



THERMOID



**INDUSTRIAL
DUCTING
PRODUCTS**

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HBD Industries, Inc., one of the premier suppliers of flexible industrial hose and ducting, offers a wide range of products which meet the highest requirements of quality and integrity in the industrial marketplace. For almost a century the Thermoid tradename has been synonymous with quality, dependability, efficiency and durability. Our ducting product line includes the well-known names of FlexKing®, Ultraflex®, Neoflex®, Silflex®, Tuftex®, and Cyclone®.

The strength of the Thermoid ducting lines make them suitable for a variety of applications including industrial air movement, dust collection, fume control and light bulk material handling requirements.

Successful implementation of a quality management system through ISO-9001 Certification supports the company's commitment to "Complete Customer Satisfaction". Our goals of providing the industry's finest product, excellent service, and diversity of products at competitive prices has long made HBD Industries, Inc., the first name in industrial ducting world-wide. A quality Thermoid product for virtually any industrial application and Customer Service that is second to none is an unbeatable combination.



FlexKing®

An outstanding example of all around, all quality ducting. This line offers a broad range of base fabrics, plies, coatings, and sizes. All have a wire helix completely enclosed for a smooth, reliable, flexible operation. Applications cover fume control, cool or warm ventilation, hot air, light materials handling—even projects where rot, mold and mildew are a problem. FlexKing is available in a variety of neoprene coated fabrics. Soft cuffs, neoprene dip coatings, and wearstrips are available on request.



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

Type SC

Hose Inside Diameter (inch)	2	3	4	5	6	7	8	10	12
Weight (Lbs./Ft.)	.18	.25	.44	.55	.82	.96	1.1	1.36	1.91
Inside Bend Radius (inch)	.5	.5	.5	.5	.5	.5	.75	.75	1
Length required for 180° bend (inch)	9	12	14	20	21	23	29	34	37
Minimum burst pressure (psig)	26	25	20	22	20	13	15	10	10
Internal working pressure (psig)	6.5	6	5	5.5	5	3.2	3.75	2.5	2.5
Crush Resistance lbs./ft.	290	240	525	410	710	630	586	500	400
Axial Tensile Strength (lbs.)	175	263	351	439	527	615	703	879	1000+
Retracted length in./ft.	3.5	3.5	3.0	2.75	2.5	2.5	2.25	2.25	2.25
Neg. pressure req. to collapse (hg.in.)	16	12	11	10	9	8	7	6	5
Operating temperature range	-40°F to +250°F								

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

FlexKing Type DC-FR—Same construction as FlexKing DC, except it offers excellent flame resistant qualities that meet UL94V-0 requirements.

Type DC

Hose Inside Diameter (inch)	2	3	4	5	6	7	8	10	12
Weight (Lbs./Ft.)	.24	.41	.61	.64	.75	1.15	1.36	1.64	2.07
Inside Bend Radius (inch)	.625	.625	1	1	1.5	1.75	1.75	2.0	2.5
Length required for 180° bend (inch)	9.2	12.5	19.0	21.0	25.0	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.	6.0	6.0	5.0	5.0	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 DE—The most rugged of the two-ply FlexKing. It has an unequalled reliability record for performance under the most severe conditions. It resists rupture and flex-fatigue and is mildew and rot proof. It features a double-ply of neoprene coated polyester fabric and a helical wire reinforcement. It's also available in single ply construction—FlexKing SE.

Type DE

Hose Inside Diameter (inch)	2	3	4	5	6	7	8	10	12	14	16	18	20
Weight (Lbs./Ft.)	.24	.41	.62	.66	.80	.88	.96	1.16	2.0	2.36	2.75	3.09	3.44
Inside Bend Radius (inch)	.625	.625	1.0	1.0	1.5	1.75	1.75	2.0	2.5	3.0	3.5	4	4
Length required for 180° bend (inch)	9.2	12.5	15	18	23	25	29	38	46	62	72	80	85
Minimum burst pressure (psig)	65	50	44	40	36	30	25	20	15	13	12	11	10
Internal working pressure (psig)	16	13	11	10	9	7.5	6	5	3.75	3.25	3	2.75	2.5
Crush Resistance (Lbs./Ft.)	490	280	550	360	800	700	600	500	400	360	300	200	190
Axial Tensile Strength (lbs.)	600	800	1000	1200	1400	1700	2000	3000	3600	6000	7000	8000	9000
Retracted length in./ft.	6	6	5	5	4.75	4.75	4.75	4.5	4.5	3.5	3.5	3	3
Neg. pressure req. to collapse (hg.in.)	24	23	22	21	16	14	11	12	10	11	7	5	5
Operating temperature range	-40°F to +250°F												

FlexKing Type FE—This is the toughest of all FlexKing. It has greater strength to resist flex fatigue and ruptures, and also resists mold, mildew and rot. It's constructed of four plies of neoprene coated polyester fabric and a helical wire reinforcement.

