

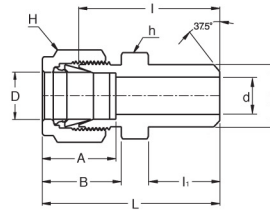
Tube Fittings

Weld End, Plug & Cap,



PAP-PWC

Male Pipe Weld Connector



Connects Fractional Tubes To Pipe

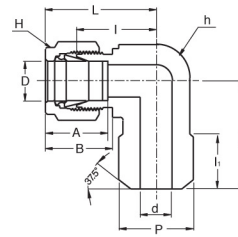
Part No.	Tube O.D. D (inch)	Male Pipe Size P		d Min	Width Across Flat		A	B	I	li	L
		Nom.	O.D.		h (inch)	H (inch)					
PAP-PWC 2 - 2P	1/8	1/8	10.30	2.28	7/16	7/16	12.70	15.24	23.87	9.65	30.48
PAP-PWC 3 - 2P	3/16	1/8	10.30	3.04	7/16	1/2	13.71	16.00	24.63	9.65	31.24
PAP-PWC 4 - 2P	1/4	1/8	10.30	4.82	1/2	9/16	15.24	17.78	25.40	9.65	32.76
PAP-PWC 4 - 4P	1/4	1/4	13.70	4.82	9/16	9/16	15.24	17.78	30.48	14.22	37.84
PAP-PWC 5 - 2P	5/16	1/8	10.30	5.08	9/16	5/8	16.25	18.54	26.67	9.65	34.03
PAP-PWC 5 - 4P	5/16	1/4	13.70	6.35	9/16	5/8	16.25	18.54	31.24	14.22	38.60
PAP-PWC 6 - 4P	3/8	1/4	13.70	7.11	5/8	11/16	16.76	19.30	32.51	14.22	39.87
PAP-PWC 6 - 6P	3/8	3/8	17.10	7.11	11/16	11/16	16.76	19.30	32.51	14.22	39.87
PAP-PWC 6 - 8P	3/8	1/2	21.30	7.11	7/8	11/16	16.76	19.30	38.86	19.05	46.22
PAP-PWC 8 - 6P	1/2	3/8	17.10	10.41	13/16	7/8	22.86	21.84	33.27	14.22	43.43
PAP-PWC 8 - 8P	1/2	1/2	21.30	10.41	7/8	7/8	22.86	21.84	38.86	19.05	49.02
PAP-PWC 8 - 12P	1/2	3/4	26.67	10.41	1-1/16	7/8	22.86	21.84	40.38	19.05	50.54
PAP-PWC 10 - 12P	5/8	1/2	21.30	12.70	15/16	1	24.38	21.84	38.86	19.05	49.02
PAP-PWC 12 - 12P	3/4	3/4	26.67	15.74	1-1/16	1-1/8	24.38	21.84	40.38	19.05	50.54
PAP-PWC 16 - 16P	1	1	33.40	22.35	1-3/8	1-1/2	31.24	26.41	50.03	23.87	62.23

