

Intstrumentation
HIGH PRESSURE
PIPE FITTINGS



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Features

MET-LOK All Fitting are

- CNC machined with superior finish for Instrument applications.
- Working Pressure are calculated in accordance with Power Piping code ANSI B13.1 & Refinery Piping code ANSI B31.3
- Pipe Threads are available in NPT and exceeds the requirement of ANSI B 1.20.1., BSPT (ISO 7/1) BSPP (ISO 228/1).
- Straight Bodies machined from ASTM Bar Stock and Bend Bodies machined from Close Grain Forgings.
- Available in different Exotic Materials.
- External Threads are capped to avoid damages.

Pressure Ratings

Material	Allowable Stress Value
SS 316	20,000 psig (1378 bar)
Brass	10,000 psig (689 bar)
Carbon Steel	20,000 psig (1378 bar)

Temperature Ratings

Material	Max. Temperature
SS 316	1000 degree F
Brass	400 degree F
Carbon Steel	375 degree F

The above ratings are based on ASME Code for Pressure Piping B31.3 process Piping, at ambient Temperature.

For determining pressure ratings in accordance with V31.1 Power Piping, multiply 0.94 for Stainless Steel, 0.75 for Carbon Steel and Brass remains the same.

To determine Pressure rating in Mega Pascal (Mpa), multiply bar by 0.10.

Pipe Information

A hollow, elongated metallic structure used to convey fluid is defined as a Pipe. Pipe sizes, however are not what it is expected. For e.g 1/4" Nominal Bore (NB) Pipe has an outside diameter of 0.540". 1/2" NB Pipe has an actual Outside diameter of 0.840". Wall thickness, expressed by a schedule number may vary. The Wall thickness and Pressure ratings re directly proportional to the Schedule number. For eg. Greater the Wall thickness, higher the schedule number and higher the pressure rating of pipe. The table below shows the Actual Outside diameter with respect to Pipe size in NB

Pipe Size	NPT Pipe Thread	Actual Outside Diameter
1/8" NB	1/8" – 27	0.405" / 10.3 mm
1/4" NB	1/4" – 18	0.540" / 13.7 mm
3/8" NB	3/8" – 18	0.675" / 17.1 mm
1/2" NB	1/2" – 14	0.840" / 21.3 mm
3/4" NB	3/4" – 14	1.050" / 26.7 mm
1" NB	1" – 11-1/2	1.315" / 33.4 mm
1-1/4"NB	1-1/4" – 11-1/2	1.662" / 42.2 mm
1-1/2"NB	1-1/2" – 11-1/2	1.902" / 48.3 mm
2"NB	2" – 11-1/2"	2.375" / 60.3 mm

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Pipe thread Specification

Thread Type	NPT	ISOP / BSP	ISOT/ BSPT	SAE
Reference specification	ASME B1.20.1, SAE AS71051	ISO 228, BS 2779, JIS B 0202	ISO 7, BS 21, JIS B 0203	ASME B1.1

CAUTION : While Assembling Tapered threads, a thread sealant / PTFE Tape shall always be used (Refer **MET-LOK** Installation Manual for more information).

Pipe End Pressure Rating

A Tube Fitting has both Tube Ends as well as Pipe Ends. The Lowest Pressure Rating of the two will determine the Pressure Rating of the Tube Fitting. The Pipe end Pressure Rating chart is as under.

Pressure Rating Calculations (Ref. ASME B 31.3 - Code for Process Piping)

NPT/ISO Pipe Size	SS 316 and Carbon Steel				Brass			
	Male		Female		Male		Female	
in.	Kpa	bar	Kpa	bar	Kpa	bar	Kpa	bar
1/16	75790	760	46163	460	37895	380	22737	230
1/8	68900	690	44785	440	34450	340	22048	220
1/4	55120	550	45474	450	27560	270	22737	220
3/8	53742	540	36517	360	26871	270	17914	180
1/2	53053	530	33761	330	26182	260	16536	160
3/4	50297	500	31694	320	24804	250	15847	160
1	36517	370	30316	300	17914	180	15158	150
1-1/4	41340	410	34450	350	20670	200	17225	170
1-1/2	34450	340	31694	310	17225	170	15847	150
2	26871	270	26871	270	13091	130	13091	130

For SS 316 multiply psi by 0.94
For Carbon Steel multiply psi by 0.75
For Brass the ratings remain same.
To determine Working psi divide kPa by 6.89

To determine working Psig, divide Kpa by 6.89

Materials	Allowable Stress Value		Design Factor	Ultimate Tensile Strength	
	psi	bar		psi	bar
SS 316	20,000	1378	3.75 : 1	75,000	5170
Brass	10,000	689	4:01	40,000	2760
Steel	20,000	1378	3:01	60,000	4140

Stress values (Ref. ASME B 31.3 - Code for Process Piping)

O-Seal Pressure Ratings

O-Seal Fittings are rated for 3000 psi / 206 bars.

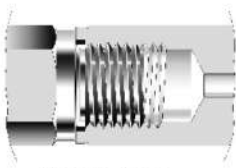
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ISO parallel Pipe Thread Installation

Reference Standards : ISO 228/1 and 7/1 (also BS 2779 - BSPP, DIN - ISO 2281, JIS B 0202).



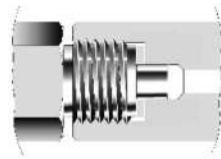
ISOP / RS

Used with Bonded Washer Seals, usually of Metal and Elastomer.



ISOP / RP

Used with Gasket, usually Copper.



ISOP / RG

Used with Gasket, usually Copper to seal at the bottom of Female Threads of Pressure Gauges.

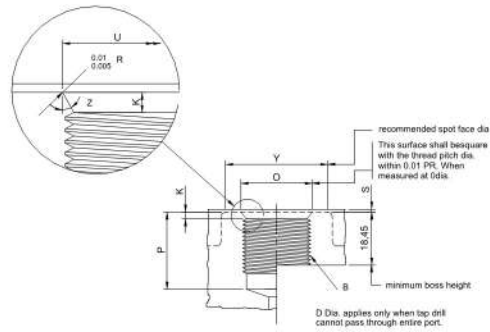
Gasket, O-ring for Adaptor Fittings

Component	Material	Max. Temperature in Degree F	Min Temperature in degree F
RS Gaskets	Buna N , Fluorocarbon (FKM)	230	-13
RG, RP Gaskets	Copper	400	-235

SAE/MS Straight Thread Fittings Installation

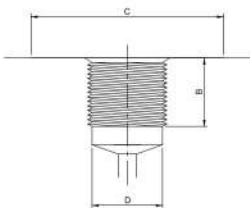
1. Use appropriate lubricant compatible with the system and environment.
2. Install the SAE/MS thread fitting over the boss until the metal washer touches the face of it.
3. Position the fitting as required and backed out of no more than ONE turn counterclockwise.
4. Use proper wrench and tighten the lock nut until the washer touches the face of the boss.
5. SAE/MS fittings are compatible with J1926, MS16142 and JIC female straight thread O-Ring bosses.

Data SAE/MS Straight Threaded Boss (In inches)



B Straight Threads														
Nom Tube OD	Thread size	Pitch Dia		Minor Dia		D Dia	Full Thread Depth	K	O Dia	P (4)	S (2)(3)	U Dia (1)	Y Dia (3)	Z
		Min	Max	Min	Max									
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1/8	5/16-24	0.2854	0.2902	0.267	0.277	0.062	0.39	0.074	0.438	0.468	0.062	0.358	0.672	12
3/16	3/8-24	0.3479	0.3528	0.330	0.340	0.125	0.390	0.074	0.5	0.468	0.062	0.421	0.75	12
1/4	7/16-20	0.4050	0.4104	0.383	0.395	0.172	0.454	0.093	0.563	0.547	0.062	0.487	0.828	12
5/16	1/2-20	0.4675	0.4731	0.446	0.457	0.234	0.454	0.093	0.625	0.547	0.062	0.55	0.906	12
3/8	9/16-18	0.5264	0.5323	0.502	0.515	0.297	0.500	0.097	0.688	0.609	0.062	0.616	0.969	12
1/2	3/4-16	0.7094	0.7159	0.682	0.696	0.391	0.562	0.100	0.875	0.688	0.094	0.811	1.188	15
5/8	7/8-14	0.8286	0.8356	0.798	0.814	0.484	0.656	0.100	1	0.781	0.094	0.942	1.344	15
3/4	1-1/16-12	1.0084	1.0158	0.972	0.990	0.609	0.750	0.130	1.25	0.906	0.094	1.148	1.625	15
7/8	1-3/16-12	1.1334	1.1409	1.097	1.115	0.719	0.750	0.130	1.375	0.906	0.094	1.273	1.765	15
1	1-5/16-12	1.2584	1.2659	1.222	1.240	0.844	0.750	0.130	1.5	0.906	0.125	1.398	1.91	15
1-1/4	1-5/8-12	1.5709	1.5785	1.535	1.553	1.078	0.750	0.132	1.875	0.906	0.125	1.713	2.27	15
1-1/2	1-7/8-12	1.8209	1.8287	1.785	1.803	1.312	0.750	0.132	2.125	0.906	0.125	1.962	2.56	15
2	2-1/2-12	2.4459	2.4540	2.410	2.428	1.781	0.750	0.132	2.75	0.906	0.125	2.587	3.48	15

ISO Internal Parallel Thread



ISO Female Parallel Pipe size	B Min. full Thread Depth	D Thread Minor Dia	C Min. Flat Dia for RS, RP	C Min. Flat Dia for PME, PMBT, PMRT
1/8	0.31	0.337/0.348	0.59	0.68
1/4	0.47	0.450/0.468	0.75	0.9
3/8	0.47	0.588/0.606	0.91	1.04
1/2	0.55	0.733/0.755	1.06	1.26
3/4	0.63	0.949/0.971	1.3	1.62
1	0.71	1.193/1.218	1.57	1.91

- ① Diameter U shall be concentric with thread Pitch diameter within 0.005 full indicator reading (FIR) and shall be free from Longitudinal and Spiral Tool marks. Annular Tool marks upto 100 micro Inch max. Shall be permissible.
- ② This is the maximum recommended spotface depth to permit sufficient wrench grip for the proper tightening of the fitting or locknut.
- ③ If face of port is on a machined surface, dimensions Y and S need not apply.
- ④ Tap drill depths given require the use of bottoming taps to produce the specified full thread lengths. Where standard taps are used, the tap drill depths must be increased accordingly.
- ⑤ Not a uniform O-ring size.

