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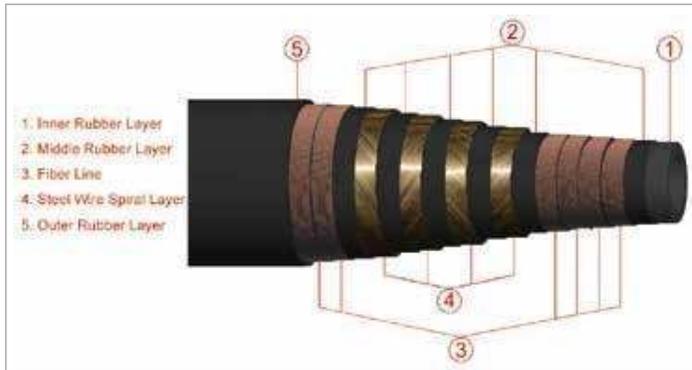
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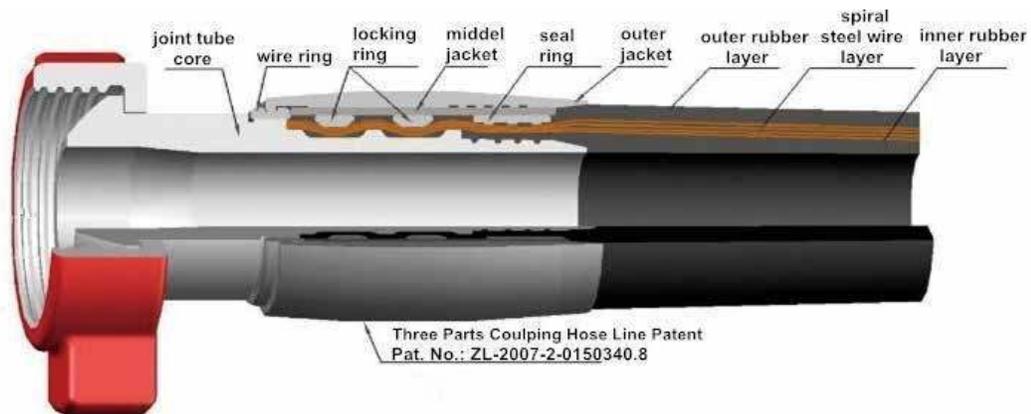
## Rotary Vibrator/Drilling Hose



Inner Structure of the Rotary Vibrator/Drilling Hose



Compared with the traditional coupling, the Three Parts Coupling designed by Jingbo is much safer. The fitting could bear more pressure and never takes off. It is 100% safe without any leakage.



Compared with other hoses, consistent inner diameter hose without bottleneck could lower the velocity in the case of the same flow. This design enhances the joint capacity for more pressure and eventually extends the service life of the hose.



Germany Lanxess HNBR used as our raw material, which can resist 20% H<sub>2</sub>S and 80% oil based mud.

## Rotary Vibrator/Drilling Hose

5,000 psi W.P. - 10,000 psi Test- Grade D- 12,500 psi Minimum Burst

**Certification/Standards:** API Spec 7K--ISO 14693--ABS approval

**Recommended For:** Flexible connection between standpipe and swivel [Rotary Drilling] or between pump and standpipe [Rotary Vibrator] for pumping mud at extra high pressure in oil drilling and exploration work. Meets the high demands of directional drilling and down linking with negative pressure pulses and elevated temperatures. This hose can also be used as a Motion Compensator hose for stabilization of rotary drilling and pumping equipment against vertical wave action on offshore drill platforms. The Motion Compensator hose is not recommended for phosphate ester fluids.

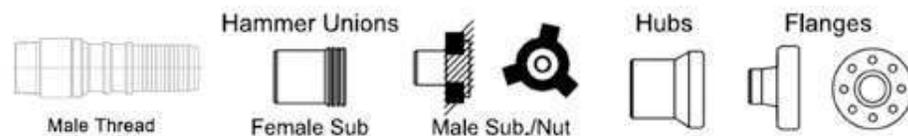


**Tube:** Modified Nitrile. 3/16" thick. Black. Specially designed for handling abrasive, corrosive and oily drilling mud.

**Reinforcement:** Multiple layers of textile fabric and steel cable, with one layer middle rubber placed between cable layers.

**Cover:** Modified Nitrile. Black. Specially designed Ultra abrasion cover is resistant to abrasion, corrosion, cutting, gouging, oil and weather.

**Couplings:** Swaged couplings. Full range of couplings are available, such as hammer unions, flanges, hubs, male thread, etc.



**Temperature:** -4 °F to +180 °F [-20°C to +82°C ] continuous service.

**Options:** Accessories such as safety clamps, hose lift eyes and stainless steel armor are available upon request.

**Test:** Each hose is tested at 10000psi for 15 minutes. Pressure test graph, test certificate and letter of conformance are issued for each hose.

Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]
2 1/2	63.5	4.14	105.2	5000	35	12500	87.5	36.0	914
3	76.2	4.61	117.1	5000	35	12500	87.5	48.0	1219
3 1/2	88.9	5.25	133.4	5000	35	12500	87.5	54.0	1372
4	101.6	5.61	142.5	5000	35	12500	87.5	54.0	1372

## Rotary Vibrator/Drilling Hose

7,500 psi W.P. - 15,000 psi Test- Grade E -18,750 psi Minimum Burst

**Certification/Standards:** API Spec 7K--ISO 14693--ABS approval

**Recommended For:** Flexible connection between standpipe and swivel [Rotary Drilling] or between pump and standpipe [Rotary Vibrator] for pumping mud at extra high pressure in oil drilling and exploration work. Meets the high demands of directional drilling and down linking with negative pressure pulses and elevated temperatures. This hose can also be used as a Motion Compensator hose for stabilization of rotary drilling and pumping equipment against vertical wave action on offshore drill platforms. The Motion Compensator hose is not recommended for phosphate ester fluids.

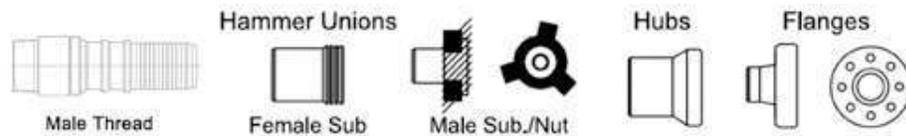


**Tube:** Modified Nitrile. 3/16" thick. Black. Specially designed for handling abrasive, corrosive and oily drilling mud.

**Reinforcement:** Multiple layers of textile fabric and steel cable, with one layer middle rubber placed between cable layers.

**Cover:** Modified Nitrile. Black. Specially designed ultra abrasion cover is resistant to abrasion, corrosion, cutting, gouging, oil and weather.

**Couplings:** Swaged couplings. Full range of couplings are available, such as hammer unions, flanges, hubs, male thread, etc.



**Temperature:** -4 °F to +180 °F [-20°C to +82°C ] continuous service.

**Options:** Accessories such as safety clamps, hose lift eyes and stainless steel armor are available upon request.

**Test:** Each hose is tested at 15000psi for 15 minutes. Pressure test graph, test certificate and letter of conformance are issued for each hose.

									
Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]
2 1/2	63.5	5.16	131.1	7500	52.5	18750	130	48.0	1219
3	76.2	5.66	143.8	7500	52.5	18750	130	48.0	1219
3 1/2	88.9	6.04	153.4	7500	52.5	18750	130	54.0	1372
4	101.6	6.48	164.6	7500	52.5	18750	130	60.0	1524

## Rotary Vibrator Hose Grade D Sour Service

5,000psi W.P. – 10,000 psi Test-12,500 psi Minimum Burst

**Certification/Standards:** API Spec 7K-ISO 14693-NACE MR0175

**Recommended For:** Flexible connection between standpipe and swivel [Rotary Drilling] or between pump and standpipe [Rotary Vibrator] for pumping mud at extra high pressure in oil drilling and exploration work. Meets the high demands of directional drilling and down linking with negative pressure pulses and elevated temperatures. This hose can also be used as a Motion Compensator hose for stabilization of rotary drilling and pumping equipment against vertical wave action on offshore drill platforms. The Motion Compensator hose is not recommended for phosphate ester fluids.

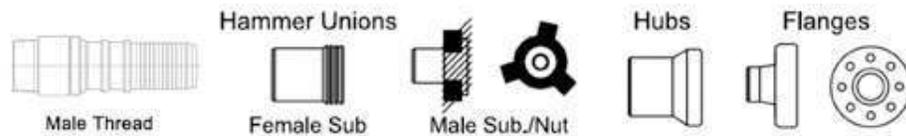


**Tube:** HNBR rubber. Black. Resists abrasion, corrosion, oil, and up to 20% H<sub>2</sub>S.

**Reinforcement:** Multiple layers of textile fabric and steel cable, with one layer middle rubber placed between cable layers.

**Cover:** Modified Nitrile. Black. Specially designed Ultra abrasion cover is resistant to abrasion, corrosion, cutting, gouging, oil and weather.

**Couplings:** Swaged couplings. Full range of couplings are available, such as hammer unions, flanges, hubs, male thread, etc.



**Temperature:** -4 °F to +200 °F [-20°C to +93°C ] continuous service.

**Options:** Accessories such as safety clamps, hose lift eyes and stainless steel armor are available upon request.

**Test:** Each hose is tested at 10000psi for 15 minutes. Pressure test graph, test certificate and letter of conformance are issued for each hose.

									
Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]
2 1/2	63.5	4.15	105.4	5000	35	12500	87.5	36.0	914
3	76.2	4.61	117.1	5000	35	12500	87.5	48.0	1219
3 1/2	88.9	5.25	133.4	5000	35	12500	87.5	54.0	1372
4	101.6	5.58	141.7	5000	35	12500	87.5	54.0	1372

## Rotary Vibrator Hose Grade E Sour Service

7,500psi W.P. – 15,000 psi Test-18,750 psi Minimum Burst

**Certification/Standards:** API Spec 7K-ISO 14693-NACE MR0175

**Recommended For:** Flexible connection between standpipe and swivel [Rotary Drilling] or between pump and standpipe [Rotary Vibrator] for pumping mud at extra high pressure in oil drilling and exploration work. Meets the high demands of directional drilling and down linking with negative pressure pulses and elevated temperatures. This hose can also be used as a Motion Compensator hose for stabilization of rotary drilling and pumping equipment against vertical wave action on offshore drill platforms. The Motion Compensator hose is not recommended for phosphate ester fluids.

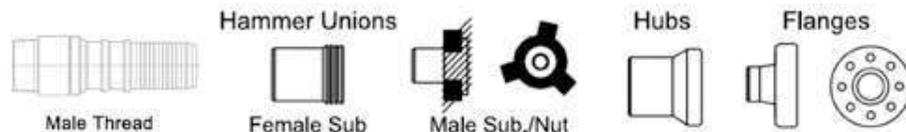


**Tube:** HNBR rubber. Black. Resists abrasion, corrosion, oil, and up to 20% H<sub>2</sub>S.

**Reinforcement:** Multiple layers of textile fabric and steel cable, with one layer middle rubber placed between cable layers.

**Cover:** Modified Nitrile. Black. Specially designed Ultra abrasion cover is resistant to abrasion, corrosion, cutting, gouging, oil and weather.

**Couplings:** Swaged couplings. Full range of couplings are available, such as hammer unions, flanges, hubs, male thread, etc.



**Temperature:** -4 °F to +200 °F [-20°C to +93°C ] continuous service.

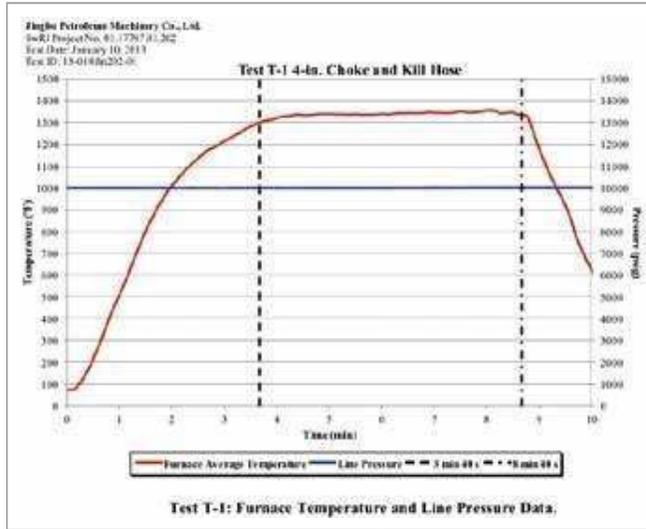
**Options:** Accessories such as safety clamps, hose lift eyes and stainless steel armor are available upon request.

**Test:** Each hose is tested at 15000psi for 15 minutes. Pressure test graph, test certificate and letter of conformance are issued for each hose.

Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]
2 1/2	63.5	5.14	130.6	7500	52.5	18750	130	48.0	1219
3	76.2	5.64	143.3	7500	52.5	18750	130	48.0	1219
3 1/2	88.9	6.05	153.7	7500	52.5	18750	130	54.0	1372
4	101.6	6.40	162.6	7500	52.5	18750	130	60.0	1524

## Choke & Kill Hose

- China's first API authorized manufacturer of Choke & Kill Hose with a certificate of API Spec 16C-0374
- a patent for firstly producing the fire resistant hose in China
- The Choke & Kill Hose has passed the USA Southwest Research Institute Test.
- stainless steel 316L used as the armored jacket



## Choke & Kill Hose 5000PSI

5,000psi W.P. – 10,000 psi Test-15,000 psi Minimum Burst

**Certification/Standards:** API Spec 16C--ISO 14693

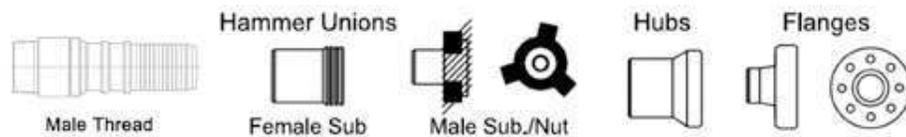
**Recommended For:** Flexible hose between the riser and manifold or around the ball joint of offshore drilling rigs, specially designed to withstand high pressure.

**Tube:** Modified Nitrile. Black. Resists abrasion, corrosion, oil, and up to 20% H<sub>2</sub>S.

**Reinforcement:** Multiple layers of textile fabric and steel cable, with one layer middle rubber placed between cable layers.

**Cover:** Fire resistant rubber cover, stainless steel armored to handle abrasion, corrosion, cutting, gouging, oil and weather.

**Couplings:** Swaged couplings. Full range of couplings are available, such as hammer unions, flanges, hubs, male thread, etc.



**Temperature:** -4 °F to +200 °F [-20°C to +93°C ] continuous service.

**Options:** Accessories such as safety clamps and hose lift eyes are available upon request.

**Test:** Each hose is tested at 10000psi for 15 minutes. Pressure test graph, test certificate and letter of conformance are issued for each hose.

									
Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]
2 1/2	63.5	4.15	105.4	5000	35	15000	105	36.0	914
3	76.2	4.61	117.1	5000	35	15000	105	48.0	1219
3 1/2	88.9	5.25	133.4	5000	35	15000	105	54.0	1372
4	101.6	6.40	162.6	5000	35	15000	105	60.0	1524

## Choke & Kill Hose 10000PSI

10,000psi W.P. – 15,000 psi Test-22,500 psi Minimum Burst

**Certification/Standards:** API Spec 16C--ISO 14693

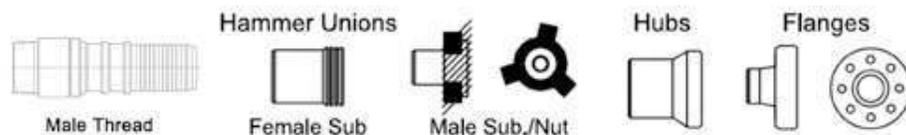
**Recommended For:** Flexible hose between the riser and manifold or around the ball joint of offshore drilling rigs, specially designed to withstand high pressure.

**Tube:** Modified Nitrile. Black. Resists abrasion, corrosion, oil, and up to 20% H<sub>2</sub>S.

**Reinforcement:** Multiple layers of textile fabric and steel cable, with one layer middle rubber placed between cable layers.

**Cover:** Fire resistant rubber cover, stainless steel armored to handle abrasion, corrosion, cutting, gouging, oil and weather.

**Couplings:** Swaged couplings. Full range of couplings are available, such as hammer unions, flanges, hubs, male thread, etc.



**Temperature:** -4 °F to +200 °F [-20°C to +93°C ] continuous service.

**Options:** Accessories such as safety clamps and hose lift eyes are available upon request.

**Test:** Each hose is tested at 15000psi for 15 minutes. Pressure test graph, test certificate and letter of conformance are issued for each hose.

									
Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]
2 1/2	63.5	5.14	130.6	10000	70	22500	155	48.0	1219
3	76.2	5.64	143.3	10000	70	22500	155	48.0	1219
3 1/2	88.9	6.05	153.7	10000	70	22500	155	54.0	1372

## Choke & Kill Hose 15000PSI

15,000psi W.P. – 22,500 psi Test-33,750 psi Minimum Burst

**Certification/Standards:** API Spec 16C--ISO 14693

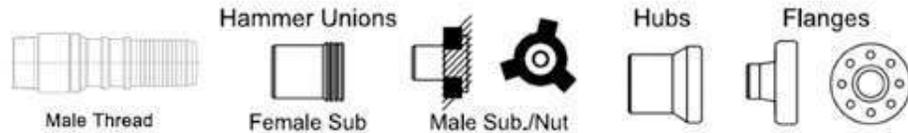
**Recommended For:** Flexible hose between the riser and manifold or around the ball joint of offshore drilling rigs, specially designed to withstand high pressure.

**Tube:** Modified Nitrile. Black. Resists abrasion, corrosion, oil, and up to 20% H<sub>2</sub>S.

**Reinforcement:** Multiple layers of textile fabric and steel cable, with one layer middle rubber placed between cable layers.

**Cover:** Fire resistant rubber cover, stainless steel armored to handle abrasion, corrosion, cutting, gouging, oil and weather.

**Couplings:** Swaged couplings. Full range of couplings are available, such as hammer unions, flanges, hubs, male thread, etc.



**Temperature:** -4 °F to +200 °F [-20°C to +93°C ] continuous service.

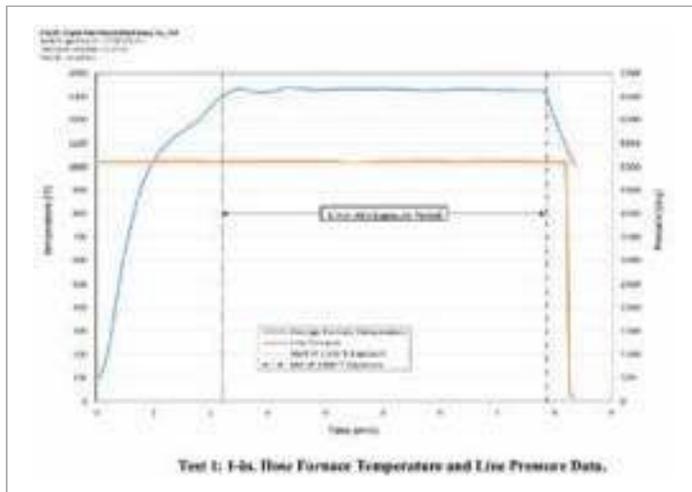
**Options:** Accessories such as safety clamps and hose lift eyes are available upon request.

**Test:** Each hose is tested at 22500psi for 15 minutes. Pressure test graph, test certificate and letter of conformance are issued for each hose.

Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]
2 1/2	63.5	5.66	143.8	15000	105	33750	232.7	60.0	1524
3	76.2	6.16	156.5	15000	105	33750	232.7	60.0	1524

## BOP Hose

- China's first API authorized manufacturer of BOP Hose with a certificate of API Spec 16D-0109
- a patent for firstly producing the BOP Hose in China
- 80% shares for the domestic market
- the first grade supplier of CNPC, SINOPEC and CNOOC
- stainless steel 316L used as the armored jacket



## BOP Hose

5,000psi W.P. – 10,000 psi Test-15,000 Minimum Burst

**Certification/Standards:** API Spec 16D--ISO 14693

**Recommended For:** Armored hose assemblies with flame resistant cover withstand minimum 1300°F [+700°C] flame temperature at working pressure for 5 minutes without failure.

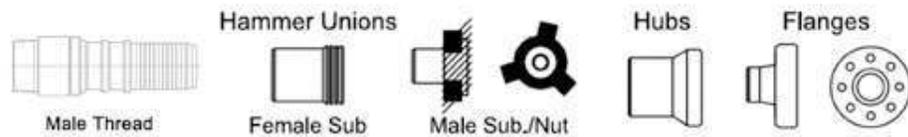


**Tube:** Modified Nitrile. Black.

**Reinforcement:** Multiple layers of textile fabric and steel cable, with one layer middle rubber placed between cable layers.

**Cover:** Fire resistant, rubber cover, stainless steel armored to handle abrasion, corrosion, cutting, gouging, oil and weather.

**Couplings:** Crimped couplings with over-ferrule fire protection.



**Temperature:** -40°F to +212°F [-40°C to +100°C] continuous service.

**Options:** Accessories such as API 16D quick connector, self-sealing union and exterior armor to protect hoses against extreme environmental damage are available upon request.

**Test:** Each hose is tested at 10000psi for 15 minutes. Pressure test graph, test certificate and letter of conformance are issued for each hose.

Hose ID		Hose O.D.		Working Pressure		Min. Bend Radius		Weight		Max. Hose Length	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft	ft	m
1/4	6	0.77	20	5000	35	4	102	0.66	0.37	330	100
3/8	10	0.93	24	5000	35	5	127	0.77	0.52	330	100
1/2	13	1.05	27	5000	35	7	178	0.98	0.63	330	100
3/4	19	1.38	35	5000	35	9.5	241	1.64	1.05	200	60
1	25	1.67	42	5000	35	12	305	2.62	1.77	200	60
1 1/4	32	2.11	54	5000	35	16.5	419	3.94	2.67	200	60
1 1/2	38	2.41	61	5000	35	20	508	4.59	3.00	200	60
2	51	2.96	75	5000	35	25	635	8.53	5.73	200	60

## Cementing Hose

5,000 psi W.P. - 10,000 psi Test -12,500 psi Minimum Burst

**Certification/Standards:** API Spec 7K--ISO 14693--ABS approval

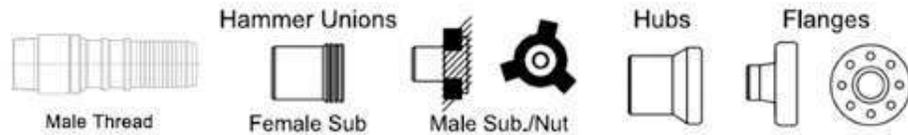
**Recommended For:** Used as a flexible connection between the cementing pump and manifold and cementing head for conveyance of cement slurries at high pressure.

**Tube:** Modified Nitrile. 3/16" thick. Black. Specially designed for handling abrasion and corrosion.

**Reinforcement:** Multiple layers of textile fabric and steel cable, with one layer middle rubber placed between cable layers.

**Cover:** Modified Nitrile. Black. Specially designed Ultra abrasion cover is resistant to abrasion, corrosion, cutting, gouging, oil and weather.

**Couplings:** Swaged couplings. Full range of couplings are available, such as hammer unions, flanges, hubs, male thread, etc.



**Temperature:** -4 °F to +180 °F [-20°C to +82°C ] continuous service.

**Options:** Accessories such as safety clamps, hose lift eyes and stainless steel armor are available upon request.

**Test:** Each hose is tested at 10000psi for 15 minutes. Pressure test graph, test certificate and letter of conformance are issued for each hose.

Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]
2 1/2	63.5	4.14	105.2	5000	35	12500	87.5	36.0	914
3	76.2	4.61	117.1	5000	35	12500	87.5	48.0	1219
3 1/2	88.9	5.25	133.4	5000	35	12500	87.5	54.0	1372
4	101.6	5.61	142.5	5000	35	12500	87.5	54.0	1372

## Cementing Hose

10,000 psi W.P. - 15,000 psi Test- 22,500 psi Minimum Burst

**Certification/Standards:** API Spec 7K--ISO 14693--ABS approval

**Recommended For:** Used as a flexible connection between the cementing pump and manifold and cementing head for conveyance of cement slurries at high pressure.

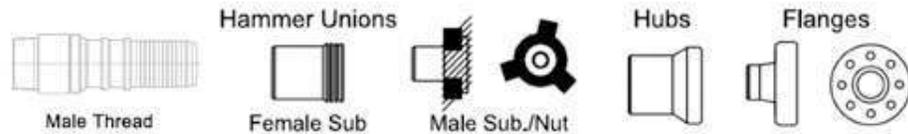


**Tube:** Modified Nitrile. 3/16" thick. Black. Specially designed for handling abrasion and corrosion.

**Reinforcement:** Multiple layers of textile fabric and steel cable, with one layer middle rubber placed between cable layers.

**Cover:** Modified Nitrile. Black. Specially designed Ultra abrasion cover is resistant to abrasion, corrosion, cutting, gouging, oil and weather.

**Couplings:** Swaged couplings. Full range of couplings are available, such as hammer unions, flanges, hubs, male thread, etc.



**Temperature:** -4 °F to +180 °F [-20°C to +82°C ] continuous service.

**Options:** Accessories such as safety clamps, hose lift eyes and stainless steel armor are available upon request.

**Test:** Each hose is tested at 15000psi for 15 minutes. Pressure test graph, test certificate and letter of conformance are issued for each hose.

									
Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]
2 1/2	63.5	5.16	131.1	10000	70	22500	155	48.0	1219
3	76.2	5.66	143.8	10000	70	22500	155	48.0	1219
3 1/2	88.9	6.04	153.4	10000	70	22500	155	54.0	1372

## Cementing Hose

15,000 psi W.P. - 22,500 psi Test-33,750 psi Minimum Burst

**Certification/Standards:** API Spec 7K--ISO 14693--ABS approval

**Recommended For:** Used as a flexible connection between the cementing pump and manifold and cementing head for conveyance of cement slurries at high pressure.