Type FE

Hose Inside Diameter (inch)	4	6	8
Weight (Lbs./Ft.)	.76	1.15	1.51
Inside Bend Radius (inch)	4	6	8
Length required for 180° bend (inch)	29	42	54
Minimum burst pressure (psig)	140	100	80
Internal working pressure (psig)	35	25	20
Crush Resistance (Lbs./Ft.)	500	700	600
Axial Tensile Strength (lbs.)	4000	5000	5500
Retracted length in./ft.	1/2	1/2	3/4
Neg. pressure req. to collapse (hg.in.)	22	20	18
Operating temperature range	-40°F to +250°F		

FlexKing Type DFG — Designed for hot air handling of fume and exhaust control, Type DFG features a double ply of neoprene coated fiberglass fabric and a helical wire reinforcement. It's also available in single ply construction—FlexKing SFG. Fiberglass ducting has good flexibility but is not recommended for severe continuous flexing. It has excellent flame-resistant qualities.

Type DFG

Hose Inside Diameter (inch)	2	3	4	5	6	7	8	10	12
Weight (Lbs./Ft.)	.31	.46	.56	.71	.90	.96	1.08	1.33	2.04
Inside Bend Radius (inch)	.75	.75	1	1	1.5	1.5	1.5	2	2.5
Length required for 180° bend (inch)	10	13	18	20	24	27	29	38	48
Minimum burst pressure (psig)	56	50	40	38	36	34	32	30	20
Internal working pressure (psig)	14	12.5	10	9.5	9	8.5	8	7.5	5
Crush Resistance (Lbs./Ft.)	490	280	550	360	800	700	600	500	400
Axial Tensile Strength (lbs.)	225	340	450	560	680	790	900	1130	1350
Retracted length in./ft.	5	4.5	4	3.5	3.25	3.5	3.75	3	3.25
Neg. pressure req. to collapse (hg.in.)	24	23	22	21	20	17	12	12	11
Operating temperature range	-40°F to +250°F								

FlexKing®

Coatings increase the service life and improve the performance of Thermoid industrial ducting. They reduce the loss of air, gases, etc. through the duct wall... increase abrasion resistance... increase chemical resistance.

Coatings *reduce* ducting flexibility, *reduce* inside diameter of duct, and *increase* weight and wall thickness of duct.

Available Coatings

Neoprene (CR) (Black)—Neoprene is the most commonly used industrial duct coating. It resists ozone, sunlight, oxidation, heat, and flame. Neoprene performs well in contact with oils, water, and some chemicals. It has good tensile strength and resilience.

Maximum Recommended Coatings

Neoprene — 4 coats

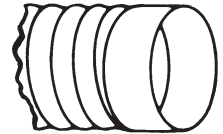
For coating, specify duct type and number of dip coats. Example: One (1) dip coat of neoprene.

End Finishes

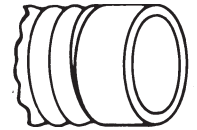
The following end finishes are integrally manufactured into the ducting.

This section applicable to series FlexKing, Tuftex, Neoflex, Silflex and Cyclone Only

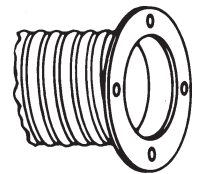
Soft End — That portion of the duct where the wire reinforcement is omitted, having the same number of plies as duct body, plus one additional ply of fabric over soft area. This type end provides a smooth clamping area.



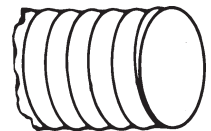
Reduced End — Special — The hose end has an ID that is smaller than the duct body. A rubber insert usually forms this end.