Connects Metric Tubes To Pipe

Part No.	Tube O.D. D	Male Pipe Size P		d Min	Width Across Flat		A	B	I	li	L
		Nom.	O.D.		h	H					
PAP-PWC 3M - 2P	3	1/8	10.3	2.4	12	12	12.9	15.3	23.9	9.7	30.5
PAP-PWC 4M - 2P	4	1/8	10.3	2.4	12	12	13.7	16.1	24.6	9.7	31.2
PAP-PWC 6M - 2P	6	1/8	10.3	4.8	14	14	15.3	17.7	25.4	9.7	32.8
PAP-PWC 6M - 4P	6	1/4	13.7	4.8	14	14	15.3	17.7	30.5	14.2	37.9
PAP-PWC 8M - 2P	8	1/8	10.3	5.1	15	16	16.2	18.6	26.7	9.7	34.2
PAP-PWC 8M - 4P	8	1/4	13.7	6.4	15	16	16.2	18.6	31.2	14.2	38.7
PAP-PWC 8M - 8P	8	1/2	21.3	6.4	22	16	16.2	18.6	38.1	19.0	45.6
PAP-PWC 10M - 4P	10	1/4	13.7	7.1	18	19	17.2	19.5	33.3	14.2	40.9
PAP-PWC 10M - 6P	10	3/8	17.1	7.9	18	19	17.2	19.5	33.3	14.2	40.9
PAP-PWC 10M - 8P	10	1/2	21.3	7.9	22	19	17.2	19.5	38.9	19.0	46.5
PAP-PWC 12M - 4P	12	1/4	13.7	7.1	22	22	22.8	22.0	33.3	14.2	43.4
PAP-PWC 12M - 6P	12	3/8	17.1	9.5	22	22	22.8	22.0	33.3	14.2	43.4
PAP-PWC 12M - 8P	12	1/2	21.3	9.5	22	22	22.8	22.0	38.9	19.0	49.0
PAP-PWC 15M - 8P	15	1/2	21.3	11.9	24	25	24.4	22.0	38.9	19.0	49.0
PAP-PWC 16M - 8P	16	1/2	21.3	12.7	24	25	24.4	22.0	38.9	19.0	49.0
PAP-PWC 18M - 8P	18	1/2	21.3	13.5	27	30	24.4	22.0	40.4	19.0	50.5

• All dimensions in millimeters unless specified as "inch"

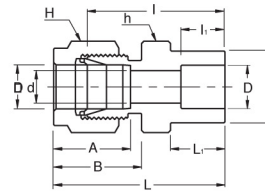
PAP-PWE
Male Pipe Weld Elbow



Connects Fractional Tubes To Pipe

Part No.	Tube O.D. D (inch)	Pipe Size (P)		d Min	Width Across Flat		A	B	I	I ₁	L	L ₁
		Nom.	O.D.		h (inch)	H (inch)						
PAP-PWE 4 - 4P	1/4	1/4	13.70	4.82	1/2	9/16	15.24	17.78	19.55	14.22	26.90	23.37
PAP-PWE 6 - 4P	3/8	1/4	13.70	7.11	5/8	11/16	16.76	19.30	23.11	14.22	30.48	25.40
PAP-PWE 8 - 8P	1/2	1/2	21.30	10.41	13/16	7/8	22.86	21.84	25.90	19.05	36.06	33.02

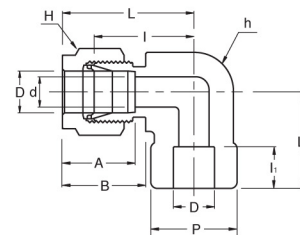
PAP-SWC
Socket Weld Connector



Connects Fractional Tubes To Pipe

Part No.	Tube O.D. D (inch)	d Min	P	Width Across Flat		A	B	I	I ₁	L	L ₁
				h (inch)	H (inch)						
PAP-SWC - 2	1/8	2.28	7.87	7/16	7/16	12.70	15.24	22.35	6.35	28.95	8.63
PAP-SWC - 4	1/4	4.82	11.17	1/2	9/16	15.24	17.78	26.16	7.87	33.52	10.41
PAP-SWC - 6	3/8	7.11	15.74	5/8	11/16	16.76	19.30	30.22	9.65	37.59	11.93
PAP-SWC - 8	1/2	10.41	19.05	13/16	7/8	22.86	21.84	30.98	12.70	41.14	11.93
PAP-SWC -12	3/4	15.74	26.67	1-1/16	1-1/8	24.38	21.84	33.27	14.22	43.43	11.93
PAP-SWC -16	1	22.35	33.27	1-3/8	1-1/2	31.24	26.41	40.38	19.05	52.57	14.22