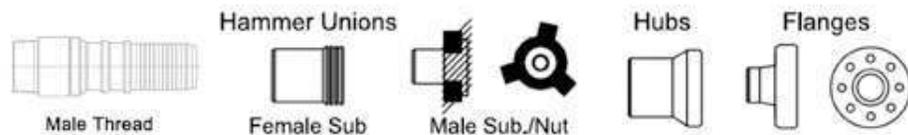


**Tube:** Modified Nitrile. 3/16" thick. Black. Specially designed for handling abrasion and corrosion.

**Reinforcement:** Multiple layers of textile fabric and steel cable, with one layer middle rubber placed between cable layers.

**Cover:** Modified Nitrile. Black. Specially designed Ultra abrasion cover is resistant to abrasion, corrosion, cutting, gouging, oil and weather.

**Couplings:** Swaged couplings. Full range of couplings are available, such as hammer unions, flanges, hubs, male thread, etc.



**Temperature:** -4 °F to +212 °F [-20°C to +100°C ] continuous service.

**Options:** Accessories such as safety clamps, hose lift eyes and stainless steel armor are available upon request.

**Test:** Each hose is tested at 22500psi for 15 minutes. Pressure test graph, test certificate and letter of conformance are issued for each hose.

Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]
2 1/2	63.5	5.66	143.8	15000	105	33750	232.7	60.0	1524
3	76.2	6.16	156.5	15000	105	33750	232.7	60.0	1524

## Rotary Decoking Hose

5,000psi W.P. – 10,000 psi Test-12,500 psi Minimum Burst-Grade D  
 7,500psi W.P. – 15,000 psi Test-18,750 psi Minimum Burst-Grade E



**Certification/Standards:** API Spec 7K--ISO 14693

**Recommended For:** Coke is one of the by-products used in oil refining. It is stored in silos until it can be loaded into railroad cars for shipment. The coke hardens after being placed in the silos. To unload the coke from the silos, a decoking hose is attached to a drill stem which travels down the silo using warm, high-pressure water to wash the loosened coke from the silo.

**Tube:** Modified Nitrile rubber. 3/16" thick, Black. Specially compounded for handling abrasion and corrosion.

**Reinforcement:** Multiple layers of textile fabric and steel cable, with one layer middle rubber placed between cable layers.

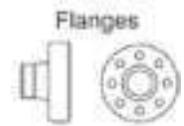
**Cover:** Modified Nitrile. Black. Specially designed Ultra abrasion cover is resistant to abrasion, corrosion, cutting, gouging, oil and weather.

**Couplings:** Swaged couplings. API standard flanges or equivalent of your choice.

**Temperature:** -4 °F to +180 °F [-20°C to +82°C ] continuous service.

**Options:** Accessories such as safety clamps, hose lift eyes and stainless steel armor are available upon request.

**Test:** Each hose is tested at 10000psi or 15000psi for 15 minutes. Pressure test graph, test certificate and letter of conformance are issued for each hose.



5,000psi W.P. – 10,000 psi Test-12,500 psi Minimum Burst-Grade D

Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]
3	76.2	4.61	117.1	5000	35	12500	87.5	48.0	1219
3 1/2	88.9	5.25	133.4	5000	35	12500	87.5	54.0	1372
4	101.6	5.61	142.5	5000	35	12500	87.5	54.0	1372

7,500psi W.P. – 15,000 psi Test-18,750 psi Minimum Burst-Grade E

Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]
3	76.2	5.66	143.8	7500	52.5	18750	130	48.0	1219
3 1/2	88.9	6.04	153.4	7500	52.5	18750	130	54.0	1372
4	101.6	6.40	162.6	7500	52.5	18750	130	60.0	1524

## SAE 100 R1 AT/ DIN EN853 1SN

- Recommended For:** Medium pressure hydraulic lines.  
Meets or exceeds the requirements of SAE 100 R1 Type AT and SAE 100R1 Type S and performance requirements of EN 853 1SN.
- Application Fields:** Mine hydraulic support, oilfield extraction machinery, mine/ road/ construction machinery.
- Tube:** Black, oil resistant, synthetic rubber.
- Reinforcement:** One braid of high-tensile steel wire.
- Cover:** Black, oil, abrasion and weather resistant, synthetic rubber.
- Temperature Range:** -40 °F to +250 °F [-40°C to +121°C ]



											
Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft
1/4	6.4	0.52	13.1	3275	22.6	13100	90.3	3.94	100	0.25	0.168
5/16	7.9	0.58	14.7	3125	21.5	12500	86.2	4.53	115	0.31	0.208
3/8	9.5	0.67	17.1	2600	17.9	10400	71.7	4.92	125	0.36	0.242
1/2	12.7	0.80	20.3	2325	16.0	9300	64.1	7.09	180	0.45	0.302
5/8	15.9	0.92	23.4	1900	13.1	7600	52.4	7.87	200	0.52	0.349
3/4	19.1	1.08	27.4	1525	10.5	6100	42.1	9.45	240	0.65	0.437
1	25.4	1.40	35.5	1275	8.8	5100	35.2	11.81	300	0.91	0.611
1 1/4	31.8	1.69	43.0	925	6.4	3700	25.5	16.54	420	1.30	0.874
1 1/2	38.1	1.95	49.5	725	5.0	2900	20.0	19.69	500	1.70	1.142
2	50.8	2.48	63.0	600	4.0	2700	18.6	24.8	630	2.00	1.344
2 1/2	63.8	3.03	77.0	360	2.5	1600	11.0	29.92	760	2.56	1.720
3	76.0	3.46	88.0	290	2.0	1160	8.0	34.65	880	2.74	1.841

## SAE 100 R2 AT/DIN EN853 2SN

**Recommended For:** High-pressure hydraulic lines. Meets or exceeds the requirements of SAE 100R2AT and SAE 100R2 Type S and performance requirements of EN853 2SN.

**Application Fields:** For high pressure hydraulic systems in industry and agriculture.

**Tube:** Black, oil resistant, synthetic rubber.

**Reinforcement:** Two braids of high-tensile steel wire.

**Cover:** Black, oil, abrasion and weather resistant, thin synthetic rubber.

**Temperature Range:** -40 °F to +250 °F [-40°C to +121°C ]



											
Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft
1/4	6.4	0.58	14.7	5800	40.0	23200	160.0	3.94	100	0.36	0.242
5/16	7.9	0.64	16.3	5075	35.0	20300	140.0	4.53	115	0.45	0.302
3/8	9.5	0.74	18.7	4800	33.1	19200	132.4	4.92	125	0.54	0.363
1/2	12.7	0.86	21.8	4000	27.6	16000	110.3	7.09	180	0.68	0.457
5/8	15.9	0.98	24.9	3625	25.0	14500	100.0	7.87	200	0.80	0.538
3/4	19.1	1.14	29.0	3120	21.5	12480	86.1	9.45	240	0.94	0.632
1	25.4	1.48	37.6	2400	16.5	9600	66.2	11.81	300	1.35	0.907
1 1/4	31.8	1.87	47.5	1810	12.5	7240	49.9	16.54	420	2.15	1.445
1 1/2	38.1	2.11	53.5	1300	9.0	5200	35.9	19.69	500	2.65	1.781
2	50.8	2.62	66.5	1175	8.1	4700	32.4	24.80	630	3.42	2.298
2 1/2	63.8	3.07	78.0	720	5.0	2880	19.9	29.92	760	3.78	2.540
3	76.0	3.56	90.5	580	4.0	2320	16.0	34.65	880	4.00	2.688

## DIN EN856 4SP

**Recommended For:** Extremely high pressure and high impulse hydraulic applications. This hose is the most flexible EN856 4SP hose in the industry with superior impulse performance [ tested to 1,000,000 impulse cycles at bend radius lower than EN 856 Standard]. Compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.



**Tube:** Black, oil-resident synthetic rubber[Nitrile]  
**Reinforcement:** Four alternating layers of spiraled, high-tensile steel wire.  
**Cover:** Black, oil, abrasion and weather resistant, synthetic rubber.  
**Temperature Range:** -40 °F to +250 °F [-40°C to +121°C ]

											
Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft
3/8	9.5	0.83	21.1	6650	45.9	26600	183.4	4.3	109.2	0.78	0.524
1/2	12.7	0.96	24.4	6150	42.4	24600	169.6	4.7	119.4	0.93	0.625
5/8	15.9	1.09	27.7	5800	40.0	23200	160.0	5.5	139.7	1.17	0.786
3/4	19.0	1.24	31.5	5500	37.9	23925	165.0	6.7	170.2	1.48	0.995
1	25.4	1.54	39.1	4650	32.1	20300	140.0	13.4	340.4	2.02	1.357
1 1/4	31.8	1.96	49.8	3050	21.0	18120	124.9	18.1	459.7	3.05	2.050
1 1/2	38.1	2.25	57.2	2685	18.5	10730	74.0	22.0	560.0	3.52	2.365
2	50.8	2.75	69.8	2395	16.5	9570	66.0	26.0	660.0	5.20	3.494

## DIN EN856 4SH

- Recommended For:** Extremely high pressure and high impulse hydraulic applications. This hose is the most flexible EN856 4SH hose in the industry with superior impulse performance [tested to 1,000,000 impulse cycles at bend radius lower than EN 856 Standard]. Compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.
- Tube:** Black, oil-resident synthetic rubber[Nitrile]
- Reinforcement:** Four alternating layers of spiraled, high-tensile steel wire.
- Cover:** Black, oil, abrasion and weather resistant, synthetic rubber.
- Temperature Range:** -40 °F to +250 °F [-40°C to +121°C ]



											
Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft
3/4	19.0	1.24	31.5	6100	42.1	26100	180.0	11.0	280.0	1.72	1.16
1	25.4	1.48	37.6	5600	38.6	26100	180.0	13.4	340.0	2.14	1.44
1 1/4	31.8	1.78	45.2	5050	34.8	20300	140.0	18.1	460.0	2.96	1.99
1 1/2	38.1	2.11	53.5	4200	29.0	16820	116.0	22.0	560.0	3.20	2.15
2	50.8	2.68	68.1	3625	25.0	14500	100.0	27.6	700.0	5.30	3.56

## SAE 100 R12

**Recommended For:** Extremely high pressure, high impulse hydraulic applications. Exceeds all performance requirements for SAE 100R12, EN 856 R12 and EN856 4SP. Compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.



**Tube:** Black, oil-resident synthetic rubber (Nitrile)  
**Reinforcement:** Four alternating layers of spiraled, high-tensile steel wire.  
**Cover:** Black, oil-resistant synthetic (Nitrile).  
**Temperature Range:** -40 °F to +250 °F [-40°C to +121°C ]  
**Application:** Hydraulic system service with petroleum and water-based fluids, for general industrial use.

											
Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft
3/8	9.5	0.80	20.3	4000	28.0	16000	112.0	4.9	125	0.70	0.47
1/2	12.7	0.94	24.1	4000	28.0	16000	112.0	7.1	180	0.84	0.56
5/8	15.9	1.09	27.7	4000	28.0	16000	112.0	7.8	200	1.10	0.74
3/4	19.0	1.21	30.7	4000	28.0	16000	112.0	9.4	240	1.33	0.89
1	25.4	1.50	38.1	4000	28.0	16000	112.0	11.8	300	1.85	1.24
1 1/4	31.8	1.85	47.0	3000	21.0	12000	84.0	16.5	420	2.65	1.78
1 1/2	38.1	2.11	53.5	2500	17.5	10000	70.0	19.7	500	3.20	2.15
2	50.8	2.63	66.7	2500	17.5	10000	70.0	24.8	630	4.50	3.02

## SAE 100 R13

**Recommended For:** Extremely high pressure, high impulse hydraulic applications. This hose is designed to meet all requirements of SAE 100R13 specifications and performance requirements of EN 856 4SH, EN856 4SP and EN856 R13. Compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.