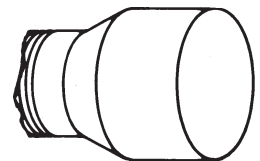
Flanged End — Special — Airtight connections are made with flanged end ducting. Flanges are manufactured in accordance with your engineering requirements. They may be made of metal, duct fabric, or rubber coated felt.



Plain End — Hose with a plain end is simply cut at a given point, the end being the same as the duct body. The wire at the cut end is crimped back to prevent snagging. All standard items are furnished with plain ends.



Belled End — Special — A Belled End has a soft end with an ID larger than the duct body.



Ultraflex®

The Ultraflex ducting line delivers high performance service to a wide range of applications. The variety of thermoplastic materials makes this line exceptionally versatile. Flexibility and compressibility also makes it ideal for many difficult, hard to handle applications. Its toughness, weatherability, and resistance to chemicals and abrasion allow it to take on the most demanding jobs.



Ultraflex TPR—Type TPR features a helical wire reinforced thermoplastic rubber suitable for a wide variety of air handling, fume control, and dust collection applications. It offers good abrasion resistance, superior chemical resistance, excellent ozone and weathering resistance, as well as good resistance to flex fatigue. For additional wear resistance, an orange vinyl wear strip on the O.D. is also available.

Type TPR

Inside Diameter (inch)	2	4	6	8	10
Weight (Lbs./Ft.)	.22	.75	.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

Standard Colors: Black
Sizes: 2" I.D. through 18" I.D.
Standard Length: 25 ft. (other lengths up to 50 ft. available upon request)
Temp. Range: -60°F to +275°F Continuous. +300°F Intermittent
Features: Excellent flexibility and compressibility characteristics; can be used in both positive and negative applications.
Applications: Venting systems for chemical fumes; dust collection; exhausting gases; air movement.

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

Ultraflex TPS—Type TPS features a smoother liner which enhances air flow. The thermoplastic rubber construction has many of the same characteristics as the popular Ultraflex TPR duct which provides good resistance to flex fatigue, and abrasion resistance, also superior chemical resistance and excellent ozone and weathering resistance. There is no wire helix in Type TPS. The external thermoplastic helix allows for rough use in applications where the hose will be dragged, and also affords better crush resistance with good memory if the hose should be accidentally crushed.

Type TPS

Inside Diameter (inch)	2	4	6	8	10
Weight (Lbs./Ft.)	.23	.55	.82	1.30	1.65
Inside Bend Radius	Equal to I.D.				
Burst (psig)	50	32	27	25	22
Working Pressure (psig)	17	11	9	8	7
Compressibility	50%				
Temperature Range	-60°F to +275°F, +300°F Intermittent				
Max. Negative Pressure (In. HG)	18	12	5	4	3

Standard Colors: Black with tan helix
Sizes: 2" I.D. through 12" I.D.
Standard Length: 25 ft. (other lengths up to 50 ft. available upon request)
Temp. Range: -60°F to +275°F Continuous. +300°F Intermittent
Features: Excellent flexibility and crush resistance.
Applications: Venting systems for chemical fumes; dust collection; exhausting gases; air movement.

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

Ultraflex TPC—Type 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 (inch)	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

Standard Colors: Blue
Sizes: 2" I.D. through 18" I.D.
Standard Length: 25 ft. (other lengths up to 50 ft. available upon request)
Temp. Range: -20°F to +180°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.

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

Ultraflex TPU—Type TPU is constructed of a helical wire reinforced thermoplastic urethane that offers excellent abrasion resistance for material handling applications. It's a tough, versatile, lightweight, flexible hose/ducting that can be used in a wide 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 (inch)	2	4	6	8	10
Weight (Lbs./Ft.)	.24	.56	.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

Standard Colors: Black or Clear
Sizes: 2" I.D. through 18" I.D.
Standard Length: 25 ft. (other lengths up to 50 ft. available upon request)
Temp. Range: -65°F to +200°F
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.

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

Ultraflex VP—Type VP is constructed of a vinyl coated polyester fabric material with a spring steel wire helix reinforcement. This type also includes a vinyl wear strip over the wire helix for additional wear resistance. It is offered in single ply construction (VP-1) or double ply construction (VP-2).

