

Pipeline[®]

HAM-LET PRECISION INSTRUMENT PIPE FITTINGS



The HAM-LET Group Ltd.
is pleased to introduce our
line of Precision Instrument Pipe
Fittings.

The Pipeline range of connectors is manufactured for typical applications in chemical and petrochemical processing plants, as well as oil, gas and power generation industries. This fully illustrated catalog contains detailed engineering information, dimensional data and part numbering system.



PIPE LINE® DESCRIPTION

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PIPE LINE® INSTALLATION INSTRUCTION

To ensure a leak tight seal, HAM-LET® recommends the use of a pipe thread sealant on all NPT threads. The most effective sealing method is teflon tape. Tape should be used only on male tapered pipe threads.

Do not use tape on flared, coned or tube fitting ends!

Clean both male and female tapered threads. Wrap tape in the direction of the male tapered thread spiral.

Note: Two wraps are suggested for stainless steel tapered pipe threads. Make sure tape does not overhang the first thread as the tape might shred and enter the fluid system. Cut off excess tape. The connection is now ready for proper makeup.

PIPE LINE® FEATURES

- Sizes range from 1/8" to 1".
- Fittings are properly packaged with the exposed threads protected to ensure they are not damaged during delivery.
- All pipe threads meet the requirements of **ASME/ANSI B1.20.1** (1983) for tapered pipe threads (NPT).
- Working pressures calculated in accordance with Power Piping Code **ANSI B 31.1**, Refiner Piping Code **ASME/ANSI B 31.3** and section VIII of **ASME** Boiler & Pressure Vessel Code.

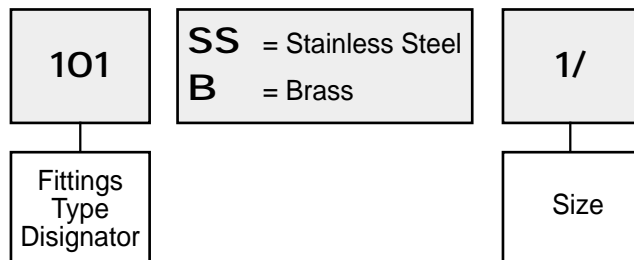
Pressure Ratings (psi)

NPT or BSPT/ISO size	316 STAINLESS STEEL		BRASS	
	Male	Female	Male	Female
1/8	9400	6100	5000	3200
1/4	7500	6200	4000	3300
3/8	7300	5000	3900	2600
1/2	7200	4600	3800	2400
3/4	6800	4300	3600	2300
1	5000	4100	2600	2200

Materials

MATERIALS	SPECIFICATION	
	BARSTOCK	FORGINGS
316 Stainless Steel	ASTM A-276	ASTM A-182
	ASTM A-479	
Brass	ASTM B-453	ASME B-283
	ASTM B-16	
	DIN 176.60	

How to order



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 ELBOW

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 MALE ELBOW

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101HM 003
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103H 004
 HEX COUPLING

104H 004
 UNION RECORD

108H 005
 PIPE CAP

110H 005
 REDUCING BUSHING

113H 006
 HEX LONG NIPPLE

116H 006
 STREET ELBOW

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 HEX REDUCING COUPLING

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 ADAPTER
 NPT Female to Male BSPT

120HNG 008
 ADAPTER
 Female NPT to Male BSPP

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 ADAPTER
 Female BSPT to Male NPT

120HGN 008
 GAUGE ADAPTER
 Female BSPP to Male NPT

121H 009
 PIPE PLUG NPT

122H 009
 HEX NIPPLE

122HNR 009
 HEX NIPPLE
 Male NPT to Male BSPT

122HNG 010
 HEX NIPPLE
 Male NPT to Male BSPP

123H 010
 REDUCING NIPPLE

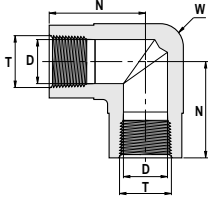
3600H 010
 BRANCH TEE

3750H 011
 STREET TEE

130HM 011
 MALE HOSE CONNECTOR

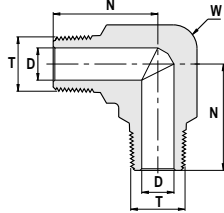
130HF 012
 FEMALE HOSE CONNECTOR

130LT 012
 TUBE TO HOSE CONNECTOR

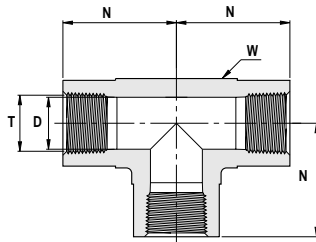
100H Elbow

T Female NPT Size	N		D Min. opening		W Wrench flat
	Inch	mm	Inch	mm	
1/8	1.04	26.4	0.34	8.6	5/8
1/4	1.17	29.7	0.45	11.4	13/16
3/8	1.42	36.1	0.59	15.0	15/16
1/2	1.56	39.6	0.73	18.5	1-1/8
3/4	1.92	48.8	0.94	23.9	1-3/8
1	1.91	48.5	1.17	29.7	1-11/16



