



GROOVED COUPLING AND FITTINGS



www.visionge.com

VISION GROOVED PRODUCTS

VISION - COMPANY HISTORY

SHANGHAI VISION MECHANICAL JOINT CO., LTD. (ISO 9001:2000 certificated) was first established in 1997, since then, VISION has committed to maintaining its leading role in the grooved piping industry in China through aggressive investment in research, quality control, production capability and customer service. VISION exports to the quality oriented U.S.A. and Europe since 2003, and recently, VISION has expanded their markets to Middle East, East/South Asia, Australia, and other countries.

We take pride in our quality management approach as demonstrated by our UL/ULC Listings and FM approvals, as part of our mission to supply high quality products. VISION has also been proceeding to other international standard approvals and listings, such as VDS and LPCB.

Today, VISION WATER SYSTEM is one of the largest and most complete manufacturers/ integrator of pipe and fittings, pipes and valves, pipe hangers and supports in the world. VISION WATER SYSTEM gives undivided attention to create value for our customers through our qualified and integrated products package.

VISION - PIPING SOLUTIONS OF SPRINKLER PIPELINE

VISION Grooved Piping System is a reliable piping system which is quicker to install than welding, threading or flanging, resulting in lower installation cost. It can be adapted to suit light wall pipe with rolled grooves and standard pipe with cut grooves. Triple sealing of the C-shaped pressure responsive gasket is made from specially compounded rubbers with pre-lubricant material. Couplings perform equally well under pressure and vacuum. Couplings with FLUSH-SEAL gaskets are highly suitable for high vacuum service and dry systems subject to freezing.

Couplings are available for flexible and rigid system.



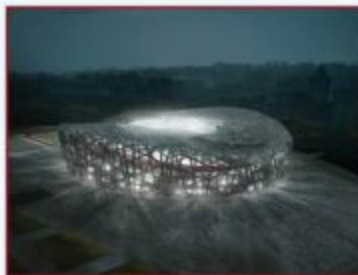
VISION HAED OFFICE



Reference Projects:



Shanghai World Financial Center
(101 floors)



Beijing 2008 Olympics Main Stadium
'The Bird Nest'



Beijing Capital Airport
(3rd Floor)



VISION - PRODUCT TECHNICAL DATA

GENERAL

HOUSING SECTION

Ductile cast iron conforming to ASTM A536, Grade 65-45-12, equal to QT450-12

Surface finish:

Standard : Dip painted

Optional : 1. Epoxy Powder spray painted
2. Color: variable colors for choice;
3. Galvanized

BOLTS AND NUTS

Heat treated and electro galvanized bolts with oval neck, and heavy duty hexogen nuts are conforming to ASTM A183, minimum tensile 760MPa (110,000PSI). Both ANSI and Metric sizes are available.

GASKET

1. Variable materials and application

Temperature	Material*	Recommended applications	rohibited applications
-35°C to +110°C -30°F to +230°F	EPDM	Hot water, dilute acids, oil free air, various chemicals	Petroleum Services
35°C to +80°C -20°F to +180°F	Silicon	Potable water, hot Water, oil free air, high-temperature vapor, etc	Petroleum service
-35°C to +80°C -20°F to +180°F	Nitrile (NBR)	Petroleum products, vegetable and mineral oils, air with oil vapors	Hot water services or for hot dry air over 66°C (140°F)
-35°C to +80°C -20°F to +180°F	Neoprene	Hot lubricating oils and certain chemicals with good oxidation resistance	Not support Combustion
-6°C to +148°C -30°F to +180°F	Vinton	Oxidizing acids, petroleum products, halogenated hydrocarbons, lubricants, hydraulic fluid, organic liquids, and air with hydrocarbon	N/A

*If the intended service is NOT included in the Table above, please contact Vision staff

2. Forming types

"C" type gasket: Standard design, provide a pressure responsive, leak-tight seal in both pressure and vacuum applications without the aids of external forces.

"E" type gasket (Flush Seal): highly suitable for high vacuum service and dry systems subject to freezing.

VISION GROOVED PRODUCTS

Coupling



Style 001 Rigid Coupling

VISION Style 001 Rigid couplings provide a zero-flexibility combination of the pipe, the angle-pad design of 60 degree adjust to steel pipes and roll/cut groove tolerances, positively clamping the pipe to resist flexural and torsional loads. Angle-pad design and swing-over installation permit assembly by removing one nut/bolt and scissoring housing over gasket. This reduces the number of components to handle during assembly, speeds and eases installation.