**Tube:** Black, oil-resident synthetic rubber[Nitrile]

**Reinforcement:** Four[six for 1 1/4", 1 1/2" and 2"] alternating layers of spiraled, high-tensile steel wire.

**Cover:** Black, oil-resistant synthetic[Nitrile].

**Temperature Range:** -40 °F to +250 °F [-40°C to +121°C ]

											
Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft
3/8	9.5	0.94	23.8	10000	69.0	40000	276	5.98	152	1.10	0.74
1/2	12.7	1.06	27.0	7500	51.2	30000	207	7.87	200	1.35	0.91
5/8	15.9	1.09	27.7	5000	35.0	20000	140	8.66	220	1.55	1.04
3/4	19.0	1.26	32.0	5000	35.0	20000	140	9.45	240	1.65	1.11
1	25.4	1.54	39.2	5000	35.0	20000	140	11.81	300	2.25	1.51
1 1/4	31.8	1.96	49.8	5000	35.0	20000	140	16.54	420	3.60	2.42
1 1/2	38.1	2.26	57.3	5000	35.0	20000	140	19.69	500	4.75	3.19
2	50.8	2.83	71.9	5000	35.0	20000	140	24.80	630	6.90	4.64

## SAE 100 R15

<b>Recommended For:</b>	Extremely high pressure, high impulse Hydraulic applications such as hydrostatic transmissions. This hose is designed to meet all requirements of SAE 100R15 specifications and performance requirements of EN 856 4SP[-6,-8,-10 and -12], EN856 4SH[-12, -16 and -20]. Compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.
<b>Tube:</b>	Black, oil-resident synthetic rubber[Nitrile]
<b>Reinforcement:</b>	Four[six for 1 1/4", 1 1/2"] alternating layers of spiraled, high-tensile steel wire.
<b>Cover:</b>	Black, oil-resistant synthetic[Nitrile].
<b>Temperature Range:</b>	-40 °F to +250 °F [-40°C to +121°C ]
<b>Application:</b>	Hydraulic system service with petroleum and water-based fluids, for general industrial use.



											
Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft
3/8	9.5	0.92	23.3	6000	41.4	24000	165.5	6.0	153	0.77	0.52
1/2	12.7	1.06	26.8	6000	41.4	24000	165.5	8.0	203	0.92	0.62
3/4	19.0	1.42	36.1	6000	41.4	24000	165.5	10.5	267	1.50	1.01
1	25.4	1.69	42.9	6000	41.4	24000	165.5	13.0	330	2.10	1.41
1 1/4	31.8	2.02	51.5	6000	41.4	24000	165.5	17.5	445	3.60	2.42
1 1/2	38.1	2.35	59.6	6000	41.4	24000	165.5	21.0	533	5.10	3.43

## SAE 100 R17

**Recommended For:** High-pressure hydraulic oil lines. Exceeds SAE 100R17 requirements and Performance requirements of EN 857 1SC. The hose has smaller exterior dimensions and significantly tighter bend radius than other SAE 100 R1 and SAE 100 R2 hose.

**Tube:** Black, oil resistant, synthetic rubber.

**Reinforcement:** braided, high-tensile steel wire. 1/4", 5/16", 3/8" and 1/2" sizes are one braid; 5/8", 3/4" and 1" sizes are two braids.

**Cover:** Black, oil, abrasion and weather resistant, thin synthetic rubber.

**Temperature Range:** -40 °F to +250 °F [-40°C to +121°C ]



											
Hose ID		Hose O.D.		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft
1/4	6.4	0.48	12.2	3250	22.5	13000	90.0	1.5	38.1	0.19	0.128
5/16	7.9	0.60	15.1	3250	22.5	13000	90.0	1.8	45.7	0.22	0.148
3/8	9.5	0.63	16.0	3250	22.5	13000	90.0	2.0	50.8	0.27	0.181
1/2	12.7	0.80	20.2	3250	22.5	13000	90.0	2.8	71.1	0.46	0.309
5/8	15.9	0.99	25.2	3250	22.5	13000	90.0	3.0	76.2	0.57	0.383
3/4	19.0	1.15	29.1	3250	22.5	13000	90.0	3.8	96.5	0.78	0.524
1	25.4	1.56	37.6	3250	22.5	13000	90.0	4.5	114.3	1.40	0.941

## Water S/D Hose 150PSI

**Recommended For:** Medium to light duty water suction/discharge for agricultural, construction and industrial applications. EPDM tube designed to handle a variety of liquids and also recommended for sanitation liner in marine applications.



**Tube:** black smooth rubber

**Reinforcement:** high tensile textile plies and steel helix wire embedded

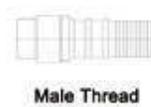
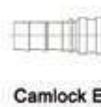
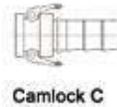
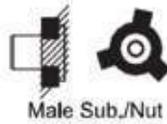
**Cover:** black, smooth rubber, weather and abrasion resistant rubber, fabric impression

**Temperature Range:** -22 °F to +176 °F [-30°C to +80°C ]

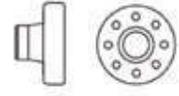
**Design Factor:** 3:1

**Couplings:** Full range of couplings are available, such as hammer unions, flanges, camlock, male thread, etc.

**Hammer Unions**



**Flanges**



**Standards:** ABS approval

Hose ID		Hose O.D.		Working Pressure		Min. Bend Radius		Weight		Standard Length	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft	ft	m
1	25.4	1.33	33.8	150	1	5.0	127	0.58	0.39	200	60
1 1/4	31.8	1.61	40.9	150	1	5.0	127	0.76	0.51	200	60
1 1/2	38.1	1.86	47.2	150	1	6.0	152	0.89	0.60	200	60
2	50.8	2.36	59.9	150	1	8.0	203	1.13	0.76	200	60
2 1/2	63.5	2.96	75.2	150	1	10.0	254	1.58	1.06	200	60
3	76.2	3.54	89.9	150	1	14.0	356	2.14	1.44	200	60
4	101.6	4.54	115.3	150	1	18.0	457	3.35	2.25	200	60
6	152.4	6.68	169.7	150	1	28.0	711	5.86	3.94	200	60
8	203.2	9.00	228.6	150	1	40.0	1016	13.11	8.81	40	12
10	254	11.27	286.3	150	1	50.0	1270	23.51	15.80	40	12
12	304.8	13.27	337.1	150	1	60.0	1524	27.72	18.63	40	12

## Water Discharge Hose 300PSI

**Recommended For:**

Transfer of non-potable water or liquids not containing oils or chemicals from a supply ship to an offshore drilling rig



or platform. Various water-based transfer applications for offshore or onshore work sites. The heavy duty reinforcement is designed to survive extreme oilfield application requirements. The specially compounded cover material is designed to withstand the harshest environment including abrasion and weathering.

**Tube:**

black smooth rubber

**Reinforcement:**

high tensile textile plies

**Cover:**

black, smooth rubber, weather and abrasion resistant rubber, fabric impression

**Temperature Range:**

-22 °F to +176 °F [-30°C to +80°C ]

**Design Factor:**

3:1

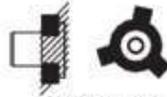
**Couplings:**

Full range of couplings are available, such as hammer unions, flanges, camlock, male thread, etc.

**Hammer Unions**



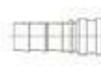
Female Sub



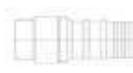
Male Sub./Nut



Camlock C

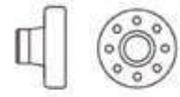


Camlock E



Male Thread

**Flanges**



**Standards:**

ABS approval

Hose ID		Hose O.D.		Working Pressure		Weight		Standard Length	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	kg/m	lb/ft	ft	m
2	50.8	2.58	65.5	300	2	1.31	0.98	200	60
3	76.2	3.64	92.5	300	2	2.62	1.80	200	60
4	101.6	4.64	117.9	300	2	3.28	2.30	200	60
5	127	5.78	146.8	300	2	5.25	3.50	200	60
6	152.4	6.82	173.2	300	2	6.56	4.50	200	60

## Water S/D Hose 300PSI

**Recommended For:** Transfer of non-potable water or liquids not containing oils or chemicals from a supply ship to an offshore drilling rig or platform. Various water-based transfer applications for offshore or onshore work sites. The heavy duty reinforcement is designed to survive extreme oilfield application requirements. The specially compounded cover material is designed to withstand the harshest environment including abrasion and weathering.



**Tube:** black smooth rubber

**Reinforcement:** high tensile textile plies and steel helix wire embedded

**Cover:** black, smooth rubber, weather and abrasion resistant rubber, fabric impression

**Temperature Range:** -22 °F to +176 °F [-30°C to +80°C ]

**Design Factor:** 3:1

**Couplings:** Full range of couplings are available, such as hammer unions, flanges, camlock, male thread, etc.

**Hammer Unions**



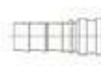
Female Sub



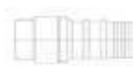
Male Sub./Nut



Camlock C

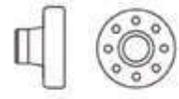


Camlock E



Male Thread

**Flanges**



**Standards:** ABS approval

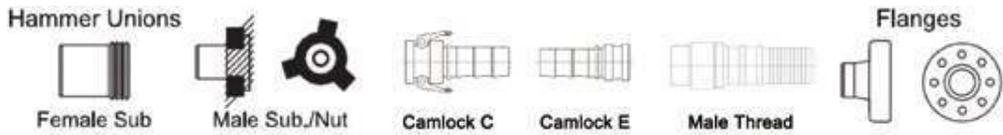
Hose ID		Hose O.D.		Working Pressure		Min. Bend Radius		Weight		Standard Length	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft	ft	m
2	50.8	2.62	66.5	300	2	12.0	304	1.64	1.20	200	60
3	76.2	3.62	91.9	300	2	24.0	609	2.95	1.90	200	60
4	101.6	4.62	117.3	300	2	30.0	762	3.61	2.40	200	60
5	127	5.92	150.4	300	2	36.0	914	6.56	4.40	200	60
6	152.4	6.92	175.8	300	2	40.0	1016	7.87	5.30	200	60

## Potable Water Discharge Hose 300PSI

**Recommended For:** Transfer of potable water, non-potable water or liquids not containing oils or chemicals from a supply ship to an offshore drilling rig or platform. Various water-based transfer applications for offshore or onshore work sites. The food grade tube meets FDA requirements and will not impart taste to drinking water. The heavy duty reinforcement is designed to survive extreme oilfield application requirements. The specially compounded cover material is designed to withstand the harshest environment including abrasion and weathering.



- Tube:** white, smooth, EPDM food quality rubber
- Reinforcement:** high tensile textile plies
- Cover:** blue, smooth rubber, synthetic rubber and weather resistant
- Temperature Range:** -4 °F to +194 °F [-20°C to +90°C ]
- Design Factor:** 3:1
- Couplings:** Full range of couplings are available, such as hammer unions, flanges, camlock, male thread, etc.



**Standards:** ABS approval

Hose ID		Hose O.D.		Working Pressure		Weight		Standard Length	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	kg/m	lb/ft	ft	m
2	50.8	2.69	68.3	300	2	1.64	1.14	200	60
3	76.2	3.73	94.7	300	2	2.62	1.81	200	60
4	101.6	4.69	119.1	300	2	3.61	2.46	200	60

## Potable Water S/D Hose 300PSI

**Recommended For:** Transfer of potable water, non-potable water or liquids not containing oils or chemicals from a supply ship to an offshore drilling rig or platform. Various water-based transfer applications for offshore or onshore work sites. The food grade tube meets FDA requirements and will not impart taste to drinking water. The heavy duty reinforcement is designed to survive extreme oilfield application requirements. The specially compounded cover material is designed to withstand the harshest environment including abrasion and weathering.



- Tube:** white, smooth, EPDM food quality rubber
- Reinforcement:** high tensile textile plies and steel helix wire
- Cover:** blue, smooth rubber, synthetic rubber and weather resistant
- Temperature Range:** -4 °F to +194 °F [-20°C to +90°C ]
- Design Factor:** 3:1
- Couplings:** Full range of couplings are available, such as hammer unions, flanges, camlock, male thread, etc.

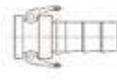
**Hammer Unions**



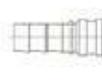
Female Sub



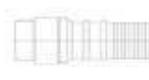
Male Sub./Nut



Camlock C

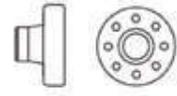


Camlock E



Male Thread

**Flanges**



**Standards:** ABS approval

Hose ID		Hose O.D.		Working Pressure		Min. Bend Radius		Weight		Standard Length	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft	ft	m
4	101.6	4.96	126.0	300	2	28.0	711	5.58	3.7	200	60
5	127	6.09	154.7	300	2	36.0	914	7.87	5.28	200	60
6	152.4	7.16	181.9	300	2	40.0	1016	9.84	6.69	200	60

## Fuel Discharge Hose 300PSI

**Recommended For:** Transfer of refined fuels [commercial gasoline, diesel fuel] oils and other petroleum products. Ideal for offshore/onshore transfer applications involving discharge service for diesel oils and other similar petroleum products where an extremely lightweight, flexible hose with a high rated working pressure and a small minimum bend radius is required. Transfer of water, petroleum based fluids, dilute acids, chemicals and abrasive slurries used in oil and gas well stimulation and fracking.



**Tube:** black, smooth, NBR rubber  
**Reinforcement:** high tensile textile plies  
**Cover:** black, smooth rubber, resistant to abrasion, heat, oil, ozone and weather. fabric impression  
**Temperature Range:** -40 °F to +212 °F [-40°C to +100°C ]  
**Design Factor:** 3:1  
**Couplings:** Full range of couplings are available, such as hammer unions, flanges, camlock, male thread, etc.