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Caution

1.

Tapered Pipe Fittings are prone to leakage because they are torque-sensitive. Over-tightening can distort the threads too much and create a leakage path. Also, tapered pipe threads are prone to loosening when exposed to high vibration and wide temperature variation. Repeated assembly and disassembly only aggravates the leakage problem by distorting the threads further. Tapered pipe threads are not to be used for mechanically joining components in a system where load would be placed perpendicular to the Line. This weight will further weaken the sealing joint. In light of its sealing mechanism, assembly restrictions and design limitations, pipe thread connections are optimal only when the following conditions exist:

- Minimum hydraulic shocks or vibration
- The fitting is limited to one or two re-uses
- The system utilizes low pressure; or few operating cycles (static condition) for higher pressure service
- Skilled workers trained in the pros and cons of pipe fitting assembly are present
For these reasons, tapered pipe threaded connections are not recommended for dynamic pressure systems.

2.

Always ensure that the PTFE tape does not over hang the first thread. This may cause deterioration of the tape thus contaminating the fluid system.

3.

While using Stainless Steel Fitting, a double wrap is recommended to minimize possibility of galling, while providing a good seal. Ensure that the appropriate minimum number of threads have been wrapped.

Nominal Pipe Size	Tape Width	Effective thread length (external)	App. Number of threads
1/8	1/8 – 1/4	1/4	7
1/4	1/4	3/8	7 1/3
3/8	1/4	3/8	7 1/2
1/2	1/4 - 1/2	1/2	7 1/2
3/4	1/4 - 1/2	9/16	7 2/3
1	1/4 - 1/2	11/16	8

Ordering Information

For Ordering MET-LOK Pipe Fitting, just insert the Material Code as shown in the Table below before the basic Part Number, given in this Catalogue.

Example:

S6 - M1N - HN
 Material Code (refer table) Basic Part Number

Material	Designator	Material	Designator
SS 316/316L	S6 / S6L	Alloy 600	A6
Brass	B	Alloy 20	A20
Carbon Steel	CS	Alloy C276	H
Aluminum	AL	Titanium	TI
Alloy 400 / R-405	M	PTFE	T
Alloy 600	A6		
Alloy 20	A20		

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MET-LOK (KISH)

PRECISION PIPE FITTING (1/16" - 2" NPT)

Close Nipple



NPT(M) X NPT(M)
Page 11

Hex Nipple



NPT(M)X NPT(M)
Page 11

Hex Reducing Nipple



NPT(M) X NPT(M)
Page 11

Hex Long Nipple



NPT(M) X NPT(M)
Page 11

Adapter



NPT(F) X NPT(M)
Page 12

Reducing Adapter



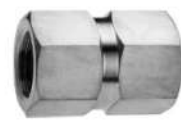
NPT(F) X NPT(M)
Page 12

Reducing Bushing



NPT(M) X NPT(F)
Page 12

Hex Coupling



NPT(F) X NPT(F)
Page 13

Hex Reducing Coupling



NPT(F) X NPT(F)
Page 13

Elbow Female



NPT(F) X NPT(F)
Page 13

Elbow Street



NPT(F) X NPT(M)
Page 14

Elbow Reducing Street



NPT(F) X NPT(M)
Page 14

Male Elbow



NPT(M) X NPT(M)
Page 14

45° Elbow Female



NPT(F) X NPT(F)
Page 15

45° Elbow Street



NPT(F) X NPT(M)
Page 15

Tee Female



NPT(F) X NPT(F) X NPT(F)
Page 15

Tee Street



NPT(F) X NPT(M) X NPT(F)
Page 16

Tee Branch



NPT(F) X NPT(F) X NPT(M)
Page 16

Tee Male



NPT(M) X NPT(M) X NPT(M)
Page 16

Cross Female



NPT(F) X 4 SIDES
Page 16

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MET-LOK (KISH)

PRECISION PIPE FITTING (1/16" - 2" NPT)

Union Ball Joint



NPT(F) X NPT(F)

Page 17

Hex Female Cap



NPT(F)

Page 17

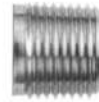
Hex Male Plug



NPT(M)

Page 17

Allen Plug



NPT(M)

Page 17

PRECISION PIPE FITTING (1/8" - 1/2" BSPT/ISOT)

Hex Nipple



ISOT(M) X TSOT(M)

Page 18

Adapter



ISOT(F) X ISOT(M)

Page 18

Reducing Adapter



ISOT(F) X ISOT(M)

Page 18

Reducing Bushing



ISOT(M) X ISOT(F)

Page 18

Hex Coupling



ISOT(F) X ISOT(F)

Page 19

Hex Reducing Coupling



ISOT(F) X ISOT(F)

Page 19

Elbow Female



ISOT(F) X ISOT(F)

Page 19

Tee Female



ISOT(F) X ISOT(F) X ISOT(F)

Page 19

PRECISION PIPE FITTING (SAE/MS)

Hex SAE Plug



UNF(M)

Page 20

Allen SAE Plug



UNF(M)

Page 20

SAE Adapter



UNF(F) X UNF(M)

Page 20

SAE Adapter



SAE-(M) X NPT(F)

Page 20

Adapter Fitting

Hex Nipple



NPT(M) X ISOT(M)

Page 21

Hex Nipple



ISOP(M) X NPT(M)

Page21

Hex Nipple



SAE/MS X NPT(M)

Page 21

Adapter



NPT(F) X ISOT(M)

Page 21

Adapter



NPTF X ISOPM

Page 22

Adapter



NPT(F) X ISOT(M)

Page 22

Hex Pipe Plug



BSPT(M)

Page 22

Hex Pipe Plug



BSPP(M)

Page 22

Gauge Adapter



ISOP(F) X NPT(M)

Page 23

Weld Fitting

Male Connector



Fractional Tube Socket Weld
X NPT(M)

Page 23

Male Elbow



Fractional Tube Socket Weld
X NPT(M)

Page 23

Female Connector



Fractional Tube Socket Weld
X NPT(F)

Page 24

Female Elbow



Fractional Tube Socket Weld
X NPT(F)

Page 24

Union



Fractional Tube Socket Weld
ENDS

Page 24

Union Elbow



Fractional Tube Socket Weld
ENDS

Page 25

Union Tee



Fractional Tube Socket Weld
ENDS

Page 25

Union Cross



Fractional Tube Socket Weld
ENDS

Page 25

Reducer Adapter



Fractional Tube Butt Weld
OR Tube Socket Weld
X Socket Weld

Page 26

Reducing Adapter



Fractional Pipe Butt Weld OR
PIPE Socket Weld
X Tube Socket Weld

Page 26

Union



Pipe Socket Weld ENDS

Page 26

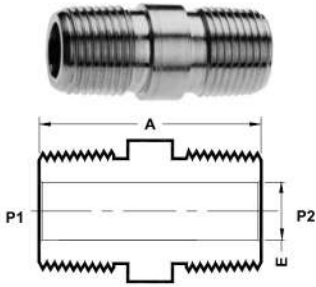
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Close Nipple

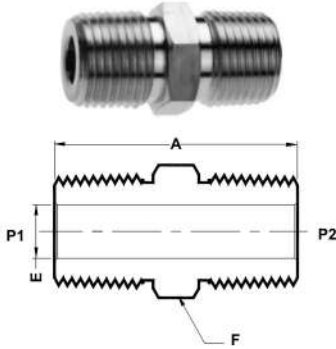
NPT(M) X NPT(M)



Part No.	P1 NPTM	P2 NPTM	A	E
M1N-CN	1/16	1/16	0.75	0.19
M2N-CN	1/8	1/8	0.75	0.19
M4N-CN	1/4	1/4	1.12	0.28
M6N-CN	3/8	3/8	1.12	0.38
M8N-CN	1/2	1/2	1.50	0.47
M12N-CN	3/4	3/4	1.50	0.62
M16N-CN	1	1	1.88	0.88

Hex Nipple

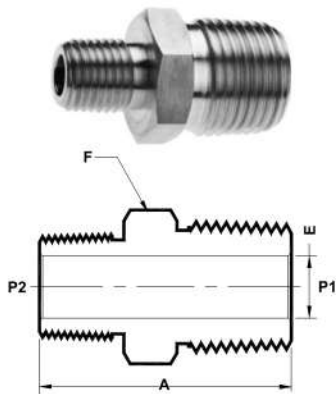
NPT(M) X NPT(M)



