53	0.72	18.26	4	200	1.38	2.25	57.15	0.18	0.27
Red											
00521903205	3/16	4.76	0.44	11.11	2	200	1.38	1.25	31.75	0.08	0.12
00521904205	1/4	6.35	0.53	13.49	2	200	1.38	1.50	38.10	0.11	0.16
00521904405	1/4	6.35	0.59	15.08	4	200	1.38	1.50	38.10	0.14	0.21
00521905400	5/16	7.94	0.66	16.69	4	200	1.38	2.00	50.80	0.16	0.24
00521906400	3/8	9.53	0.72	18.26	4	200	1.38	2.25	57.15	0.18	0.27

^{▲ =} Make To Order (MTO)

 $[\]blacktriangle$ = Make To Order (MTO)

TULINE WELDING, GRADE T

The Flex Strength® Tuline Welding hose is lightweight, flexible and available from stock in a wide range of sizes. The hoses come in two popular grades, R and T. Both grades come in single line and tuline styles, with or without corrugated covers. Each of these styles and grades feature multispiral construction for maximum kink resistance. The Grade T hose features a CR (Polychloroprene) tube and cover that offer medium-high fuel gas resistance.



RESISTANCE

BRANDING

Red #512 Size, Grade T Fuel Gas Std. Duty KX WP 200 PSI RMA 1P-7-2008 (Date) Green #501

Cover Color: Red, Green

Fuel Resistance: Construction:

Polychloroprene (CR)

Medium - High - (All Fuel Gases)

Tube: Cover:

NBR/PVC

Reinforcement: Spiral polyester yarn **Temperature Range:** -40°F to +180°F

-40°C to +82°C

Packaging: Reels, Cut and coupled lengths



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6

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TULINE WELDING, GRADE T

For use with all fuel gases, and where a flame and oil resistant tube and cover are required.

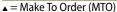
Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
00521503200▲	3/16	4.76	0.44	11.11	2	200	1.38	1.25	31.75	0.17	0.25
00521504200	1/4	6.35	0.53	13.49	2	200	1.38	1.50	38.10	0.24	0.36
00521505200▲	5/16	7.94	0.59	15.08	2	200	1.38	2.00	50.80	0.27	0.40
00521506200	3/8	9.53	0.66	16.67	2	200	1.38	2.25	57.15	0.31	0.46

^{▲ =} Make To Order (MTO)

TULINE WELDING, GRADE T

Cut & Coupled (B&B)

Product Number	Nomin (inches)	al I.D. (mm)	Nominal O.D. (inches) (mm)		
00521583250▲	3/16	4.76	50.00	15.24	
00521584212▲	1/4	6.35	12.50	3.81	
00521584225▲	1/4	6.35	25.00	7.62	
00521584250	1/4	6.35	50.00	15.24	
00521584290	1/4	6.35	100.00	30.48	
00521585250▲	5/16	7.94	50.00	15.24	
00521586250▲	3/8	9.53	50.00	15.24	
00521586290▲	3/8	9.53	100.00	30.48	





All lengths packaged 5 per box except 100 ft. Lengths are packaged 1 per box.

SINGLE LINE CORRUGATED WELDING, GRADE T

Red or Green. Red is used with all fuel gases, and where a flame and oil resistant tube and cover are required.

Product Number	Nomin (inches)	al I.D. (mm)	Nomin (inches)	al O.D. (mm)	Reinforcement Spirals	Working (psi)	Pressure (Mpa)	Min. Ben (inches)	d Radius (mm)	We (lb/ft)	ight (Kg/m)
Green											
00523803205▲	3/16	4.76	0.44	11.11	2	200	1.38	1.25	31.75	0.08	0.12
00523804405	1/4	6.35	0.59	15.08	4	200	1.38	1.50	38.10	0.15	0.22
00523805400▲	5/16	7.94	0.59	15.08	2	200	1.38	2.00	50.80	0.14	0.21
00523806400▲	3/8	9.53	0.72	18.26	4	200	1.38	2.25	57.15	0.20	0.30
Red											
00523903205▲	3/16	4.76	0.44	11.11	2	200	1.38	1.25	31.75	0.08	0.12
00523904405	1/4	6.35	0.59	15.08	4	200	1.38	1.50	38.10	0.15	0.22
00523905400▲	5/16	7.94	0.59	15.08	2	200	1.38	2.00	50.80	0.14	0.21
00523906400▲	3/8	9.53	0.72	18.26	4	200	1.38	2.25	57.15	0.20	0.30
AA L T O L /AA	TO)										

 $[\]blacktriangle$ = Make To Order (MTO)

TECHNICL REFERENCE







WELDING HOSE TECHNICAL INFORMATION

PRECAUTIONS IN THE USE OF WELDING HOSE

WARNING: The use of certain fuel gases may damage welding hose and lead to fires and explosions.

