

Reducer Hex Bushings







galvanized HB2010G



316 stainless steel HB2010SS



forged steel HB2010FS



brass HB2010B

Male	Female	150# Iron	Galvanized	316 Stainless Steel	Forged Steel	Brass
NPT	NPT	Part #	Part #	Part #	Part #	Part #
1/4"	1/8"	HB2518	HB2518G	HB2518SS	HB2518FS	
3/8"	1/8"	HB3818				
3/8"	1/4"	HB3825	HB3825G	HB3825SS	HB3825FS	
1/2"	1/8"	HB5018				
1/2"	1/4"	HB5025	HB5025G	HB5025SS	HB5025FS	
1/2"	3/8"	HB5038	HB5038G	HB5038SS	HB5038FS	
3/4"	1/8"	HB7518				
3/4"	1/4"	HB7525	HB7525G	HB7525SS	HB7525FS	
3/4"	3/8"	HB7538	HB7538G	HB7538SS	HB7538FS	
3/4"	1/2"	HB7550	HB7550G	HB7550SS	HB7550FS	
1"	1/8"	HB1018				
1"	1/4"	HB1025	HB1025G	HB1025SS	HB1025FS	
1"	3/8"	HB1038	HB1038G	HB1038SS	HB1038FS	
1"	1/2"	HB1050	HB1050G	HB1050SS	HB1050FS	
1"	3/4"	HB1075	HB1075G	HB1075SS	HB1075FS	
1-1/4"	1/2"	HB1250				
1-1/4"	3/4"	HB1275		HB1275SS	HB1275FS	
1-1/4"	1"	HB1210	HB1210G	HB1210SS	HB1210FS	HB1210
1-1/2"	1/2"	HB1550				
1-1/2"	3/4"	HB1575	HB1575G	HB1575SS	HB1575FS	HB1575
1-1/2"	1"	HB1510	HB1510G	HB1510SS	HB1510FS	HB1510
1-1/2"	1-1/4"	HB1512	HB1512G	HB1512SS	HB1512FS	HB1512
2"	1/2"	HB2050	HB2050G			HB2050
2"	3/4"	HB2075	HB2075G	HB2075SS	HB2075FS	HB2075
2"	1"	HB2010	HB2010G	HB2010SS	HB2010FS	HB2010
2"	1-1/4"	HB2012	HB2012G	HB2012SS	HB2012FS	HB2012
2"	1-1/2"	HB2015	HB2015G	HB2015SS	HB2015FS	HB2015
2-1/2"	1-1/2"	HB2515				
2-1/2"	2"	HB2520	HB2520G	HB2520SS	HB2520FS	
3"	1"	HB3010				
3"	1-1/2"	HB3015				
3"	2"	HB3020	HB3020G	HB3020SS	HB3020FS	HB3020
3"	2-1/2"	HB3025		HB3025SS	HB3025FS	HB3025
4"	1"	HB4010				
4"	1-1/2	HB4015				
4"	2"	HB4020	HB4020G	HB4020SS		HB4020
4"	2-1/2"	HB4025				
4"	3"	HB4030	HB4030G	HB4030SS	HB4030FS	HB4030
5"	4"	HB5040				
6"	3"	HB6030				
6"	4"	HB6040				

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Reducing Union



150# iron *MIRU7550*

Female NPT	150# Iron Part #
3/4" x 1/2"	MIRU7550

Threaded Unions



150# iron *MIU150*



galvanized TUN150G



316 stainless steel TUN150SS



forged steel TUN100FS



brass TUN8F

• 304 stainless steel and other sizes are available, consult the factory for pricing and availability

Female NPT	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
1/8"	MIU18				
1/4"	MIU25		TUN025SS		TUN2F
3/8"	MIU38				TUN3F
1/2"	MIU50	TUN050G	TUN050SS	TUN050FS	TUN4F
3/4"	MIU75	TUN075G	TUN075SS	TUN075FS	TUN5F
1"	MIU100	TUN100G	TUN100SS	TUN100FS	TUN6F
1-1/4"	MIU125	TUN125G	TUN125SS		TUN7F
1-1/2"	MIU150	TUN150G	TUN150SS	TUN150FS	TUN8F
2"	MIU200	TUN200G	TUN200SS	TUN200FS	TUN9F
2-1/2"	MIU250				
3"	MIU300				
4"	MIU400				

