



GROOVED COUPLING AND FITTINGS



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.

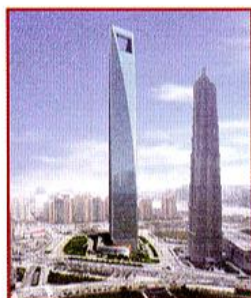
Couplings are available for flexible and rigid system.



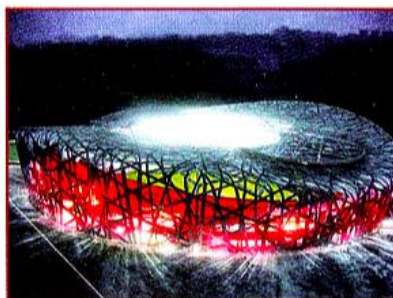
VISION HAED OFFICE



Reference Projects:



Shanghai World Financial Center
(101 floors)



Beijing 2008 Olympics Main Stadium
"The Bird's Nest"



Beijing Capital Airport
(3rd Face)



VISION - PRODUCT TECHNICAL DATA

GENERAL

HOUSING SECTION

Ductile cast iron confirming 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 confirming 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.

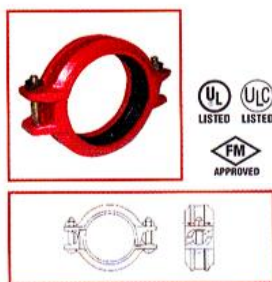
Pressure rate:

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.

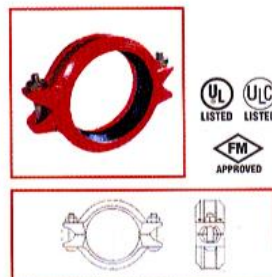
Pressure rate:

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 500psi/35bar depending on sizes; it forms a flexible grooved end pipe joint connection and reduces noise and vibration transmission of the pipeline.

Pressure rate:

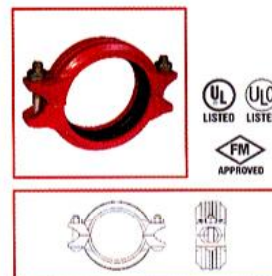
Pressure rate:

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.

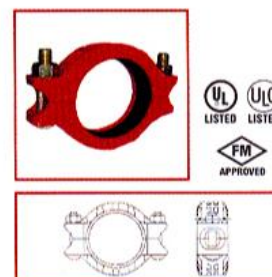
Pressure rate:

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



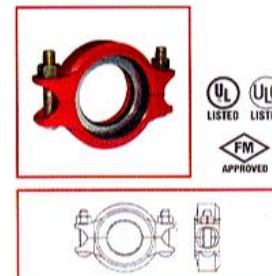
Style 020 Reducing Coupling

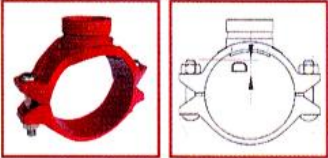
VISION Style 020 Reducing Coupling reduces the piping run directly.

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

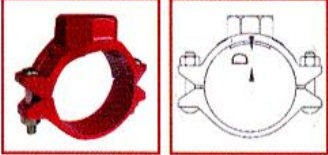
A steel washer is available upon request, which prevents telescoping of the smaller pipe inside the larger pipe by vertical piping system.

Pressure rate: All sizes 21 bars (300psi)

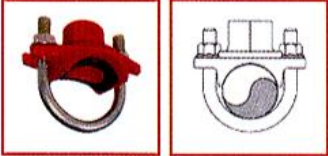




Style 301
Mechanical Tee (G)



Style 302
Mechanical Tee (T)



Style 300U
U-Bolt Mechanical Tee (T)