FOREWORD:

This bulletin is issued to alert dealers and users of welding hose that special hose may be necessary for use with certain fuel gases.

SCOPE:

This bulletin relates to welding hose manufactured in conformance to RMA/CGA specification or to welding hose conforming to individual manufacturer or user specifications.

CAUTION:

The fuel gases listed below are recorded to alert welding hose users to a potential hazard with these or similar gases. It should be noted that no condemnation of any of the gases listed is intended. The purpose is to advise against the use of hose that may not be designed for a particular gas or pressure. A user of any fuel gas is urged to relate the type of gas along with the expected working pressure (regulator setting) to the hose manufacturer for a specific hose recommendation.

ALERT LISTING:

These and similar fuel gases may damage some grades or types of welding hose:

APACHE, FLAMEX, MAPP, PROPANE, PROPYLENE. Use of the indicated or similar fuel gases at regulator settings above 40 psi may be particularly hazardous.

Users are also alerted against the use of ACETYLENE at any pressure above 15 psi.

IN-SERVICE CAUTION:

The user is first cautioned to shut off the gas at the torch and then at the regulator or supply source when the torch will not be used for periods in excess of 30 minutes, in order to limit permeation of gas through the hose wall.

The user is further cautioned not to shut off the fuel gas at the regulator or supply source first as a flashback may result and thereby damage the hose.

Adequate ventilation must be provided in confined areas where fuel gas is being used to prevent the accumulation or concentration of gas that could be explosive or otherwise harmful to personnel.

BACKGROUND INFORMATION:

The RMA/CGA specification for welding hose, as originally promulgated, considered welding hose that would be used to convey the then common fuel gas, acetylene, at the recommended low pressure (15 psi). Several grades were described, the variance between grades relating to a difference in their resistance to deterioration in the presence of oil, or to their resistance to destruction by flame, or both. No differentiation was made for a variance in performance resulting from exposure to the fuel gas itself. It had been determined that actylene, when conveyed under the low pressures common to its recommended use, had little effect on hose, regardless of its composition or construction. In recent years, there have been developed or adopted a number of fuel gases based on specific hydrocarbons or mixtures of hydrocarbons. It is known that these special fuel gases have a different effect on rubber compounds than does acetylene. The precise effect on all the many and varying hose compounds and constructions of the many manufacturers has not been determined for all the known special fuel gases.

The effect of any material being conveyed in a hose on the rubber compounds used in the hose can be measured by one or several test procedures. In the case of fuel gases, the test procedures most applicable would be designed to measure a change of the

physical properties after exposure to the fuel gas including tensile, elongation, hardness and volume.

A characteristic of rubber hose that is significant in its use as welding hose is a phenomenon known as permeation. Any gas confined in the bore of a hose exhibits a tendency to pass through the tube wall and subsequently through the reinforcement and cover to the environment. Each gas has its own specific characteristic tendency to permeate. Each rubber compound exhibits specific resistance to permeation. The rate of permeation increases with higher temperature. To minimize the permeation of fuel gas through the hose wall it is logical to design the tube compound for the lowest possible permeation rate. The problem in the case of welding hose results from the variety of gases now encountered, the varying pressures used in service, and the varying temperatures to be found in the work place. The need to ventilate the work place is evident, both for maintaining the lowest practical temperature and to dissipate the permeating gas, however slight, to prevent buildup to concentrations that are either explosive or dangerous for breathing by workmen.

Some rubber compounds are known to have low permeation rates with several fuel gases but no specific rule can be laid down to predict overall performance. Thus, it becomes advisable to check the characteristic of each hose construction with each gas under actual or simulated service conditions to qualify it for use.

CAUTION:

Users of welding hose are urged to communicate their service conditions to the hose manufacturer and obtain the best recommendation of the manufacturer for a hose suitable for those conditions.