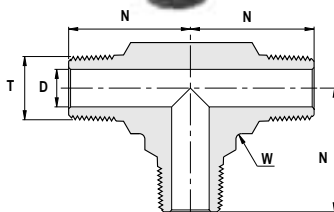
100HM Male Elbow

T Male NPT Size	N		D Min. opening		W Wrench flat
	Inch	mm	Inch	mm	
1/8	0.88	22.4	0.19	4.8	7/16
1/4	1.05	26.7	0.28	7.1	5/8
3/8	1.17	29.7	0.38	9.6	13/16
1/2	1.45	36.8	0.47	11.9	15/16



101H Tee

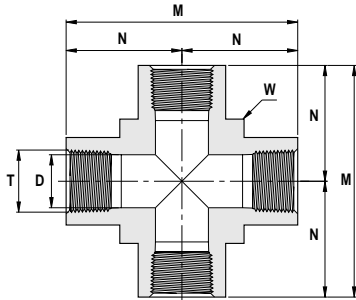
T Female NPT Size	D		D Min. opening		W Wrench flat
	Inch	mm	Inch	mm	
1/8	1.04	26.4	0.34	8.6	5/8
1/4	1.17	29.7	0.45	11.4	13/16
3/8	1.42	36.1	0.59	15.0	15/16
1/2	1.56	39.6	0.73	18.5	1-1/8
3/4	1.92	48.8	0.94	23.9	1-3/8
1	1.91	48.5	1.17	29.7	1-11/16



101HM Male Tee

T Male NPT Size	N		D Min. opening		W Wrench flat
	Inch	mm	Inch	mm	
1/8	0.88	22.4	0.19	4.8	7/16
1/4	1.05	26.7	0.28	7.1	5/8
3/8	1.17	29.7	0.38	9.6	13/16
1/2	1.45	36.8	0.47	11.9	15/16

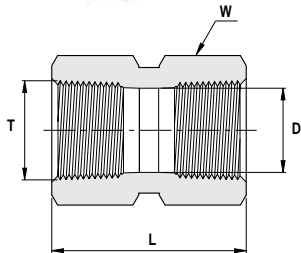
Dimensions are for reference only, and are subject to change without notice.



102H Cross

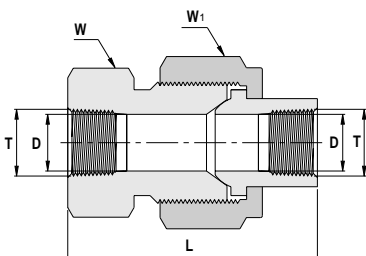
T Female NPT Size	N		M		D Min. opening		W Wrench flat
	Inch	mm	Inch	mm	Inch	mm	Inch
1/8	1.04	26.4	2.08	52.8	0.34	8.6	5/8
1/4	1.17	29.7	2.34	59.4	0.45	11.4	13/16
3/8	1.42	36.1	2.84	72.2	0.59	15.0	15/16
1/2	1.56	39.6	3.12	79.2	0.73	18.5	1-1/8
3/4	1.92	48.8	3.84	97.6	0.94	23.9	1-3/8
1	1.91	48.5	3.82	97.0	1.17	29.7	1-11/16

103H Hex Coupling

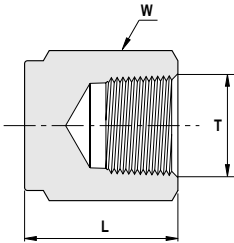


T Female NPT Size	L		D Min. opening		W Hex
	Inch	mm	Inch	mm	Inch
1/8	0.81	20.6	0.34	8.6	9/16
1/4	1.19	30.2	0.45	11.4	3/4
3/8	1.31	33.3	0.59	15.0	7/8
1/2	1.56	39.6	0.73	18.5	1-1/16
3/4	1.62	41.1	0.94	23.9	1-5/16
1	2.00	50.8	1.17	29.7	1-5/8

104H Union Record

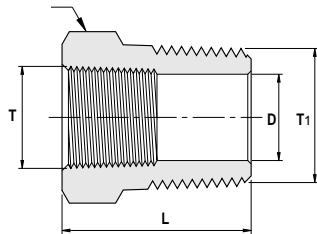


T Female NPT Size	L		D Min opening		W Hex Flat		W1 Hex flat
	Inch	mm	Inch	mm	Inch	mm	Inch
1/8	1.81	46.0	0.27	6.9	15/16	23.81	1-1/8
1/4	2.34	59.4	0.36	9.1	1-3/16	30.16	1-3/8
3/8	2.50	63.5	0.52	13.2	1-5/16	33.34	1-1/2
1/2	2.69	68.3	0.62	15.7	1-5/8	41.28	1-3/4
3/4	3.12	79.2	0.88	22.4	1-7/8	47.63	2
1	3.56	90.4	1.03	26.2	2-3/8	60.33	2-1/2