Threaded Bell Reducers







galvanized BR1075G



316 stainless steel BR1075SS



forged steel BR1075FS



brass BR1075B

• 304 stainless steel and other sizes are available, consult the factory for pricing and availability

Female NPT	Female NPT	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
3/8"	1/4"			BR3825SS		
1/2"	1/4"	BR5025	BR5025G	BR5025SS		
1/2"	3/8"	BR5038	BR5038G	BR5038SS	BR5038FS	BR5038
3/4"	1/4"	BR7525				
3/4"	3/8"	BR7538		BR7538SS		
3/4"	1/2"	BR7550	BR7550G	BR7550SS	BR7550FS	BR7550
1"	1/4"	BR1025				
1"	3/8"	BR1038				
1"	1/2"	BR1050	BR1050G	BR1050SS		
1"	3/4"	BR1075	BR1075G	BR1075SS	BR1075FS	BR1075
1-1/4"	1/2"	BR1250				
1-1/4"	3/4"	BR1275				
1-1/4"	1"	BR1210	BR1210G	BR1210SS		BR1210
1-1/2"	3/4"	BR1575				BR1575
1-1/2"	1"	BR1510	BR1510G	BR1510SS	BR1510FS	BR1510
1-1/2"	1-1/4"	BR1512	BR1512G	BR1512SS	BR1512FS	
2"	3/4"	BR2075				
2"	1"	BR2010	BR2010G	BR2010SS	BR2010FS	BR2010
2"	1-1/4"	BR2012				
2"	1-1/2"	BR2015	BR2015G	BR2015SS	BR2015FS	BR2015
2-1/2"	1"	BR2510				
2-1/2"	1-1/2"	BR2515				
2-1/2"	2"	BR2520				
3"	1"	BR3010				
3"	1-1/4"	BR3012				
3"	1-1/2"	BR3015				
3"	2"	BR3020	BR3020G	BR3020SS		BR3020
3"	2-1/2"	BR3025				
4"	1"	BR4010				
4"	1-1/2"	BR4015				
4"	2"	BR4020				
4"	2-1/2"	BR4025				
4"	3"	BR4030	BR4030G			BR4030
6"	3"	BR6030				
6"	4"	BR6040				

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Threaded Both Ends Couplings



150# iron RHC150



galvanized RHC150G



316 stainless steel RHC150SS



forged steel RHC150FS



brass RHC150B

• 304 stainless steel and other sizes are available, consult the factory for pricing and availability

Female NPT	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part#
1/8"	RHC18				
1/4"	RHC25	RHC25G	RHC25SS	RHC25FS	RHC25B
3/8"	RHC38	RHC38G	RHC38SS	RHC38FS	RHC38B
1/2"	RHC50	RHC50G	RHC50SS	RHC50FS	RHC50B
3/4"	RHC75	RHC75G	RHC75SS	RHC75FS	RHC75B
1"	RHC100	RHC100G	RHC100SS	RHC100FS	RHC100B
1-1/4"	RHC125	RHC125G	RHC125SS	RHC125FS	RHC125B
1-1/2"	RHC150	RHC150G	RHC150SS	RHC150FS	RHC150B
2"	RHC200	RHC200G	RHC200SS	RHC200FS	RHC200B
2-1/2"	RHC250				
3"	RHC300	RHC300G	RHC300SS		
4"	RHC400	RHC400G	RHC400SS		
5"	RHC500				
6"	RHC600				

90° Threaded Elbows



150# iron *EL90150*



galvanized EL90150G



316 stainless steel EL90150SS



forged steel EL90150FS



brass EL90150B

· 304 stainless steel and other sizes are available, consult the factory for pricing and availability