Part No.	P1 NPTM	P2 NPTM	A	E	F (Hex)
M1N-HN	1/16	1/16	1.01	0.12	5/16
M2N-HN	1/8	1/8	1.01	0.19	7/16
M4N-HN	1/4	1/4	1.40	0.28	9/16
M6N-HN	3/8	3/8	1.43	0.38	11/16
M8N-HN	1/2	1/2	1.84	0.47	7/8
M12N-HN	3/4	3/4	1.84	0.62	1-1/16
M16N-HN	1	1	2.32	0.88	1-3/8

Hex Reducing Nipple

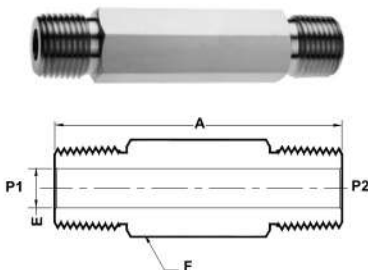
NPT(M) X NPT(M)



Part No.	P1 NPTM	P2 NPTM	A	E	F (Hex)
M2-HRN-1N	1/8	1/16	1.01	0.12	7/16
M4-HRN-1N	1/4	1/16	1.25	0.12	5/8
M4-HRN-2N	1/4	1/8	1.22	0.19	9/16
M6-HRN-1N	3/8	1/16	1.27	0.19	3/4
M6-HRN-2N	3/8	1/8	1.25	0.19	11/16
M6-HRN-4N	3/8	1/4	1.43	0.28	11/16
M8-HRN-2N	1/2	1/8	1.47	0.19	7/8
M8-HRN-4N	1/2	1/4	1.65	0.28	7/8
M8-HRN-6N	1/2	3/8	1.65	0.38	7/8
M12-HRN-4N	3/4	1/4	1.65	0.28	1-1/16
M12-HRN-8N	3/4	1/2	1.84	0.47	1-1/16
M12-HRN-2N	3/4	1/8	1.59	0.19	1-1/8
M16-HRN-2N	1	1/8	1.78	0.19	1-3/8
M16-HRN-4N	1	1/4	1.97	0.28	1-3/8
M16-HRN-6N	1	3/8	1.97	0.38	1-3/8
M16-HRN-8N	1	1/2	2.13	0.47	1-3/8
M16-HRN-12N	1	3/4	2.13	0.62	1-3/8

Hex Long Nipple

NPT(M) X NPT(M)



Part No.	P1 NPTM	P2 NPTM	A	E	F (Hex)
M1N-HLN	1/16	1/16	NA	0.12	7/16
M2N-HLN	1/8	1/8	1.50	0.19	7/16
M4N-HLN	1/4	1/4	1.50	0.28	9/16
M6N-HLN	3/8	3/8	1.50	0.38	11/16
M8N-HLN	1/2	1/2	NA	0.47	7/8
M12N-HLN	3/4	3/4	NA	0.62	1-1/16
M16N-HLN	1	1	NA	0.88	1-3/8

مت لوک (کیش)

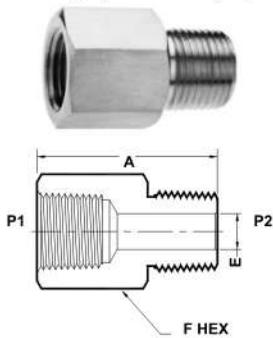
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MET-LOK (KISH)

Note :All Dimension for reference only, subject to change

Adapter

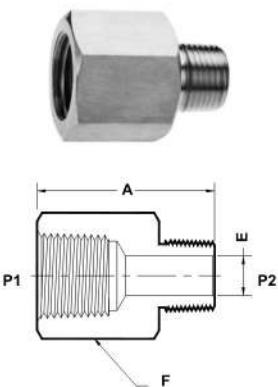
NPT(F) X NPT(M)



Part No.	P1 NPTF	P2 NPTM	A	E	F (Hex)
M2-A-2N	1/8	1/8	1.10	0.19	9/16
M4-A-4N	1/4	1/4	1.40	0.28	3/4
M6-A-6N	3/8	3/8	1.51	0.38	7/8
M8-A-8N	1/2	1/2	1.94	0.47	1-1/16
M12-A-12N	3/4	3/4	2.02	0.62	1-5/16
M16-A-16N	1	1	2.28	0.88	1-5/8

Reducing Adapter

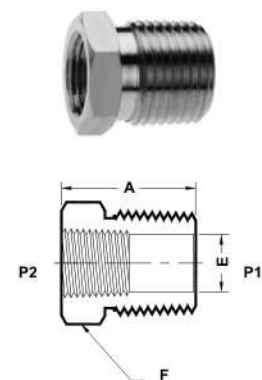
NPT(F) X NPT(M)



Part No.	P1 NPTF	P2 NPTM	A	E	F (Hex)
M2-RA-1N	1/8	1/16	1.03	0.12	9/16
M4-RA-1N	1/4	1/16	1.20	0.12	3/4
M4-RA-2N	1/4	1/8	1.26	0.19	3/4
M6-RA-1N	3/8	1/16	1.25	0.19	7/8
M6-RA-2N	3/8	1/8	1.33	0.19	7/8
M6-RA-4N	3/8	1/4	1.50	0.28	7/8
M8-RA-2N	1/2	1/8	1.58	0.19	1-1/16
M8-RA-4N	1/2	1/4	1.76	0.28	1-1/16
M8-RA--6N	1/2	3/8	1.75	0.38	1-1/16
M12-RA-2N	3/4	1/8	1.56	0.36	1-3/8
M12-RA-4N	3/4	1/4	1.85	0.28	1-5/16
M12-RA-6N	3/4	3/8	1.82	0.38	1-5/16
M12-RA-8N	3/4	1/2	2.02	0.47	1-5/16
M16-RA-2N	1	1/8	1.81	0.36	1-5/8
M16-RA-4N	1	1/4	1.96	0.28	1-5/8
M16-RA-6N	1	3/8	2.00	0.38	1-5/8
M16-RA-8N	1	1/2	2.16	0.47	1-5/8
M16-RA-12N	1	3/4	2.17	0.62	1-5/8

Reducing Bushing

NPT(M) X NPT(F)



Part No.	P1 NPTM	P2 NPTF	A	E	F (Hex)
M2-RB-1N	1/8	1/16	1.03	0.19	7/16
M4-RB-1N	1/4	1/16	0.86	0.19	5/8
M4-RB-2N	1/4	1/8	1.06	0.28	9/16
M6-RB-1N	3/8	1/16	0.86	0.19	3/4
M6-RB-2N	3/8	1/8	0.86	0.34	11/16
M6-RB-4N	3/8	1/4	1.19	0.38	3/4
M8-RB-2N	1/2	1/8	1.08	0.34	7/8
M8-RB-4N	1/2	1/4	1.08	0.45	7/8
M8-RB-6N	1/2	3/8	1.41	0.47	7/8
M12-RB-2N	3/4	1/8	1.17	0.28	1-1/8
M12-RB-4N	3/4	1/4	1.08	0.45	1-1/16
M12-RB-6N	3/4	3/8	1.08	0.59	1-1/16
M12-RB-8N	3/4	1/2	1.63	0.62	1-1/16
M16-RB-2N	1	1/8	1.36	0.28	1-3/8
M16-RB-4N	1	1/4	1.37	0.45	1-3/8
M16-RB-6N	1	3/8	1.37	0.59	1-3/8
M16-RB-8N	1	1/2	1.37	0.73	1-3/8
M16-RB-12N	1	3/4	1.85	0.88	1-3/8

مت لوک (کیش)

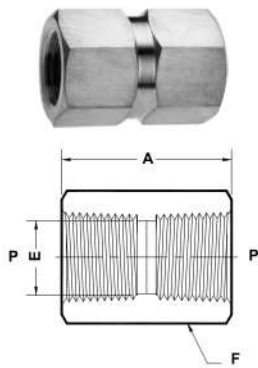
HYDRO PNEUMATICS PVT. LTD.

MET-LOK (KISH)

Note :All Dimension for reference only, subject to change

Hex Coupling

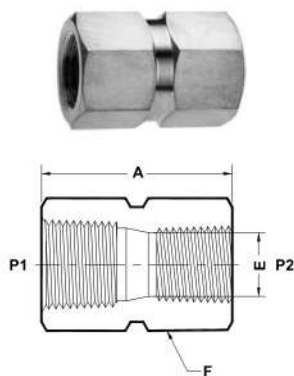
NPT(F) X NPT(F)



Part No.	P NPTF	A	E	F (Hex)
M2N-HC	1/8	0.81	0.34	9/16
M4N-HC	1/4	1.19	0.45	3/4
M6N-HC	3/8	1.31	0.59	7/8
M8N-HC	1/2	1.56	0.73	1-1/16
M12N-HC	3/4	1.62	0.94	1-5/16
M16N-HC	1	2.00	1.17	1-5/8

Hex Reducing Coupling

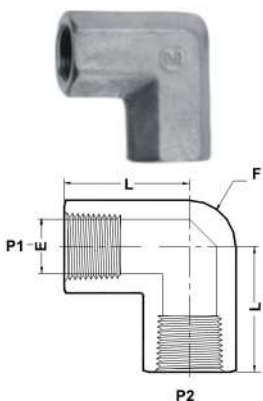
NPT(F) X NPT(F)