PAP-SWE
Socket Weld Elbow

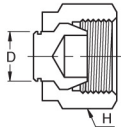


Connects Fractional Tubes To Pipe

Part No.	Tube O.D. D (inch)	d Min	P	Width Across Flat		A	B	I	I ₁	L	L ₁
				h (inch)	H (inch)						
PAP-SWE - 4	1/4	4.82	12.70	1/2	9/16	15.24	17.78	19.55	7.87	26.92	19.55
PAP-SWE - 6	3/8	7.11	15.75	5/8	11/16	16.76	19.30	23.11	9.65	30.48	23.11
PAP-SWE - 8	1/2	10.41	20.57	13/16	7/8	22.86	21.84	25.90	12.70	36.06	25.90
PAP-SWE - 12	3/4	15.74	26.92	1-1/16	1-1/8	24.38	21.84	29.71	14.22	39.87	29.71
PAP-SWE - 16	1	22.35	35.05	1-3/8	1-1/2	31.24	26.41	36.83	19.05	49.02	36.83

• All dimensions in millimeters unless specified as "inch"

**PAP-P
Plug**



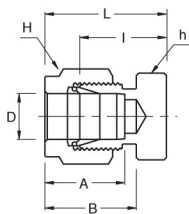
Fractional

Part No.	Tube O.D. D (inch)	Width Across Flat H (inch)	Part No.	Tube O.D. D (inch)	Width Across Flat H (inch)
PAP-P 2	1/8	7/16	SP - 8	1/2	7/8
PAP-P 3	3/16	1/2	SP - 10	5/8	1
PAP-P 4	1/4	9/16	SP - 12	3/4	1-1/8
PAP-P 5	5/16	5/8	SP - 14	7/8	1-1/4
PAP-P 6	3/8	11/16	SP - 16	1	1-1/2

Metric

Part No.	Tube O.D. D	Width Across Flat H	Part No.	Tube O.D. D	Width Across Flat H
PAP-P 2M	2	12	SP - 15M	15	25
PAP-P 3M	3	12	SP - 16M	16	25
PAP-P 4M	4	12	SP - 18M	18	30
PAP-P 6M	6	14	SP - 20M	20	32
PAP-P 8M	8	16	SP - 22M	22	32
PAP-P 10M	10	19	SP - 25M	25	38
PAP-P 12M	12	22			

**PAP-C
Cap**



Connects Caps End of Fractional Tubes

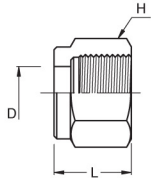
Part No.	Tube O.D. D (inch)	Width Across Flat		A	B	I	L
		h (inch)	H (inch)				
PAP-C - 1	1/16	5/16	5/16	8.63	10.92	11.20	14.98
PAP-C - 2	1/8	7/16	7/16	12.70	15.24	13.46	20.06
PAP-C - 3	3/16	7/16	1/2	13.71	16.00	14.73	21.33
PAP-C - 4	1/4	1/2	9/16	15.24	17.78	16.00	23.36
PAP-C - 5	5/16	9/16	5/8	16.25	18.54	17.01	24.38
PAP-C - 6	3/8	5/8	11/16	16.76	19.30	18.28	25.65
PAP-C - 8	1/2	13/16	7/8	22.86	21.84	19.05	29.21
PAP-C - 10	5/8	15/16	1	24.38	21.84	19.81	29.97
PAP-C - 12	3/4	1-1/16	1-1/8	24.38	21.84	21.33	31.49
PAP-C - 14	7/8	1-3/16	1-1/4	25.90	21.84	23.87	34.03
PAP-C - 16	1	1-3/8	1/1/2	31.24	26.41	26.16	38.35

Connects Metric Tubes

Part No.	Tube O.D. D	Width Across Flat		A	B	I	L	Part No.	Tube O.D. D	Width Across Flat		A	B	I	L
		h	H							h	H				
PAP-C - 2M	2	12	12	12.9	15.3	13.5	20.1	PAP-C -15M	15	24	25	24.4	22.0	19.8	29.9
PAP-C - 3M	3	12	12	12.9	15.3	13.5	20.1	PAP-C -16M	16	24	25	24.4	22.0	19.8	29.9
PAP-C - 4M	4	12	12	13.7	16.1	14.7	21.3	PAP-C -18M	18	27	30	24.4	22.0	21.3	31.4
PAP-C - 6M	6	14	14	15.3	17.7	15.7	23.1	PAP-C -20M	20	30	32	26.0	22.0	23.9	34.0
PAP-C - 8M	8	15	16	16.2	18.6	17.0	24.5	PAP-C -22M	22	30	32	26.0	22.0	23.9	34.0
PAP-C - 10M	10	18	19	17.2	19.5	19.0	26.6	PAP-C -25M	25	35	38	31.3	26.5	26.2	38.5
PAP-C - 12M	12	22	22	22.8	22.0	19.0	29.1								