Female NPT	Female NPT	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
1/8"	1/8"	EL9018	EL9018G	EL9018SS		
1/4"	1/4"	EL9025	EL9025G	EL90025SS	EL9025FS	
3/8"	3/8"	EL9038	EL9038G	EL90038SS	EL9038FS	
1/2"	1/2"	EL9050	EL9050G	EL90050SS	EL9050FS	
3/4"	3/4"	EL9075	EL9075G	EL90075SS	EL9075FS	
1"	1"	EL90100	EL90100G	EL90100SS	EL90100FS	EL90100B
1-1/4"	1-1/4"	EL90125	EL90125G	EL90125SS	EL90125FS	
1-1/2"	1-1/2"	EL90150	EL90150G	EL90150SS	EL90150FS	EL90150B
2"	2"	EL90200	EL90200G	EL90200SS	EL90200FS	EL90200B
2-1/2"	2-12"	EL90250				
3"	3"	EL90300		EL90300SS		
4"	4"	EL90400		EL90400SS		
5"	5"	EL90500				
6"	6"	EL90600				

45° Threaded Elbows

• 304 stainless steel and additional sizes are available, consult the factory for pricing and availability



Female NPT	Female NPT	150# Iron Part #
1/8"	1/8"	EL4518
1/4"	1/4"	EL4525
3/8"	3/8"	<i>EL4538</i>
1/2"	1/2"	EL4550
3/4"	3/4"	EL4575
1"	1"	EL45100
1-1/4"	1-1/4"	EL45125
1-1/2"	1-1/2"	EL45150
2"	2"	EL45200
2-1/2"	2-1/2"	EL45250
3"	3"	EL45300
4"	4"	EL45400
5"	5"	EL45500
6"	6"	EL45600

Side Outlet Elbows

• 304 stainless steel and additional sizes are available, consult the factory for pricing and availability



150# iron SOE200

Female NPT	150# Iron Part #
1/8"	SOE18
1/4"	S0E25
3/8"	SOE38
1/2"	SOE50
3/4"	S0E75
1"	SOE100
1-1/4"	SOE120
1-1/2"	SOE150
2"	SOE200

Reducing Elbows

 304 stainless steel and additional sizes are available, consult the factory for pricing and availability



150# iron REL1525

Female NPT	Female NPT	150# Iron Part #
1/4"	1/8"	REL2518
1/2"	1/4"	REL5025
1/2"	3/8"	REL5038
3/4"	1/2"	REL7550
1"	1/2"	REL1050
1"	3/4"	REL1075
1-1/4"	1"	REL1210
1-1/2"	1"	REL1510
1-1/2"	1-1/4"	REL1525
2"	1"	REL2010
2"	1-1/2"	REL2015
2-1/2"	2"	REL2520
3"	2"	REL3020
4"	2"	REL4020
4"	3"	REL4030
		Dixon

45° Street Elbows





galvanized SE45150G

· 304 stainless steel and additional sizes are available, consult the factory for pricing and availability

NPT	150# Iron Part #	Galvanized Part #
	r urt //	r art //
1/8"	SE4518	
1/4"	SE4525	SE4525G
3/8"	SE4538	
1/2"	SE4550	SE4550G
3/4"	SE4575	SE4575G
1"	SE45100	
1-1/4"	SE45125	SE45125G
1-1/2"	SE45150	SE45150G
2"	SE45200	SE45200G
2-1/2"	SE45250	SE45250G
3"	SE45300	SE45300G
4"	SE45400	SE45400G

90° Street Elbows



150# iron SE9015



galvanized SE9015G



316 stainless steel SE9012SS



forged steel SE9010FS



brass SE9012B

• 304 stainless steel and other sizes are available, consult the factory for pricing and availability