Type VP-1

Inside Diameter (inch)	2	4	6	8	10
Inside Bend Radius	1/2 fo ID				
Burst (calculated)	55	27	18	14	11
Working Pressure (psig)	13.5	6.5	4.5	3.5	2.5
Compressibility	60%				
Temperature Range	-20°F to +180°F				
Negative Pressure (In. HG)		23	10		

Standard Colors: Yellow with orange wear strip
Sizes: 2" I.D. through 18" I.D.
Standard Length: 25 ft. (other lengths up to 50 ft. available upon request)
Temp. Range: -20°F to +180°F
Features: Good chemical resistance, mildew and moisture resistant, lightweight, flexible, abrasion resistant, flame retardant.
Applications: Chemical and abrasion resistant, designed for both positive and negative low pressure air movement, fume and dust removal, and light material handling.

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

Type VP-2

Inside Diameter (inch)	2	4	6	8	10
Inside Bend Radius	Equals I.D.				
Burst (calculated)	80	40	27	21	16
Working Pressure (psig)	20	10	6.5	5	4
Compressibility	50%				
Temperature Range	-20°F to +180°F				
Negative Pressure (In. HG)		23	10		

Standard Colors: Yellow with orange wear strip
Sizes: 2" I.D. through 18" I.D.
Standard Length: 25 ft. (other lengths up to 50 ft. available upon request)
Temp. Range: -20°F to +180°F
Features: Good chemical resistance, mildew and moisture resistant, lightweight, flexible, abrasion resistant, flame retardant.
Applications: Chemical and abrasion resistant, designed for both positive and negative low pressure air movement, fume and dust removal, and light material handling.

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

Neoflex®

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

Type SNF

Inside Diameter (inches)	2	3	4	5	6	7	8	10	12
Weight (Lbs./Ft.)	.15	.23	.31	.39	.47	.55	.63	.78	.95
Inside Bend Radius (inches)	.50	.75	1.00	1.25	1.50	1.75	2.00	2.23	2.50
Length required for 180° bend (inches)	8	12	16	20	24	28	32	39	46
Minimum burst pressure (psig)	120	105	85	58	44	30	26	16	10
Internal working pressure (psig)	30	26	21	14.5	11	7.5	6.5	4	2.5
Maximum Leakage (cfm/ft. at working pressure)	.030	.045	.060	.075	.090	.105	.120	.135	.150
Crush Resistance (Lbs./Ft.)	400	320	290	240	200	190	145	105	60
Axial Tensile Strength (lbs.)	425	575	700	900	900	900	900	900	900
Compressed Length (inches per foot)	3.5	3.5	3.5	2.5	2.0	2.0	2.0	2.0	2.0
Operating temperature range	-40°F to +300°F								

Neoflex Type DNF—It features a double ply of neoprene coated fiberglass fabric with the helical wire reinforcement encased between two plies of fabric. Higher pressure rating, improved air flow and less air friction loss are the benefits of the 2-ply construction.

Type DNF

Inside Diameter (inches)	2	3	4	5	6	7	8	10	12
Weight (Lbs./Ft.)	.22	.35	.47	.58	.69	.81	.92	1.15	1.35
Inside Bend Radius (inches)	.75	1.10	1.25	1.50	1.75	2.00	2.25	3.00	4.00
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	.030	.040	.050	.060	.070	.080	.100	.120
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	3.0
Operating temperature range	-40°F to +300°F								

Silflex ducting products are designed to handle extreme high and low temperature air handling applications ranging from -80°F to +550°F. They are not recommended for applications involving the movement of liquids or abrasive materials, or for negative pressure applications. This ducting is extremely flexible and can be 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, this ducting minimizes waste since short sections can be joined together to form a continuous length. It features a single ply of silicone coated fiberglass fabric with an internally exposed helical wire reinforcement.

Type SSF

Inside Diameter (inches)	2	3	4	5	6
Weight (Lbs./Ft.)	.19	.29	.38	.48	.58
Inside Bend Radius (inches)	.50	.75	1.0	1.25	1.50
Length Required for 180° Bend (inches)	8	12	16	20	24
Minimum Burst Pressure (psig)	102	88	69	57	41
Internal Working Pressure (psig)	26	22	17	14	10
Maximum Leakage (cfm/ft. at working pressure)	.010	.015	.020	.025	.030
Crush Resistance lbs./ft.	400	320	290	240	200
Axial Tensile Strength (lbs.)	375	535	660	870	900
Compressed Length (inches per foot)	3.5	3.5	2.5	2.1	2.0
Operating temperature range	-80°F to +550°F				

Silflex Type DSF—This ducting features a double ply of silicone coated fiberglass fabric with the helical wire reinforcement encased between two plies of fabric. The liner allows for improved air flow and less air friction loss. Plus, it also provides a higher pressure rating than the Silflex SSF.