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BULK TRANSFER/TRANSPORTER® HOSE PRODUCT REFERENCE

		NAME	I.D. (in.)	TUBE	COVER	COLOR	APPLICATION DATA
		ULTRA-CHEM	1-6	UHMWPE	EPDM	Green w/Yellow Stripe	Handles 98% of all common industrial chemicals in pressure, gravity flow and suction service
_		MULTI-CHEM	1-4	XLPE	EPDM	Green/Black w/Orange Stripe	Extreme versatility, resists 95% of all industrial chemicals
Chemical	POROLOC	VAPOR-LOC BIO-FUELS	1-4	NBR, RMA Class A	Smooth- NBR/PVC Corrugated – CR, MSHA	Black w/Yellow Stripe	Vapor barrier system hose built to prevent fuelvapor loss. Prevents 99% of fuel vapor from escaping. For transter of petroleum based products.
Che	-	CHEMICAL H	1-4	1/16" CSM	CR	Yellow w/Red Stripe	Designed primarily for the handling of inorganic acids, alcohols, and highly corrosive chemicals
	•	CHEMICAL B	1-4	IIR	EPDM	Brown	General purpose chemical hose for handling strong and oxidizing acids, esters, ketones and alcohols
		CHEMICAL V	1 ^{1/2} -4	FKM	NBR/PVC	Orange	Handles a wide range of moderate and oxidizing chemicals, and aromatic solvents such as benzene, toluene and chlorinated hydrocarbons
		EBONITE L.T.	1 ^{1/2} - 4	NBR/ECO	NBR	Black w/Blue Stripe	Extremely flexible, lightweight, sub-zero (to - 65°F) corrugated drop hose
		EBONITE	1-4	NBR	NBR/PVC	Black w/White Stripe	Frequently used to replace plastic drop hose; exceptional flexibility and lightweight
	•	RED/BLACK TANK TRUCK	Red - 1 ^{1/2} - 4 Black - 1 - 4	NBR	NBR/PVC	Red/ Black	For transfer of petroleum based products where strength, lightweight and flexibil- ity are required
En		FLEX-DEVIL	2-4	NBR	CR	Red	For use in the transfer of gasoline, petro- leum based products and a wide range of oils and chemicals
Petroleum	-	TYPE 924 PETROLEUM TRANSFER	1-4	NBR	NBR/PVC	Black w/Red Stripe	Handles most hydrocarbons, fats, etc., along with hydraulic fluid and a wide range of chemicals
Pei		GP FRAC HOSE	3 - 4	NBR/SBR	SBR/EPDM	Black w/Green Stripe	Handles 98% water and sand mixtures, crude oil and oil slurries for Frac Tank Connections
		OILFIELD FRACTURING	3 - 4	Special, High Abrasion Resistance Compound	Special, High Abrasion Resistance Compound	Black	Handles 98% water and sand mixtures, crude oil and oil slurries for FracTank Connections
	-	OIL FIELD VACUUM	1 ^{1/2} - 4	NBR/SBR	SBR/EPDM	Black	Designed for crude oil transfer; light- weight and flexible
	-	FUEL TRANSFER	2-4	NBR	NBR/PVC	Black	Handles gasoline fuel oil delivery applications
poo		GRAY Shadow	1 ^{1/2} - 4	NBR White FDA	NBR/PVC	Gray	Handles wide variety of liquids, including oily edibles
Liquid Fo		FOOD SUCTION	1 ^{1/2} - 4	NBR White FDA	NBR/PVC	White	FDA acceptable for handling liquid food products including oily edible materials
Liq	0	FOOD DISCHARGE	2-4	NBR White FDA	NBR/PVC	White w/Green Stripe	Same as Transporter Food Suction except for discharge service only
ng		MATERIAL Suction	1 ^{1/2} - 4	3/16" NR White FDA	SBR	Blue	Handles a wide variety of materials: mild acids; dry materials such as sand, limestone and fertilizers; dry foods such as grain, flour and sugar
ndlin		MATERIAL DISCHARGE	2-4	3/16" NR White FDA	SBR	Blue w/Yellow Stripe	Same as Transporter Material Suction except for discharge service only
al Ha	-	HOT TAR & ASPHALT	1 ^{1/2} - 4	CR	CR	Black	For hot petroleum based products such as asphalt
Material Handling	-	TYPE 120 DRY CEMENT/ MATERIAL	4	1/8", 3/16", 1/4" Available SBR/NR	SBR/EPDM	Black	Transfer of dry cement and other mildly abrasive materials
Ĕ	e	HOT AIR BLOWER	2 ^{1/2} - 4	EPDM	EPDM	Brown	For conveying hot air from compressor to trailer on dry bulk material trucks



WARNING

In any application there may be an inherent risk of bodily injury or property damage and user is responsible for proper use and implementation of adequate safety precautions. It is the responsibility of the buyer to advise user of proper instructions for safe use and/or precautions, proper coupling procedure and to warn user of consequences of failure to heed such instruction. Should a hose assembly fail during use with pressure, injurious and/or damaging chemicals, elevated temperature materials, explosives, or flammable materials, then serious bodily injury or destruction of property could result from impelled couplings, whipping hose, high pressure or high velocity discharge, chemical contact, high temperature materials, explosion, or fire.

In known high risk areas, it is recommended that hose inspections be performed at frequent intervals related to risk factor. Hose with obvious damage should be scrapped or tested before placing in use. These inspections should include tube condition, cover condition, leaking or slipped couplings, and proof test.

We have attempted to list some of the standard references below. This is a limited list, for specific details see standard itself.