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NPT	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
1/8"	SE9018	SE9018G	SE9018SS		
1/4"	SE9025	SE9025G	SE9025SS	SE9025FS	
3/8"	SE9038	SE9038G	SE9038SS	SE9038FS	
1/2"	SE9050	SE9050G	SE9050SS	SE9050FS	
3/4"	SE9075	SE9075G	SE9075SS	SE9075FS	SE9075B
1"	SE9010	SE9010G	SE9010SS	SE9010FS	SE9010B
1-1/4"	SE9012	SE9012G	SE9012SS	SE9012FS	SE9012B
1-1/2"	SE9015	SE9015G		SE9015FS	SE9015B
2"	SE9020	SE9020G	SE9020SS	SE9020FS	SE9020B
2-1/2"	SE90250				
3"	SE90300				
4"	SE90400				
6"	SE90600				

Female Reducing Tees



150# iron FRT1210

• 304 stainless steel and other sizes are available, consult the factory for pricing and availability

Female NPT	Female NPT	150# Iron Part #
3/8"	1/4"	FRT3825
1/2"	3/8"	FRT5038
3/4"	1/2"	FRT7550
1"	1/2"	FRT1050
1-1/4"	1"	FRT1210
1-1/2"	1"	FRT1510
2"	1"	FRT2010
2"	1-1/2"	FRT2015
3"	2"	FRT3020

Side Outlet Tees



150# iron SOT150

NPT	150# Iron Part #
1/2"	SOT50
3/4"	SOT75
1"	SOT100
1-1/4"	SOT120
1-1/2"	SOT150
2"	SOT200

Street Service Tees



150# iron SST100

NPT	150# Iron Part #
1/2"	SST50
3/4"	SST75
1"	SST100
1-1/2"	SST150

Female Tees



150# iron *FT15*



galvanized FT150G



316 stainless steel FT150SS



forged steel FT150FS



brass FT15B

Female NPT	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #	Brass Part #
1/8"	FT18				
1/4"	FT25	FT25G	FT25SS	FT25FS	
3/8"	FT38	FT38G	FT38SS		
1/2"	FT50	FT50G	FT50SS	FT50FS	
3/4"	FT75	FT75G	FT75SS	FT75FS	FT75B
1"	FT10	FT100G	FT100SS	FT100FS	FT10B
1-1/4"	FT120	FT120G	FT120SS	FT120FS	
1-1/2"	FT15	FT150G	FT150SS	FT150FS	FT15B
2"	FT200	FT200G	FT200SS	FT200FS	FT20B
2-1/2"	FT250				
3"	FT30				
4"	FT40				
5"	FT500				
6"	FT60				

Bull Head Tees



BHT1020

Female NPT	Female NPT	150# Iron Part #
1/2"	3/4"	BHT1575
1/2"	1"	BHT1510
3/4"	1"	BHT7510
1"	1-1/2"	BHT1015
1"	2"	BHT1020
1-1/2"	2"	BHT1520
2"	2-1/2"	BHT2025

Square Head Plugs



150# iron SHP150



galvanized SHP1510G



316 stainless steel SHP100SS



forged steel SHP150FS

• 304 stainless steel and other sizes are available, consult the factory for pricing and availability

	·	, ,		
Size	150# Iron Part #	Galvanized Part #	316 Stainless Steel Part #	Forged Steel Part #
1/8"	SHP18	SHP18G	SHP18SS	
1/4"	SHP14	SHP14G	SHP14SS	SHP14FS
3/8"	SHP38	SHP38G	SHP38SS	SHP38FS
1/2"	SHP50	SHP50G	SHP50SS	SHP50FS
3/4"	SHP75	SHP75G	SHP75SS	SHP75FS
1"	SHP100	SHP100G	SHP100SS	SHP100FS
1-1/4"	SHP125	SHP125G	SHP125SS	
1-1/2"	SHP150	SHP150G	SHP150SS	SHP150FS
2"	SHP200	SHP200G	SHP200SS	
2-1/2"	SHP250	SHP250G	SHP250SS	
3"	SHP300	SHP300G	SHP300SS	SHP300FS
4"	SHP400	SHP400G	SHP400SS	
5"	SHP500			
6"	SHP600	SHP600G		