Type DSF

Inside Diameter (inches)	2	3	4	5	6
Weight (Lbs./Ft.)	.20	.33	.44	.55	.66
Inside Bend Radius (inches)	.75	1.0	1.25	1.50	.175
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)	.016	.024	.032	.040	.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				

Tuftex®

The Tuftex line of ducting is one of kind in the industry that borders on a general purpose industrial hose. The line provides an integrally vulcanized rubber liner and cover with external corrugation that enhances its flexibility while maintaining a smooth bore (Tuftex LSH-CB has a corrugated liner and cover for maximum flexibility.) 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

Hose 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
Length Required for 180° Bend (inches)	10	13	17	19	21	29	33	44	50
Minimum Burst Pressure (psig)	30	28	26	23	20	18	16	14	12
Internal Working Pressure (psig)	10	9	8	7	6.5	6	5	4.5	4
Leakage (cfm/ft. at working pressure) approx.	.020	.025	.030	.035	.040	.045	.050	.055	.060
Crush Resistance (Lbs./Ft.)	275	265	245	365	285	255	232	255	240
Axial Tensile Strength (lbs.)	287	527	703	879	1055	1231	1407	1759	2111
Negative Pressure Req. to Collapse (in. hg.)	27	27	23	22	20	18	14	9	2
Operating Temperature Range	-40°F to +250°F								

Tuftex Type KD—Lightweight and flexible, this ducting features a neoprene liner that resists oils and chemicals. Features include a single ply neoprene coated fabric cover, a .032" neoprene rubber liner, and a spring steel wire helix.

Type KD

Hose 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
Length Required for 180° Bend (inches)	10	13	17	19	21	29	33	44	50
Minimum Burst Pressure (psig)	30	28	26	23	20	18	16	14	12
Internal Working Pressure (psig)	10	9	8	7	6.5	6	5	4.5	4
Leakage (cfm/ft. at working pressure) approx.	.020	.025	.030	.035	.040	.045	.050	.055	.060
Crush Resistance (Lbs./Ft.)	275	265	245	365	285	255	232	255	240
Axial Tensile Strength (lbs.)	287	527	703	879	1055	1231	1407	1759	2111
Negative Pressure Req. to Collapse (in. hg.)	27	27	23	22	20	18	14	9	2
Operating Temperature Range	-40°F to +250°F								

Tuftex MH1; MH2; and MH3—This material handling hose is designed for gravity or positive and negative pressure applications in bulk material handling. All types are constructed with excellent abrasive resistant materials. Three types of MH hose are available which lets you select the one that best fits your application.

Construction Type MH (Material Handling)

MH Type 1

- A. Spring steel wire helix support.
- B. Single-ply synthetic fabric reinforcement.
- C. Abrasive-resistant rubber tube .062 inch thick.
- D. Abrasive-resistant rubber cover.

MH Type 2

- A. Spring steel wire helix support.
- B. Single-ply synthetic fabric reinforcement.
- C. Abrasive-resistant rubber tube .125 inch thick.
- D. Thick abrasive-resistant rubber cover.

MH Type 3

- A. Spring steel wire helix support.
- B. Double-ply synthetic fabric reinforcement.
- C. Abrasive-resistant rubber tube .250 inch thick.
- D. Thick abrasive-resistant rubber cover.