• All dimensions in millimeters unless specified as "inch"

PAP-N
Nut



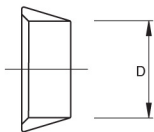
Fractional

Part No.	Tube O.D. D (inch)	Width Across Flat H (inch)	L	Part No.	Tube O.D. D (inch)	Width Across Flat H (inch)	L
PAP-N - 1	1/16	5/16	7.90	PAP-N - 8	1/2	7/8	17.52
PAP-N - 2	1/8	7/16	11.93	PAP-N - 10	5/8	1	17.52
PAP-N - 3	3/16	1/2	11.93	PAP-N - 12	3/4	1-1/8	17.52
PAP-N - 4	1/4	9/16	12.70	PAP-N - 14	7/8	1-1/4	17.52
PAP-N - 5	5/16	5/8	13.46	PAP-N - 16	1	1-1/2	20.6
PAP-N - 6	3/8	11/16	14.22				

Metric

Part No.	Tube O.D. D	Width Across Flat H	L	Part No.	Tube O.D. D	Width Across Flat H	L
PAP-N - 2M	2	12	11.9	PAP-N - 14M	14	25	17.4
PAP-N - 3M	3	12	11.9	PAP-N - 15M	15	25	17.4
PAP-N - 4M	4	12	11.9	PAP-N - 16M	16	25	17.4
PAP-N - 6M	6	14	12.7	PAP-N - 18M	18	30	17.4
PAP-N - 8M	8	16	13.5	PAP-N - 20M	20	32	17.4
PAP-N - 10M	10	19	15.1	PAP-N - 22M	22	32	17.4
PAP-N - 12M	12	22	17.4	PAP-N - 25M	25	38	20.6

PAP-FF
Front Ferrule



Fractional

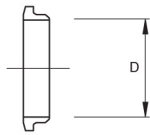
Part No.	Tube O.D. D (inch)	Part No.	Tube O.D. D (inch)
PAP-FF - 1	1/16	PAP-FF - 8	1/2
PAP-FF - 2	1/8	PAP-FF - 10	5/8
PAP-FF - 3	3/16	PAP-FF - 12	3/4
PAP-FF - 4	1/4	PAP-FF - 14	7/8
PAP-FF - 5	5/16	PAP-FF - 16	1
PAP-FF - 6	3/8		

Metric

Part No.	Tube O.D. D	Part No.	Tube O.D. D
PAP-FF - 2M	2	PAP-FF - 14M	14
PAP-FF - 3M	3	PAP-FF - 15M	15
PAP-FF - 4M	4	PAP-FF - 16M	16
PAP-FF - 6M	6	PAP-FF - 18M	18
PAP-FF - 8M	8	PAP-FF - 20M	20
PAP-FF - 10M	10	PAP-FF - 22M	22
PAP-FF - 12M	12	PAP-FF - 25M	25

• All dimensions in millimeters unless specified as "inch"

PAP-BF
Back Ferrule



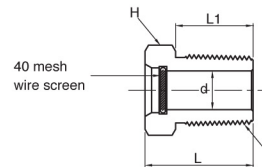
Fractional

Part No.	Tube O.D. D (inch)	Part No.	Tube O.D. D (inch)	Part No.	Tube O.D. D (inch)
PAP-BF - 1	1/16	PAP-BF - 5	5/16	PAP-BF - 12	3/4
PAP-BF - 2	1/8	PAP-BF - 6	3/8	PAP-BF - 14	7/8
PAP-BF - 3	3/16	PAP-BF - 7	1/2	PAP-BF - 16	1
PAP-BF - 4	1/4	PAP-BF - 10	5/8		