Crosses



150# iron *MIC150*

• 304 stainless steel and other sizes are available, consult the factory for pricing and availability

Size	150# Iron Part #
1/8"	MIC18
1/4"	MIC25
3/8"	MIC38
1/2"	MIC50
3/4"	MIC75
1"	MIC100
1-1/4"	MIC125
1-1/2"	MIC150
2"	MIC200
2-1/2"	MIC250
3"	MIC300
4"	MIC400

Caps







galvanized MICAP75G



316 stainless steel SSCAP75

• 304 stainless steel and other sizes are available, consult the factory for pricing and availability

Size	150# Iron Part #	Galvanized Part #	316 Stainless Stee Part #
1/8"	MICAP18		SSCAP18
1/4"	MICAP25		SSCAP25
3/8"	MICAP38		SSCAP38
1/2"	MICAP50	MICAP50G	SSCAP50
3/4"	MICAP75	MICAP75G	SSCAP75
1"	MICAP100		SSCAP10
1-1/4"	MICAP120		SSCAP12
1-1/2"	MICAP150		SSCAP15
2"	MICAP200		SSCAP20
2-1/2"	MICAP250		
3"	MICAP300		
4"	MICAP400		
5"	MICAP500		
6"	MICAP600		

Floor Flanges



iron *FF50*

NPT	Iron Part #
1/4"	FF14
3/8"	FF38
1/2"	FF50
3/4"	FF75
1"	FF100
1-1/4"	FF120
1-1/4" 1-1/2" 2"	FF150
2"	FF200

Extruded Brass NPT Threaded Pipe Fittings

Reducer Hex Bushings

- NPTF Dryseal
- reference SAE 130140



Female NPTF	Male NPTF	Brass Part #	Optional Pkg Qty
1/8"	1/4"	HB1F2M	25
1/8"	3/8"	HB1F3M	25
1/8"	1/2"	HB1F4M	25
1/8"	3/4"	HB1F6M *	25
1/4"	3/8"	HB2F3M	25
1/4"	1/2"	HB2F4M	25
1/4"	3/4"	HB2F6M	25
1/4"	1"	HB2F8M *	25
3/8"	1/2"	HB3F4M	25
3/8"	3/4"	HB3F6M	25
3/8"	1"	HB3F8M	25
1/2"	3/4"	HB4F6M	10
1/2"	1"	HB4F8M	10
3/4"	1"	HB6F8M	10

^{*} SAE does not provide a standard for these sizes

90° Female Pipe Elbows

- NPTF Dryseal
- reference SAE 130238



Female NPTF	Brass Part #	Optional Pkg Qty
1/8"	EL1F1F	25
1/4"	EL2F2F	25
3/8"	EL3F3F	25
1/2"	EL4F4F	25
3/4"	EL6F6F	25

Reducer Hex Nipples

- NPTF Dryseal
- reference SAE 130137



Male NPTF	Male NPTF	Brass Part #	Optional Pkg Qty
1/4"	1/8"	HN2M1M	25
3/8"	1/4"	HN3M2M	25
1/2"	1/4"	HN4M2M	25
1/2"	3/8"	HN4M3M	25
3/4"	1/2"	HN6M4M	25

Extruded Brass NPT Threaded Pipe Fittings

Reducer Couplings

- NPTF Dryseal (double female)reference SAE 130138

Female NPT	Female NPT	Brass Part #	Optional Pkg Qty
1/4" 3/8"	1/8" 1/4"	RC2F1F RC3F2F	25 25
1/2"	1/4"	RC4F2F	25
1/2"	3/8"	RC4F3F	25
3/4"	1/2"	RC6F4F	25



Reducer Adapters

- NPTF Drysealreference SAE 130139

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Female NPT	Male NPT	Brass Part #	Optional Pkg Qty	
1/8"	1/8"	RA1F1M	25	
1/4"	1/8"	RA2F1M	25	
1/4"	1/4"	RA2F2M	25	
3/8"	1/4"	RA3F2M	25	
3/8"	3/8"	RA3F3M	25	
1/2"	1/4"	RA4F2M	25	
1/2"	3/8"	RA4F3M	25	
1/2"	1/2"	RA4F4M	25	
3/4"	1/2"	RA6F4M	10	