MH1 (Light Duty)

Inside Diameter (inches)	3	4	5	6	7	8	9	10	11	12
Weight (Lbs./Ft.)	1.5	2.0	2.25	2.5	3.0	3.5	4.0	4.5	5.0	6.0
Inside Bend Radius (inches)	5	6	7	8	10	11	12	13	14	15
Length Required for 180° Bend (inches)	26	28	30	37	44	50	57	63	69	75
Minimum Burst Pressure (psig)	100	85	66	47	44	41	33	29	24	22
Internal Working Pressure (psig)	33	28	22	16	14	13	11	10	8	7
Crush Resistance (Lbs./Ft.)	1300	1500	1000	780	680	605	590	615	750	700
Negative Vacuum to Collapse (inches of Hg.)	27	27	24	20	15	12	10	7	6	6
Operating temperature range	-40°F to +280°F									

MH2 (Medium Duty)

Inside Diameter (inches)	3	4	5	6	7	8	9	10	11	12
Weight (Lbs./Ft.)	1.5	2.5	3.0	3.5	4.0	4.5	5.5	6.0	6.5	7.0
Inside Bend Radius (inches)	5	7	9	11	12.5	13	15	16	17	18
Length Required for 180° Bend (inches)	33	40	50	59	66	72	78	84	91	97
Minimum Burst Pressure (psig)	110	90	75	65	55	45	43	40	37	35
Internal Working Pressure (psig)	36	30	25	22	18	15	14	13	12	11
Crush Resistance (Lbs./Ft.)	1300	1550	1100	860	715	790	875	770	750	700
Negative Vacuum to Collapse (inches of Hg.)	27	27	25	22	18	14	13	13	12	12
Operating temperature range	-40°F to +280°F									

MH3 (Heavy Duty)

Inside Diameter (inches)	3	4	5	6	7	8	9	10	11	12
Weight (Lbs./Ft.)	2	3	3.5	4.25	5	6.25	7.5	8.5	10.5	12.5
Inside Bend Radius (inches)	8	11	13	14	15	16	17	18	19	20
Length Required for 180° Bend (inches)	38	48	55	61	67	73	80	88	92	99
Minimum Burst Pressure (psig)	185	175	156	138	119	100	83	70	52	40
Internal Working Pressure (psig)	61	58	51	45	39	33	27	25	17	13
Crush Resistance (Lbs./Ft.)	1600	1550	1100	1050	1000	900	875	770	780	700
Negative Vacuum to Collapse (inches of Hg.)	27	27	27	24	21	20	19	18	17	15
Operating temperature range	-40°F to +280°F									

Tuftex®

Tuftex Type LSH-CB (Leaf Suction Hose)—This corrugated bore hose is produced using weather resistant and excellent abrasive resistant rubber compounds which provide unequaled flexibility, ease of handling and long trouble-free service life for a material handling hose.

Construction:

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

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
Axial Tensile Strength	1000+ pounds					
Temperature Range	-40°F to +250°F					
Negative Pressure to Collapse (inches Hg)	27	27	27	27	20	17

Cyclone®

The Cyclone line of ducting provides excellent service in applications requiring the conveying of large volumes of air and fume control. It's excellent 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. 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 coated 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°F
 Standard Lengths: 10, 15 and 25 ft.
 Longer lengths available.
 Color: Yellow with black helical wear strip.

Cyclone®

Cyclone Type UBI—This preinsulated ducting is designed to move large volumes of hot or cold conditioned air with negligible heat loss or gain. Its exterior scuff strip provides abrasion resistance. Both flexible and lightweight it provides a compressibility ratio of approx. 5 to 1.

Type UBI Construction:

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

Type UBI Technical Data:

Inside Diameter (Inches): 5 to 30
Larger diameters available upon request.
Operating Temp. Range: -40°F to +250°F
Standard Lengths: 10, 15 and 25 ft.
Longer lengths available.
Color: Yellow with black helical wear strip.

Cyclone Type NNI—This ducting features excellent thermal qualities with factory installed insulation, and is capable of moving large volumes of pre-conditioned air. Its smooth liner offers less air friction loss than other types. Compressibility is approximately 5 to 1. It's excellent for mobile vehicles that have air conditioning units manufactured to order.

Type NNI Construction:

- A. Galvanized spring steel wire helix, fully enclosed.
- B. Three ply neoprene coated nylon fabric with liner ply bonded to interior.
- C. Insulation blanket encased between material plies.
- D. Thermoplastic scuff strip.
- E. Nylon thread stitching.

Type NNI Technical Data:

Inside Diameter (Inches): 5 to 30
Larger diameters available upon request.
Operating Temp. Range: -65°F to +250°F
Lengths: Up to 50 ft.
Color: Olive Drab.

Cyclone Type NCR—Designed for applications involving sawdust, powders, dry cement dust and assorted other light abrasive materials. A neoprene dip coat is applied to the interior and exterior for additional wear resistance. Suitable for applications requiring large diameters for dust control.