Part No.	P1 NPTF	P2 NPTF	A	E	F (Hex)
M4-HRC-1N	1/4	1/16	0.92	0.34	3/4
M4-HRC-2N	1/4	1/8	1.22	0.34	3/4
M6-HRC-1N	3/8	1/16	0.95	0.34	7/8
M6-HRC-2N	3/8	1/8	1.03	0.34	7/8
M6-HRC--4N	3/8	1/4	1.38	0.45	7/8
M8-HRC-2N	1/2	1/8	1.56	0.34	1-1/16
M8-HRC-4N	1/2	1/4	1.75	0.45	1-1/16
M8-HRC-6N	1/2	3/8	1.78	0.59	1-1/16
M12-HRC-2N	3/4	1/8	1.39	0.34	1-3/8
M12-HRC-4N	3/4	1/4	1.81	0.45	1-5/16
M12-HRC-6N	3/4	3/8	1.69	0.45	1-3/8
M12-HRC-8N	3/4	1/2	2.06	0.73	1-5/16
M16-HRC-2N	1	1/8	1.44	0.41	1-5/8
M16-HRC-4N	1	1/4	1.63	0.45	1-5/8
M16-HRC-6N	1	3/8	1.63	0.45	1-5/8
M16-HRC-8N	1	1/2	2.19	0.73	1-5/8
M16-HRC-12N	1	3/4	2.25	0.94	1-5/8

Elbow Female

NPT(F) X NPT(F)



Part No.	P1 NPTF	P2 NPTF	E	F (Hex)	L
M1-EF-1N	1/16	1/16	0.28	7/16	0.50
M2-EF-2N	1/8	1/8	0.34	1/2	1.04
M4-EF-4N	1/4	1/4	0.45	11/16	1.17
M6-EF-6N	3/8	3/8	0.59	13/16	1.42
M8-EF-8N	1/2	1/2	0.73	1-1/16	1.56
M12-EF-12N	3/4	3/4	0.94	1-5/16	1.92
M16-EF-16N	1	1	1.17	1-5/8	1.91

مت لوک (کیش)

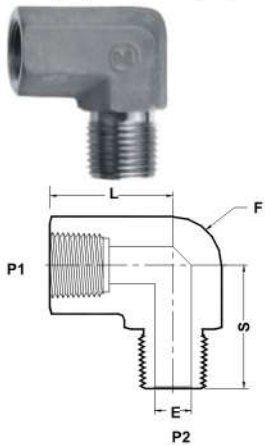
HYDRO PNEUMATICS PVT. LTD.

MET-LOK (KISH)

Note :All Dimension for reference only, subject to change

Elbow Street

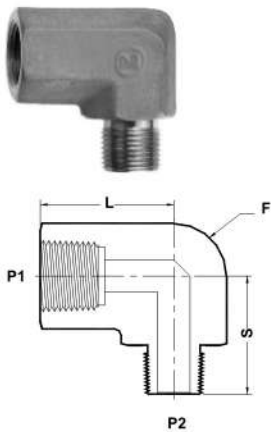
NPT(F) X NPT(M)



Part No.	P1 NPTF	P2 NPTM	E	F (Hex)	L	S
M1-ES-1N	1/16	1/16	0.12	7/16	0.86	0.88
M2-ES-2N	1/8	1/8	0.19	1/2	1.04	0.87
M4-ES-4N	1/4	1/4	0.28	11/16	1.17	1.17
M6-ES-6N	3/8	3/8	0.38	13/16	1.42	1.26
M8-ES-8N	1/2	1/2	0.47	1	1.56	1.56
M12-ES-12N	3/4	3/4	0.62	1-1/4	1.92	1.67
M16-ES-16N	1	1	0.88	1-11/16	1.91	1.94

Elbow Reducing Street

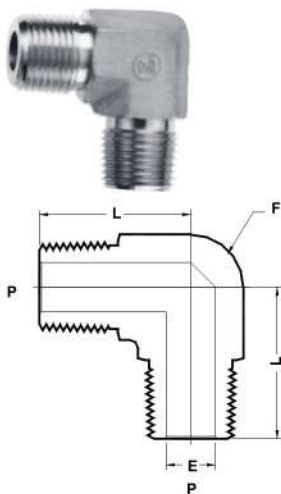
NPT(F) X NPT(M)



Part No.	P1 NPTF	P2 NPTM	E	F (Hex)	L	S
M2-ERS-1N	1/8	1/16	0.12	1/2	1.04	0.87
M4-ERS-1N	1/4	1/16	0.12	9/16	1.09	1.00
M4-ERS-2N	1/4	1/8	0.19	11/16	1.17	1.00
M6-ERS-1N	3/8	1/16	0.12	3/4	1.09	1.26
M6-ERS-2N	3/8	1/8	0.19	3/4	1.22	1.26
M6-ERS-4N	3/8	1/4	0.28	13/16	1.42	1.26
M8-ERS-2N	1/2	1/8	0.19	7/8	1.47	1.38
M8-ERS-4N	1/2	1/4	0.28	1	1.56	1.38
M8-ERS-6N	1/2	3/8	0.38	1	1.56	1.38
M12-ERS-2N	3/4	1/8	0.19	1-1/16	1.59	1.67
M12-ERS-4N	3/4	1/4	0.28	1-1/16	1.59	1.67
M12-ERS-6N	3/4	3/8	0.38	1-1/16	1.59	1.67
M12-ERS-8N	3/4	1/2	0.47	1-1/16	1.59	1.67
M16-ERS-2N	1	1/8	0.19	1-5/16	1.91	1.94
M16-ERS-4N	1	1/4	0.45	1-5/16	1.91	1.94
M16-ERS-6N	1	3/8	0.28	1-5/16	1.91	1.94
M16-ERS-8N	1	1/2	0.47	1-5/16	1.91	1.94
M16-ERS-12N	1	3/4	0.62	1-5/16	1.91	1.94

Male Elbow

NPT(M) X NPT(M)



Part No.	P NPTM	E	F (Hex)	L
M1N-ME	1/16	0.19	3/8	0.66
M2N-ME	1/8	0.19	7/16	0.88
M4N-ME	1/4	0.28	1/2	1.05
M6N-ME	3/8	0.38	11/16	1.17
M8N-ME	1/2	0.47	13/16	1.45
M12N-ME	3/4	0.65	1-1/16	1.59
M16N-ME	1	0.87	1-5/16	1.87

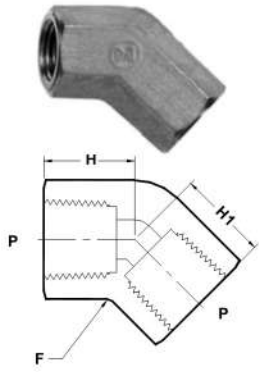
مت لوک (کیش)

HYDRO PNEUMATICS PVT. LTD.

MET-LOK (KISH)

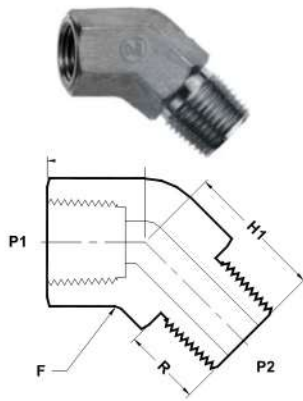
Note :All Dimension for reference only, subject to change

45° Elbow Female NPT(F) X NPT(F)



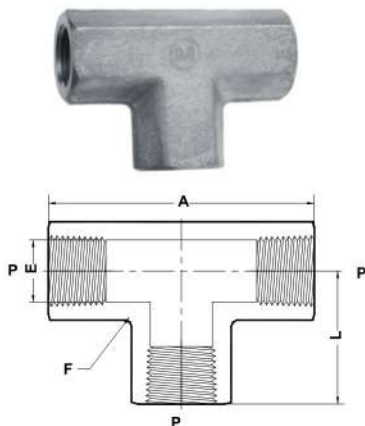
Part No.	P NPTF	F (Hex)	H	H1
M1N-45EF	1/16	7/16	0.47	0.47
M2N-45EF	1/8	9/16	0.47	0.47
M4N-45EF	1/4	3/4	0.69	0.69
M6N-45EF	3/8	7/8	0.75	0.75
M8N-45EF	1/2	1-1/16	0.94	0.94
M12N-45EF	3/4	1-5/16	1.00	1.00
M16N-45EF	1	1-5/8	1.19	1.19

45° Elbow Street NPT(F) X NPT(M)



Part No.	P1 NPTM	P2 NPTF	F (Hex)	H	H1	R
M1-45ES-1N	1/16	1/16	7/16	0.47	0.66	0.38
M2-45ES-2N	1/8	1/8	9/16	0.47	0.72	0.38
M4-45ES-4N	1/4	1/4	3/4	0.63	1.05	0.56
M6-45ES-6N	3/8	3/8	7/8	0.72	1.06	0.56
M8-45ES-8N	1/2	1/2	1-1/16	0.91	1.34	0.75
M12-45ES-12N	3/4	3/4	1-5/16	0.97	1.38	0.75
M16-45ES-16N	1	1	1-5/8	1.13	1.13	0.94

Tee Female NPT(F) X NPT(F) X NPT(F)



Part No.	P NPTF	A	E	F (Hex)	L
M1N-TF	1/16	1.00	0.18	7/16	0.50
M2N-TF	1/8	2.08	0.34	1/2	1.04
M4N-TF	1/4	2.34	0.45	11/16	1.17
M6N-TF	3/8	2.84	0.59	13/16	1.42
M8N-TF	1/2	3.12	0.73	1-1/16	1.56
M12N-TF	3/4	3.84	0.94	1-5/16	1.92
M16N-TF	1	3.82	1.17	1-5/8	1.91