Couplings

- NPTF Dryseal reference SAE 130138

Female NPT	Brass Part #	Optional Pkg Qty
1/8"	BA1F1F	25
1/4"	BA2F2F	25
3/8"	BA3F3F	25
1/2"	BA4F4F	25
3/4"	BA6F6F	25



Female Tees

- NPTF Dryseal
- reference SAE 130438

Female NPT	Brass Part #	Optional Pkg Qty	
1/8"	322-0202	25	
1/4"	322-0404	25	
3/8"	322-0606	25	
1/2"	322-0808	25	



Extruded Brass NPT Threaded Pipe Fittings

90° Street Elbows



- NPTF Dryseal
- reference SAE 130239

Female NPTF	Male NPTF	Brass Part #	Optional Pkg Qty
1/8"	1/8"	SE1F1M	10
1/4"	1/4"	SE2F2M	10
3/8"	3/8"	SE3F3M	10
1/2"	1/2"	SE4F4M	10

Hex Nipples

- NPTF Dryseal
- reference SAE 130137



Male NPTF	Brass Part #	Optional Pkg Qty
1/8"	BCN12	100
1/4"	BCN25	100
3/8"	BCN37	50
1/2"	BCN50	25
3/4"	BCN75	100
1"	BCN100	50

Hex Head Plugs



Male NPT	Brass Part #	Optional Pkg Qty
1/8"	HHP1M	25
1/4"	HHP2M	300
3/8"	HHP3M	25
1/2"	HHP4M	25
3/4"	HHP6M	25

Schedule 80 Threaded Polypropylene Pipe Fittings

- · glass-reinforced polypropylene for strength and durability
- pressure rated to 150 PSI at 70°F
- recommended operating pressure: 120 PSI at 0°F, 150 PSI at 70°F, 90 PSI at 150°F

Nipples

NPT Size	Length	Schedule 80 Polypropylene Part #
3/4"	4"	62223
3/4"	6"	62224
1"	4"	62225
1"	6"	62226
2"	4"	62192
2"	6"	62193



King Nipples

NPT	Schedule 80 Polypropylene
Size	Part #
1½"	HB150
2"	HB200
3"	HB300
4"	HB400



Reducer Nipples

	NPT Size		Schedule 80 Polypropylene Part #
3/4"	Х	1/2"	62233
1"	Х	3/4"	62234
11/4"	Х	1"	62235
1½"	Χ	11/4"	62236
2"	Χ	1½"	60549



Hex Nipples

NPT Size	Schedule 80 Polypropylene Part #	
1/2"	62221	
/2 3/4"	60554	
1"	60555	
1¼" 1½"	60556 60547	
2"	60548	
3"	61769	



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Schedule 80 Threaded Polypropylene Pipe Fittings

Pipe Caps



NPT	Schedule 80 Polypropylene	
Size	Part #	
³ ⁄4"	62250	
1"	62251	

Reducer Bushings



NPT Size			Schedule 80 Polypropylene Part #		
1/2"	Х	1/4"	62267		
3/4"	Х	1/2"	62272		
1"	Х	1/2"	62275		
1"	Х	3/4"	62276		
11/4"	Х	3/4"	62277		
11/4"	Х	1"	62278		
1½"	Х	3/4"	62279		
1½"	Х	1"	62280		
1½"	Х	11/4"	62281		
2"	Х	3/4"	62195		
2"	Х	1"	62196		
2"	Х	11/4"	62197		
2"	Х	1½"	62198		
3"	Х	2"	60330		
			1		

Cross



NPT	Schedule 80 Polypropylene
Size	Part #
1"	62263

90° Street Elbows



NPT Size	Schedule 80 Polypropylene Part #
1/2"	62243
3/4"	62244
1"	62245
1¼"	62246
1½"	62247
2"	62199
3"	62248

