

# TECHNICAL INFORMATION

## HYDRAULIC ADAPTERS

### Pipe & Pipe Swivel Adapter Specifications

NPSM fittings include an inverted 60° cone inside an internally threaded swivel union nut. Male NPTF fittings that have a 30° internal chamfer that make a 60° inverted cone, will mate with NPSM swivel unions.

**NOTE: THE MATING MALE THREADS MUST INCLUDE AN INSIDE CHAMFER ON THE END OF THE FITTING THAT MATES WITH THE INVERTED CONE. THREADS ARE FOR CLAMPING FORCE ONLY AND THE SEALING OCCURS ON A SMALL RADIAL SECTION BETWEEN THE MALE FITTING INTERNAL CHAMFER AND THE SWIVEL UNION INVERTED CONE.**

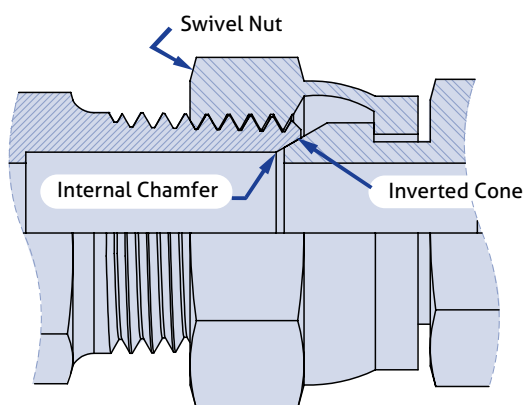


Figure 7 : NPTF & NPSM Union

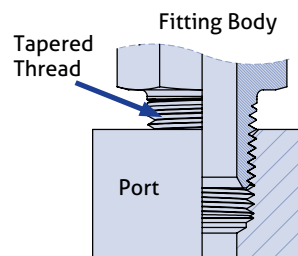


Figure 8: NPT & NPTF Assembly

NPT and NPTF pipe threads seal by wedging the tapered threads through deformation into each other. Both of these threads require thread sealants to complete a seal.

The following table lists the specifications for NPT, NPTF, and NPSM Pipe adapters.

NPT, NPTF, and NPSM Pipe Specifications						
Dash Size	Thread Size	Major OD* (inch)	Working Pressure		Torque	
			NPT, NPTF Male and Female	NPSM Female Swivel Nut	NPT, NPTF	NPSM Swivel Union
			(psi)	(psi)	(TFFT)	(FFWR)
02	1/8-27	.405	5000	5000	2-3	2
04	1/4-18	.540	4000	5000	2-3	2
06	3/8-18	.675	3000	4000	2-3	2
08	1/2-14	.84	3000	3500	2-3	2
12	3/4-14	1.050	2500	2250	2-3	2
16	1-11 1/2	1.315	2000	2000	1 1/2 - 2 1/2	1 1/2
20	1 1/4-11 1/2	1.660	1150	1625	1 1/2 - 2 1/2	1 1/2
24	1 1/2-11 1/2	1.900	1000	1250	1 1/2 - 2 1/2	1 1/2
32	2-11 1/2	2.375	1000	1125	1 1/2 - 2 1/2	1 1/2