Metric

Part No.	Tube O.D. D	Part No.	Tube O.D. D	Part No.	Tube O.D. D
PAP-BF - 2M	2	PAP-BF - 10M	10	PAP-BF - 18M	18
PAP-BF - 3M	3	PAP-BF - 12M	12	PAP-BF - 20M	20
PAP-BF - 4M	4	PAP-BF - 14M	14	PAP-BF - 22M	22
PAP-BF - 6M	6	PAP-BF - 15M	15	PAP-BF - 25M	25
PAP-BF - 8M	8	PAP-BF - 16M	16		

PAP-VP
Vent Protector



Part No.	T	L	L1	d	H
PAP-VP - 4N	1/4	19.81	14.22	7.11	9/16
PAP-VP - 4N	3/8	20.57	14.22	10.41	11/16
PAP-VP - 4N	1/2	26.16	19.05	12.70	7/8
PAP-VP - 4N	3/4	26.92	19.05	18.29	1-1/16

• All dimensions in millimeters unless specified as "inch"

Close Nipple

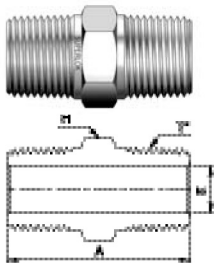
■ Male NPT Threads



NPT Pipe Size	Dimension(mm)	
	A	E
1/8	19.1	4.8
1/4	28.4	7.1
3/8	28.4	9.6
1/2	38.1	11.9
3/4	38.1	15.7
1	47.8	22.4

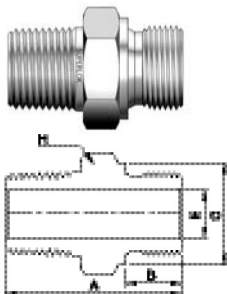
Hex Nipple

■ Male NPT Threads



NPT Pipe Size	Dimension(mm)			T* ISO/BSP Pipe Size (ISO 7/1)
	A	E	H	
1/8	25.6	4.8	11.1	1/8
1/4	35.6	7.1	14.2	1/4
3/8	36.3	9.6	17.4	3/8
1/2	46.7	11.9	22.2	1/2
3/4	46.7	15.7	26.9	3/4
1	58.9	22.4	34.9	1

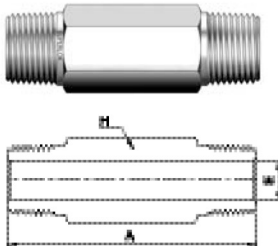
■ Male NPT to Male ISO Parallel Pipe Threads



NPT Pipe Size	ISO/BSP Pipe Size (ISO 228)	Dimension(mm)				
		A	B	C	E	H
1/8	1/8	27.7	7.1	13.7	4.1	14.2
1/4	1/4	36.8	11.2	18.0	5.8	19.1
3/8	3/8	37.6	11.2	21.6	7.9	22.2
1/2	1/2	44.4	14.2	25.9	11.9	26.9
3/4	3/4	49.0	15.7	32.0	15.7	33.3
1	1	56.6	18.3	38.9	19.8	41.2

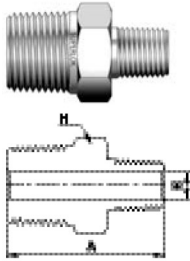
Hex Long Nipple

■ Male NPT Threads



NPT Pipe Size	Dimension(mm)		
	A	E	H
1/8	*	4.8	11.1
1/4	*	7.1	14.2
3/8	*	9.6	17.4
1/2	*	11.9	22.2
3/4	*	15.7	26.9
1	*	22.8	34.9