Schedule 80 Threaded Polypropylene Pipe Fittings

90° Elbows

NPT Size	Schedule 80 Polypropylene Part #
1/2"	62215
3/4"	62216
1"	62217
1½"	62219
2"	62191
3"	62220



Pipe Couplings

NPT Size	Schedule 80 Polypropylene Part #
3/4"	62238
1"	62239
1½"	62241
2"	62194



Pipe Plugs

NPT Size	Schedule 80 Polypropylene Part #	
3/4"	62256	
1"	62257	
11/4"	62258	
1½"	62259	
2"	62201	



Tees

NPT Size	Schedule 80 Polypropylene Part #
1/2"	62209
3/4"	62210
1"	62211
11/4"	62212
1½"	62213
2"	62190
3"	62214



Technical Information

Threading Information

Abbreviation	System Name	Compatibility	Seal Method
NPT	American Standard Taper Pipe Thread (N ational P ipe T apered)	male NPT with female NPT male NPT with female NPTF male NPT with female NPSM male NPT with female NPSH female NPT with male NPT female NPT with male NPTF female NPT not compatible with male NPSM or male NPSH	thread thread washer washer thread thread
NPTF	American Standard Taper Pipe Fuel Dryseal Thread (N ational P ipe T apered) (Dryseal)	male NPTF with female NPTF male NPTF with female NPT male NPTF with female NPSM male NPTF with female NPSH female NPTF with male NPTF female NPTF with male NPT female NPTF with male NPSM or NPSH Note: NPTF with NPTF threads do not require sealant for the initial use. After that, sealant is required.	thread thread washer washer thread thread not compatible

Thread Dimensions

Nominal Dimensions of Standard Threads

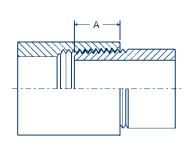
ODM	O 1.1.1.	D:		B 4 - I -
()) \/	()utside	Diameter	of the	Male

IDF -- Inside Diameter of the Female

TPI -- Threads Per Inch

OD	ivi Outsi	ide Diameter of the Male IDI moide Diameter	of the Female	11 1 111168	ius i ei ilicii
Size	Pipe	Tapered Thread NPT		Straight Thread NPSM	
Size	O.D.	TPI	TPI	ODM (<i>max</i>)	IDF (<i>min</i>)
1/8"	.405	27	27	0.397	0.358
1/4"	.540	18	18	0.526	0.468
3/8"	.675	18	18	0.662	0.603
1/2"	.840	14	14	0.823	0.747
3/4"	1.050	14	14	1.034	0.958
1"	1.315	11.5	11.5	1.293	1.201
1-1/4"	1.660	11.5	11.5	1.638	1.546
1-1/2"	1.900	11.5	11.5	1.877	1.785
2"	2.375	11.5	11.5	2.351	2.259
2-1/2"	2.875	8	8	2.841	2.708
3"	3.500	8	8	3.467	3.334
4"	4.500	8	8	4.466	4.333
5"	5.563	8	8	5.528	5.395
6"	6.625	8	8	6.585	6.452
8"	8.625	8			
10"	10.750	8			
12"	12.750	8			

Normal Engagement Length of NPT Thread in Inches (A) *

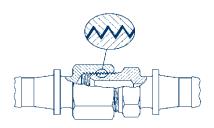


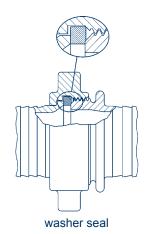
Thread Size	"A"	Thread Size	"A"
1/8"	1/4"	2-1/2"	15/16"
1/4"	3/8"	3"	1"
3/8"	3/8"	4"	1-1/8"
1/2"	1/2"	5"	1-1/4"
3/4"	9/16"	6"	1-5/16"
1"	11/16"	8"	1-7/16"
1-1/4"	11/16"	10"	1-5/8"
1-1/2"	11/16"	12"	1-3/4"
2"	3/4"		

^{*} Dimensions given do not allow for variations in tapping or threading.