- 1. Federal Coast Guard Regulation on Dock Hose—Federal Register 12-21-72, Vol. 37, No. 346, Part II, Section 154.500, 155.800, 156.170.
- 2. NFPA 196 Standard for Fire Hose.
- 3. NFPA 198 Care and Maintenance of Fire Hose.
- 4. NFPA 407 Care and Maintenance of Aircraft Refueling.
- 5. RMA—Storage, Care, Maintenance.
 - a. General
 - b. OS&D
 - c. LPG
 - d. Aircraft Ground Refueling

- e. Motor Vehicle
- f. Anhydrous Ammonia
- g. Welding Hose
- h. Steam
- 6. RMA—Industry Hose Specs.
 - a. Hydraulic Hose
 - b. RMA-CGA Welding
 - c. RMA-ANI Anhydrous Ammonia
 - d. RMA-LPG
 - e. OS&D
 - f. 300, 400, 600# Fire Hose
- 7. ASTM-296 Fire Hose Spec.

CAUTION

Product descriptions and specifications for products become dated. All product literature and information is subject to change, including the specifications outlined in this publication. For questions concerning any technical and/or product application information on the products contained in this catalog, please contact Thermoid, Inc. Customer Service Department at 800/543-8070 or log onto **www.hbdthermoid.com.**



DECIMAL & METRIC EQUIVALENTS

64ths	32nds	16ths	8ths	Decimal	MM	64	ths	32nds	16ths	8ths	Decimal	MM
1/64				0.01562	0.397	33	3/64				0.51582	13.097
	1/32			0.03125	0.794			17/32			0.53125	13.494
3/64				0.04688	1.191	3.5	5/64				0.54688	13.891
		1/16		0.06250	1.588				9/16		0.56250	14.288
5/64				0.07812	1.864	37	7/64				0.57812	14.684
	3/32			0.09375	2.381			19/32			0.59375	15.081
7/64				0.10938	2.778	39	9/64				0.60938	15.478
			1/8	0.12500	3.175					5/8	0.62500	15.875
9/64				0.14062	3.572	4	1/64				0.64062	16.272
	5/32			0.15625	3.968			21/32			0.65625	16.669
11/64				0.17188	4.365	43	3/64				0.67188	17.066
		3/16		0.18750	4.753				11/16		0.68750	17.463
12/11				0.00040			- /				0 =0040	47.050
13/64				0.20312	5.159	45	5/64				0.70312	17.859
	7/32			0.21875	5.556			23/32			0.71875	18.256
15/64				0.23438	5.953	47	7/64				0.73438	18.653
			1/4	0.25000	6.350					3/4	0.75000	19.050
17/64				0.26562	6.747	10	9/64				0.76562	19.447
17/04	9/32			0.28125	7.144	7.	7/U T	25/32			0.78125	19.844
19/64	9/32			0.28123	7.144	E-	1/64	23/32			0.79688	20.241
19/04		5/16		0.29088	7.938	3	1/04		13/16		0.79088	20.638
		3/10		0.51250	7.936				13/10		0.61230	20.036
21/64				0.32812	8.334	51	3/64				0.82812	21.034
21/04	11/32			0.34375	8.731	Э.	J/U T	27/32			0.84375	21.431
23/64	11/32			0.35938	9.128	51	5/64	27/32			0.85938	21.823
23/04			3/8	0.37500	9.525	Э.	7/04			7/8	0.87500	22.225
			3/0	0.57500	7.525					770	0.07500	22.223
25/64				0.39062	9.922	57	7/64				0.89062	22.622
_0,0.	13/32			0.40625	10.309		,, .	29/32			0.90625	23.019
27/64	10,12			0.42186	10.716	59	9/64				0.92188	23.415
., .		7/16		0.43750	11.113				15/16		0.93750	23.813
		, , ,							-, , ,			
29/64				0.45312	11.509	6	1/64				0.95312	24.209
	15/32			0.46875	11.908			31/32			0.96875	24.605
31/64				0.48438	12.303	63	3/64				0.98438	25.003
			1/2	0.50000	12.700					1	1.00000	25.400