108H Pipe Cap

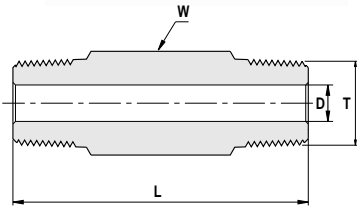
T Female NPT Size	L		W Hex flat Inch
	Inch	mm	
1/8	0.75	19.1	9/16
1/4	0.91	23.1	3/4
3/8	1.03	26.2	7/8
1/2	1.34	34.0	1-1/16
3/4	1.44	36.6	1-5/16
1	1.62	41.1	1-5/8



110H Reducing Bushing

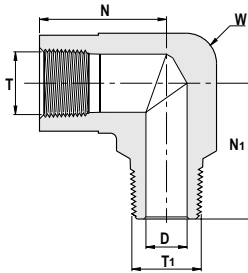
T1 Male NPT Size	T Female NPT Size	L		D Min opening		W Hex Flat Inch
		Inch	mm	Inch	mm	
1/8	1/16	1.03	26.2	0.19	4.8	7/16
1/4	1/8	1.06	26.9	0.28	7.1	9/16
3/8	1/8	0.86	21.8	0.34	8.6	11/16
3/8	1/4	1.19	30.2	0.37	9.5	3/4
1/2	1/8	1.08	27.4	0.34	8.6	7/8
1/2	1/4	1.08	27.4	0.45	11.4	7/8
1/2	3/8	1.41	35.8	0.47	11.9	7/8
3/4	1/4	1.08	27.4	0.45	11.4	1-1/16
3/4	3/8	1.08	27.4	0.59	15.0	1-1/16
3/4	1/2	1.63	41.4	0.62	15.7	1-1/16
1	1/4	1.37	34.8	0.45	11.4	1-3/8
1	3/8	1.37	34.8	0.59	15.0	1-3/8
1	1/2	1.37	34.8	0.73	18.5	1-3/8
1	3/4	1.85	47.0	0.88	22.4	1-3/8
1-1/4	1/2	1.46	37.1	0.73	18.5	1-3/4
1-1/4	3/4	1.47	37.3	0.94	23.9	1-3/4
1-1/4	1	1.94	49.3	1.17	29.7	1-3/4
1-1/2	1/2	1.61	40.9	0.73	18.5	2-1/8
1-1/2	3/4	1.61	40.9	0.94	23.9	2-1/8
1-1/2	1	1.61	40.9	1.17	29.7	2-1/8
1-1/2		2.31	58.7	1.50	38.1	2-1/8
2		1.83	46.5	0.73	18.5	2-3/4
2		1.83	46.5	0.94	23.9	2-3/4
2		1.83	46.5	1.17	29.7	2-3/4
2		1.83	46.5	1.50	38.1	2-3/4
2		1.83	46.5	1.73	43.9	2-3/4

113H Hex Long Nipple



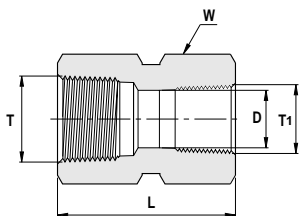
T Male NPT Size	L Available Lengths (inch)					D Hex		W Hex flat Inch
	1.50	2.00	2.50	3.00	4.00	Inch	mm	
1/8	✓	✓	✓	✓	-	0.19	4.8	7/16
1/4	✓	✓	✓	✓	✓	0.28	7.1	9/16
3/8	✓	✓	✓	✓	✓	0.38	9.6	11/16
1/2	-	✓	-	✓	✓	0.47	11.9	7/8
3/4	-	✓	-	✓	✓	0.62	15.8	1-1/16
1	-	-	-	✓	✓	0.88	22.4	1-3/8