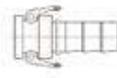
**Hammer Unions**



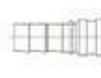
Female Sub



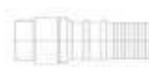
Male Sub./Nut



Camlock C

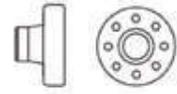


Camlock E



Male Thread

**Flanges**



**Standards:** ABS approval

Hose ID		Hose O.D.		Working Pressure		Min. Bend Radius		Weight		Standard Length	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft	ft	m
2	50.8	2.66	67.6	300	2	14.0	356	2.65	1.78	200	60
2 1/2	63.5	3.16	80.3	300	2	17.0	432	3.21	2.16	200	60
3	76.2	3.70	89.9	300	2	21.0	533	3.65	2.45	200	60
4	101.6	4.70	94.0	300	2	28.0	711	4.67	3.14	200	60
5	127	5.84	148.3	300	2	35.0	889	6.70	4.50	200	60

## Fuel S/D Hose 300PSI

**Recommended For:** Transfer of refined fuels [commercial gasoline and diesel fuel] oils and other petroleum products. Ideal for offshore/onshore transfer applications involving suction and discharge service for diesel oils and other similar petroleum products where an extremely light-weight, hardwall, flexible hose with a high rated working pressure and a small minimum bend radius is required.



Transfer of water, petroleum based fluids, dilute acids, chemicals and abrasive slurries used in oil and gas well stimulation and fracking.

**Tube:** black, smooth, NBR rubber

**Reinforcement:** high tensile textile plies and steel helix wire

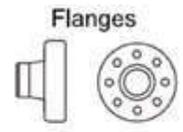
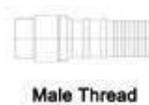
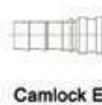
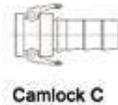
**Cover:** black, smooth rubber, resistant to abrasion, heat, oil, ozone and weather. fabric impression

**Temperature Range:** -40 °F to +212 °F [-40°C to +100°C ]

**Design Factor:** 3:1

**Couplings:** Full range of couplings are available, such as hammer unions, flanges, camlock, male thread, etc.

**Hammer Unions**



**Standards:** ABS approval

Hose ID		Hose O.D.		Working Pressure		Min. Bend Radius		Weight		Standard Length	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft	ft	m
2	50.8	2.78	70.6	300	2	10.0	254	2.38	1.60	200	60
3	76.2	3.86	98.0	300	2	18.0	457	3.85	2.59	200	60
4	101.6	4.87	123.7	300	2	24.0	609	5.24	3.52	200	60
6	152.4	7.07	180.0	300	2	36.0	914	11.83	7.95	200	60

## Tank Truck Fuel S/D Hose 150PSI

**Recommended For:** Transfer of refined fuels [commercial gasoline and diesel fuel], oils and other petroleum products. Ideal for tank truck, fuel farm, and oil field service truck use where a super flexible, maximum kink resistant fuel transfer hose is needed.



**Tube:** black, smooth, NBR rubber

**Reinforcement:** high tensile textile plies and steel helix wire

**Cover:** black, smooth rubber, resistant to abrasion, heat, oil, ozone and weather. fabric impression

**Temperature Range:** -40 °F to +212 °F [-40°C to +100°C ]

**Design Factor:** 3:1

**Couplings:** Full range of couplings are available, such as hammer unions, flanges, camlock, male thread, etc.

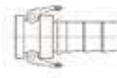
**Hammer Unions**



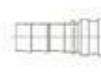
Female Sub



Male Sub./Nut



Camlock C

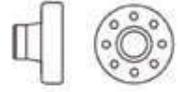


Camlock E



Male Thread

**Flanges**



**Standards:** ABS approval

Hose ID		Hose O.D.		Working Pressure		Min. Bend Radius		Weight		Standard Length	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft	ft	m
1	25.4	1.50	38.1	150	1	3.0	76	0.80	0.54	100	30
1 1/4	31.8	1.75	44.5	150	1	4.0	102	1.06	0.71	100	30
1 1/2	38.1	2.02	51.3	150	1	4.0	102	1.56	1.05	100	30
2	50.8	2.52	64.0	150	1	6.0	152	1.99	1.34	100	30
2 1/2	63.5	3.05	77.5	150	1	8.0	203	2.62	1.76	100	30
3	76.2	3.53	89.7	150	1	9.0	229	3.57	2.40	100	30
4	101.6	4.62	117.3	150	1	12.0	305	4.90	3.29	100	30
6	152.4	6.87	174.5	150	1	17.0	432	8.80	5.91	100	30

## Bulk Material Discharge Hose 300PSI

**Recommended For:**

Transfer of abrasive materials such as barite and cement from a supply Ship to an offshore drilling rig or platform; and for transfer applications on



offshore or onshore drilling rigs or platforms. The natural rubber tube is specially compounded to conduct electricity and made with extra thickness to resist abrasion. The heavy duty reinforcement is designed to survive extreme oilfield application requirements. The specially compounded cover material is designed to withstand the harshest environment including abrasion and weathering.

**Tube:**

black, smooth, conductive rubber, resistant to abrasion

**Reinforcement:**

high tensile textile plies

**Cover:**

black, smooth, weather and abrasion resistant rubber, conductive, fabric impression

**Temperature Range:**

-40 °F to +158 °F [-40°C to +70°C ]

**Design Factor:**

3:1

**Couplings:**

Swaged couplings. Full range of couplings are available, such as hammer unions, flanges, camlock, male thread, etc.

**Hammer Unions**



Female Sub



Male Sub./Nut



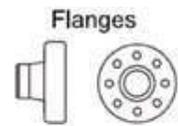
Camlock C



Camlock E



Male Thread



Flanges

**Standards:**

ABS approval

Hose ID		Hose O.D.		Working Pressure		Weight		Standard Length	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	kg/m	lb/ft	ft	m
3	76.2	3.98	101.1	300	2	4.27	2.91	200	60
4	101.6	4.98	126.5	300	2	4.92	3.40	200	60
5	127	6.14	156.0	300	2	6.89	4.67	200	60
6	152.4	7.14	181.4	300	2	8.20	5.51	200	60

## Bulk Material S/D Hose 300PSI

**Recommended For:** Transfer of abrasive materials such as barite and cement from a supply Ship to an offshore drilling rig or platform; and for transfer applications



on offshore or onshore drilling rigs or platforms. The natural rubber tube is specially compounded to conduct electricity and made with extra thickness to resist abrasion. The heavy duty reinforcement is designed to survive extreme oilfield application requirements. The specially compounded cover material is designed to withstand the harshest environment including abrasion and weathering.

**Tube:** black, smooth, conductive rubber, resistant to abrasion

**Reinforcement:** high tensile textile plies and steel helix wire

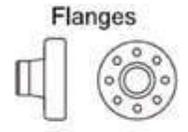
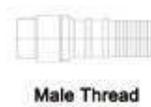
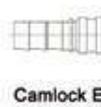
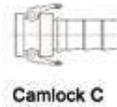
**Cover:** black, smooth, weather and abrasion resistant rubber, conductive, fabric impression

**Temperature Range:** -40 °F to +158 °F [-40°C to +70°C ]

**Design Factor:** 3:1

**Couplings:** Full range of couplings are available, such as hammer unions, flanges, camlock, male thread, etc.

**Hammer Unions**



**Standards:** ABS approval

Hose ID		Hose O.D.		Working Pressure		Min. Bend Radius		Weight		Standard Length	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft	ft	m
3	76.2	4.23	107.4	300	2	32.0	812	5.25	3.47	200	60
4	101.6	5.30	134.6	300	2	42.0	1066	7.87	5.23	200	60
5	127	6.33	160.8	300	2	51.0	1295	8.86	6.03	200	60
6	152.4	7.33	186.2	300	2	60.0	1524	10.83	7.27	200	60

## UHMWPE Chemical S/D Hose (125-200)PSI

**Recommended For:** Tank truck, barge, ship, or storage tank transfer of a variety of chemical products. Renegade contains a wire helix for full suction capability, as well as for routing hoses through tight bends. The Ultra High Molecular Weight Polyethylene tube stock has excellent chemical resistance. Applications include over 450 basic chemicals which are building blocks for numerous chemicals used in a variety of industries.



**Tube:** UHMWPE, smooth, conductive, abrasion resistant, food quality. Complies FDA-standards  
**Reinforcement:** high tensile textile plies and steel helix wire  
**Cover:** green conductive rubber, abrasion, ozone and weather resistant. Corrugated with fabric impression.  
**Temperature Range:** -22 °F to +248 °F [-30°C to +120°C ]  
**Design Factor:** 3:1  
**Couplings:** Swaged couplings. Full range of couplings are available, such as hammer unions, flanges, camlock, male thread, etc.thread, etc.

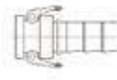
**Hammer Unions**



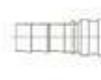
Female Sub



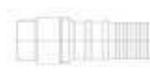
Male Sub./Nut



Camlock C

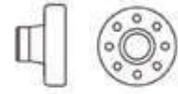


Camlock E



Male Thread

**Flanges**



**Standards:** ABS approval

Hose ID		Hose O.D.		Working Pressure		Min. Bend Radius		Weight		Standard Length	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft	ft	m
3/4	19.1	1.22	31.0	200	1.33	4.0	102	0.61	0.41	200	60
1	25.4	1.47	37.3	200	1.33	5.0	127	0.76	0.51	200	60
1 1/4	31.8	1.72	43.7	200	1.33	6.0	152	0.89	0.60	200	60
1 1/2	38.1	2.00	50.8	200	1.33	8.0	203	1.16	0.78	200	60
2	50.8	2.50	63.5	200	1.33	9.0	229	1.61	1.08	200	60
2 1/2	63.5	3.01	76.5	150	1	12.0	305	2.07	1.39	200	60
3	76.0	3.53	89.7	150	1	18.0	457	2.62	1.76	200	60
4	101.6	4.53	115.1	150	1	24.0	610	3.71	2.49	200	60

## Oilfield Frac Discharge Hose 400PSI

**Recommended For:** Designed for transfer of multiple types of hydraulic Fracking fluids from tank trucks. And also engineered for the demands of high working pressures of hydraulic fracturing operations.



**Tube:** NBR rubber  
**Reinforcement:** high tensile textile plies  
**Cover:** SBR for abrasion resistance  
**Temperature Range:** -40 °F to +212 °F [-40°C to +100°C ]  
**Design Factor:** 3:1  
**Couplings:** Full range of couplings are available, such as hammer unions, flanges, camlock, male thread, etc.

**Hammer Unions**



Female Sub



Male Sub./Nut



Camlock C

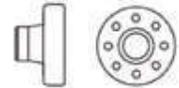


Camlock E



Male Thread

**Flanges**



**Standards:** ABS approval

Hose ID		Hose O.D.		Working Pressure		Min. Bend Radius		Weight		Standard Length	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft	ft	m
4	101.6	4.53	115.1	400	2.67	30.0	762	4.18	2.81	100	30
4	101.6	4.53	115.1	400	2.67	30.0	762	4.18	2.81	200	60

## Oilfield Frac S/D Hose 400PSI

**Recommended For:** Designed for transfer of multiple types of hydraulic Fracking fluids from tank trucks. And also engineered for the demands of high working pressures of hydraulic fracturing operations.



**Tube:** NBR rubber  
**Reinforcement:** high tensile textile plies and steel helix wire

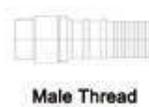
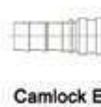
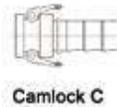
**Cover:** SBR for abrasion resistance

**Temperature Range:** -40 °F to +212 °F [-40°C to +100°C ]

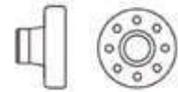
**Design Factor:** 3:1

**Couplings:** Full range of couplings are available, such as hammer unions, flanges, camlock, male thread, etc. thread, etc.thread, etc.

**Hammer Unions**



**Flanges**



**Standards:** ABS approval

Hose ID		Hose O.D.		Working Pressure		Min. Bend Radius		Weight		Standard Length	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft	ft	m
4	101.6	4.78	121.4	400	2.67	38.0	965	5.85	3.93	100	30
4	101.6	4.78	121.4	400	2.67	38.0	965	5.85	3.93	200	60

## Oilfield Frac S/D Hose 150PSI

**Recommended For:** Designed for transfer of multiple types of hydraulic Fracking fluids from tank trucks. And also engineered for the demands of high working pressures of hydraulic fracturing operations.



**Tube:** NBR rubber  
**Reinforcement:** high tensile textile plies and steel helix wire  
**Cover:** SBR for abrasion resistance  
**Temperature Range:** -40 °F to +212 °F [-40°C to +100°C ]  
**Design Factor:** 3:1  
**Couplings:** Full range of couplings are available, such as hammer unions, flanges, camlock, male thread, etc.