CONVERSION FACTORS

To Convert	Into	Multiply By
Atmoorph avec		76.0
Atmospheres	cms of mercury	76.0
atmospheres atmospheres	ft.of water (at 4°C) In of mercury	33.90 29.92
aunospheres	(at 0°C)	29.92
atmospheres	kgs/sq cm	1.0333
atmospheres	kgs/sq meter	10.332
atmospheres	pounds/sq in	14.70
Bar	newtons/sq m	105
bar	atmospheres	0.9869
bar	at (tech.)	1.0197
bar	psi	14.504
Damala Oil		42
Barrels – Oil	gals/oil	42
BT Units	kg–calories	0.2520
BTUs	ft-lbs	777.9
BTUs	hp-hrs	3.927 x 10⁻⁴
BTUs	kg–meters	107.5
BTUs	kw-hrs	2.928 x 10 ⁻⁴
BTU/Min	ft–lb/sec	12.86
BTU/min	hp	0.02356
BTU/min	kw	0.01757
BTU/min	watts	17.57
Centimeters	inches	0.3937
cm	meters	0.01
cm	mm	10
Cmc Moreury	atm	0.01316
Cms Mercury cms mercury	ft water	0.4461
cms mercury	kgs/sq meter	136.0
cms mercury	lbs/sq ft	27.85
cms mercury	lbs/sq in	0.1934
Cms/Second	ft/min	1.969
cms/sec	ft/sec	0.03281
cms/sec	km/hr	0.036
cms/sec	meter/min	0.6
cms/sec cms/sec	miles/hr miles/min	0.02237 3.728 x 10 ⁻⁴
cms/sec	miles/min	3./28 X 10 ·
Cms/Sec/Sec	ft/sec/sec	0.03281
Cubic Cms	cu ft	3.531 x 10⁻⁵
cu cms	cu in	3.102 x 10 ⁻²
cu cms	cu meters	106
cu cms	cu yards	1.308 x 10 ⁻⁶
cu cms	gals	2.642 x 10⁻⁴
cu cms	liters	10-3
cu cms	pints (liq)	2.113 x 10 ⁻³
cu cms	quarts (liq)	1.057 x 10 ⁻³

Into	Multiply By
cubic cms	2.832 x 10⁴
	1728
	0.02832
	0.03704
•	7.48052
liters	28.32
pints (lig)	59.84
quarts (liq)	29.92
cu cms/sec	472.0
gals/sec	0.1247
liters/sec	0.4720
lbs water/min	62.43
gals/min	448.831
сс	16.39
cu ft	5.787 x 10 ⁻⁴
cu meters	1.639 x 10⁻⁵
cu yards	2.143 x 10⁻⁵
gals	4.329 x 10 ⁻³
liters	1.639 x 10 ⁻²
	0.03463
quarts (liq)	0.01732
сс	104
	35.31
	61.023
	1.308
	264.2
	103
	2113
quarts (IIq)	1057
cu cms	7.646 x 10⁵
	27
	46,656 0.7645
	0.7645 202.0
gais	202.0
meters	0.1
minutes	60
	0.01745
secs	3600
	cubic cms cu inches cu meters cu yards gals liters pints (liq) quarts (liq) cu cms/sec gals/sec liters/sec lbs water/min gals/min cc cu ft cu meters cu yards gals liters pints (liq) quarts (liq) cc cu ft cu inches cu yards gals liters pints (liq) quarts (liq) cc cu ft cu inches cu yards gals liters pints (liq) quarts (liq) cc cu ft cu inches cu yards gals liters pints (liq) quarts (liq) cu cms cu meters pints (liq) quarts (liq) cu cms cu ft cu ins cu meters gals meters



CONVERSION FACTORS

To Convert	Into	Multiply By
Degrees/Sec	radians/sec	0.01745
degs/sec	revs/min	0.1667
degs/sec	revs.sec	0.002778
Feet	cms	30.48
ft	ins	12
ft	meters	0.3048
ft	yds	1/3
Ft of Water	atms	0.02850
ft of w	ins mercury	0.8826
ft of w	kgs/sq cm	0.03048
ft of w	lbs/sq ft	62.32
ft of w	lbs/sq in	0.4328
	123734 111	01.1520
Feet/Min	cm/sec	0.5080
ft/min	ft/sec	0.01667
ft/min	kms/hr	0.01829
ft/min	meters/min	0.3048
ft/min	miles/hr	0.01136
Ft/Sec/Sec	cms/sec/sec	30.48
ft/sec/sec	Meters/sec/sec	0.3048
Ft-Pounds	BTUs	1.286 x 10⁻³
ft lbs	hp-hrs	5.050 x 10 ⁻⁷
ft lbs	kg–calories	3.241 x 10 ⁻⁴
ft lbs	kg-meters	0.1383
ft lbs	kw-hrs	3.766 x 10 ⁻⁷
Ft-lbs/Min	BTUs/min	7.717 x 10 ⁻²
ft-lbs/min	ft-lbs/sec	0.01667
ft-lbs/min	10 100,000	3.030 x 10 ⁻⁵
ft-lbs/min	hp	3.241 x 10 ⁻³
ftlbs/min	kg–calories/min kws	2.260 x 10 ⁻⁵
Ft-lbs/Sec	BTUs/min	7.717 x 10 ⁻²
e		
ft-lbs/sec	hp	1.818 x 10 ⁻³ 1.945 x 10 ⁻²
ft–lbs/sec ft–lbs/sec	kg-calories/min kws	1.945 x 10 ⁻³
Callons		2705
Gallons	ccs	3785
gals	cu ft	0.1337
gals	cu ins	231
gals	cu meters	3.785 x 10⁻³
gals	liters	3.785
gals	pints (liq)	8
gals	quarts (liq)	4
Gallons, Imp	US gals	1.20095
gallons, US	Imp gals	0.83267
Gallons/Min	cu ft/sec	2.225 x 10⁻³