116H Street Elbow

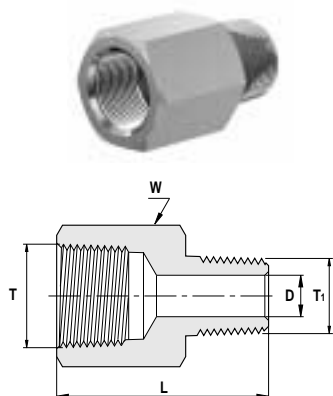


T Female NPT Size	T1 Male NPT Size	N		N1		D Min. opening		W Wrench flat Inch
		Inch	mm	Inch	mm	Inch	mm	
1/16	1/16	0.86	21.8	0.88	22.4	0.12	3.10	7/16
1/8	1/16	1.04	26.4	0.87	22.1	0.12	3.10	5/8
1/8	1/8	1.04	26.4	0.87	22.1	0.19	4.80	5/8
1/4	1/8	1.17	29.7	1.00	25.4	0.19	4.80	13/16
1/4	1/4	1.17	29.7	1.17	29.7	0.28	7.10	13/16
3/8	1/4	1.42	36.1	1.26	32.0	0.28	7.10	15/16
3/8	3/8	1.42	36.1	1.26	32.0	0.38	9.60	15/16
1/2	1/4	1.56	39.6	1.38	35.1	0.28	7.10	1-1/8
1/2	3/8	1.56	39.6	1.38	35.1	0.38	9.60	1-1/8
1/2	1/2	1.56	39.6	1.56	39.6	0.47	11.9	1-1/8
3/4	3/4	1.92	48.8	1.67	42.4	0.62	15.8	1-3/8
1	1	1.91	48.5	1.94	49.3	0.88	22.4	1-11/16

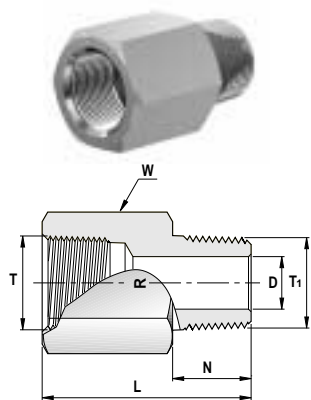
119H Hex Reducing Coupling



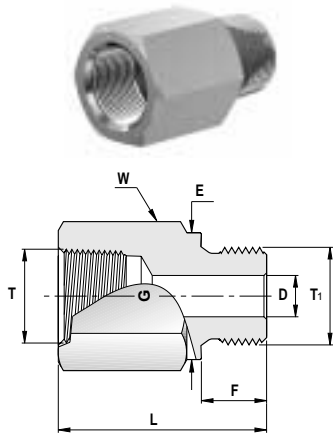
T Female NPT Size	T1 Female NPT Size	L		D Min. opening		W Wrench flat Inch
		Inch	mm	Inch	mm	
1/4	1/8	1.22	31.0	0.34	8.6	3/4
3/8	1/4	1.38	35.1	0.45	11.4	7/8
1/2	1/8	1.56	39.6	0.34	8.6	1-1/16
1/2	1/4	1.75	44.5	0.45	11.4	1-1/16
1/2	3/8	1.78	45.2	0.59	15.0	1-1/16
3/4	1/4	1.81	46.0	0.45	11.4	1-5/16
3/4	1/2	2.06	52.3	0.73	18.5	1-5/16
1	1/2	2.19	55.6	0.73	18.5	1-5/8
1	3/4	2.25	57.2	0.94	23.9	1-5/8

12OH Adapter NPT


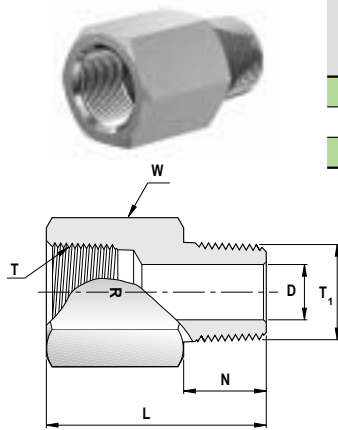
T Female NPT Size	T1 Male NPT Size	L		D Min. opening		W Hex Flat Inch
		Inch	mm	Inch	mm	
1/8	1/16	1.09	27.7	0.12	3.0	9/16
1/8	1/8	1.10	27.9	0.19	4.8	9/16
1/4	1/8	1.26	32.0	0.19	4.8	3/4
1/4	1/4	1.40	35.6	0.28	7.1	3/4
3/8	1/8	1.33	33.8	0.19	4.8	7/8
3/8	1/4	1.50	38.1	0.28	7.1	7/8
3/8	3/8	1.51	38.4	0.38	9.6	7/8
1/2	1/8	1.58	40.1	0.19	4.8	1-1/16
1/2	1/4	1.76	44.7	0.28	7.1	1-1/16
1/2	3/8	1.75	44.5	0.37	9.5	1-1/16
1/2	1/2	1.94	49.3	0.47	11.9	1-1/16
3/4	1/4	1.82	46.2	0.28	7.1	1-5/16
3/4	3/8	1.82	46.2	0.37	9.5	1-5/16
3/4	1/2	2.02	51.3	0.47	11.9	1-5/16
3/4	3/4	2.02	51.3	0.62	15.8	1-5/16
1	1/4	1.96	49.8	0.28	7.1	1-5/8
1	1/2	2.16	54.9	0.47	11.9	1-5/8
1	3/4	2.17	55.1	0.62	15.7	1-5/8
1	1	2.28	57.9	0.88	22.4	1-5/8