**Hammer Unions**



Female Sub



Male Sub./Nut



Camlock C

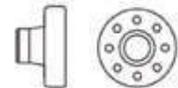


Camlock E



Male Thread

**Flanges**



**Standards:** ABS approval

Hose ID		Hose O.D.		Working Pressure		Min. Bend Radius		Weight	
[In.]	[mm]	[In.]	[mm]	[psi]	[MPa]	[In.]	[mm]	kg/m	lb/ft
6	152.4	6.9	175.3	150	1	30.0	762	9.35	6.28
8	203.2	8.9	226.1	150	1	48.0	1219	10.60	7.12

## Fracking Hose(TPU Layflat Hose)

**Recommended For:** Fracking hoses are high pressure, strong polyurethane lay flat discharge hoses designed for aggressive water pumping around mine and drill sites. The fracking hose has been designed to assist with mine dewatering where the constant movement of pumps and surface equipment makes rigid and semi-rigid piping a problem. Being totally lay-flat, this product is light-weight and easy to handle. The transfer of the fracking hose to the deployment system is fast and easy. The fracking hose is spooled from the packing onto the reelers for easy deployment. Using the hose reelers, hose can be deployed along haul roads or down the pit wall. Pumping can begin in a matter of hours instead of days.

**Features:**

UV stabilized

Resistant to oil and chemicals

Heavy-duty, high pressure applications

Manufactured by an ISO 9001 approved company

pH3 - pH10 at ambient water temperature

Longer or shorter lengths available upon request

Available in standard 100m [330ft] and 200m [660ft] lengths

Extra abrasion resistant for rugged terrain and extreme conditions

Integrated inner and outer coating of abrasion resistant Polyurethane

Flexible in all weather conditions from -55°C to +80°C[-67°F to +176°F]

**Couplings:**



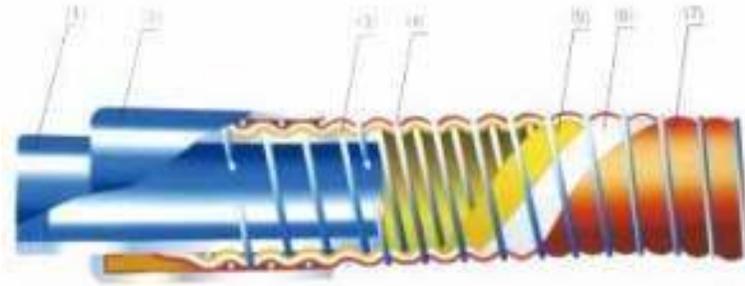
**Colors:**

black, red, blue, green, orange, etc.

Item Code	⌀		⌚		⌚		Kg	
	Hose ID		Working Pressure		Min. Burst Pressure		Weight	
	[In.]	[mm]	[psi]	[MPa]	[psi]	[MPa]	kg/m	lb/ft
TPU15210	6	152	150	1.0	450	3.0	1.80	1.20
TPU15216	6	152	250	1.7	750	5.0	2.50	1.68
TPU15228	6	152	400	2.7	1200	8.0	3.07	2.06
TPU20216	8	202	250	1.7	750	5.0	2.70	1.81
TPU25414	10	254	200	1.4	600	4.0	4.20	2.82
TPU30510	12	305	150	1.0	450	3.0	5.00	3.36
TPU35010	14	355	150	1.0	450	3.0	6.00	4.03
TPU40010	16	400	150	1.0	450	3.0	7.00	4.70

## Composite Hose

**Recommended For:** Composite hose, like other hose, provides the vital flexible connection to compensate for vibration, movement, or misalignment in a fluid transfer system. It can be used in delivery and/or suction of fuels, oils and lubricants in cistern trucks, railcars or fixed deposits.



- (1) terminal
- (2) ferrule
- (3) inner wire
- (4) outer wire
- (5) multiple polypropylene layer
- (6) reinforcement layer
- (7) PVC abrasion and ozone resistance outer cover

**Features:**

- Composite hose is 40% lighter than the rubber hose which has the same diameter and length.
- Excellent flexibility
- Good positive and negative pressure resistance
- Excellent corrosion resistance for chemical liquid medium
- Outstanding flame retardant property
- Anti-static
- Long-term durability
- The CCS and ABS certificates are available.

**Types:**

Type	Inner Wire	Outer Wire	Carcass	Cover	Application
GGE	G	G	multiple layers of polypropylene or polyester fabrics, films and polyester barrier layers	PVC coated fabric	gasoline, diesel fuel, crude oil, lubricant oil, mineral spirits, water, Nitrogen, etc.
GGT	G	G	multiple layers of polypropylene or polyester fabrics, films, PTFE, fiberglass and polyester barrier layers	PVC coated fabric	chemicals without corrosion
SGE	S	G	multiple layers of polypropylene or polyester fabrics, films and polyester barrier layers	PVC coated fabric	gasoline, diesel fuel, crude oil, lubricant oil, mineral spirits, water, Nitrogen, etc.
SGT	S	G	multiple layers of polypropylene or polyester fabrics, films, PTFE, fiberglass and polyester barrier layers	PVC coated fabric	corrosive and aggressive chemicals
SSE	S	S	multiple layers of polypropylene or polyester fabrics, films and polyester barrier layers	PVC coated fabric	gasoline, diesel fuel, crude oil, lubricant oil, mineral spirits, sea water, fresh water, Nitrogen, etc.
SST	S	S	multiple layers of polypropylene or polyester fabrics, films, PTFE, fiberglass and polyester barrier layers	PVC coated fabric	corrosive and aggressive chemicals

Note: Three capital letters are used for the composite hose. The first capital letter means the inner wire; the second capital letter means the outer wire; the third letter means the carcass.

## Composite Hose

S---stainless steel 304/304L/316/316L

G---galvanized steel

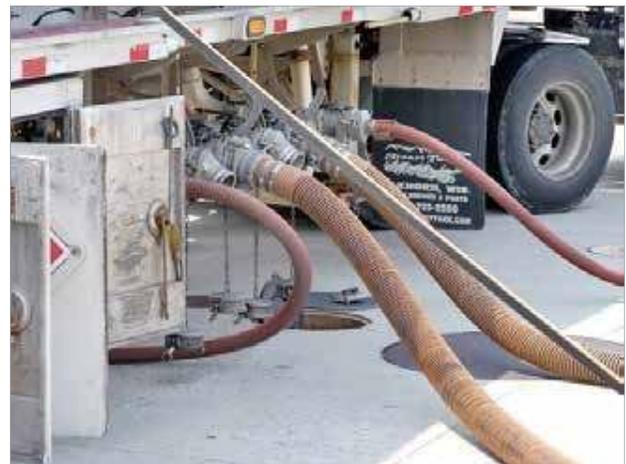
E---Polypropylene

T--- PTFE

### Specification:

Inner Diameter(mm)	25	40	50	65	80	100	150	200	250	300
Diameter Tolerances(mm)	±4									
Length(m)±5%	20						16			
Working Pressure(Mpa)	0.6-2.0							0.6-1.6		
Temperature[°C ]	-40~+130									
Electrical Resistance [°]	CS		≧ 10							
	SS		≧ 20							
Bending Radius(mm)±100	220	220	300	300	350	400	575	800	1000	1200

Note: 1. The maximum diameter of the camlock can reach 150(6"), other specifications are according to customers' requirements.  
2. The outer diameter changes with the inner diameter.



## Hammer Union

**Certification/Standards:** API Spec 16A--ISO 14693

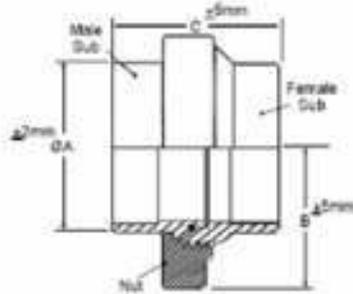
**Main Types:** Hammer Union type mainly consists of Figure50, Figure100, Figure200, Figure206, Figure207, Figure400, Figure600, Figure602, Figure1002, Figure1002 and Figure1502.

**Recommended For:** Hammer Unions can be used for cementing trucks, oil field applications, for quick connection on tank trucks and rail cars carrying of LPG, LNG, CNG, etc., all kinds of manifolds and other high pressure equipment and pipes. Hammer Unions have good mechanical performance and sealing property. Especially, they can operate under the bad weather condition. They can be assembled, fixed and changed easily and conveniently. They are very easy to use as they are self-aligning, and do not require any special tools. It takes some seconds as compared to several minutes required with flanged connection. Hence in case of railway wagon loading, where large numbers of connections are to be made in each loading operation.



## Fig 50.

These low pressure and suction union of Fig50 are made from carbon steel. Available in 4" or 5" sizes in threaded & socket welded connection. These unions are suitable for 500 PSI wp.

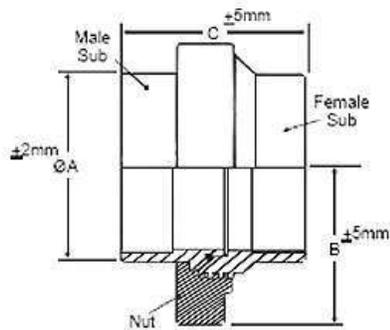


500 PSI CWP (Fig. - 50)

Size [inch]	A		B		C				ACME [TPI]	Union Weight			
					Threaded		Socket Welded End			Threaded		Socket Welded End	
	inch	mm	inch	mm	inch	mm	inch	mm		lbs	kg	lbs	kg
4	6.00	152.50	5.07	129.00	6.15	156.21	4.12	104.64	3MOD	28.00	12.70	27.00	12.24
5	6.00	152.50	5.07	129.00	5.77	146.74	4.12	104.64	3MOD	23.00	10.43	21.50	9.75

## Fig 100.

These low pressure unions are ideal for manifold and applications where CWP does not exceed 1000 PSI.

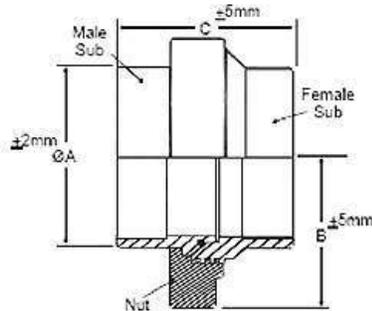


1,000 PSI CWP (Fig. - 100)

Size	A		B		C		ACME [TPI]	Union Weight	
	inch	mm	inch	mm	inch	mm		lbs	kg
1	1.6	40.5	1.95	50	2.57	65	6STD	1.75	0.79
2	2.74	69.5	2.91	74	3.66	93	3MOD	5.73	2.6
2 1/2	3.3	84	3.81	97	4.29	109	3MOD	9.47	4.3
3	4.09	104	4.09	104	4.88	124	3MOD	1.33	6.05
4	5.19	132	5	127	5.78	147	3MOD	19.84	9
5	6.37	162	5.75	146	6.03	153	4STD	33	15
6	7.36	187	6.92	176	6.71	170.5	3STD	46	20.9
8	9.52	242	8	203	7.2	183	3STD	61.72	28

## Fig 200.

These unions are best suited for medium pressure ranges involving air, water, oil & gas service for cold working pressure up to 2,000 PSI. Up to 4" no O-ring is used on the male sub. Beyond 4" size, an O-Ring is used on the male sub for sealing. The Figure 200 is a compact and economical union, available with Threaded and ButtWeld ends.

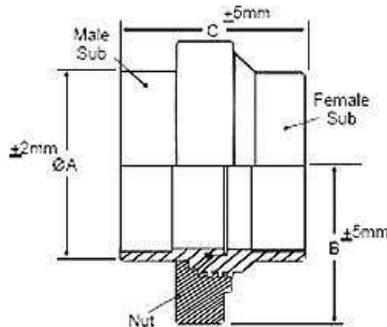


2,000 PSI CWP (Fig. - 200)

Size	A		B		C		ACME [TPI]	Union Weight	
	inch	mm	inch	mm	inch	mm		lbs	kg
1	1.59	40.5	1.96	50	2.55	65	6STD	1.76	0.8
1 1/4	2	51	2.11	53.6	2.79	71	6STD	2.2	1
1 1/2	2.28	58	2.52	64	2.73	69.5	6STD	2.42	1.1
2	2.79	71	2.91	74	3.54	90	4STD	5	2.3
2 1/2	3.3	84	3.87	98.5	4.25	108	4STD	9.25	4.2
3	4.17	106	3.89	99	4.52	115	4STD	13.67	6.2
4	5.23	133	4.52	115	4.96	126	3MOD	18.52	8.4
5	6.32	162	5.75	148	6.03	153	4STD	33	15
6	7.5	190.5	6.06	154	6.65	169	3STD	42.5	19.3
8	9.56	243	7.18	182.5	7.15	181.5	3STD	61.7	28
10	11.49	292	9.01	220.7	9.09	231	3STD	90.39	41

## Fig 206.

These unions have an additional 'O' ring on the spherical surface of the male sub providing a leak proof seal. All dimensions of Fig200 & Fig206 are identical.

