

TWOB/TBOB/TWOBHV/TBOBHV Series

Chemfluor® PTFE Fluoropolymer Helically Convolved Inner Tube

Stainless Steel Braid • Open Pitch

applications	common media	industry approvals & compliances
<ul style="list-style-type: none"> Sanitary transfer Food, flavors and syrups Solvent transfer Drain and sample lines 	<ul style="list-style-type: none"> Base chemicals Corn syrup Hexane (TBOB) Product transfer Caustic solutions 	<ul style="list-style-type: none"> USDA FDA (TWOB only) US Pharmacopeia Class VI



TWOB



TBOB



TWOBHV/TBOBHV

TWOBHV/TBOBHV Series

- Fully rated vacuum hose
- Recommended for full vacuum applications
- Should always be used for 2-1/2", 3" and 4" I.D. assemblies

features & benefits

Chemfluor® PTFE inner tube

- Excellent chemical resistance
- Compatible with almost all materials
- Rounded, open-pitch helical convolutions shaped to ensure smooth product flow
- Non-stick surface, easy to clean (steam, caustics, solvents or other cleaning agents)
- Assured sterility
- Easy to flex, yet won't flatten when bent

Chemfluor® black PTFE electrostatic dissipating conductive inner tube

- Co-extrusion design with minute amount of carbon added to inner portion of thick-wall construction
- Processed to prevent chemical leaching or friction contamination
- Chemfluor® PTFE properties are completely maintained

engineering specifications

maximum length	temperature rating
1/2" 100'	<ul style="list-style-type: none"> -100°F to +450°F -73°C to +232°C
3/4" 70'	
1" 65'	
1-1/4" 45'	
1-1/2" 70'	
2" 50'	
2-1/2" 30'	
3" 30'	
4" 20'	

details

construction

- Inner Tube**
 - TWOB: Chemfluor® white PTFE
 - TBOB: Chemfluor® black PTFE electrostatic dissipating conductive
- Reinforcement:** 316 stainless steel braid
 - Other braid options available:
 - Polypropylene – TWQY/TBOY, see page 21
 - PVDF (Kynar®) – TWOK/TBOK, see page 22

fittings

- PermaSeal® crimp-style
 - Over 40 styles
- Flare-Thru fitting technology available:
 - 150# lap-joint style flanged
 - Female cam and groove
 - Sanitary clamp style
 - 1/2" mini sanitary Flare-Thru available using 3/8" ID open pitch hose
- Fitting details begin on page 33

⚠ Important:

- Hose assemblies may be autoclaved; however, flare faces of Flare-Thru fittings must be clamped down to prevent damage to sealing surface

TWOB/TBOB/TWOBHV/TBOBHV Series hose specifications

Part Number*	Inside Diameter		Outside Diameter		Maximum Working Pressure		Minimum Burst Pressure		Minimum Bend Radius		Vacuum Hg @ 70°F		Weight	
	in.	mm	in.	mm	PSI	MPa	PSI	MPa	in.	mm	in.	mm	lb./ft.	kg/m
8TWOB/TBOB	1/2	12.7	3/4	19.1	500	3.45	2,000	13.79	2.00	50.80	25.0	635	0.20	0.30
12TWOB/TBOB	3/4	19.1	1-1/8	28.6	425	2.93	1,700	11.72	2.75	69.85	25.0	635	0.30	0.45
16TWOB/TBOB	1	25.4	1-1/4	31.8	350	2.41	1,400	9.65	4.00	101.60	25.0	635	0.40	0.60
20TWOB/TBOB	1-1/4	31.8	1-5/8	41.3	337	2.32	1,350	9.31	5.50	139.70	25.0	635	0.70	1.04
24TWOB/TBOB/HV	1-1/2	38.1	2	50.8	275	1.90	1,100	7.58	7.00	177.80	29.9	760	0.75	1.12
32TWOB/TBOB/HV	2	50.8	2-1/2	63.5	250	1.72	1,000	6.90	8.50	215.90	29.9	760	1.05	1.56
40TWOB/TBOB/HV	2-1/2	63.5	3-1/8	79.4	212	1.46	850	5.86	13.00	330.20	29.9	760	1.35	2.01
48TWOB/TBOB/HV	3	76.2	3-7/8	98.4	175	1.21	700	4.83	14.00	355.60	29.9	760	1.75	2.61
64TWOB/TBOB/HV	4	101.6	5	127.0	150	1.03	600	4.14	16.00	406.40	29.9	760	2.10	3.13

⚠ Important:

Burst pressure ratings at ambient 70°F (21°C). See applicable notes below on vacuum/pressure ratings at temperatures other than ambient.

Working Pressure is given @ 70°F; decrease working pressure 1% for every 2°F above 250°F.

Vacuum Rating is given @ 70°F @ 2X minimum bend radius; decrease vacuum rating 1% for every 2°F above 250°F. Vacuum rating decreases when installed @ less than 2X minimum bend radius. TWOBHV/TBOBHV Series (heavy duty vacuum option) allows full vacuum ratings for 1-1/2", 2" and 2-1/2" sizes up to 350°F; decrease vacuum rating 1% for every 2°F above 350°F. Vacuum rating @ less than 2x minimum bend radius: 1-1/4" = 26" Hg; 1-1/2" = 25" Hg; 2" = 20" Hg; 2-1/2" = 17" Hg; 3" = 20" Hg; 4" = 17" Hg.

Extended Service Life Tip: Saint-Gobain suggests using full-length anti-kink armor casing or at least 16" to 24" long anti-kink cuffs (see Hose Cover Options, pages 79-80) at each fitting end to help reduce the strain on the crimp collar and fittings in high load installations. Prolonged service at elevated temperatures will reduce total service life.

⚠ Important: *Add HV to indicate Vacuum Rated Series