12OHNR Adapter NPT to BSPT


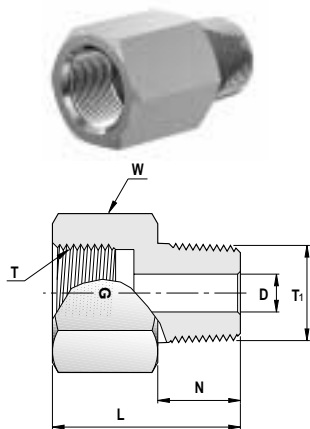
T Female NPT Size	T1 Male BSPT ISO7/1, BS21 Size	L		N		D Min. opening		W Hex flat Inch
		Inch	mm	Inch	mm	Inch	mm	
1/8	1/8-28	1.09	27.7	0.38	9.7	0.19	4.8	9/16
1/4	1/4-19	1.42	36.1	0.56	14.2	0.28	7.1	3/4
3/8	3/8-19	1.50	38.1	0.56	14.2	0.38	9.6	7/8
1/2	1/2-14	1.94	49.3	0.75	19.0	0.47	11.9	1-1/16
3/4	3/4-14	2.02	51.3	0.75	19.0	0.62	15.8	1-5/16
1	1-11	2.30	58.4	0.94	23.9	0.88	22.4	1-5/8

12OHNG Adapter NPT to BSPP


T Female NPT Size	T1 Male BSPP ISO 228/1, BS 2779	L		F		E Dia.		D Min. opening		W Hex Flat
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	
1/8	1/8-28	0.99	25.1	0.28	7.1	0.54	13.8	0.16	4.1	9/16
1/4	1/4-19	1.32	33.5	0.44	11.2	0.70	18.0	0.23	5.8	3/4
3/8	3/8-19	1.41	35.8	0.44	11.2	0.85	21.8	0.31	7.9	7/8
1/2	1/2-14	1.74	44.2	0.56	14.2	1.02	26.0	0.47	11.9	1-1/16
3/4	3/4-14	1.89	48.0	0.62	15.7	1.26	32.0	0.62	15.7	1-5/16
1	1-11	2.10	53.3	0.72	18.3	1.53	39.0	0.78	19.8	1-5/8

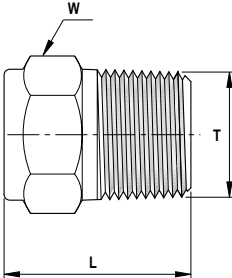
12OHRN Adapter BSPT to NPT


T Female BSPT ISO 7/1, BS 21 Size	T1 Male NPT Size	L		N		D Min opening		W Hex Flat
		Inch	mm	Inch	mm	Inch	mm	
1/4-19	1/4	1.43	36.3	0.56	14.2	0.28	7.1	3/4
3/8-19	3/8	1.51	38.4	0.56	14.2	0.38	9.6	7/8
1/2-14	1/2	1.96	49.8	0.75	19.1	0.47	11.9	1-1/16

12OHGN Gauge Adapter BSPP to NPT


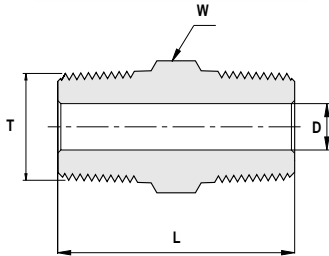
T Female BSPP ISO 228/1, BS 2779 Size	T1 Male NPT Size	L		N		D Min opening		W Hex
		Inch	mm	Inch	mm	Inch	mm	
1/4-19	1/4	1.08	27.4	0.56	14.2	0.22	5.6	3/4
3/8-19	3/8	1.27	32.3	0.56	14.2	0.26	6.6	15/16
1/2-14	1/2	1.65	41.9	0.75	19.1	0.28	7.1	1-1/16

121H Pipe Plug NPT



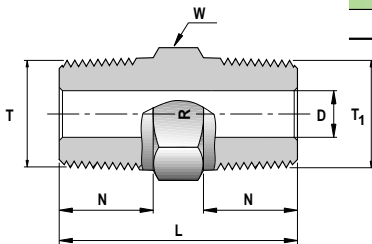
T Male NPT. Size	L		W Hex Flat
	Inch	mm	Inch
1/16	0.75	19.0	5/16
1/8	0.75	19.0	7/16
1/4	0.96	24.4	9/16
3/8	0.99	25.2	11/16
1/2	1.21	30.7	7/8
3/4	1.21	30.7	1-1/16
1	1.50	38.1	1-3/8