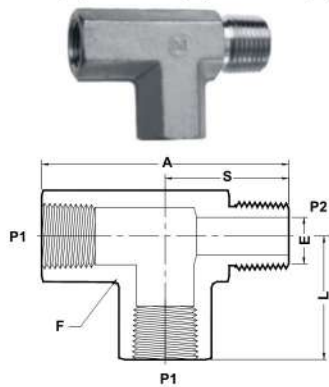
مت لوک (کیش)

HYDRO PNEUMATICS PVT. LTD.
MET-LOK (KISH)

Note :All Dimension for reference only, subject to change

Tee Street

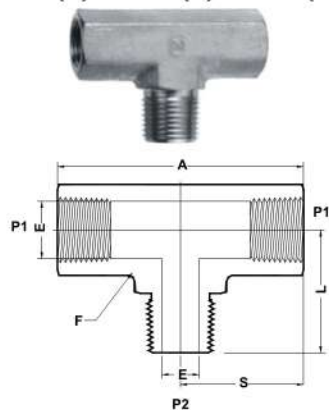
NPT(F) X NPT(F) X NPT(F)



Part No.	P1 NPTF	P2 NPTM	A	E	F (Hex)	L	S
M1N-TS	1/16	1/16	1.22	0.18	7/16	0.72	0.72
M2N-TS	1/8	1/8	1.91	0.19	1/2	1.04	0.87
M4N-TS	1/4	1/4	2.34	0.28	11/16	1.17	1.17
M6N-TS	3/8	3/8	2.68	0.38	13/16	1.42	1.26
M8N-TS	1/2	1/2	3.12	0.47	1-1/16	1.42	1.56
M12N-TS	3/4	3/4	3.70	0.65	1-5/16	1.59	1.59
M16N-TS	1	1	4.50	0.87	1-5/8	1.97	1.97

Tee Branch

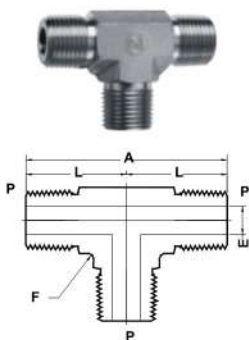
NPT(F) X NPT(F) X NPT(M)



Part No.	P1 NPTF	P2 NPTM	A	E	F (Hex)	L	S
M1N-BT	1/16	1/16	1.00	0.19	7/16	0.50	0.72
M2N-BT	1/8	1/8	2.08	0.19	1/2	1.04	0.87
M4N-BT	1/4	1/4	2.34	0.28	11/16	1.17	1.17
M6N-BT	3/8	3/8	2.84	0.38	13/16	1.42	1.42
M8N-BT	1/2	1/2	3.12	0.47	1	1.26	1.56
M12N-BT	3/4	3/4	2.72	0.64	1-5/16	1.36	1.59
M16N-BT	1	1	3.26	0.86	1-5/8	1.63	1.97

Tee Male

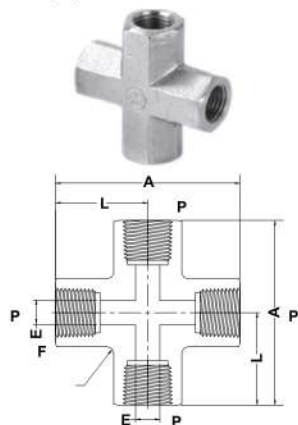
NPT(M) X NPT(M) X NPT(M)



Part No.	P NPTM	A	E	F (Hex)	L
M1N-TM	1/16	1.44	0.19	5/16	0.72
M2N-TM	1/8	1.76	0.19	7/16	0.88
M4N-TM	1/4	2.10	0.28	1/2	1.05
M6N-TM	3/8	2.34	0.38	11/16	1.17
M8N-TM	1/2	2.90	0.47	13/16	1.45
M12N-TM	3/4	3.18	0.65	1-1/16	1.59
M16N-TM	1	3.94	0.87	1-5/16	1.97

Cross Female

NPT(F) X 4 Side



Part No.	P NPTF	A	E	F (Hex)	L
M1N-CF	1/16	1.00	0.25	7/16	0.50
M2N-CF	1/8	2.08	0.34	1/2	1.04
M4N-CF	1/4	2.34	0.45	11/16	1.17
M6N-CF	3/8	2.84	0.59	13/16	1.42
M8N-CF	1/2	3.12	0.73	1-1/16	1.56
M12N-CF	3/4	3.84	0.94	1-5/16	1.92
M16N-CF	1	3.82	1.17	1-5/8	1.91

مت لوک (کیش)

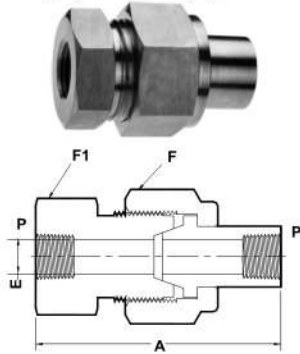
HYDRO PNEUMATICS PVT. LTD.

MET-LOK (KISH)

Note : All Dimension for reference only, subject to change

Union Ball Joint

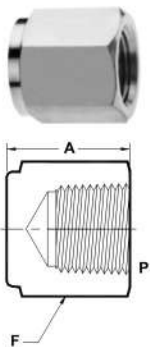
NPT(F) X NPT(F)



Part No.	P NPTF	A	E	F Hex	F1
M2N-UBJ	1/8	1.81	0.27	1-1/8	15/16
M4N-UBJ	1/4	2.34	0.36	1-3/8	1-3/16
M6N-UBJ	3/8	2.50	0.52	1-1/2	1-5/16
M8N-UBJ	1/2	2.69	0.62	1-3/4	1-5/8
M12N-UBJ	3/4	3.12	0.88	2	1-7/8
M16N-UBJ	1	3.56	1.03	2-1/2	2-3/8

Hex Female Cap

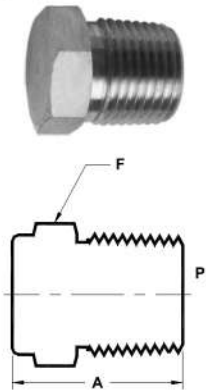
NPT(F)



Part No.	P NPTF	A	F (Hex)
M2N-HFC	1/8	0.75	9/16
M4N-HFC	1/4	0.91	3/4
M6N-HFC	3/8	1.03	7/8
M8N-HFC	1/2	1.34	1-1/16
M12N-HFC	3/4	1.44	1-5/16
M16N-HFC	1	1.63	1-5/8

Hex Male Plug

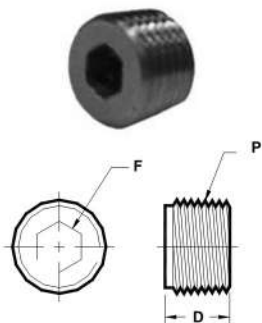
NPT(M)



Part No.	P NPTM	A	F (Hex)
M1N-HMP	1/16	0.75	5/16
M2N-HMP	1/8	0.75	7/16
M4N-HMP	1/4	0.96	9/16
M6N-HMP	3/8	0.99	11/16
M8N-HMP	1/2	1.21	7/8
M12N-HMP	3/4	1.21	1-1/16
M16N-HMP	1	1.50	1-3/8

Allen Plug

NPT(M)



Part No.	P NPTM	D	F (Hex)
M1N-AP	1/16	0.30	5/32
M2N-AP	1/8	0.30	3/16
M4N-AP	1/4	0.47	1/4
M6N-AP	3/8	0.47	5/16

مت لوک (کیش)

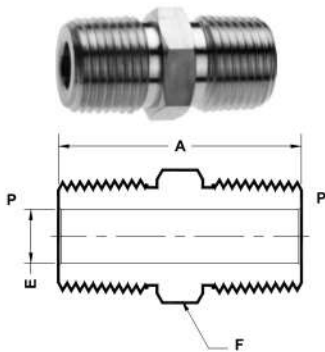
HYDRO PNEUMATICS PVT. LTD.

MET-LOK (KISH)

Note :All Dimension for reference only, subject to change

Hex Nipple

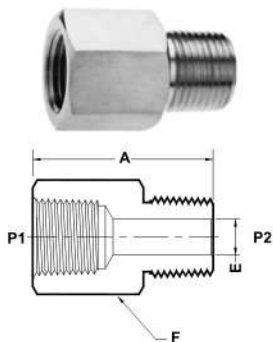
ISOT(M) X ISOT(M)



Part No.	P ISOTM	A	E	F (Hex)
M2IT-HN	1/8-28	1.01	0.19	7/16
M4IT-HN	1/4-19	1.40	0.28	9/16
M6IT-HN	3/8-19	1.43	0.38	11/16
M8IT-HN	1/2-14	1.84	0.47	7/8
M12IT-HN	3/4-14	1.84	0.62	1-1/16
M16IT-HN	1/1	2.32	0.88	1-3/8

Adapter

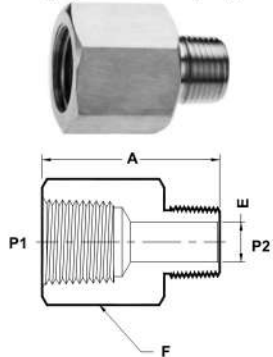
ISOT(F) X ISOT(M)



Part No.	P2 ISOTF	P1 ISOTM	A	E	F (Hex)
M2IT-A	1/8-28	1/8-28	1.09	0.18	9/16
M4IT-A	1/4-19	1/4-19	1.42	0.28	3/4
M6IT-A	3/8-19	3/8-19	1.50	0.37	7/8
M8IT-A	1/2-14	1/2-14	1.95	0.46	1-1/16