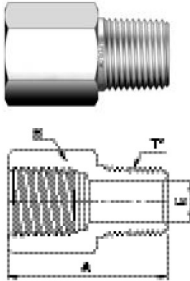
Hex Reducing Nipple



■ Male NPT Threads

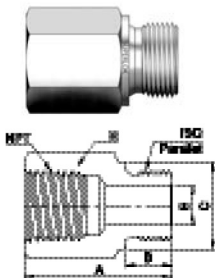
NPT Pipe Size	Reduced Pipe Size	Dimension(mm)		
		A	E	H
1/8	1/16	25.6	3.0	11.1
1/4	1/8	31.0	4.8	14.2
3/8	1/8	31.8	4.8	17.4
3/8	1/4	36.3	7.1	17.4
1/2	1/8	37.3	4.8	22.2
1/2	1/4	41.9	7.1	22.2
1/2	3/8	41.9	9.6	22.2
3/4	1/4	41.9	7.1	26.9
3/4	1/2	46.7	11.9	26.9
1	1/4	49.3	7.1	34.9
1	1/2	54.1	11.9	34.9
1	3/4	54.1	15.7	34.9

Adapter



■ Female to Male NPT Threads

NPT Pipe Size	Dimension(mm)			T* ISO/BSP Pipe Size (ISO 7/1)
	A	E	H	
1/8	27.9	4.8	14.2	1/8
1/4	35.6	7.1	19.1	1/4
3/8	38.4	9.6	22.2	3/8
1/2	49.3	11.9	26.9	1/2
3/4	51.3	15.7	33.3	3/4
1	57.9	22.4	41.2	1

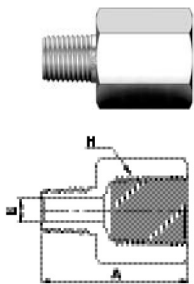


■ Female NPT to Male ISO Parallel Pipe Threads

NPT Pipe Size	ISO/BSP Pipe Size (ISO 228)	Dimension(mm)				
		A	B	C	E	H
1/8	1/8	25.1	7.1	13.7	4.1	14.2
1/4	1/4	33.5	11.2	18.0	5.8	19.1
3/8	3/8	35.8	11.2	21.6	7.9	22.2
1/2	1/2	44.2	14.2	25.9	11.9	26.9
3/4	3/4	48.0	15.7	32.0	15.7	33.3
1	1	53.3	18.3	38.9	19.8	41.2

Reducing Adapter

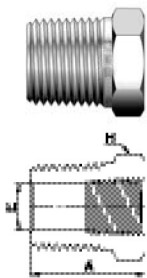
■ Male to Female NPT Threads



Male Pipe Size	Female Pipe Size	Dimension(mm)		
		A	E	H
1/8	1/4	32.0	4.8	19.1
1/8	3/8	33.8	4.8	22.2
1/4	3/8	38.1	7.1	22.2
1/8	1/2	40.1	4.8	26.9
1/4	1/2	44.7	7.1	26.9
3/8	1/2	44.4	9.6	26.9
1/4	3/4	47.0	7.1	33.3
3/8	3/4	46.2	9.6	33.3
1/2	3/4	51.3	11.9	33.3
1/4	1	49.8	7.1	41.2
1/2	1	54.9	11.9	41.2
3/4	1	55.1	15.7	41.2

Reducing Hex Bushing

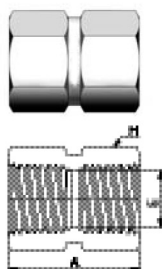
■ Male to Female NPT Threads



Male Pipe Size	Female Pipe Size	Dimension(mm)		
		A	E	H
1/4	1/8	26.9	7.1	14.2
3/8	1/8	21.8	8.6	17.4
3/8	1/4	30.2	9.6	19.1
1/2	1/8	27.4	8.6	22.2
1/2	1/4	27.4	11.4	22.2
1/2	3/8	35.8	11.9	22.2
3/4	1/4	27.4	11.4	26.9
3/4	3/8	27.4	15.0	26.9
3/4	1/2	41.4	15.7	26.9
1	1/4	34.8	11.4	34.9
1	3/8	34.8	15.0	34.9
1	1/2	34.8	18.5	34.9
1	3/4	47.0	22.4	34.9