To Convert	Into	Multiply By
Horse-Power	BTUs/min	42.44
hp	ft-lbs/min	33,000
hp	ft-lbs/sec	550
hp	hp (metric)	1.014
hp	kg–calories/min	10.70
hp	kws	0.7457
hp	watts	745.7
Hp-Hours	BTUs	2547
hp-hrs	ft-lbs	1.98 x 10 ⁸
hp-hrs	kg–calories	641.7
hp-hrs	kg-meters	2.737 x 10⁵
hp-hrs	kw-hrs	0.7457
Inches	cms	2.540
Ins Mercury	atms	0.002458
ins mercury	ft water	1.133
ins mercury	kgs/sq cm	0.03453
ins mercury	lbs/sq ft	70.73
ins mercury	lbs/sq in	0.4912
Ins of Water	atms	0.002458
ins of w	ft mercury	0.07355
ins of w	kgs/sq cm	0.002540
ins of w	lbs/sq ft	5.202
ins of w	lbs/sq in	0.03613
Kilograms	dynes	980,665
kgs	lbs	2.205
kgs	ton (short)	1.102 x 10 ⁻³
kgs	grams	1000
Kgs/Sq Cm	atms	0.9678
kgs/sq cm	ft water	32.81
kgs/sq cm	ins mercury	28.96
kgs/sq cm	lbs/sq ft	2048
kgs/sq cm	lbs/sq in	14.22
Kilometers	cms	10⁵
kms	ft	3281
kms	meters	10³
kms	miles	0.6214
Kms/Hr	cms/sec	27.78
kms/hr	ft/min	54.68
kms/hr	ft/sec	0.9113
kms/hr	meters/min	16.87
kms/hr	miles/hr	0.6214
Kms/Hr/Sec	cms/sec/sec	27.78
kms/hr/sec	ft/sec/sec	0.9113
kms/hr/sec	meters/sec/sec	0.2778

gal/min

8.0208

cu ft/hr



CONVERSION FACTORS

To Convert	Into	Multiply By
Kilowatts	BTUs/min	56.92
kws	ft-lbs/min	4.425 x 10⁴
kws	ft-lbs/sec	737.6
kws	hp	1.341
kws	kg-calories/min	14.34
kws	watts	103
Kilowatts-Hrs	BTUs	3415
kw-hrs	ft-lbs	2.655 x 10 ⁶
kw-hrs	hp-hours	1.341
kw-hrs	kg-calories	860.5
kw-hrs	kg-meters	3.671 x 10⁵
Liters	ccs	103
liters	cu ft	0.03531
liters	cu ins	51.02
liters	cu meters	10 ⁻²
liters	gals	0.2642
liters	quarts (liq)	1.057
Liters/Min	gals/sec	4.403 x 10 ⁻³
Meters	cms	100
meters	ft	3.281
meters	ins	39.37
meters	kms	103
meters	mms	103
meters/min	cms/sec	1.667
meters/min	ft/min	3.281
meters/min	ft/sec	0.05468
meters/min	kms/hr	0.06
meters/min	miles/hr	0.03728
Meters/Sec	ft/min	196.8
meters/sec	ft/sec	3281
meters/sec	kms/hr	3.6
meters/sec	kms/min	0.06
meters/sec	miles/hr	2.237
meters/sec	miles/min	0.03728
Micron	meters	10 ⁻⁸
microns	in	39 x 10 ⁻⁶
Miles/Hr	cms/sec	44.70
miles/hr	ft/min	88
miles/hr	ft/sec	1.467
miles/hr	kms/hr	1.609
miles/hr	meters/min	26.82
Millimeters	cms	0.1
mms	ins	0.0397
Minutes (Angle)	radians	2.909 x 10 ⁻⁴

To Convert	Into	Multiply By
Newton	kgs	0.1020
Ounces	lbs	1.805
ozs	gram	28.349527
Ounces (Fluid)	cu in	1.805
Ounces (Fluid) ozs (fluid)	liters	0.02957
OZS (Hulu)	incis	0.02737
Pounds	ozs	16
lbs	tons (short)	0.005
lbs	newtons (N)	4.44
lbs	gram	453.5924
Lbs of Water	cu ft	0.01605
lbs of water	cu it cu in	0.01605 27.73
lbs of water	gals	0.1204
ibs of water	guis	0.1204
Lbs of Water/Min	cu ft/sec	2.679 x 10 ⁻⁴
Pounds/Cu Ft	lbs/cu in	5.787 x 10 ⁻⁴
Pounds/Cu In	lbs/cu ft	1728
Pounds/Sq In	atms	0.06804
lbs/sq in	ft water	2.311
lbs/sq in	in mercury	2.036
lbs/sq in	kgs/sq cm	0.07031
·	,	
Radians	degrees	57.29578
- (1)		4044
Tons (Long)	kgs	1016
tons (long) tons (long)	lbs tons (short)	2240 1.12000
tons (long)	tons (snort)	1.12000
Tons (Short)	lbs	2000
tons (short)	kgs	907.18486
tons (short)	tons (long)	0.89287
tons (short)	tons (metric)	0.90718
14/	DTII-/	0.05600
Watts	BTUs/min ft-lbs/min	0.05682
watts watts	ft-lbs/sec	44.26 0.7376
watts	hp	1.341 x 10 ⁻³
watts	kg-calories/min	0.01434
watts	kws	10
Watts/Hours	BTUs	3.415
watts/hours	ft-lbs	2655
watts/hours	hp-hrs	1.341 x 10 ⁻³
watts/hours	kg-calories	0.8605
watts/hours	kg-meters kw-hrs	367.1
watts/hours	KW-1115	10-3