Style 001 Rigid Couplings are suitable for fire protection systems, water supply systems and other process systems of higher work pressure.

Pressure rate:

DN25-DN50: 69 bars ; 1"-2" : 1,000psi
DN65-DN100: 52 bars ; 2½"-4" : 750psi
DN125-DN150: 48 bars ; 5"-6" : 700psi
DN200/250/300: 41/35/28 bars ; 8"/10"/12" : 600/500/400psi



Style 001A Rigid Coupling (LIGID)

VISION Style 001A LIGID Couplings are lightweight rigid couplings which are intended to cater for applications where moderate pressures are expected or weight considerations are a factor in design.

Male-and-female design of the cast housing produces a secure and lightweight, non-flexible pipe joint, it provide a more economical solution than the standard VISION Style 001 Rigid Couplings.

Pressure rate:

Pressure rate:
DN25-DN50: 30 bars ; 1"-2" : 450psi
DN65-DN200: 25 bars ; 2½"-8" : 350psi
DN250-DN300: 21 bars ; 10"-12" : 300psi



Style 101 Standard Flexible Coupling

VISION Style 101 Flexible Coupling is designed for service up to 500psa/35bar depending on sizes; it forms a flexible grooved end pipe joint connection and reduces noise and vibration transmission of the pipeline.

Pressure rate:

Pressure rate:
DN25-DN50: 69 bars ; 1"-2" : 1,000psi
DN65-DN100: 52 bars ; 2½"-4" : 750psi
DN125-DN150: 48 bars ; 5"-6" : 700psi
DN200/250/300: 41/35/35 bars ; 8"/10"/12" : 600/500/500psi



Style 101H Heavy Duty Flexible Coupling

VISION Style 101H Heavy Duty Flexible Coupling with cross-ribbed design is supposed to apply for pipe system which request high pressure or big end load resistance.

Style 101H Couplings provide versatility for a wide range of applications because the high pressure resistance and flexibility, suitable for mechanical and plumbing, water treatment, mining and oil field and many other process pipe systems.

Pressure rate:

Pressure rate:
DN25-DN50: 86 bars ; 1"-2" : 1,250psi
DN65-DN150: 69 bars ; 2½"-4" : 1,000psi
DN200-DN300: 55 bars ; 8"-12" : 800psi



Style 020 Reducing Coupling

VISION Style 020 Reducing Coupling reduces the piping run directly.

It is designed to replace two couplings in different sizes and a concentric reducer.

A steel washer is available upon request, which prevents telescoping of the smaller pipe inside the larger pipe by vertical piping system.

Pressure rate: All sizes 21 bars (300psi)

Mechanical outlets



Style 301
Mechanical Tee(D)



Style 302
Mechanical Tee(I)



Style 300U
U-Bolt Mechanical Tee(I)