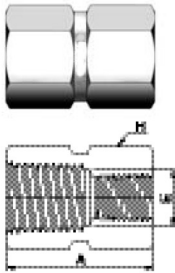
Hex Coupling

■ Female NPT Threads



Pipe Size	Dimension(mm)		
	A	E	H
1/8	20.6	8.6	14.2
1/4	30.2	11.4	19.1
3/8	33.3	15.0	22.2
1/2	39.6	18.5	26.9
3/4	41.1	23.9	33.3
1	50.8	29.7	41.2

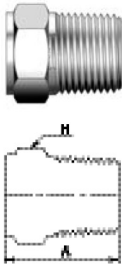
Hex Reducing Coupling



■ Female NPT Threads

Pipe Size	Reduced Pipe Size	Dimension(mm)		
		A	E	H
1/4	1/8	31.0	8.6	19.1
3/8	1/4	35.1	11.4	22.2
1/2	1/8	39.6	8.6	26.9
1/2	1/4	44.4	11.4	26.9
1/2	3/8	45.2	15.0	26.9
3/4	1/4	46.0	11.4	33.3
3/4	1/2	52.3	18.5	33.3
1	1/2	55.6	18.5	41.2
1	3/4	57.2	23.9	41.2

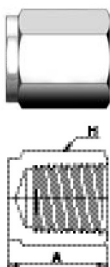
Pipe Plug



■ Female NPT Threads

Pipe Size	Dimension(mm)	
	A	H
1/8	19.1	11.1
1/4	24.4	14.2
3/8	25.1	17.4
1/2	30.7	22.2
3/4	30.7	26.9
1	38.1	34.9

Pipe Cap

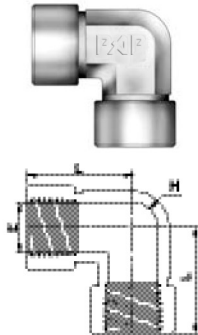


■ Female NPT Threads

Pipe Size	Dimension(mm)	
	A	H
1/8	19.1	14.2
1/4	23.1	19.1
3/8	26.2	22.2
1/2	34.0	26.9
3/4	36.6	33.3
1	41.1	41.2

Female Elbow

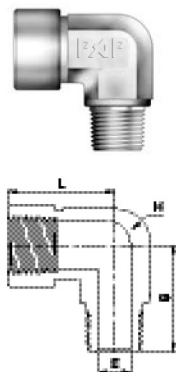
■ Female NPT Threads



Pipe Size	Dimension(mm)		
	E	L	H
1/8	8.6	24.0	12.7
1/4	11.4	29.0	17.5
3/8	15.0	34.5	20.6
1/2	18.5	37.0	25.4
3/4	23.9	46.5	31.8
1	29.7	48.8	42.9

Street Elbow

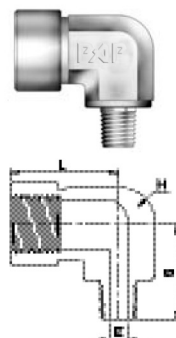
■ Female to Male NPT Threads



Pipe Size	Dimension(mm)			
	E	L	S	H
1/8	4.8	24.1	19.6	12.7
1/4	7.1	29.0	26.5	17.5
3/8	9.6	34.5	28.2	20.6
1/2	11.9	37.0	35.3	25.4
3/4	15.7	46.5	39.6	31.8
1	22.4	48.8	49.2	42.9

Reducing Street Elbow

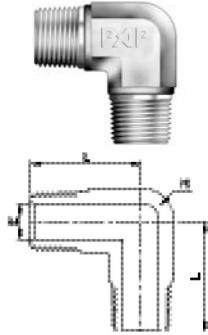
■ Female to Male NPT Threads



Female Pipe Size	Male Pipe Size	Dimension(mm)			
		E	L	S	H
1/8	1/16	3.0	26.4	22.1	12.7
1/4	1/8	4.8	29.0	22.4	17.5
3/8	1/4	7.1	34.5	28.2	20.6
1/2	1/4	7.1	37.0	30.5	25.4
1/2	3/8	9.6	37.0	30.5	25.4
3/4	1/2	11.9	46.5	39.6	31.8
1	1/2	11.9	48.8	44.5	42.9