TERMS & CONDITIONS OF SALE

ENTIRE AGREEMENT

The parties agree that there are no understandings, agreements or representations, express or implied, not specified herein, respecting this offer or sale, and that this instrument contains the entire agreement between Seller and Buyer. No prior waiver, course of prior dealing or usage of the trade shall be relevant to supplement or to explain terms used in this agreement.

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All prices are subject to change without notice and shall be adjusted to the Seller's prices in effect on the date of shipment. Prices reflect standard packaging for domestic shipment only. All prices are in U.S. Dollars. All tooling and equipment Seller produces or acquires for purposes of filling this order shall remain property of Seller. All intellectual property associated with the products shall remain the sole property of Seller.

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Delivery dates are estimates and not a guaranty of a particular day of delivery and are based on the prompt receipt of all necessary information from the Buyer. Seller shall not be liable for failure or delay in shipping goods hereunder if such failure or delay is due to an act of God, fire, flood, war, labor difficulties, accident, strikes, lockouts, civil disorders, governmental priorities or embargoes, inability or difficulty in obtaining raw materials or supplies at customary terms and prices or any other causes or failure of presumed conditions of any kind whatsoever which are either beyond the reasonable control of the Seller or which would make impracticable the fulfillment of Seller's obligations hereunder. Buyer shall not refuse to accept deliveries so delayed. Seller shall be compensated for any and all extra costs and expenses occasioned by delays attributable to Buyer.

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Buyer may not cancel or modify any order, either in whole or in part, without Seller's prior written consent and then only upon payment to Seller for all applicable costs incurred by Seller, including, without limitation, costs of materials, labor, equipment and supplies, and for lost profits on cancelled or modified orders. Order changes or additions received after original order has been processed will be treated as a new order.

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Any taxes which Seller may be required to pay or collect with respect to the sale, delivery or storage of the products, including taxes upon or measured by the receipts from the sales thereof, shall be for the account of Buyer who shall promptly pay the amount thereof to Seller upon demand, or in lieu thereof, furnish Seller with a tax exemption certificate acceptable to the taxing authorities.

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Seller warrants that its products shall be free from defects in material and workmanship under normal use and service for a period of 12 months from date of shipment. On equipment and materials furnished by Seller but manufactured by others, Buyer shall accept in lieu of any liability or guarantees on the part of Seller, the benefits of guarantees as are obtained by Seller from such manufacturers or vendors. SELLER MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, EXCEPT AS IS EXPRESSLY SET FORTH HEREIN. Failure by Buyer to object to or reject products or materials delivered hereunder, in writing within 30 days from the date of shipment of the products or materials, shall constitute an acceptance and waiver by Buyer of all claims hereunder on account of alleged errors, shortages, defective workmanship or material, breach of warranty or otherwise, discoverable upon inspection by Buyer.

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Seller's permission must be obtained in writing before any products are returned to it by Buyer. If products are returned without such permission, Buyer authorizes Seller, in addition to such other remedies as it may have, to hold the returned products at Buyer's sole risk and expense. All returns must be freight prepaid by Buyer. Seller will in no event accept the return of any product that upon return is in the opinion of Seller altered, damaged, used, or in other than first class salable condition.

INDEMNITY

Buyer agrees to indemnify, defend and hold harmless Seller from any claims, loss or damages arising out of or related to Seller's compliance with Buyer's designs, specifications or instructions in the furnishing of products to Buyer, whether based on infringement of patents, copyrights, trademarks or other rights of others, breach of warranty, negligence, strict liability or other tort.

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All invoices are due net 30 days from date of invoice unless otherwise specified by Seller. If at any time Seller deems itself insecure from any cause whatsoever, including but not limited to adverse changes in Buyer's financial condition or impairment of Buyer's credit, Seller may in its sole discretion stop delivery of goods, require advance payment for goods, and/or declare immediately due all indebtedness owed to Seller including amounts due hereunder. Payments not made when due shall bear interest at the prime rate plus 5% per annum or, if lower, the highest rate legally permissible, until paid. Credit balances will be applied against future purchases only and must be claimed within one year of creation or are waived.