Mechanical outlets

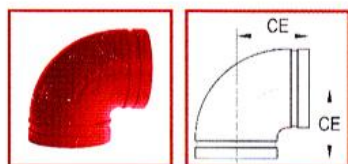
Main Run					Outlet					Hole Size				
Size	Act.O.D.	Size	300U	301& 302②	Size	Act.O.D.	Size	301& 302②	Size	Act.O.D.	Size	301& 302②	Size	Act.O.D.
DN	mm	DN	mm	mm	DN	mm	DN	mm	DN	mm	DN	mm	DN	mm
In.		In.	In.	In.	In.		In.	In.	In.		In.	In.	In.	In.
32	42.4	15/20/25	30.5	N/A	15/20/25	38	15/20/25	38	15/20/25	38	15/20/25	38	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	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	32	44.5	32	44.5
1 1/2"		1/2"/3/4"/1"	1.2		1 1/4"	1 3/4	1 1/4"	1 3/4	1 1/4"	1 3/4	1 1/4"	1 3/4	1 1/4"	1 3/4
50	60.3	15/20/25	30.5	38	40	51	40	51	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	1 1/2"	2.0	1 1/2"	2.0
		32/40	N/A	44.5	50	63.5	50	63.5	50	63.5	50	63.5	50	63.5
		1 1/4"/1 1/2"	1 3/4	1 3/4	2"	2 1/2	2"	2 1/2	2"	2 1/2	2"	2 1/2	2"	2 1/2
2 1/2"	73	15/20/25	30.5	38	65	70	65	70	65	70	65	70	65	70
		1/2"/3/4"/1"	1.2	1 1/2	3OD	2 3/4	3OD	2 3/4	3OD	2 3/4	3OD	2 3/4	3OD	2 3/4
		32	N/A	44.5	80	89	80	89	80	89	80	89	80	89
		1 1/4"	N/A	1 3/4	3"	3 1/2	3"	3 1/2	3"	3 1/2	3"	3 1/2	3"	3 1/2
		40/50	N/A	51	100	114	100	114	100	114	100	114	100	114
		1 1/2"/2"	2.0	2 1/2	4"	4 1/2	4"	4 1/2	4"	4 1/2	4"	4 1/2	4"	4 1/2
65	76.1	15/20/25	30.5	38	15/20/25	38	15/20/25	38	15/20/25	38	15/20/25	38	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	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	32	44.5	32	44.5
		1 1/4"	N/A	1 3/4	1 1/4"	1 3/4	1 1/4"	1 3/4	1 1/4"	1 3/4	1 1/4"	1 3/4	1 1/4"	1 3/4
		40	N/A	51	40	51	40	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	1 1/2"	2	1 1/2"	2
		50	N/A	63.5	50	63.5	50	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	2"	2 1/2	2"	2 1/2
80	88.9	15/20/25	30.5	38	65	70	65	70	65	70	65	70	65	70
3"		1/2"/3/4"/1"	1.2	1 1/2	2 1/2"	2 3/4	2 1/2"	2 3/4	2 1/2"	2 3/4	2 1/2"	2 3/4	2 1/2"	2 3/4
①		32	N/A	44.5	80	89	80	89	80	89	80	89	80	89
		1 1/4"	N/A	1 3/4	3"	3 1/2	3"	3 1/2	3"	3 1/2	3"	3 1/2	3"	3 1/2
		40	N/A	51	100	114	100	114	100	114	100	114	100	114
		1 1/2"	N/A	2.0	4"	4 1/2	4"	4 1/2	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 3/4										
100	114.3	15/20/25	30.5	38										
4"		1/2"/3/4"/1"	1.2	1 1/2										
①		32	N/A	44.5										
		1 1/4"	N/A	1 3/4										
		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 3/4										
		80	N/A	89										
		3"	N/A	3 1/2										

①: No UL/ULC & FM approval available.
②: BSP/NPT thread available upon request.