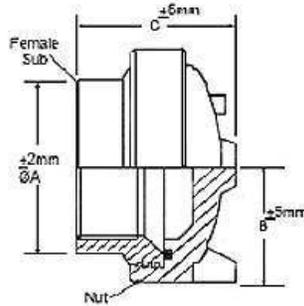


2,000 PSI CWP (Fig. - 206)

Size	A		B		C		ACME [TPI]	Union Weight	
	inch	mm	inch	mm	inch	mm		lbs	kg
1	1.59	40.5	1.96	50	2.55	65	6STD	1.76	0.8
1 1/4	2	51	2.11	53.6	2.79	71	6STD	2.2	1
1 1/2	2.28	58	2.52	64	2.73	69.5	6STD	2.42	1.1
2	2.79	71	2.91	74	3.54	90	4STD	5	2.3
2 1/2	3.3	84	3.87	98.5	4.25	108	4STD	9.25	4.2
3	4.17	106	3.89	99	4.52	115	4STD	13.67	6.2
4	5.23	133	4.52	115	4.96	126	3MOD	18.52	8.4
5	6.32	162	5.75	148	6.03	153	4STD	33	15
6	7.5	190.5	6.06	154	6.65	169	3STD	42.5	19.3
8	9.56	243	7.18	182.5	7.15	181.5	3STD	61.7	28
10	11.49	292	9.01	220.7	9.09	231	3STD	90.39	41

## Fig 207.

Fig207 Blanking Caps and unions are fully interchangeable with Fig200 and 206 unions. For use where the blanking off at the end of a line is desirable. The cap is fitted with an 'O' ring to ensure a leakproof seal.



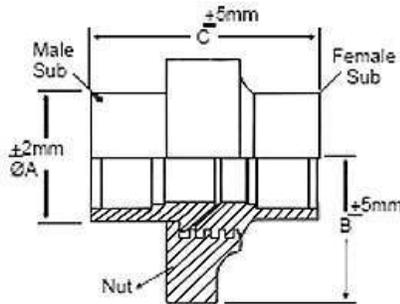
2,000 PSI CWP (Fig. - 207)



Size	A		B		C		ACME [TPI]	Union Weight	
	inch	mm	inch	mm	inch	mm		lbs	kg
3	4.09	104	2.91	74	3.74	95	4STD	10.36	4.7
4	5.15	131	3.58	91	4.33	110	3MOD	16.3	7.4
6	7.55	192	5	127	5.9	150	3STD	38.13	17.3
8	9.6	245	6.1	155	6.1	220	3STD	70.76	32.1
10	11.53	293	7.16	182	7.16	248	3STD	96.11	43.6

## Fig 400.

These unions are rigid in design and have all the three parts made of steel forgings. These unions are best suited for manifold and line connections. Unions from 3 inch through 8 inch sizes have O-rings for primary sealing. From 5" to 8" sizes C.W.P. is 2,500 PSI.



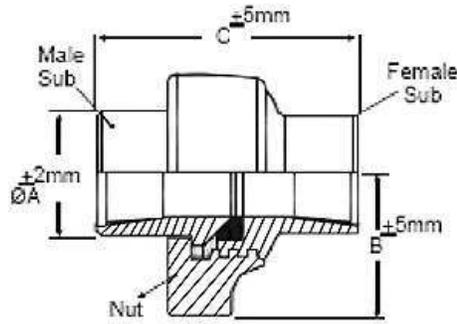
4,000 PSI CWP (Fig. - 400)



Size	A		B		C		ACME [TPI]	Union Weight	
	inch	mm	inch	mm	inch	mm		lbs	kg
1	1.75	44.5	2.28	58	3.54	90	3STD	3	1.35
2	3.06	76.8	3.44	87.5	5.24	133	3STD	11	5
2 1/2	3.54	90	4.17	106	6.18	157	3STD	16.3	7.4
3	4.19	106.6	4.29	109	6.18	157	3STD	19.4	8.8
4	5.23	133	4.74	120.5	8.25	209.7	3STD	28	12.7
5	6.26	159	5.63	143	10.47	266	3STD	48.5	22
5 1/2	6.29	160	5.78	147	10.43	265	3STD	48	21.8
6	7.75	197	6.52	165.6	11.02	280	3STD	75	34
7	7.75	198	6.62	168	11.03	280	3STD	61	27.7
8	9.59	243.5	7.71	196	11.42	290	3STD	94.13	42.7
10	11.75	298.4	9.6	244	11.29	287	3STD	121.2	55
12	13.98	355	10.62	270	11.02	280	3STD	158.7	72

## Fig 600.

These unions have wide range of applications including steam service and line connections. These unions are provided with a bronze seat in the female for the effective sealing and prevention of rust formation. Suitable for 6000 PSI CWP.

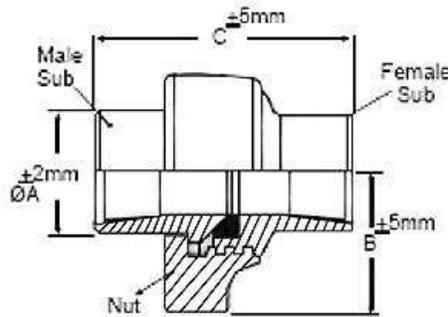


6,000 PSI CWP (FIG - 600)

Size	A		B		C		ACME [TPI]	Union Weight	
	inch	mm	inch	mm	inch	mm		lbs	kg
1	1.75	44.5	2.26	57.5	3.58	91	6STD	3.52	1.6
1 1/2	2.55	65	3.07	78	4.92	125	4STD	9.26	4.2
2	3.07	78	3.7	94	6.42	163	2STD	15.43	7
2 1/2	3.54	90	4.17	106	7.52	191	2STD	20.28	9.2
3	4.25	108	4.54	115.5	8.72	221.5	2STD	27.23	12.4
4	5.27	134	5.19	132	10.04	255	2STD	40	18.1

## Fig 602.

These unions are recommended for manifold and line connections truck mounting and in mud services. This union has resilient lip-type seal for positive sealing and also protects secondary metal - to metal seal. Suitable for 6000 PSI.

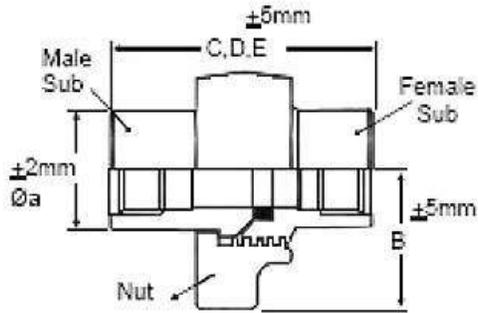


6,000 PSI CWP (FIG - 602)

Size	A		B		C		ACME [TPI]	Union Weight	
	inch	mm	inch	mm	inch	mm		lbs	kg
1	1.75	44.5	2.26	57.5	3.58	91	6STD	3.52	1.6
1 1/2	2.55	65	3.07	78	4.92	125	4STD	9.26	4.2
2	3.07	78	3.7	94	6.42	163	2STD	15.43	7
2 1/2	3.54	90	4.17	106	7.52	191	2STD	20.28	9.2
3	4.25	108	4.54	115.5	8.72	221.5	2STD	27.23	12.4
4	5.27	134	5.19	132	10.04	255	2STD	40	18.1

## Fig 1002.

These unions are designed for high pressure systems like choke and kill lines, cementing, acidizing, testing and truck mounted system. This union has a liptype seal made of nitrile rubber and subs made of alloy steel, suitable for 10,000 PSI.

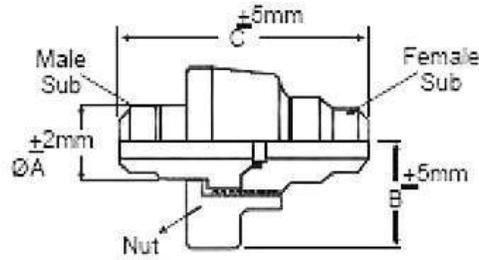


10,000 PSI CWP (FIG - 1002)

Size	A		B		C		Butt Welded				ACME [TPI]	Union Weight	
							D SCH-160		E SCH-XXX				
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm		lbs	kg
1	1.75	44.5	2.28	58	3.5	89	3.5	89	3.5	89	6STD	3.5	1.6
1 1/4	2.6	66	2.95	75	4.88	124	4.88	124	4.88	124	4STD	9.7	4.4
1 1/2	2.55	65	3.18	81	4.88	124	4.88	124	4.88	124	4STD	9.25	4.2
2	3.07	78	3.81	97	5.25	133.5	5.28	133.5	5.28	133.5	3MOD	12.12	5.5
2 1/2	3.46	88	3.78	96	6.18	157	6.18	157	6.18	157	4STD	16	7
2 1/2 [EUE]	3.81	97	4	100	5.51	140	-	-	-	-	4STD	17.8	8.1
3	4.25	108	4.52	115	6.22	158	5.51	140	5.51	140	4STD	22.26	10.1
4	5.27	134	5.04	128	8.23	209	5.67	144	5.67	144	4STD	33	15
5	5.55	141	6.1	155	6.22	158	6.22	158	6.22	158	3STD	56	25.4
6	6.62	168.3	6.81	173	6.57	167	6.57	167	6.57	167	3STD	79.8	36.2

## Fig 1003.

These unions protect against electrolytic action. There is no metal - to - metal contact between the subs. A resilient seal ring in the female sub provide additional sealing and protection from corrosion. Suitable for 2000 PSI CWP.

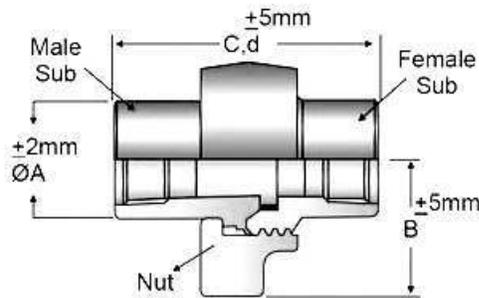


10,000 PSI CWP (FIG - 1003)

Size	A		B		C Butt Welded		ACME [TPI]	Union Weight	
	inch	mm	inch	mm	inch	mm		lbs	kg
5	6.3	160	6.5	165.1	8.15	207	-	86	39
6	7.4	189	7.2	182.8	9.5	241.3	-	142	64

## Fig 1502.

These unions are widely used in cementing, manifold and other services where extra high pressure of 15,000 PSI CWP are encountered. These unions are provided with replaceable seal ring.



15,000 PSI CWP (FIG - 1502)

Size	A		B		C Butt Welded		ACME [TPI]	Union Weight	
	inch	mm	inch	mm	inch	mm		lbsf	kgf
1	2.18	55.5	2.75	70	4.33	110	3.5STD	8.5	3.8
1 1/2	2.96	75.2	3.48	88.5	5.39	137	3.5STD	12.8	5.7
2	3.22	82	3.86	98	7.03	178.5	3STD	20.3	9.2
2 1/2	3.74	95.2	3.96	100.6	7.28	185	3STD	23.0	10.3
3	4.45	113	4.53	115	7.67	195	3.5STD	29.5	13.3
4	5.75	146.1	6.00	152.2	8.54	217	3MOD	76.5	34.4
5	6.45	164	6.53	166	-	-	-	96	43
6	7.48	190	7.2	183	-	-	-	148	67

## High Pressure Flange

The high pressure flange is forged from high strength alloy steel with imported advanced technology in the world. Strict heat treatment ensures uniform metallographic structure and bearing capacity. It is widely used in the petroleum and chemical industry, boilers and pressure vessels, ships and other sectors for high pressure connection.



Applicable Standards: API Spec 6A

Inner Diameter		Rated Pressure	
inch	mm	MPa	psi
1 13/16	46	69.0	10000
		103.5	15000
2 1/16	52	13.8	2000
		20.7	3000
		34.5	5000
		69.0	10000
		103.5	15000
2 9/16	65	13.8	2000
		20.7	3000
		34.5	5000
		69.0	10000
		103.5	15000
3 1/16	78	69.0	10000
		103.5	15000
3 1/8	80	13.8	2000
		20.7	3000
		34.5	5000
4 1/16	103	13.8	2000
		20.7	3000
		34.5	5000
		69.0	10000
		103.5	15000

Integral joint is an essential part of the high pressure liquid pipeline, which can effectively achieve the liquid distribution and flow, fluid change, etc. The integral joint manufactured by Jingbo adopts the FMC, a foreign SPM technology. In addition to the types listed in this catalogue, the integral joint can be customized according to customer's requirements.

The types are L90 DHS elbow, T type joint, Y type joint, manifold joint, fishtail joint, three-dimensional cross, three-dimensional manifold joint, etc.

Integral joint is made from high quality alloy steel and goes through a strict heat treatment process, with the advantages of compact conformation, uniform wall thickness, long service life, beautiful appearance, smooth, strong connection and interchangeability, easy connection, etc.

**Working Pressure:** 21-140Mpa[3000PSI-20000PSI]

**Nominal Diameter:** 2"-4"

**Temperature Range:** -29°C - +121°C [PU]

-46°C - +121°C [LU]



Rigid straight pipe is a kind of pipe that both ends are connected with different couplings, including thread, flange and union. It is widely used in oil drilling, cementing, fracturing, etc. Various types of rigid straight pipe can survive the low temperature and hydrogen sulfide gas environment.