Type NCR Construction:

- A. Galvanized spring steel wire helix, fully enclosed.
- B. Single ply neoprene coated nylon fabric.
- C. Neoprene rubber dip coating inside and outside.

Type NCR Technical Data:

Inside Diameter (Inches): 5 to 30
Larger diameters available upon request.
Operating Temp. Range: -40°F to +250°F
Lengths: Up to 20 ft.
Color: Black.

Cyclone Accessories

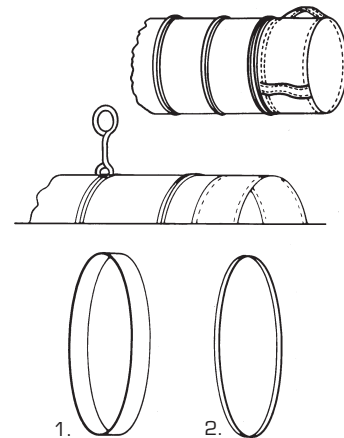
Belt Loops—When repeated loosening and tightening of clamps is expected, belt loops should be permanently attached to the ducting's soft cuff. The loops are two piles of the same material as the soft cuff.

Hanger Hooks permit suspension of ducting from an overhead travel wire. Hooks are made of non-corrosive metal and are permanently attached to ducting.

Coupling:

- 1. Flatband spring steel couplings are available.
- 2. Wire rings are also available and more economical than flat band couplings.

Connecting to blower—One end of a single length can be supplied with a soft cuff, which can be easily slipped over and clamped to the fan or blower collar.



To couple: flat band or wire ring coupling.



To Disconnect: Simply reverse the procedure shown above.

Standard Tolerances

The following tolerances apply to all Thermoid industrial ducting, unless otherwise stated or produced to a specific customer's blueprint.

Product Series

Neoflex®, **Silflex®** and related products within these series.

A. Random Length (Plain Ends)

1. I.D. (inside diameter) $\pm .03"$ (1/32")
2. O.A.L. (overall length) $\pm 1/4"$ per foot

B. Cut to Length — Cuffed (soft end) Item

1. I.D. (inside diameter) $\pm .03"$ (1/32")
2. O.A.L. (overall length)
 - (a) under 18" O.A.L. $\pm 1/8"$
 - (b) 18" O.A.L. and longer $\pm 1/8"$ per foot of length
3. Soft ends (cuffs)
 - +1/4"
 - 1/8"

Product Series

Tuftex®, **FlexKing®**, **Ultraflex®** and related products within the scope of these series.

A. Random Length(s) No Cuffed Ends

1. Tuftex I.D. (inside diameter) $\pm .03"$ (1/32")
- FlexKing I.D. (inside diameter) up to 8" — 0"
 - + .06"
 - over 8" — 0"
 - + .08"

2. O.A.L. (overall length) +1/4" per foot length
 - 1/8" per foot length

Note: These product series when coiled, and stored or shipped in this manner, will frequently "set" or tend to remain in that position. They also have a tendency to shrink 2 to 3% in overall length due to the nature of relative light walled rubber, cotton or nylon. Duct/hose can be installed to nominal length.

B. Cuffed (soft end) Items

1. Tuftex I.D. (inside diameter) $\pm .03"$ (1/32")
- FlexKing I.D. (inside diameter) up to 8" — 0"
 - + .06"
 - over 8" — 0"
 - + .08"

2. O.A.L. (overall length) $\pm 1/4"$ per foot length
3. Cuff (soft end) length + 1/4"
 - 1/8"

Cyclone Series

A. Random (duct excluding cuffs)

1. I.D. + 1/4"
 - 1/8"
2. O.A.L. + 1/2" per foot
 - 1/8" per foot

B. Cuff(s) soft end(s)

1. I.D. + 1/4"
 - 0"
2. Cuff lengths +1"
 - 1/2"



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CHANUTE OPERATIONS

201-211 N. Allen Avenue
Chanute, KS 66720-0728
620/431-9100 • 800/835-0682
620/431-9105-Fax



BELLEFONTAINE OPERATIONS

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800/258-7654-Fax

www.hbdthermoid.com • www.hbdindustries.com

E-Mail: info@hbdthermoid.com

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