122H Hex Nipple



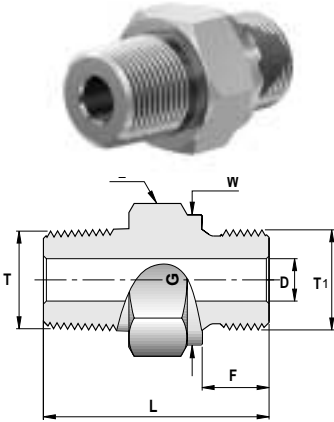
T Male NPT Size	L		D Min. opening		W Hex
	Inch	mm	Inch	mm	Inch
1/16	1.01	25.7	0.12	3.0	5/16
1/8	1.01	25.7	0.19	4.8	7/16
1/4	1.40	35.6	0.28	7.1	9/16
3/8	1.43	36.3	0.38	9.6	11/16
1/2	1.84	46.7	0.47	11.9	7/8
3/4	1.84	46.7	0.62	15.8	1-1/16
1	2.32	58.9	0.88	22.4	1-3/8

122HNR Hex Nipple NPT to BSPT



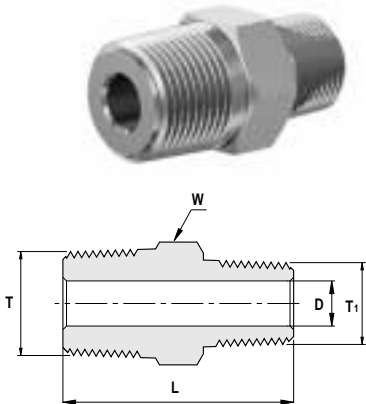
T Male NPT Size	T1 Male BSPT ISO7/1, BS21 Size	L		N		D Min. opening		W Hex Flat
		Inch	mm	Inch	mm	Inch	mm	Inch
1/8	1/8-28	1.01	25.6	0.38	9.7	0.19	4.8	7/16
1/4	1/4-19	1.40	35.6	0.56	14.2	0.28	7.1	9/16
3/8	3/8-19	1.43	36.3	0.56	14.2	0.38	9.6	1-1/16
1/2	1/2-14	1.84	46.7	0.75	19.0	0.47	11.9	7/8
3/4	3/4-14	1.84	46.7	0.75	19.0	0.62	15.8	1-1/16
1	1-11	2.32	58.9	0.94	23.9	0.88	22.4	1-3/8

122HNG Hex Nipple NPT to BSPP



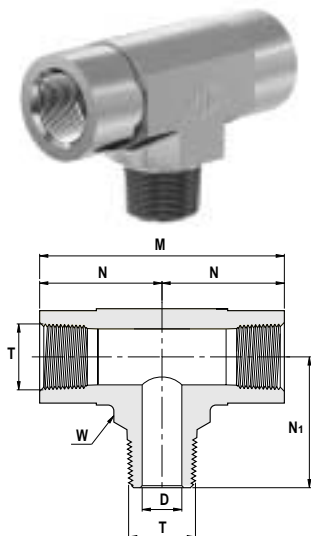
T Male NPT Size	T1 Male BSPP ISO 228/1, BS2779 Size	L		F		E		D Min. opening		W Hex Flat Inch
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	
1/8	1/8-28	1.07	27.2	0.28	7.1	0.54	13.8	0.16	4.1	9/16
1/4	1/4-19	1.44	36.3	0.44	11.2	0.71	18.0	0.23	5.8	3/4
3/8	3/8-19	1.47	37.3	0.44	11.2	0.85	21.8	0.31	7.9	7/8
1/2	1/2-14	1.78	45.2	0.56	14.2	1.02	26.0	0.47	11.9	1-1/16
3/4	3/4-14	1.95	49.5	0.62	15.7	1.26	32.0	0.62	15.8	1-5/16
1	1-11	2.26	57.4	0.72	18.3	1.53	39.0	0.78	19.8	1-5/8

123H Reducing Nipple



T Male NPT Size	T1 Male NPT Size	L		D Min. opening		W Hex Inch
		Inch	mm	Inch	mm	
1/8	1/16	1.01	25.7	0.12	3.0	7/16
1/4	1/8	1.22	31.0	0.19	4.8	9/16
3/8	1/8	1.25	31.8	0.19	4.8	11/16
3/8	1/4	1.43	36.3	0.28	7.1	11/16
1/2	1/8	1.47	37.3	0.19	4.8	7/8
1/2	1/4	1.65	41.9	0.28	7.1	7/8
1/2	3/8	1.65	41.9	0.38	9.6	7/8
3/4	1/4	1.65	41.9	0.28	7.1	1-1/16
3/4	1/2	1.84	46.7	0.47	11.9	1-1/16
1	1/2	2.13	54.1	0.47	11.9	1-3/8
1	3/4	2.13	54.1	0.62	15.8	1-3/8