Male Elbow

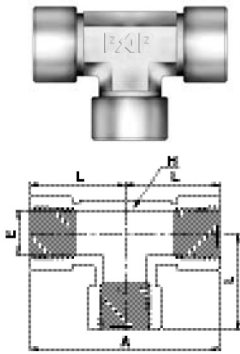
■ Male NPT Threads



Pipe Size	Dimension(mm)		
	E	L	H
1/8	4.8	19.1	12.7
1/4	7.1	24.5	12.7
3/8	9.6	26.9	17.5
1/2	11.9	33.2	20.6
3/4	15.7	35.3	25.4
1	22.4	44.5	31.8

Female Tee

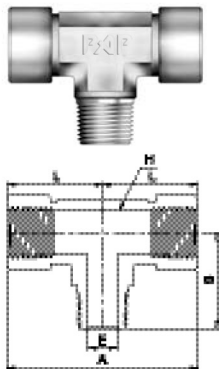
■ Female NPT Threads



Pipe Size	Dimension(mm)			
	A	E	L	H
1/8	48.0	8.6	24.0	12.7
1/4	58.0	11.4	29.0	17.5
3/8	69.0	15.0	34.5	20.6
1/2	74.0	18.5	37.0	25.4
3/4	93.0	23.9	46.5	31.8
1	97.0	29.7	48.5	42.9

Branch Tee

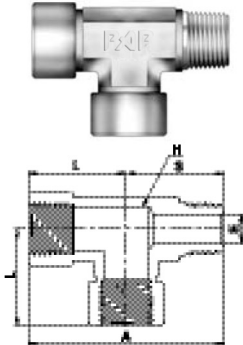
■ Male to Female NPT Threads



Pipe Size	Dimension(mm)				
	A	E	L	S	H
1/8	48.0	4.8	24.0	19.6	12.7
1/4	58.0	7.1	29.0	26.5	17.5
3/8	69.0	9.6	34.5	28.2	20.6
1/2	74.0	11.9	37.0	35.3	25.4
3/4	93.0	15.7	46.5	39.6	31.8
1	97.0	22.4	48.5	49.2	42.9

Run Tee

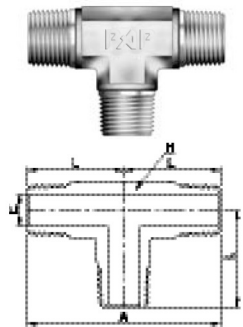
■ Male to Female NPT Threads



Pipe Size	Dimension(mm)				
	A	E	L	S	H
1/8	43.6	4.8	24.0	19.6	12.7
1/4	56.2	7.1	29.0	26.5	17.5
3/8	62.7	9.6	34.5	28.2	20.6
1/2	72.3	11.9	37.0	35.3	25.4
3/4	86.1	15.7	46.5	39.6	31.8
1	97.7	22.4	48.5	49.2	42.9

Male Tee

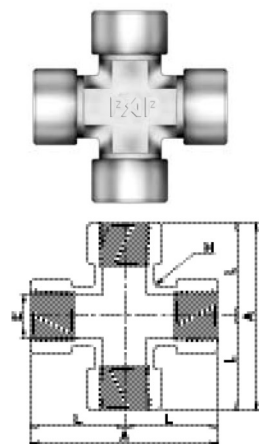
■ Male NPT Threads



Pipe Size	Dimension(mm)			
	A	E	L	H
1/8	38.2	4.8	19.1	12.7
1/4	49.0	7.1	24.5	12.7
3/8	53.8	9.6	26.9	17.5
1/2	66.4	11.9	33.2	20.6
3/4	70.6	15.7	35.3	25.4
1	89.0	22.4	44.5	31.8

Female Cross

■ Female NPT Threads



Pipe Size	Dimension(mm)			
	A	E	L	H
1/8	48.0	8.6	24.0	12.7
1/4	58.0	11.4	29.0	17.5
3/8	69.0	15.0	34.5	20.6
1/2	74.0	18.5	37.0	25.4
3/4	93.0	23.9	46.5	31.8
1	97.0	29.7	48.5	42.9