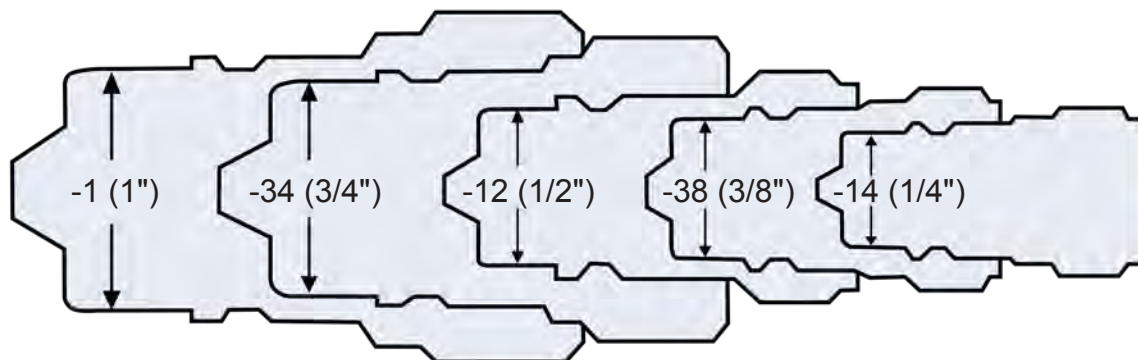
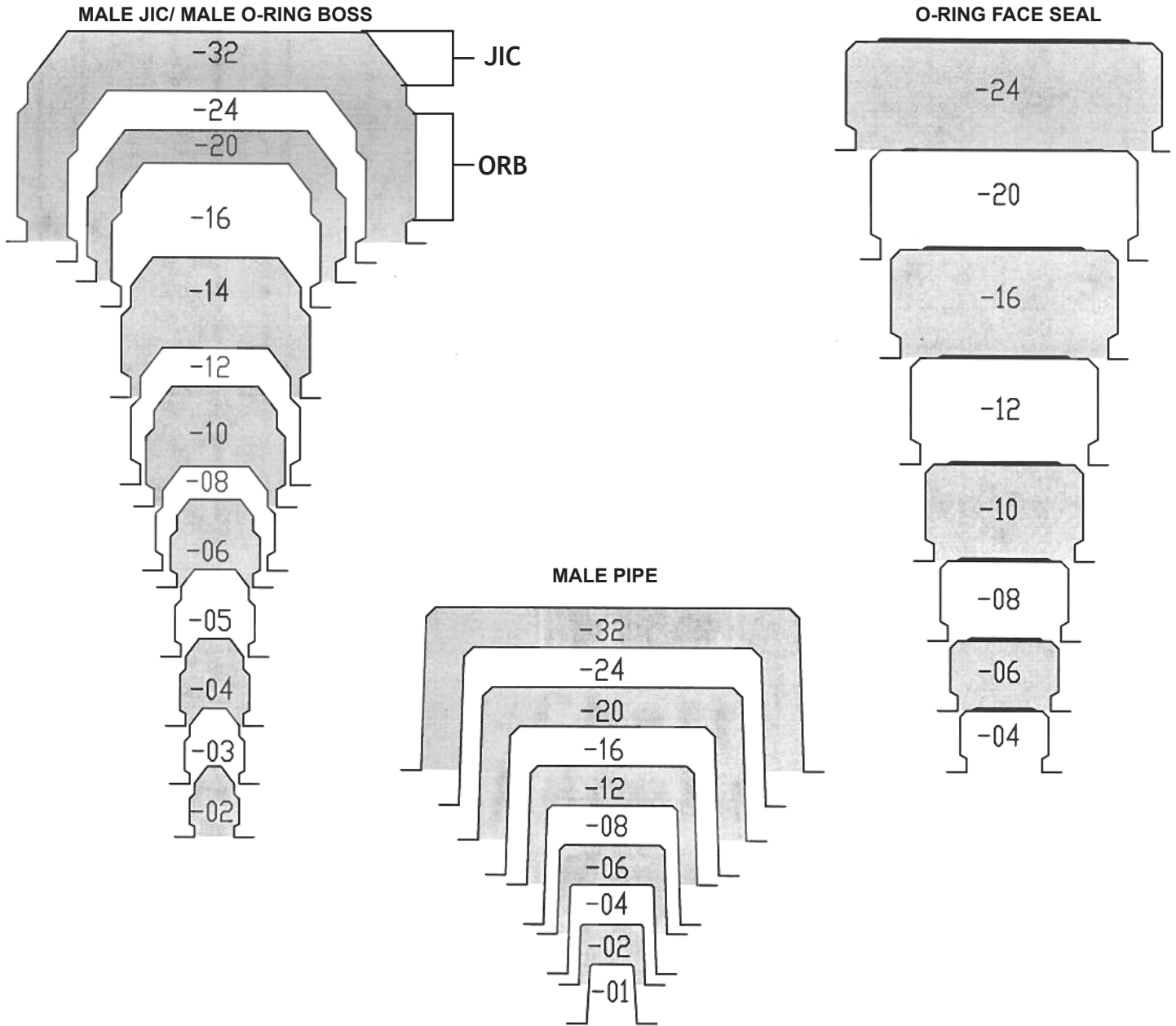
Values are per SAE J514 & J2593

Table 3: NPT, NPTF, and NPSM Pipe Specifications

Folks who never do any more than they are paid for, never get paid for any more than they do.