3600H Branch Tee

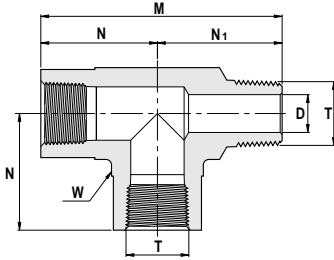


T Male & Female	M		N		N1		D Min. opening		W Wrench Flat Inch
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	
1/8	2.08	52.8	1.04	26.4	0.87	22.1	0.19	4.8	5/8
1/4	2.34	59.4	1.17	29.7	1.17	29.7	0.28	7.1	13/16
3/8	2.68	68.1	1.42	36.1	1.26	32.0	0.38	9.6	15/16
1/2	3.12	79.2	1.56	39.6	1.56	39.6	0.47	11.9	1-1/8

375OH Street Tee



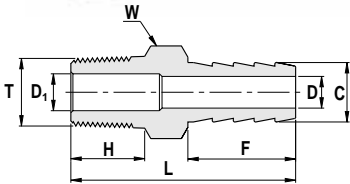
T Male & Female NPT	M		N		N1		D Min. opening		W Wrench flat
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch
1/8	1.91	48.5	1.04	26.4	0.87	22.1	0.19	4.8	5/8
1/4	2.34	59.4	1.17	29.7	1.17	29.7	0.28	7.1	13/16
3/8	2.68	68.1	1.42	36.1	1.26	32.0	0.38	9.6	15/16
1/2	3.12	79.2	1.56	39.6	1.56	39.6	0.47	11.9	1-1/8

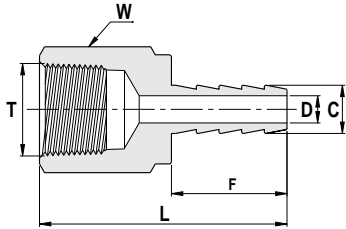


130HM Male to Hose Connector



Hose I.D.	T NPT Size	C		D		D1		F		H		L		W Hex Flat
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch
1/8	1/8	0.15	3.80	0.08	2.0	0.19	4.80	0.40	10.2	0.38	9.70	1.08	27.4	7/16
1/8	1/4	0.15	3.80	0.08	2.0	0.28	7.10	0.40	10.2	0.56	14.2	1.26	32.0	9/16
3/16	1/8	0.23	5.84	0.12	3.0	0.12	3.00	0.59	15.0	0.38	9.70	1.27	32.3	7/16
3/16	1/4	0.23	5.84	0.12	3.0	0.28	7.10	0.59	15.0	0.56	14.2	1.45	36.8	9/16
1/4	1/8	0.30	7.62	0.19	4.8	0.19	4.80	0.79	20.1	0.38	9.70	1.47	37.3	7/16
1/4	1/4	0.30	7.62	0.19	4.8	0.19	4.80	0.79	20.1	0.56	14.2	1.65	41.9	9/16
1/4	3/8	0.30	7.62	0.19	4.8	0.19	4.80	0.79	20.1	0.56	14.2	1.66	42.2	11/16
1/4	1/2	0.30	7.62	0.19	4.8	0.47	11.9	0.79	20.1	0.75	19.0	1.85	47.0	7/8
5/16	1/8	0.38	9.65	0.19	4.8	0.19	4.80	0.87	22.1	0.38	9.70	1.55	39.4	7/16
5/16	1/4	0.38	9.65	0.19	4.8	0.19	4.80	0.87	22.1	0.56	14.2	1.73	43.9	9/16
5/16	3/8	0.38	9.65	0.19	4.8	0.19	4.80	0.87	22.1	0.56	14.2	1.74	44.2	11/16
5/16	1/2	0.38	9.65	0.19	4.8	0.47	11.9	0.87	22.1	0.75	19.0	1.96	49.8	7/8
3/8	1/4	0.45	11.43	0.30	7.6	0.30	7.60	0.87	22.1	0.56	14.2	1.73	43.9	9/16
3/8	3/8	0.45	11.43	0.30	7.6	0.30	7.60	0.87	22.1	0.56	14.2	1.74	44.2	11/16
3/8	1/2	0.45	11.43	0.30	7.6	0.30	7.60	0.87	22.1	0.75	19.0	1.96	49.8	7/8
1/2	1/4	0.60	15.24	0.37	9.5	0.28	7.10	0.94	23.8	0.56	14.2	1.80	45.7	11/16
1/2	3/8	0.60	15.24	0.37	9.5	0.37	9.50	0.94	23.8	0.56	14.2	1.81	46.0	11/16
1/2	1/2	0.60	15.24	0.37	9.5	0.37	9.50	0.94	23.8	0.75	19.0	2.03	51.6	7/8
5/8	1/2	0.75	19.10	0.47	11.9	0.47	11.9	0.98	24.9	0.75	19.0	2.07	52.6	1-1/16
5/8	3/4	0.75	19.10	0.50	12.7	0.63	16.0	0.98	24.9	0.75	19.0	2.07	52.6	1-1/16
3/4	1/2	0.90	22.86	0.63	16.0	0.47	11.9	1.05	26.7	0.75	19.0	2.14	54.4	1-1/16
3/4	3/4	0.90	22.86	0.63	16.0	0.63	16.0	1.05	26.7	0.75	19.0	2.14	54.4	1-1/16
3/4	1	0.90	22.86	0.63	16.0	0.88	22.4	1.05	26.7	0.94	23.9	2.43	61.7	1-3/8
1	3/4	1.2	30.48	0.88	22.4	0.63	16.0	1.19	30.2	0.75	19.0	2.38	60.5	1-3/8
1	1	1.2	30.48	0.88	22.4	0.88	22.4	1.19	30.2	0.94	23.9	2.57	65.3	1-3/8