Main Run		Outlet		Hole Size		Main Run		Outlet		Hole Size		Main Run		Outlet		Hole Size						
Size	Act.O.D.	Size	300U	301& 302⊕	Size	Act.O.D.	Size	301& 302⊕	Size	Act.O.D.	Size	301& 302⊕	Size	Act.O.D.	Size	301& 302⊕						
DN	mm	DN	mm	mm	DN	mm	DN	mm	DN	mm	DN	mm	DN	mm	DN	mm						
32	42.4	15/20/25	30.5	N/A	125 5 1/2 OD	139.7	15/20/25	38	150 6 1/2 OD	165.1	15/20/25	38	150 6 1/2 OD	165.1	15/20/25	38						
1 1/4		1/2"/3/4"/1"	1.2								1/2"/3/4"/1"	1 1/2					1/2"/3/4"/1"	1 1/2			1/2"/3/4"/1"	1 1/2
40	48.3	15/20/25	30.5	N/A							32	44.5					32	44.5			32	44.5
1 1/2		1/2"/3/4"/1"	1.2								1 1/4	1 1/4					1 1/4	1 1/4			1 1/4	1 1/4
50	60.3	15/20/25	30.5	38							40	51					40	51			40	51
2"		1/2"/3/4"/1"	1.2	1 1/2							1 1/2	2.0					1 1/2	2.0			1 1/2	2.0
		32/40	N/A	44.5							2"	2 1/2					2"	2 1/2			2"	2 1/2
		1 1/4"/1 1/2"	1 1/4	1 1/4							65	70					65	70			65	70
2 1/2"	73	15/20/25	30.5	38							3OD	2 1/4					3OD	2 1/4			3OD	2 1/4
		1/2"/3/4"/1"	1.2	1 1/2							80	89					80	89			80	89
		32	N/A	44.5							3"	3 1/2					3"	3 1/2			3"	3 1/2
		1 1/4"	N/A	51							100	114					100	114			100	114
		40/50	N/A	51			4"	4 1/2			4"	4 1/2			4"	4 1/2						
		1 1/2"/2"	N/A	2.0																		
65	76.1	15/20/25	30.5	38	5"	141.3	15/20/25	38	150 6"	168.3	15/20/25	38	150 6"	168.3	15/20/25	38						
3OD		1/2"/3/4"/1"	1.2	1 1/2							1/2"/3/4"/1"	1 1/2					1/2"/3/4"/1"	1 1/2			1/2"/3/4"/1"	1 1/2
		32	N/A	44.5							32	44.5					32	44.5			32	44.5
		1 1/4"	N/A	51							1 1/4	1 1/4					1 1/4	1 1/4			1 1/4	1 1/4
		40	N/A	51							40	51					40	51			40	51
		1 1/2"	N/A	2.0							1 1/2	2					1 1/2	2			1 1/2	2
		50	N/A	63.5							50	63.5					50	63.5			50	63.5
		2"	N/A	2 1/2							2"	2 1/2					2"	2 1/2			2"	2 1/2
		15/20/25	30.5	38							65	70					65	70			65	70
		1/2"/3/4"/1"	1.2	1 1/2							2 1/2	2 1/4					2 1/2	2 1/4			2 1/2	2 1/4
		32	N/A	44.5							80	89					80	89			80	89
		1 1/4"	N/A	51							3"	3 1/2					3"	3 1/2			3"	3 1/2
80	88.9	40	N/A	51			100	114			100	114			100	114						
3"		1 1/2"	N/A	2.0			4"	4 1/2			4"	4 1/2			4"	4 1/2						
		50	N/A	63.5																		
		2"	N/A	2 1/2																		
		65	N/A	70																		
		2 1/2"/3OD	N/A	2 1/4																		
		15/20/25	30.5	38																		
		1/2"/3/4"/1"	1.2	1 1/2																		
		32	N/A	44.5																		
		1 1/4"	N/A	51																		
		40	N/A	51																		
		1 1/2"	N/A	2.0																		
		50	N/A	63.5																		
		2"	N/A	2 1/2																		
		65	N/A	70																		
		2 1/2"/3OD	N/A	2 1/4																		
		80	N/A	89																		
		3"	N/A	3 1/2																		
100	114.3	15/20/25	30.5	38																		
4"		1/2"/3/4"/1"	1.2	1 1/2																		
		32	N/A	44.5																		
		1 1/4"	N/A	51																		
		40	N/A	51																		
		1 1/2"	N/A	2.0																		
		50	N/A	63.5																		
		2"	N/A	2 1/2																		
		65	N/A	70																		
		2 1/2"/3OD	N/A	2 1/4																		
		80	N/A	89																		
		3"	N/A	3 1/2																		

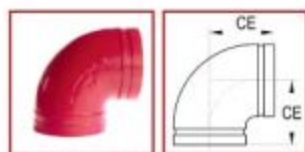
①: No UL/ULC & FM approval available.

②: BSP/NPT thread available up on request.