Technical Information

Thread Sealing Tips





thread seal

- A seal is obtained by applying a sealant to the male thread before engaging.
- The sealant is used to prevent spiral leakage.
- Thread tape or paste is the preferred sealant in this type of application.
- A seal is obtained when the male thread is tightened down onto the washer of the female assembly.
- The washer should be inspected regularly and replaced as needed to prevent leakage.

Sealing NPT threads can be an exasperating experience if certain techniques are not followed. The following tips will help alleviate many common problems in thread sealing:

- 1. Always use some type of sealant (tape or paste) and apply sealant to male thread only. If using a hydraulic sealant, allow sufficient curing time before system is pressurized.
- 2. When using tape sealant, wrap the threads in a clock-wise motion starting at the first thread and, as layers are applied, work towards the imperfect (vanishing) thread. If the system that the connection being made to cannot tolerate foreign matter (i.e. air systems), leave the first thread exposed and apply the tape sealant as outlined above.
- 3. When using paste sealant, apply to threads with a brush, using the brush to work the sealant into the threads. Apply enough sealant to fill in all the threads all the way around.
- 4. When connecting one stainless steel part to another stainless steel part that will require future disassembly, use a thread sealant that is designed for stainless steel. This stainless steel thread sealant is also useful when connecting aluminum to aluminum that needs to be disconnected in the future. These two materials gall easily, and if the correct sealant is not used, it can be next to impossible to disassemble.
- 5. When connecting parts made of dissimilar metals (i.e. steel and aluminum), standard tape or paste sealant performs satisfactory.
- 6. For sizes 2" and below, tape or paste performs satisfactory. When using thread tape, four wraps (covering all necessary threads) is usually sufficient.
- 7. For sizes 2½" and above, thread paste is recommended. If thread tape is used, eight wraps (covering all necessary threads) is usually sufficient. Apply more wraps if necessary.
- 8. For stubborn to seal threads, apply a normal coating of thread paste followed by a normal layer of thread tape.
- 9. For *extremely* stubborn to seal threads, apply a normal coating of thread paste followed by a single layer of gauze bandage followed by a normal layer of thread tape.

Caution! When this procedure is done, the connection becomes permanent. Extreme measures will be necessary to disconnect these components. All other measures to seal *the threads should be explored prior to use of this technique*.

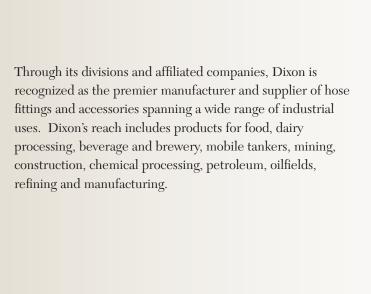
10. Over-tightening threads can be just as detrimental as insufficient tightening. For sizes 2" and below, hand tighten the components and, with a wrench, tighten 3 full turns. For sizes 2½" and above, hand tighten the components and, with a wrench, tighten 2 full turns.

Safety

Dixon's couplings and retention devices are designed to work safely for their intended use. The selection of the proper hose, coupling and retention device, and the proper application of the coupling to the hose are of utmost importance. Users must consider the size, temperature, application, media, pressure and hose and coupling manufacturer's recommendations when

importance. Users must consider the size, temperature, application, media, pressure and hose and coupling manufacturer's recommendations when selecting the proper hose assembly components. Dixon recommends that all hose assemblies be tested in accordance with the Rubber Manufacturers Association's recommendations and be inspected regularly (before each use) to ensure that they are not damaged or have become loose. Visit RMA.org for more information. Where safety devices are integral to the coupling, they must be working and utilized. The use of supplementary safety devices such as safety clips or safety cables are recommended. If any problem is detected, couplings must be removed from service immediately.

Dixon is available to consult, train and recommend the proper selection and application of all fittings we sell. We strongly recommend that distributors and end users make use of Dixon's Testing and Recommendation Services. Call 877-963-4966 or click dixonvalve.com to learn more.





The Right Connection™