Reducing Adapter

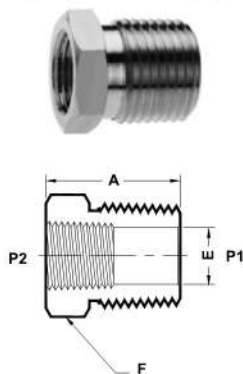
ISOT(F) X ISOT(M)



Part No.	P1 ISOTF	P2 ISOTM	A	E	F (Hex)
M4-RA-2IT	1/4-19	1/8-28	1.26	0.18	3/4
M6-RA-4IT	3/8-19	1/4-19	1.50	0.28	7/8
M8-RA-4IT	1/2-14	1/4-19	1.76	0.28	1-1/16
M8-RA-6IT	1/2-14	3/8-19	1.75	0.37	1-1/16

Reducing Bushing

ISOT(M) X ISOT(F)



Part No.	P1 ISOTM	P2 ISOTF	A	E	F (Hex)
M4-RB-2IT	1/4-19	1/8-28	1.06	0.28	9/16
M6-RB-4IT	3/8-19	1/4-19	1.19	0.37	3/4
M8-RB-4IT	1/2-14	1/4-19	1.08	0.43	7/8
M8-RB-6IT	1/2-14	3/8-19	1.41	0.46	7/8

مت لوک (کیش)

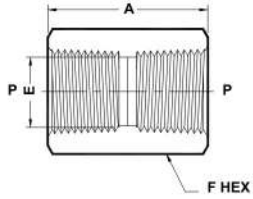
HYDRO PNEUMATICS PVT. LTD.

MET-LOK (KISH)

Note :All Dimension for reference only, subject to change

Hex Coupling

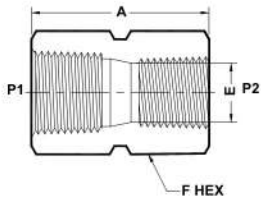
ISOT(F) X ISOT(F)



Part No.	P ISOTF	A	E	F (Hex)
M2IT-HC	1/8-28	0.81	0.32	9/16
M4IT-HC	1/4-19	1.19	0.43	3/4
M6IT-HC	3/8-19	1.31	0.57	7/8
M8IT-HC	1/2-14	1.56	0.71	1-1/16

Hex Reducing Coupling

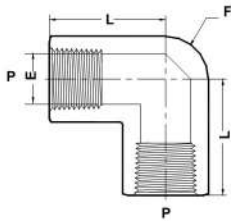
ISOT(F) X ISOT(F)



Part No.	P1 ISOTF	P2 ISOTF	A	E	F (Hex)
M6-HRC-4IT	3/8-19	1/4-19	1.38	0.43	7/8
M8-HRC-4IT	1/2-14	1/4-19	1.75	0.13	1-1/16
M8-HRC-6IT	1/2-14	3/8-19	1.78	0.57	1-1/16

Elbow Female

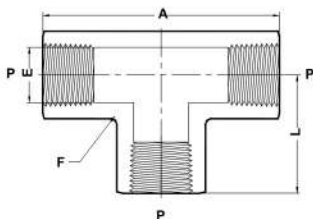
ISOT(F) X ISOT(F)



Part No.	P ISOTF	E	F (Hex)	L
M4IT-EF	1/14-19	0.43	11/16	1.17
M6IT-EF	3/8-19	0.57	13/16	1.42
M8IT-EF	1/2-14	0.71	1	1.56

Tee Female

ISOT(F) X ISOT(F) X ISOT(F)



Part No.	P ISOTF	A	E	F (Hex)	L
M4IT-TF	1/4-19	2.34	0.43	11/16	1.17
M6IT-TF	3/8-19	2.84	0.57	13/16	1.42
M8IT-TF	1/2-14	3.12	0.71	1-1/16	1.56

مت لوک (کیش)

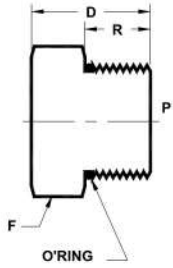
HYDRO PNEUMATICS PVT. LTD.

MET-LOK (KISH)

Note :All Dimension for reference only, subject to change

Hex SAE Plug

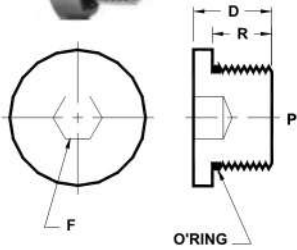
UNF(M)



Part No.	P UNFM	D	F (Hex)	R	ST-ORING
M7U-HSP	7/16-20	0.67	9/16	0.36	3-904
M9U-HSP	9/16-18	0.73	11/16	0.39	3-906
M12U-HSP	3/4-16	0.80	7/8	0.44	3-908
M17U-HSP	1-1/16-12	1.09	1-1/4	0.59	3-912
M21U-HSP	1-5/16-12	1.13	1-1/2	0.59	3-916

Allen SAE Plug

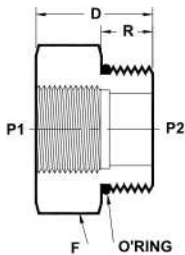
UNF(M)



Part No.	P UNFM	D	F (Hex)	R	X Dia	ST-ORING
M7U-ASP	7/16-20	0.47	3/16	0.36	0.56	3-904
M9U-ASP	9/16-18	0.50	1/4	0.39	0.69	3-906
M12U-ASP	3/4-16	0.58	5/16	0.44	0.88	3-908
M17U-ASP	1-1/16-12	0.77	9/16	0.59	1.25	3-912
M21U-ASP	1-5/16-12	0.77	5/8	0.59	1.50	3-916

SAE Adapter

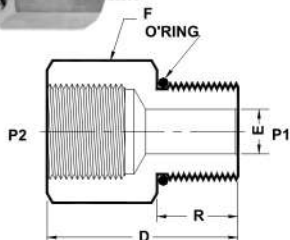
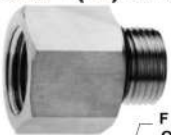
UNF(F) X UNF(F)



Part No.	P1 UNFF	P2 UNFM	D	F (Hex)	R	ST-ORING
M7-SA-9U	7/16-20	9/16-18	1.03	11/16	0.36	3-904
M7-SA-12U	7/16-20	3/4-16	1.09	7/8	0.36	3-904
M12-SA-17U	3/4-16	1-1/16-12	1.00	1-1/4	0.44	3-908
M17-SA-21U	1/1-16	1-5/16-12	1.00	1-1/4	0.44	3-908

SAE Adapter

SAE-(M) X NPT(F)



Part No.	P1 SAE-M	P2 NPTM	D	E	F (Hex)	R	ST-ORING
M7SM-SA-4N	7/16-20	1/4	1.19	0.20	3/4	0.36	3-904
M9SM-SA-6N	9/16-18	3/8	1.26	0.30	7/8	0.39	3-906
M12SM-SA-8N	3/4-16	1/2	1.50	0.39	1-1/8	0.44	3-308
M17SM-SA-12N	1-1/16-12	3/4	1.83	0.66	1-1/4	0.59	3-912
M21SM-SA-16N	1-5/16-12	1	1.88	0.88	1-5/8	0.59	3-916

مت لوک (کیش)

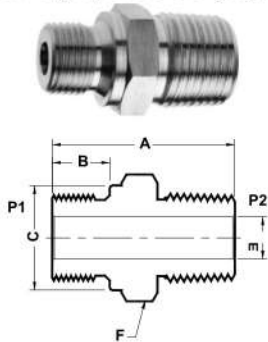
HYDRO PNEUMATICS PVT. LTD.

MET-LOK (KISH)

Note :All Dimension for reference only, subject to change

Hex Nipple

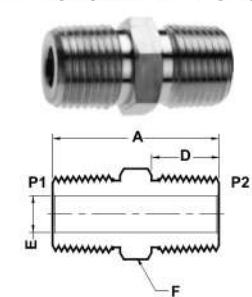
NPT(M) X ISOP(M)



Part No.	P2 NPTM	P1 ISOPM	A	B	E	F (Hex)	C-DIA
M2N-AHN-2IP	1/8	1/8-28	1.07	0.28	0.16	9/16	0.54
M4N-AHN-4IP	1/4	1/4-19	1.44	0.44	0.23	3/4	0.71
M6N-AHN-6IP	3/8	3/8-19	1.47	0.44	0.31	7/8	0.85
M8N-AHN-8IP	1/2	1/2-14	1.78	0.56	0.47	1-1/16	1.02
M12N-AHN-12IP	3/4	3/4-14	1.95	0.62	0.62	1-5/16	1.26
M16N-AHN-16IP	1	1-11	2.26	0.72	0.78	1-5/8	1.53

Hex Nipple

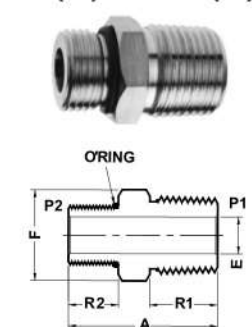
NPT(M) X ISOP(M)



Part No.	P1 NPTM	P2 ISOTM	A	D	E	F (Hex)
M2N-AHN-2IT	1/8	1/8-28	1.01	0.38	0.19	7/16
M4N-AHN-4IT	1/8	1/4-19	1.40	0.56	0.28	9/16
M6N-AHN-6IT	3/8	3/8-19	1.43	0.56	0.38	11/16
M8N-AHN-8IT	1/2	1/2-14	1.84	0.75	0.47	7/8
M12N-AHN-12IT	3/4	3/4-14	1.84	0.75	0.62	1-1/16
M16N-AHN-16IT	1	1-11	2.32	0.94	0.88	1-3/8