Fittings



Style 002
90° Short Elbow



Style 002L
90° Elbow



Style 003
45° Elbow



Style 003L
22.5° Elbow



Style 004
Short Tee



Style 004
Standard Tee



Style 010
Short Cross



Style 005
End Cap

Size	Pipe O.D.	Style 002	Style 02L	Style 003	Style 0031*	Style 004	Style 004L	Style 010*	Style 004L	Style 005	Style 007 ^①	Style 015 ^② *
		CE	CE	CE	CE	CE	CE	CE	CE	T	Bolt no.	EE
DN	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	PN16	mm
In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	ANSI150	In.
25	33.4	N/A	57	44	44	N/A	57	N/A	57	33	N/A	N/A
1"			2.25	1.75	1.75		2.25		2.25	1.3		
32	42.4	N/A	70	44	44	N/A	70	N/A	70	34	4	60
1 1/4"			2.75	1.75	1.75		2.75		2.75	1.34		2.36
40	48.3	N/A	70	44	44	N/A	70	N/A	70	35	4	60
1 1/2"			2.75	1.75	1.75		2.75		2.75	1.38		2.36
50	60.3	70	83	51	51	70	83	70	83	36	4	70
2"		2.75	3.25	2.0	2.0	2.75	3.25	2.75	3.25	1.42		2.75
2 1/2"	73	76	95	57	51	76	95	76	95	39	N/A	70
		3.0	3.75	2.25	2.0	3.0	3.75	3.0	3.75	1.54	4	2.75
65	76.1	76	95	57	51	76	95	76	95	39	8	70
300		3.0	3.75	2.25	2.0	3.0	3.75	3.0	3.75	1.54	N/A	2.75
80	88.9	86	108	64	57	86	108	86	108	41	8	70
3"		3.38	4.25	2.5	2.25	3.38	4.25	3.38	4.25	1.61	4	2.75
100	114.3	102	127	76	73	102	127	102	127	47	8	80
4"		4.0	5.0	3.0	2.88	4.0	5.0	4.0	5.0	1.85	8	3.15
125	139.7	124	140	83	73	124	140	124	140	51	8	80
5 1/2"OD		4.88	5.5	3.25	2.88	4.88	5.5	4.88	5.5	2.0	N/A	3.15
5"	141.3	124	140	83	73	124	140	124	140	51	N/A	80
		4.88	5.5	3.25	2.88	4.88	5.5	4.88	5.5	2.0	8	3.15
150	165.1	140	165	89	79	140	165	140	165	54	8	100
6 1/2"OD		5.5	6.5	3.5	3.13	5.5	6.5	5.5	6.5	2.13	N/A	3.94
150	168.3	140	165	89	79	140	165	140	165	54	N/A	100
6"		5.5	6.5	3.5	3.13	5.5	6.5	5.5	6.5	2.13	8	3.94
200	219.1	173	197	108	83	173	197	173	197	69	12	100
8"		6.81	7.75	4.25	3.25	6.81	7.75	6.81	7.75	2.72	8	3.94
250	273.0	N/A	229	121	89w*	N/A	229	N/A	229w	84w	12	100
10"			9.0	4.75	3.5		9.0		9.0	3.31	12	3.94
300	323.9	N/A	254	133	102w	N/A	254	N/A	254w	99w	12	100
12"			10.0	5.25	4.0		10.0		10.0	3.9	12	3.94

*Few items segmentally steel welded products, marked with "W"

①: Pressure rate: PN16, ANSI125&150 available. Other pressure rate may available up on request.

②: All flange type, pressure rate, different lengths available up on request.



007 Flange Adaptor



015 Adaptor Nipple

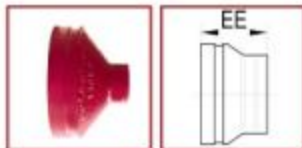


VISION GROOVED PRODUCTS

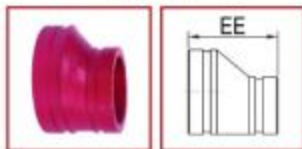
Reducing fittings



Style 008
Concentric
Reducer (G)



Style 009
Concentric
Reducer (T)



Style 013
Eccentric
Reducer (G or T)



Style 011
Short Reducing
Tee (G)



Style 012
Short Reducing
Tee (T)