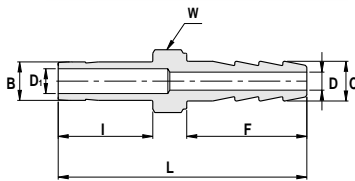




130HF Female Hose Connector

Hose I.D.	T NPT Size	C		D		F		L Min. opening		W Hex Flat Inch
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	
1/8	1/8	0.15	3.80	0.08	2.00	0.40	10.2	1.11	28.2	9/16
1/8	1/4	0.15	3.80	0.08	2.00	0.40	10.2	1.26	32.0	3/4
3/16	1/8	0.23	5.84	0.12	3.00	0.59	15.0	1.29	32.8	9/16
3/16	1/4	0.23	5.84	0.12	3.00	0.59	15.0	1.44	36.6	3/4
1/4	1/8	0.30	7.62	0.19	4.80	0.79	20.1	1.47	37.3	9/16
1/4	1/4	0.30	7.62	0.19	4.80	0.79	20.1	1.64	41.7	3/4
1/4	3/8	0.30	7.62	0.19	4.80	0.79	20.1	1.71	43.4	7/8
5/16	1/4	0.38	9.65	0.19	4.80	0.87	22.1	1.73	43.9	3/4
5/16	3/8	0.38	9.65	0.19	4.80	0.87	22.1	1.82	46.2	7/8
3/8	1/4	0.45	11.43	0.30	7.60	0.87	22.1	1.69	42.9	3/4
3/8	3/8	0.45	11.43	0.30	7.60	0.87	22.1	1.78	45.2	7/8
3/8	1/2	0.45	11.43	0.30	7.60	0.87	22.1	2.03	51.6	1-1/16
1/2	1/2	0.60	15.24	0.38	9.70	0.94	23.9	2.13	54.1	1-1/16

130LT Tube to Hose Connector



Hose I.D.	B Tube Size	C		D		D1		F		I		L		W Hex Flat Inch
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	
1/8	1/8	0.15	3.80	0.08	2.00	0.09	2.30	0.40	10.2	0.53	13.5	1.35	34.3	5/16
1/8	1/4	0.15	3.80	0.08	2.00	0.19	4.80	0.40	10.2	0.62	15.7	1.44	36.6	3/8
1/4	1/4	0.30	7.62	0.19	4.80	0.19	4.80	0.79	20.1	0.62	15.7	1.83	46.5	7/16
1/4	3/8	0.30	7.62	0.19	4.80	0.28	7.10	0.79	20.1	0.69	17.5	1.90	48.3	7/16
1/4	6mm	0.30	7.62	0.19	4.80	0.18	4.60	0.79	20.1	0.62	15.7	1.86	47.2	7/16
5/16	1/4	0.37	9.40	0.19	4.80	0.19	4.80	0.87	22.1	0.62	15.7	1.91	48.5	7/16
3/8	3/8	0.45	11.43	0.30	7.60	0.28	7.10	0.87	22.1	0.69	17.5	1.98	50.3	9/16
3/8	1/2	0.45	11.43	0.30	7.60	0.39	9.90	0.87	22.1	0.91	23.1	2.20	55.9	5/8
1/2	3/8	0.60	15.24	0.38	9.70	0.28	7.10	0.94	23.9	0.69	17.5	2.05	52.1	11/16
1/2	1/2	0.60	15.24	0.38	9.70	0.39	9.90	0.94	23.9	0.91	23.1	2.27	57.7	11/16
3/4	3/4	0.90	22.86	0.63	16.0	0.59	15.0	1.05	26.7	0.97	24.6	2.44	62.0	1-1/16