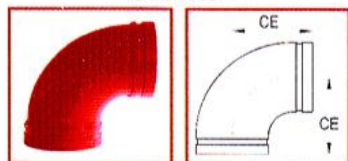




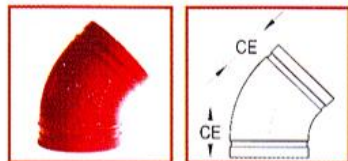
Fittings



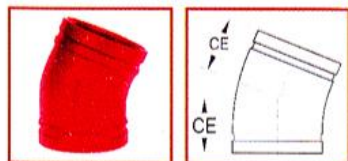
Style 002
90° Short Elbow



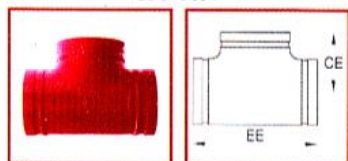
Style 002L
90° Elbow



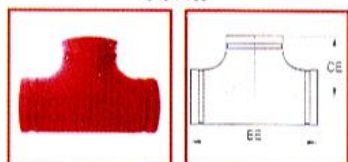
Style 003
45° Elbow



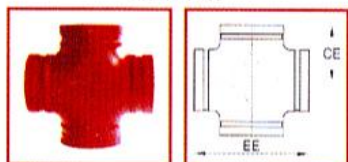
Style 0031
22.5° Elbow



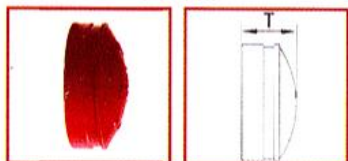
Style 004
Short Tee



Style 004
Standard Tee



Style 010
Short Cross



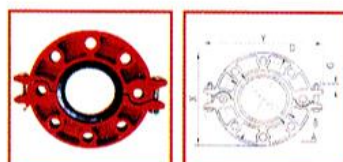
Style 005
End Cap

Size	Pipe O.D.	Style 002	Style 002L	Style 003	Style 0031*	Style 004	Style 004L	Style 010*	Style 004L	Style 005	Style 007①	Style 015②*
DN	mm	CE	CE	CE	CE	CE	CE	CE	CE	T	Bolt no.	EE
In.	In.	mm	mm	mm	mm	mm	mm	mm	mm	mm	PN16	mm
25	1"	N/A	57	44	44	N/A	57	N/A	57	33	ANSI150	N/A
32	1 1/4"	N/A	70	44	44	N/A	70	N/A	70	34	4	60
40	1 1/2"	N/A	70	44	44	N/A	70	N/A	70	35	4	60
50	2"	70	83	51	51	70	83	70	83	36	4	70
65	2 1/2"	76	95	57	57	76	95	76	95	39	N/A	70
80	3"	86	108	64	64	86	108	86	108	41	8	70
100	4"	102	127	76	73	102	127	102	127	47	8	80
125	5"	124	140	83	73	124	140	124	140	51	8	80
150	6"	140	165	89	79	140	165	140	165	54	8	100
200	8"	173	197	108	83	173	197	173	197	69	12	100
250	10"	N/A	229	121	89w*	N/A	229	N/A	229w	84w	12	100
300	12"	N/A	254	133	102w	N/A	254	N/A	254w	99w	12	100
323.9		N/A	10.0	5.25	4.0	N/A	10.0	N/A	10.0	3.9	12	3.94

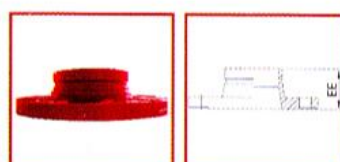
*Few items segmentally steel welded products, marked with "W"

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

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



007 Flange Adaptor

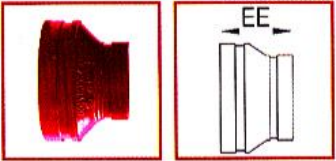


015 Adaptor Nipple

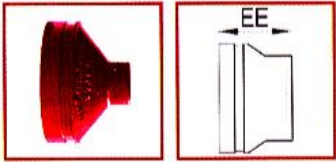


VISION GROOVED PRODUCTS

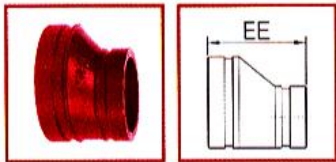
Reducing fittings



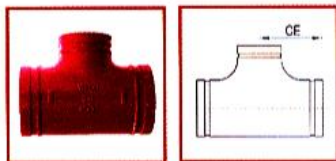
Style 008
Concentric
Reducer (G)



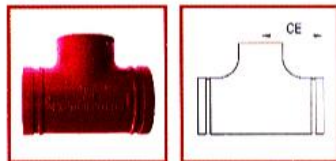
Style 009
Concentric
Reducer (T)



Style 013
Eccentric
Reducer (G or T)



Style 011
Short Reducing
Tee (G)



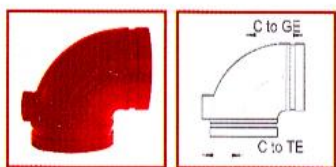
Style 012
Short Reducing
Tee (T)