Hex Nipple

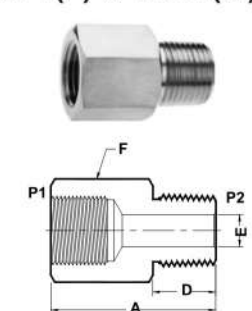
NPT(M) X SAE-(M)



Part No.	P1 NPTM	P2 SAE-M	A	F (Hex)	R1	R2	ST-ORING
M7N-AHN-4SM	1/4-18	7/16-20	1.2	9/16	0.56	0.36	3-904
M9N-AHN-6SM	3/8-18	9/16-18	1.26	11/16	0.56	0.39	3-906
M12N-AHN-8SM	1/2-14	3/4-16	1.53	7/8	0.75	0.44	3-908
M17N-AHN-12SM	3/4-14	1-1/16-12	1.75	1-1/4	0.75	0.59	3-912
M21N-AHN-12SM	1-12	1-5/16-12	2.00	1-1/2	0.94	0.59	3-916

Adapter

NPT(F) X ISOT(M)



Part No.	P1 NPTF	P2 ISOTM	A	D	E	F (Hex)
M2N-AA-2IT	1/8-28	1/8-27	1.09	0.38	0.18	9/16
M4N-AA-4IT	1/4-19	1/4-18	1.42	0.56	0.28	3/4
M6N-AA-6IT	3/8-19	3/8-18	1.49	0.56	0.38	7/8
M8N-AA-8IT	1/2-14	1/2-14	1.94	0.75	0.47	1-1/16
M12N-AA-12IT	3/4-14	3/4-14	2	0.75	0.59	1-5/16
M16N-AA-16IT	1-11	1-11 1/2	2.28	0.94	0.69	1-5/8

مت لوک (کیش)

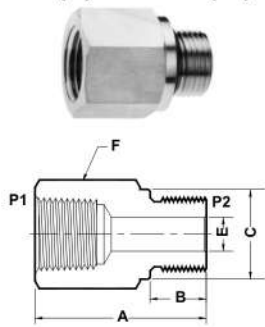
HYDRO PNEUMATICS PVT. LTD.

MET-LOK (KISH)

Note :All Dimension for reference only, subject to change

Adapter

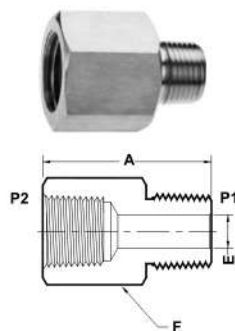
NPT(F) X ISOP(M)



Part No.	P1 NPTF	P2 ISOPM	A	B	E	F (Hex)	C-DIA
M2N-AA-2IP	1/8	1/8-28	0.99	0.28	0.16	9/16	0.54
M4N-AA-4IP	1/4	1/4-19	1.32	0.44	0.23	3/4	0.71
M6N-AA-6IP	3/8	3/8-19	1.41	0.44	0.31	7/8	0.85
M8N-AA-8IP	1/2	1/2-14	1.74	0.56	0.47	1-1/16	1.02
M12N-AA-12IP	3/4	3/4-14	1.89	0.62	0.62	1-5/16	1.26
M16N-AA-16IP	1	1-11	2.1	0.72	0.78	1-5/8	1.53

Adapter

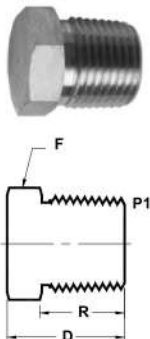
ISOT(F) X NPT(M)



Part No.	P1 NPTM	P2 ISOTF	A	D	E	F (Hex)
M2N-A-2IT	1/8	1/8-28	1.09	0.38	0.19	9/16
M4N-A-4IT	1/4	1/4-19	1.42	0.56	0.28	3/4
M6N-A-6IT	3/8	3/8-19	1.5	0.56	0.38	7/8
M8N-A-8IT	1/2	1/2-14	1.94	0.75	0.47	1-1/16
M12N-A-12IT	3/4	3/4-14	2.02	0.75	0.62	1-5/16
M16N-A-16IT	1	1-11	2.3	0.94	0.88	1-5/8

Hex Pipe Plug

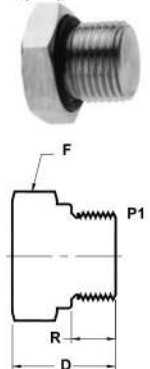
BSPT(M)



Part No.	P1 BSPTM	A	F (Hex)	R
M2IT-AHPP	1/8-28	0.59	7/16	0.38
M4IT-AHPP	1/4-19	0.81	5/8	0.56
M6IT-AHPP	3/8-19	0.81	3/4	0.56
M8IT-AHPP	1/2-14	1.06	7/8	0.75
M12IT-AHPP	3/4-14	1.13	1-1/8	0.75
M16IT-AHPP	1-11	1.31	1-3/8	0.94

Hex Pipe Plug

BSPP(M)



Part No.	P1 BSPPM	A	F (Hex)	R
M2IP-AHPP	1/8-28	0.55	9/16	0.28
M4IP-AHPP	1/4-19	0.78	3/4	0.44
M6IP-AHPP	3/8-19	0.78	7/8	0.44
M8IP-AHPP	1/2-14	0.99	1-1/16	0.56
M12IP-AHPP	3/4-14	1.13	1-5/16	0.63
M16IP-AHPP	1-11	1.21	1-5/8	0.72

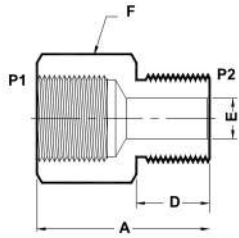
مت لوک (کیش)

HYDRO PNEUMATICS PVT. LTD.

MET-LOK (KISH)

Note :All Dimension for reference only, subject to change

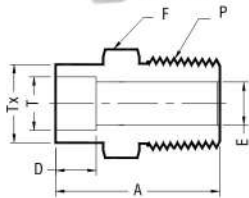
Gauge Adapter ISOP(F) X NPT(M)



PART NOS	ISOPF (P1)	NPTM (P2)	A	D	E	F Hex
M2IP-AGA-4N	1/8-28	1/8-27	1.09	0.38	0.18	3/4
M4IP-AGA-4N	1/4-19	1/4-18	1.08	0.56	0.22	3/4
M6IP-AGA-6N	3/8-19	3/8-18	1.27	0.56	0.26	15/16
M8IP-AGA-8N	1/2-14	1/2-14	1.65	0.75	0.28	1-1/16
M12IP-AGA-12N	3/4-14	3/4-14	2	0.75	0.32	1-5/16
M16IP-AGA-16N	1-11	1-11 1/2	2.28	0.94	0.36	1-5/8

Male Connector

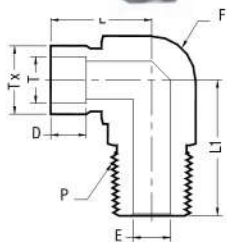
Fractional Tube Socket
Weld X NPT(M)



Part No.	Tube OD (T)	NPT Thread (P)	A	D	E	F (Hex)	TX	W.P.PSI	W.P.BAR
M4-WMC-4N	1/4	1/4	1.15	0.28	0.18	9/16	0.48	7500	516
M6-WMC-4N	3/8	1/4	1.25	0.31	0.28	5/8	0.60	7500	516
M6-WMC-6N	3/8	3/8	1.25	0.31	0.28	11/16	0.60	7300	502
M6-WMC-8N	3/8	1/2	1.47	0.31	0.28	7/8	0.60	7200	496
M8-WMC-4N	1/2	1/4	1.31	0.38	0.28	3/4	0.73	6200	427
M8-WMC-6N	1/2	3/8	1.31	0.38	0.37	3/4	0.73	6200	427
M8-WMC-8N	1/2	1/2	1.53	0.38	0.40	7/8	0.73	6200	427

Male Elbow

Fractional Tube Socket
Weld X NPT(M)



Part No.	Tube OD (T)	NPT Thread (P)	D	E	F (Hex)	L	L1	TX	W.P.PSI	WP.BAR
M4-WME-4N	1/4	1/4	0.28	0.18	1/2	0.79	1.05	0.48	7500	516
M6-WME-4N	3/8	1/4	0.31	0.28	1/2	1.04	1.05	0.62	7500	516
M6-WME-6N	3/8	3/8	0.31	0.28	11/16	0.97	1.17	0.60	7300	502
M6-WME-8N	3/8	1/2	0.31	0.28	13/16	1.02	1.45	0.60	7200	496
M8-WME-8N	1/2	1/2	0.38	0.40	13/16	1.08	1.45	0.73	6200	427
M12-WME-12N	3/4	3/4	0.44	0.62	1	1.56	1.56	1.12	6700	461

مت لوک (کیش)

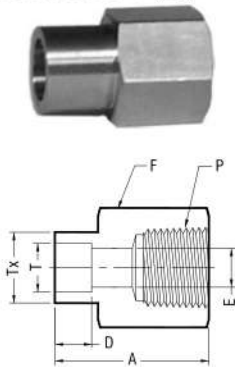
HYDRO PNEUMATICS PVT. LTD.