Main Run		Small	Style 008*	Style 009 (T)	Style 013	Style 011	Style 012 (T)*
Size DN	Act.O.D.	Size	EE	EE	EE	CE	CE
In.	mm	In.	mm	mm	mm	mm	mm
32 1¼"	42.4	15-20	N/A	64	N/A	N/A	N/A
		½"-¾"		2.5			
		25	64	64	124	N/A	N/A
		1"	2.5	2.5	4.86		
40 1½"	48.3	15-20	N/A	64	N/A	N/A	N/A
		½"-¾"		2.5			
		25-32	64	64	124	N/A	N/A
		1"-1½"	2.5	2.5	4.86		
50 2"	60.3	15-20	N/A	64	N/A	N/A	70
		½"-¾"		2.5			2.75
		25-40	64	64	136	70	70
		1"-1½"	2.5	2.5	5.35	2.75	2.75
65 2½"	73	15-20	N/A	64	N/A	N/A	76
		½"-¾"		2.5			3.0
		25-50	64	64	149	76	76
		1"-2"	2.5	2.5	5.87	3.0	3.0
65 30D	76.1	15-20	N/A	64	N/A	N/A	76
		½"-¾"		2.5			3.0
		25-50	64	64	149	76	76
		1"-2"	2.5	2.5	5.87	3.0	3.0
80 3"	88.9	15-20	N/A	64	N/A	N/A	86
		½"-¾"		2.5			3.38
		25-65	64	64	149	86	86
		1"-30D	2.5	2.5	5.87	3.38	3.38
100 4"	114.3	15-20	N/A	76	N/A	N/A	102
		½"-¾"		3.0			4.0
		25-80	76	76	164	102	102
		1"-3"	3.0	3.0	6.46	4.0	4.0
125 5½OD	139.7	15-20	N/A	89	N/A	N/A	124
		½"-¾"		3.5			4.88
		25-80	89	89	189	124	124
		1"-3"	3.5	3.5	7.44	4.88	4.88
		100	89	N/A	191	124	N/A
		4"	3.5	N/A	7.52	4.88	N/A
5"	141.3	15-20	N/A	89	N/A	N/A	124
		½"-¾"		3.5			4.88
		25-80	89	89	189	124	124
		1"-3"	3.5	3.5	7.44	4.88	4.88
		100	89	N/A	191	124	N/A
		4"	3.5	N/A	7.52	4.88	N/A
150 6½OD	165.1	15-20	N/A	102	N/A	N/A	140
		½"-¾"		4.0			5.5
		25-80	102	102	202	140	140
		1"-3"	4.0	4.0	7.95	5.5	5.5
		100-125	102	N/A	204	140	N/A
		4"-5"	4.0	N/A	8.03	5.5	N/A
150 6"	168.3	15-20	N/A	102	N/A	N/A	140
		½"-¾"		4.0			5.5
		1"-3"	102	102	202	140	140
		1"-3"	4.0	4.0	7.95	5.5	5.5
		100-125	102	N/A	204	140	N/A
		4"-5"	4.0	N/A	8.03	5.5	N/A
200 8"	219.1	15-20	N/A	127	N/A	N/A	173
		½"-¾"		5.0			6.81
		25-80	127	127	220	173	173
		1"-3"	5.0	5.0	8.66	6.81	6.81
		100-150	127	N/A	222	173	N/A
		4"-6"	5.0	N/A	8.74	6.81	N/A
250 10"	273.0	100-150	152	N/A	250	N/A	N/A
		4"-6"	6.0	N/A	9.84		
		200	152	N/A	256	N/A	N/A
		8"	6.0	N/A	10.08		
300 12"	323.9	100-150	178	N/A	275	N/A	N/A
		4"-6"	7.0	N/A	10.83		
		200-250	178	N/A	283		
		8"-10"	7.0	N/A	11.14		

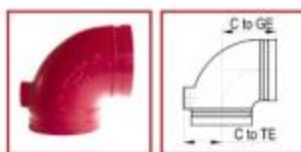


*Few items are steel welded products, marked with "W"

⊗ Segmentally welded products.

(D): BSP/NPT thread available up on request.

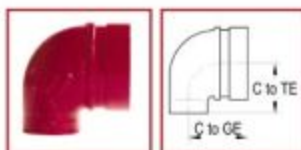
Special fittings



Style 002D
Drain Elbow



Style 005WH
End Cap with Hole

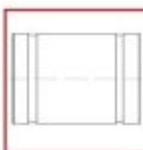


Style 006RT
Reducing Elbow 90° (T)