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Any dealings or contract between the parties shall be governed by and construed in accordance with the law of the state of Ohio, excluding its choice of law provisions. Buyer and Seller agree that any action, suit or proceeding arising hereunder or related hereto may be brought in any state or federal court of competent jurisdiction sitting in the State of Ohio and each party submits to the jurisdiction of such courts. Either Buyer or Seller may elect to have any controversy arising under or in any way related to the subject matter hereof decided by arbitration by a single disinterested arbitrator in Columbus, Ohio, U.S.A., in accordance with the commercial rules of the American Arbitration Association then obtaining. The fee for the arbitrator shall be shared equally by the parties. Each party shall bear its own costs and expenses, including attorneys fees.

Revised 06/01/2008

CAUTION: USE OF DAMAGED HOSE OR MISAPPLICATION MAY RESULT IN PROPERTY DAMAGE OR SERIOUS PERSONAL INJURY. INSPECT HOSE REGULARLY.



WARNING/SAFETY

WARNING

This catalog is intended to provide general guidance and to assist in making the proper hose selection for an application. While the information in this catalog is believed to be accurate, it is based on specific laboratory tests performed under controlled conditions, calculations and assumptions, and not actual field conditions or applications. As such, it does not represent a guarantee with respect to characteristics or performance of the product in any given application or use. Thermoid hose products are intended for selection and use by trained and skilled purchasers and users. The purchaser or user is obligated to determine the suitability of hose for the specific application or use, and to ascertain that intellectual property rights of third parties are not violated.

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This catalog contains important information regarding the Thermoid hose products, including information on the following topics:

- Welding Hose
- Chemical Hose and Chemical Resistance Chart
- Steam Hose
- Use of Hose in Explosive Atmospheres (Static Electricity)
 Please read and understand these and other available guidance before selecting or recommending a hose for your application.
 Information in this catalog is subject to revision without notice. For the most current product information visit our website at www.hbdthermoid.com or contact your Thermoid Customer Service Representative.

SAFETY

Hose has a finite life, and is subject to fail without warning. Careful consideration is required when using hose instead of hard piping in any application where failure could cause bodily injury, property damage or other loss. If hose is used, the user is responsible for determining the service life and implementing adequate safety measures including:

- Regular Inspections and Replacement. Hose assemblies used in such applications should be inspected at frequent intervals based on the seriousness of the risk. These inspections should include: tube and cover examinations for hardening, brittleness, abrasions, kinks, twisting, crushed areas, cracks, cuts, leaking, blisters, peeling or soft cover, braid exposure and other evidence of damage or deterioration; seepage, leaking, slipped or damaged couplings; and proof testing. Damaged or suspect hose and fittings should be immediately replaced. Hose assemblies should also be replaced at regular intervals, well in advance of the expected service life of the hose.
- **Personal Protective Equipment and Other Safeguards.** Always use proper protective equipment (for example, gloves, eye protection, protective suits, hardhats, etc.) that will protect the user in the event of hose failure or other accident. Systems should be designed so that if a failure does occur, damage and injury to persons or property will be avoided.

 Operator Training. All operators must be thoroughly trained in the proper care and use of hoses, the hazards of any material conveyed, and accidental release response measures. Failure to exercise proper safety precautions could result in serious bodily injury, death, property damage or other loss from hazardous chemicals, elevated temperature materials, explosive or flammable materials, sparking or static electricity, contamination of material conveyed, impelled couplings, whipping hose, and high pressure or high velocity discharge of materials.

For further information, please refer to "General Hose Information" Pages 26 through 33 that detail various areas, including: RMA Oil Resistance Data, Minimum Hose Radius, Basic Safety Considerations & Warnings, Steam/Chemical and Static Electricity Warnings, Hose Care, Maintenance and Storage, Hose Testing, Hose Coupling Selection Guide as well as other specific product guidance information pages found throughout the Thermoid Industrial Rubber Products Catalog. You may also contact a Thermoid marketing or technical representative for assistance.



STRONG PRODUCT PORTFOLIO - MADE IN USA

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- Air / Multi-Purpose
- Automotive
- Aviation Hose
- Bulk-Tansfer
- Chemical
- Fire
- Food Handling
- Fracking / Rotary Drilling
- LPG Hose
- Marine Hose
- Material Handling
- Petroleum / Bio-Fuel
- Special Application
- Steam Hose
- Water
- Welding

DUCTING

- Aviation
- Cleaning / Leaf Suction
- Custom
- Industrial Ventilation
- Sewer
- Vacuum

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- Cogged & Open End
- Metric
- Replacement (Lawn & Garden)
- Timing
- Variable Speed Belts
- V-Belts

CONVEYOR BELTING

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- Baggage Handling
- Food
- Light Industrial













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