MET-LOK (KISH)

Note :All Dimension for reference only, subject to change

Female Connector

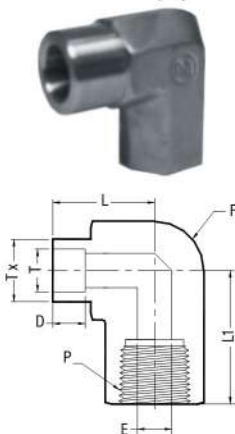
Fractional Tube Socket Weld X NPT(F)



Part No.	Tube OD (T)	NPT Thread (P)	A	D	E	F (Hex)	TX	W.P.PSI	W.P.BAR
M2-WFC-2N	1/8	1/8	0.83	0.10	0.09	9/16	0.29	6100	420
M4-WFC-2N	1/4	1/8	1.05	0.28	0.18	9/16	0.48	6100	420
M4-WFC-4N	1/4	1/4	1.18	0.28	0.18	3/4	0.48	6200	427
M6-WFC-4N	3/8	1/4	1.24	0.31	0.28	3/4	0.60	6200	427
M8-WFC-6N	1/2	3/8	1.36	0.38	0.40	7/8	0.73	5000	344
M8-WFC-8N	1/2	1/2	1.59	0.38	0.40	1-1/16	0.73	4600	316
M10-WFC-8N	5/8	1/2	1.65	0.41	0.50	1-1/16	0.92	4600	316
M12-WFC-12N	3/4	3/4	1.73	0.44	0.62	1-5/16	1.04	4300	296

Female Elbow

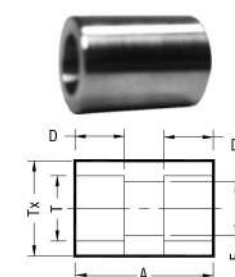
Fractional Tube Socket Weld X NPT(F)



Part No.	Tube OD (T)	NPT Thread (P)	D	E	F (Hex)	L	L1	TX	W.P.PSI	W.P.BAR
M4-WFE-4N	1/4	1/4	0.28	0.19	11/16	0.9	1.17	0.48	6200	427
M6-WFE-4N	3/8	1/4	0.31	0.28	11/16	0.99	1.17	0.60	7000	482
M6-WFE-8N	3/8	1/2	0.31	0.28	1	1.13	1.56	0.60	5400	372
M8-WFE-8N	1/2	1/2	0.38	0.40	1	1.19	1.56	0.73	5400	372

Union

Fractional Tube Socket Weld ENDS



Part No.	Tube OD (T)	A	D	E	TX	W.P.PSI	W.P.BAR
M4-WU	1/4	0.75	0.28	0.18	0.48	10000	689
M6-WU	3/8	0.88	0.31	0.28	0.60	7600	523
M8-WU	1/2	1.06	0.38	0.40	0.73	6200	427
M10-WU	5/8	1.19	0.41	0.50	0.92	6400	440
M12-WU	3/4	1.31	0.44	0.62	1.04	5500	378
M16-WU	1	1.44	0.62	0.87	1.36	5200	358

مت لوک (کیش)

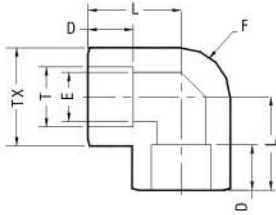
HYDRO PNEUMATICS PVT. LTD.

MET-LOK (KISH)

Note :All Dimension for reference only, subject to change

Union Elbow

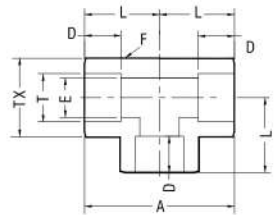
Fractional Tube Socket
Weld ENDS



Part No	Tube OD (T)	D	E	F (Hex)	L	TX	W.P.PSI	W.P.BAR
M4-WUE	1/4	0.28	0.18	7/16	0.86	0.53	11300	778
M6-WUE	3/8	0.31	0.28	1/2	1.04	0.63	8400	578
M8-WUE	1/2	0.38	0.40	11/16	1.17	0.81	7800	537
M10-WUE	5/8	0.41	0.50	13/16	1.42	0.94	6700	461
M12-WUE	3/4	0.44	0.62	1	1.56	1.12	6700	461
M16-WUE	1	0.62	0.87	1-1/4	1.92	1.44	6100	420

Union Tee

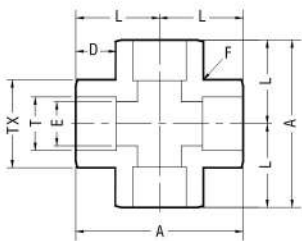
Fractional Tube Socket
Weld ENDS



Part No.	Tube OD (T)	A	D	E	F (Hex)	L	TX	W.P.PSI	W.P.BAR
M2-WUT	1/8	1.18	0.10	0.09	7/16	0.59	0.29	11800	813
M4-WUT	1/4	1.72	0.28	0.18	7/16	0.86	0.53	11300	778
M6-WUT	3/8	2.08	0.31	0.28	1/2	1.04	0.63	8400	578
M8-WUT	1/2	2.34	0.38	0.40	11/16	1.17	0.81	7800	537
M10-WUT	5/8	2.84	0.41	0.50	13/16	1.42	0.94	6700	461
M12-WUT	3/4	3.12	0.44	0.62	1	1.56	1.12	6700	461
M16-WUT	1	3.84	0.62	0.87	1-1/4	1.92	1.44	6100	420

Union Cross

Fractional Tube Socket
Weld ENDS



Part No.	Tube OD (T)	A	D	E	F (Hex)	L	TX	W.P.PSI	W.P.BAR
M4-WUC	1/4	1.72	0.28	0.18	7/16	0.86	0.53	11300	778
M6-WUC	3/8	2.08	0.31	0.28	1/2	1.04	0.63	8400	578
M8-WUC	1/2	2.34	0.38	0.40	11/16	1.17	0.81	7800	537
M12-WUC	3/4	3.12	0.44	0.62	1	1.56	1.12	6700	461
M16-WUC	1	3.84	0.62	0.87	1-1/4	1.92	1.44	6100	420

مت لوک (کیش)

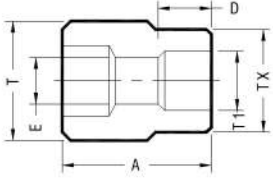
HYDRO PNEUMATICS PVT. LTD.

MET-LOK (KISH)

Note :All Dimension for reference only, subject to change

Reducing Adapter

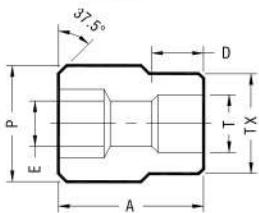
Fractional Tube Butt
Weld OR Fractional Tube
Socket Weld
X Socket Weld Tube



Part No.	Tube OD (T)	SW (T1)	A	D	E	TX	W.P.PSI	W.P.BAR
M4-WA-2	1/4	1/8	0.56	0.10	0.09	0.29	11800	813
M6-WA-4	3/8	1/4	0.75	0.28	0.18	0.48	7700	530
M8-WA-4	1/2	1/4	0.88	0.28	0.18	0.50	7000	482
M8-WA-6	1/2	3/8	0.88	0.31	0.32	0.60	7000	482
M12-WA-8	3/4	1/2	1.12	0.38	0.40	0.75	5900	406
M16-WA-8	1	1/2	1.38	0.38	0.40	0.73	5000	344

Reducing Adapter

Fractional Pipe Butt
Weld OR Pipe Socket
Weld X Tube Socket Weld



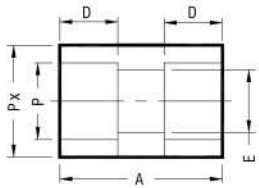
Part No.	P Pipe	T Tube SW	A	D	E	TX	W.P.PSI	W.P.BAR
M4-WRA-4	1/4	1/4	0.88	0.28	0.18	0.48	9600	661
M6-WRA-6	3/8	3/8	1.03	0.31	0.28	0.60	7600	523
M6-WRA-8	3/8	1/2	1	0.38	0.42	0.73	6200	427
M8-WRA-4	1/2	1/4	1.12	0.28	0.18	0.48	7300	502
M8-WRA-6	1/2	3/8	1.12	0.31	0.28	0.60	7300	502
M8-WRA-8	1/2	1/2	1.19	0.38	0.40	0.73	6200	427
M12-WRA-6	3/4	3/8	1.5	0.31	0.28	0.60	6200	427
M12-WRA-8	3/4	1/2	1.5	0.38	0.40	0.73	6200	427
M12-WRA-12	3/4	3/4	1.5	0.44	0.62	1.05	5700	392
M16-WRA-6	1	3/8	1.38	0.31	0.28	0.60	5600	385
M16-WRA-8	1	1/2	1.56	0.38	0.40	0.73	5600	385

Union

Pipe Socket Weld Ends



ITEM 31



Part No.	P Pipe	A	D	E	Px	W.P.PSI	W.P.BAR
M4-UPSW	1/4	1.06	0.38	0.40	0.98	9400	647
M6-UPSW	3/8	1.12	0.44	0.50	1.11	8000	551
M8-UPSW	1/2	1.12	0.50	0.73	1.36	7900	544
M12-UPSW	3/4	1.75	0.62	0.93	1.48	5700	392
M16-UPSW	1	1.75	0.62	1.06	1.86	5800	399

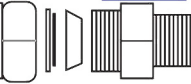
مت لوک (کیش)

HYDRO PNEUMATICS PVT. LTD.

MET-LOK (KISH)

Note :All Dimension for reference only, subject to change

MET-LOK

HYDRO PNEUMATIC  KISH

FIT FOREVER

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