Size	Act. O.D.	Style 002D		Style 005WH ^①
		C to GE	C to TE	T
DN	mm	mm	mm	mm
In.		In.	In.	In.
32	42.4	N/A	N/A	63W
1¼"				2.48*
40	48.3	70	39	63W
1½"		2.75	1.53	2.48
50	60.3	70	45	63W
2"		2.75	1.77	2.48
2½"	73	76	50	63W
		3.0	1.97	2.48
65	76.1	76	50	55
30D		3.0	1.97	2.17
80	88.9	86	58	57
3"		3.38	2.28	2.25
100	114.3	102	70	59
4"		4.0	2.75	2.32
125	139.7	N/A	N/A	61
5½OD				2.4
5"	141.3	N/A	N/A	61
				2.4
150	165.1	140	95	61
6½OD		5.5	3.74	2.4
150	168.3	140	95	61
6"		5.5	3.74	2.4
200	219.1	N/A	N/A	69
8"				2.72
250	273.0	N/A	N/A	73W
10"				2.87
300	323.9	N/A	N/A	73W
12"				2.87

Size	Act. O.D.	Style 018 ^②
		C to GE
DN	mm	mm
In.		In.
32	42.4	75
1¼"		3.00
40	48.3	100
1½"		4.00
50	60.3	100
2"		4.00
65	73.0	100
2½"		4.00
76.1	76.1	100
30D		4.00
80	88.9	100
3"		4.00
100	114.3	150
4"		6.00
125	139.7	150
5½OD		6.00
5"	141.3	150
		6.00
150	165.1	150
6½OD		6.00
150	168.3	150
6"		6.00
200	219.1	150
8"		6.00
250	273.0	200
10"		8.00
300	323.9	200
12"		8.00

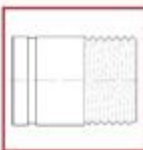
Style 018GG
Adapter Nipples
(Grooved ×
Grooved)



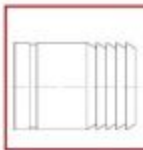
Style 018GF
Adapter Nipples
(Grooved ×
Female Thread)



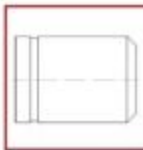
Style 018GM
Adapter Nipples
(Grooved ×
Male Thread)



Style 018GH
Adapter Nipples
(Grooved ×
Hose)



Style 018GW
Adapter Nipples
(Grooved ×
Beveled)



Size	Act. O.D.	Style 006RT ^③	
		C to GE	C to TE
DN	mm	mm	mm
In.		In.	In.
32x15	42.4x21.3	48	32
1¼"x½"		1.9	1.25
32x20	42.4x26.9	51	34
1¼"x¾"		2.0	1.34
32x25	42.4x33.7	54.5	36.5
1¼"x1"		2.15	1.44
40x15	48.3x21.3	48	35
1½"x½"		1.9	1.38
40x20	48.3x26.9	51	37
1½"x¾"		2.0	1.45
40x25	48.3x33.7	54.5	39.5
1½"x1"		2.15	1.55
50x15	60.3x21.3	48	41
2"x½"		1.9	1.61
50x20	60.3x26.9	51	43
2"x¾"		2.0	1.69
50x25	60.3x33.7	54.5	45.5
2"x1"		2.15	1.79

*Segmentally steel welded products, marked with "W"

①: Branch hole size available from W" up to 1", BSP/NPT available.

②: Hole Size available from W" up to 1", BSP/NPT available.

③: Both BSP/NPT thread available.

④: Different lengths available up on request. Cut and machined by steel pipe.





VISION WATER SYSTEM also offer other products for sprinkler pipe line, please ask **VISION** staff for other literatures.

Valves



Brass ball valve



Grooved End Butterfly Valve



Grooved gate valve

Other available valves:
Check Valve
Control Valve
Strainer
and etc.

Threaded Fittings



CI & DI fittings



Malleable fittings



Threaded nipples BL & GA



Butt Weld Fittings

All VISION provided Grooved/Threaded Couplings and fittings are available in Stainless Steel.

Pipe hangers and supports



Adjustable swivel ring



Clevis hanger



Riser clamp



Pipe clamp



Beam clamp



Top beam clamp



C-clamp



Universal clamp



Pipe Threaded,
Ceiling Flange



Steel side beam bracket



Threaded steel side
beam bracket



Welding Sockets



Style 025 weld o-let (G)
Both cut grooved (SCH40) &
roll grooved (SCH10) ends available.



Style 035 weld o-let (T)
Both Male and Female threaded ends available.





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