Main Run		Small	Style 008*	Style 009①	Style 013	Style 011	Style 012①*
Size DN In.	Act.O.D. mm	Size In.	EE mm In.	EE mm In.	EE mm In.	CE mm In.	CE mm In.
32 1¼"	42.4	15~20 ½"~¾"	N/A	64 2.5	N/A	N/A	N/A
		25 1"	64 2.5	64 2.5	124 4.86	N/A	N/A
40 1½"	48.3	15~20 ½"~¾"	N/A	64 2.5	N/A	N/A	N/A
		25~32 1"~1¼"	64 2.5	64 2.5	124 4.86	N/A	N/A
50 2"	60.3	15~20 ½"~¾"	N/A	64 2.5	N/A	N/A	70 2.75
		25~40 1"~1½"	64 2.5	64 2.5	136 5.35	70 2.75	70 2.75
65 2½"	73	15~20 ½"~¾"	N/A	64 2.5	N/A	N/A	76 3.0
		25~50 1"~2"	64 2.5	64 2.5	149 5.87	76 3.0	76 3.0
65 3OD	76.1	15~20 ½"~¾"	N/A	64 2.5	N/A	N/A	76 3.0
		25~50 1"~2"	64 2.5	64 2.5	149 5.87	76 3.0	76 3.0
80 3"	88.9	15~20 ½"~¾"	N/A	64 2.5	N/A	N/A	86 3.38
		25~65 1"~3OD	64 2.5	64 2.5	149 5.87	86 3.38	86 3.38
100 4"	114.3	15~20 ½"~¾"	N/A	76 3.0	N/A	N/A	102 4.0
		25~80 1"~3"	76 3.0	76 3.0	164 6.46	102 4.0	102 4.0
125 5½OD	139.7	15~20 ½"~¾"	N/A	89 3.5	N/A	N/A	124 4.88
		25~80 1"~3"	89 3.5	89 3.5	189 7.44	124 4.88	124 4.88
		100 4"	89 3.5	N/A	191 7.52	124 4.88	N/A
5"	141.3	15~20 ½"~¾"	N/A	89 3.5	N/A	N/A	124 4.88
		25~80 1"~3"	89 3.5	89 3.5	189 7.44	124 4.88	124 4.88
		100 4"	89 3.5	N/A	191 7.52	124 4.88	N/A
150 6½OD	165.1	15~20 ½"~¾"	N/A	102 4.0	N/A	N/A	140 5.5
		25~80 1"~3"	102 4.0	102 4.0	202 7.95	140 5.5	140 5.5
		100~125 4"~5"	102 4.0	N/A	204 8.03	140 5.5	N/A
150 6"	168.3	15~20 ½"~¾"	N/A	102 4.0	N/A	N/A	140 5.5
		1"~3"	102 4.0	102 4.0	202 7.95	140 5.5	140 5.5
		100~125 4"~5"	102 4.0	N/A	204 8.03	140 5.5	N/A
200 8"	219.1	15~20 ½"~¾"	N/A	127 5.0	N/A	N/A	173 6.81
		25~80 1"~3"	127 5.0	127 5.0	220 8.66	173 6.81	173 6.81
		100~150 4"~6"	127 5.0	N/A	222 8.74	173 6.81	N/A
250 10"	273.0	100~150 4"~6"	152 6.0	N/A	250 9.84	N/A	N/A
		200 8"	152 6.0	N/A	256 10.08	N/A	N/A
300 12"	323.9	100~150 4"~6"	178 7.0	N/A	275 10.83	N/A	N/A
		200~250 8"~10"	178 7.0	N/A	283 11.14	N/A	N/A

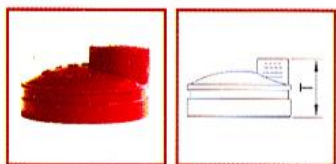


* Few items are steel welded products, marked with " W "

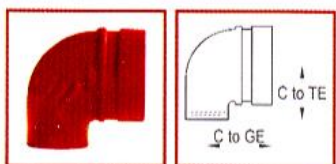
①: BSP/NPT thread available upon request.



Style 002D
Drain Elbow



Style 005WH
End Cap with Hole



Style 006RT
Reducing Elbow 90° (T)

Style 018GG
Adapter Nipples
(Grooved X
Grooved)



Style 018GF
Adapter Nipples
(Grooved X
Female Thread)



Style 018GM
Adapter Nipples
(Grooved X
Male Thread)



Style 018GH
Adapter Nipples
(Grooved X
Hose)



Style 018GW
Adapter Nipples
(Grooved X
Beveled)



Special fittings

Size	Act. O.D.	Style 002D		Style 005WH①*
		C to GE	C to TE	T
DN	mm	mm	mm	mm
In.	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
65	76.1	3.0	1.97	2.48
3OD		76	50	55
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
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 018④
		C to GE
DN	mm	mm
In.	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
3OD		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
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

Size	Act. O.D.	Style 006RT②	
		C to GE	C to TE
DN	mm	mm	mm
In.	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 ½" upto 1", BSP/NPT available.

②: Hole Size available from ½" upto 1", BSP/NPT available.

③: Both BSP/NPT thread available.

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





VISION WATER SYSTEM also offers 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



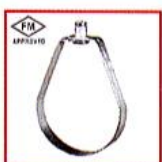
Threaded nipples BL & GA



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,
Cabling 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.



Authorized Distributor :

VISION/SMA/2013/1