**Working Pressure:** 14-140Mpa[2000PSI-20000PSI]

**Specification:** 1"-6"

**Temperature Range:** -29°C - +121°C [PU]



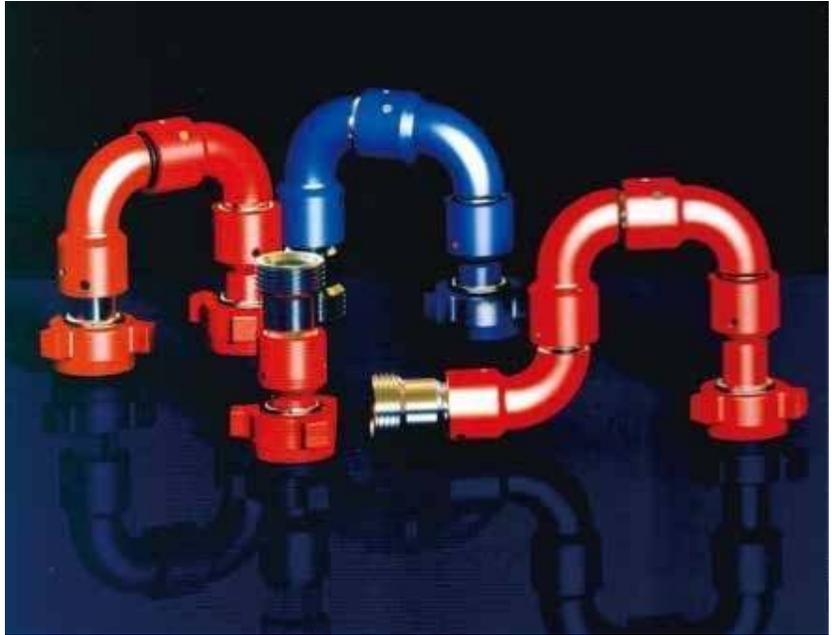
## Swivel Joints

The swivel joints are the common components in the well kill system and are manufactured for different kinds of liquids in the oil field. These liquids contain the cement slurry, drilling mud, fracturing liquid, crude oil and treatment materials of grinding well. Various kinds of joints can be matched flexibly and both ends can be connected by pipe thread and hammer unions. These types of swivel joints provide the flexibility for the pipeline connection of well head, blowout preventer and other workover or well testing equipments.

In order to achieve the working strength as required by the rated working pressure, all swivel joints adopt the low alloy steel and receive the thermal treatment, with the three raceways design.

With a nitrogen surface treatment, the internal steel ball makes the rotation more flexible and much safer.

The multiple seal rings are placed in the connection, so as to prevent the foreign matters entering. When the seal elements have the leakage, the lubricating grease retainer with the automatic pressure reduction will prevent the pressure accumulating in the raceway cavity. The joints with several models of 2 inches to 3 inches can be selected. The maximum working pressure is 103.5 Mpa and the working temperature range is  $-29^{\circ}\text{C} - +82^{\circ}\text{C}$ .



10type



60M-M type



100type



30type



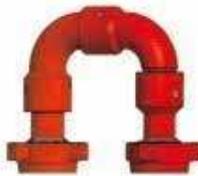
50type



80type



20type



10M-M type



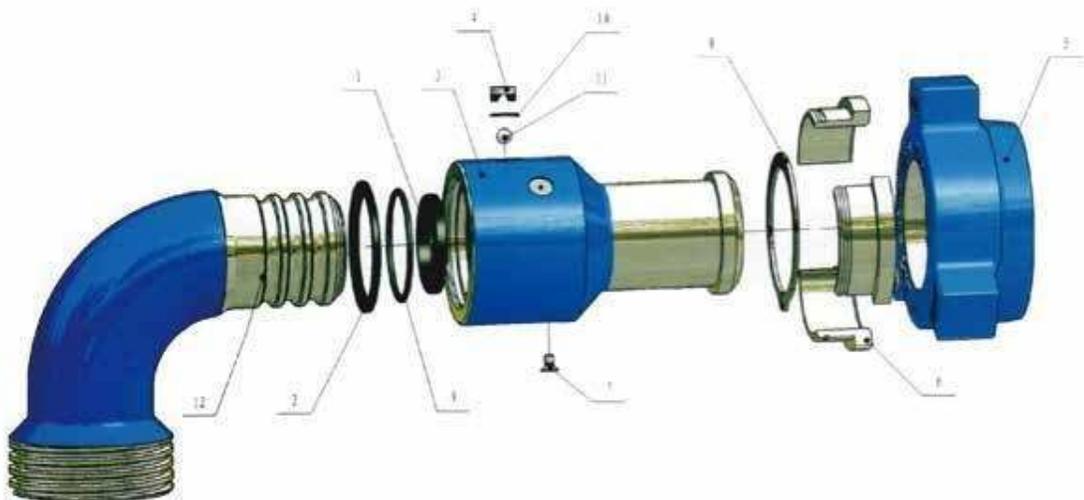
50F-F type



100M-M type

## Swivel Joints

No.	Nomial Bore mm[in]	Model	Max. Working PressureMpa	Structural Form	Connection Code(Thread Type)
1	50.8[2]	10type-100type	70	Long Radius	M-F[ANSI, GB Trapezoidal Thread]
2	50.8[2]	10type-100type	105	Long Radius	M-F[ANSI, GB Trapezoidal Thread]
3	50.8[2]	10type-100type	140	Long Radius	M-F[ANSI, GB Trapezoidal Thread]
4	76.2[3]	10type-100type	42	Long Radius	B-B[LP, TBG]
5	76.2[3]	10type-100type	70	Long Radius	M-F[ANSI, GB Trapezoidal Thread]
6	76.2[3]	10type-100type	105	Long Radius	M-F[ANSI, GB Trapezoidal Thread]
7	76.2[3]	10type-100type	140	Long Radius	M-F[ANSI, GB Trapezoidal Thread]



1. packing 2. dust ring 3. straight connection 4. steel ball plug 5. wing nut 6. slips 7. bolt 8. elastic damping ring  
9. O-type seal ring 10. elastic damping ring 11. steel ball 12. A joint

## Spiral Guard Wrap

**Recommended For:**

The use of Spiral Guard Wrap is an economical and convenient method of protecting and extending the life of hydraulic and pneumatic hoses, cables, wires and rope from premature wear. Manufactured from extruded high density polyethylene (HDPE), Spiral Guard Wrap will withstand the extremes of climate and operating conditions. The HDPE extrusion process provides a product with round edges which make for easy installation which will not damage hoses. Spiral Guard Wrap protects against abrasion, cuts, crushing, UV and various hazards which can destroy expensive hose and cable assemblies and cause output to suffer due to downtime. Larger sizes are used for both protection and bundling of multiple hose applications. Spiral Guard Wrap's open spiral design allows for simple installation in the field, without the need to disconnect lines.


**Material:**

high-density Polyethylene, spiral-formed protection system, wear, cut, and crush-resistant polymer

**Temperature Range:**

-60 °F to +210 °F [-50°C to +100°C ]

**Tensile Strength:**

25MPa at room temperature.

**Application:**

Mining, equipment, forestry, agriculture, trucking, automotive applications.

Dimensions

Description	ID [mm]	Thickness		Pitch [mm]	Applied for O.D.[mm]	Package[L] [m]
		T[mm]	T[mm]			
HPS-008	8.0	1.2	0.4	8.0	8.0-11.0	20meters/Roll CRATON
HPS-010	10.0	1.3	0.4	10.0	10.0-13.0	
HPS-012	12.0	1.5	0.5	12.0	12.0-15.0	
HPS-016	16.0	2.0	0.5	15.0	15.0-18.0	
HPS-018	19.0	2.0	0.5	16.0	18.0-21.0	
HPS-020	20.0	2.5	0.5	18.0	19.0-25.0	
HPS-025	25.0	2.5	0.7	21.0	23.0-29.0	
HPS-028	28.0	3.0	0.7	22.0	26.0-32.0	
HPS-030	30.0	3.0	1.0	22.0	28.0-35.0	
HPS-035	35.0	3.5	1.0	24.0	32.0-40.0	
HPS-038	38.0	3.5	1.0	25.0	35.0-43.0	
HPS-042	42.0	3.5	1.0	25.5	39.0-47.0	
HPS-045	45.0	3.5	1.0	26.0	42.0-50.0	
HPS-050	50.0	3.5	1.2	27.0	46.0-55.0	
HPS-060	60.0	4.0	2.0	28.0	55.0-66.0	
HPS-074	74.0	4.4	2.2	29.0	68.0-70.0	
HPS-088	88.0	4.9	2.4	31.0	82.0-95.0	
HPS-100	100.0	5.2	2.5	33.0	94.0-110.0	

## Nylon Textile Sleeve

**Recommended For:**

Nylon textile sleeve is designed to provide long-wearing abrasion protection for hoses, cables and wires. Manufactured from high tenacity multi-filament nylon yarn and woven into a flexible tubular sleeving, the nylon textile sleeve provides complete system coverage and reliable protection. The Nylon fibers provide UV protection and great resistance to common industrial and vehicular fluids. Maintain operation uptime, reduce expenditures due to hose damage, and prevent premature hose wear with the sleeve.


**Material:**

high tenacity multi-filament nylon

**Temperature Range:**

-60 °F to +375 °F [-50°C to +190°C ]

**Application:**

Nylon textile sleeve is mainly used for wear resistance and explosion proof mechanical equipment hydraulic hose, oil rubber hose, the trachea and other pipe fitting, especially suitable for working under the severe environment.

Dimensions

Description	Flat Width [mm]	I.D. [mm]	Sleeve Thickness [mm]	Package[L] [m]
HTSN-020	20	12	1.0	50meters/Roll CRATON
HTSN-025	25	15	1.0	
HTSN-030	30	18	1.0	
HTSN-035	35	21	1.0	
HTSN-040	40	24	1.0	
HTSN-045	45	28	1.0	
HTSN-050	50	31	1.0	
HTSN-060	60	37	1.0	
HTSN-070	70	44	1.0	
HTSN-080	80	50	1.0	
HTSN-090	90	56	1.0	
HTSN-100	100	62	1.0	
HTSN-115	115	72	1.0	
HTSN-145	145	90	1.0	
HTSN-176	176	110	1.0	

## Safety Clamps & Chain

Safety clamps & chains are used to secure ends of rotary and other high pressure hoses to guard against accident in the event of failure of hose connection.

All this systems meet the strict API standards. API Standards require a minimum breaking strength of 16,000 pounds for rotary hose safety clamps. Safety clamps & chains are available in 1 bolt, 2 bolt and 4 bolt configurations that range in sizes from 1/2" up to 48". We can also build custom sizes made to your specifications. Stainless steel components available for offshore or high chemical areas.

### Lift Eye and Collar:

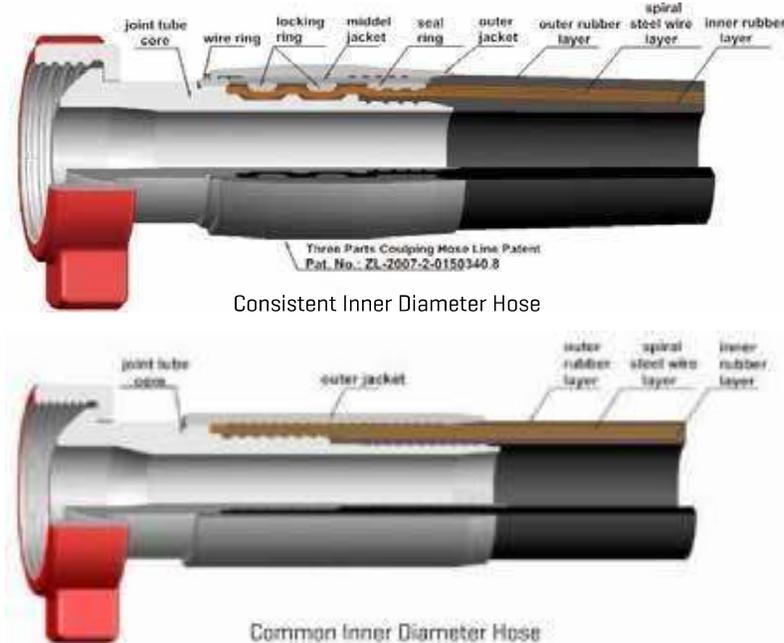
Hose lift eye and collar clamp are also available. Do not use safety clamps & chain for lifting.



## Patents

### Consistent Inner Diameter Hose Patent

Compared with other hoses, consistent inner diameter hose without bottleneck could lower the velocity in the case of the same flow. To be more specific, there is no eddy in the hose because of this special design. The engineer could accurately calculate both the flow and the velocity which avoids some weak mechanical force and vibration phenomena caused by speed power source or insufficient hydraulic source. This design enhances the joint capacity for more pressure and eventually extends the service life of the hose.



### Three Parts Coupling Patent

Traditional coupling only includes ferrule and fitting. The fitting is easy to take off under very high pressure, which seriously threatens workers' lives. Compared with the traditional coupling, the Three Parts Coupling designed by Jingbo is much safer. The middle band and the fitting are interlocked and more tightly. The fitting could bear more pressure and never takes off. It is 100% safe without any leakage.



Three Parts Coupling before being crimped on the hose



Three Parts Coupling after being crimped on the hose



Inner Structure of the Three Parts Coupling