-Elebert Hubbard

# PROFILE SIZE CHART



AG INTERCHANGE - NV SERIES



# STEEL PIPE SWIVEL ADAPTERS

## HYDRAULIC ADAPTERS

### MALE PIPE SWIVEL ADAPTER

SAE 140130



PART #	MALE PIPE 1	FEMALE NPSM 2	
140422	1/8	1/8	----
140442	1/4	1/8	----
140444	1/4	1/4	----
140464	3/8	1/4	----
140466	3/8	3/8	----
140468	3/8	1/2	----
140484	1/2	1/4	----
140486	1/2	3/8	----
140488	1/2	1/2	----
1404812	1/2	3/4	----
1404126	3/4	3/8	----
1404128	3/4	1/2	----
14041212	3/4	3/4	----
14041216	3/4	1	----
14041612	1	3/4	----
14041616	1	1	----
14041620	1	1-1/4	----
14042024	1-1/4	1-1/2	----
14042016	1-1/4	1	----
14042020	1-1/4	1-1/4	----
14042424	1-1/2	1-1/2	----
14043232	2	2	----

1404 2045R 1210 9205R 0107

### FEMALE PIPE SWIVEL ADAPTER

SAE 140131



PART #	FEMALE PIPE 1	FEMALE NPSM 2	
140522	1/8	1/8	----
140542	1/4	1/8	----
140544	1/4	1/4	----
140546	1/4	3/8	----
140564	3/8	1/4	----
140566	3/8	3/8	----
140586	1/2	3/8	----
140568	3/8	1/2	----
140584	1/2	1/4	----
140588	1/2	1/2	----
1405812	1/2	3/4	----
1405128	3/4	1/2	----
14051212	3/4	3/4	----
14051216	3/4	1	----
14051612	1	3/4	----
14051616	1	1	----
14052020	1-1/4	1-1/4	----
14052424	1-1/2	1-1/2	----
14053232	2	2	----

1405 2046R 1212 9255 C207

### MALE PIPE ELBOW SWIVEL ADAPTER

SAE 140230



PART #	MALE PIPE 1	FEMALE NPSM 2	
150122	1/8	1/8	----
150124	1/8	1/4	----
150142	1/4	1/8	----
150144	1/4	1/4	----
150146	1/4	3/8	----
150148	1/4	1/2	----
150164	3/8	1/4	----
150166	3/8	3/8	----
1501612	3/8	3/4	----
150184	1/2	1/4	----
150186	1/2	3/8	----
150188	1/2	1/2	----
1501126	3/4	3/8	----
1501128	3/4	1/2	----
15011212	3/4	3/4	----
15011216	3/4	1	----
1501168	1	1/2	----
15011612	1	3/4	----
15011616	1	1	----
15012016	1-1/4	1	----
15012020	1-1/4	1-1/4	----
15013232	2	2	----

1501 2047R 1218 9405 2107

### FEMALE UNION ELBOW SWIVEL ADAPTER

SAE 140231



PART #	FEMALE PIPE 1	FEMALE NPSM 2	
150222	1/8	1/8	----
150242	1/4	1/8	----
150244	1/4	1/4	----
150246	1/4	3/8	----
150264	3/8	1/4	----
150266	3/8	3/8	----
150268	3/8	1/2	----
150284	1/2	1/4	----
150286	1/2	3/8	----
150288	1/2	1/2	----
1502812	1/2	3/4	----
1502128	3/4	1/2	----
15021212	3/4	3/4	----
15021616	1	1	----
15022020	1-1/4	1-1/4	----
15022424	1-1/2	1-1/2	----

1502 2207 1216 9455R

**WARNING:** This product can expose you to chemicals, including Cobalt, which are known to the State of California to cause cancer. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

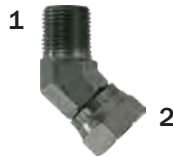


# FEMALE PIPE SWIVELS

## HYDRAULIC ADAPTERS

### MALE 45° PIPE ELBOW SWIVEL ADAPTER

SAE 140330



PART #	MALE PIPE 1	FEMALE NPSM 2	
150322	1/8	1/8	----
150344	1/4	1/4	----
150346	1/4	3/8	----
150364	3/8	1/4	----
150366	3/8	3/8	----
150368	3/8	1/2	----
150384	1/2	1/4	----
150386	1/2	3/8	----
150388	1/2	1/2	----
1503812	1/2	3/4	----
1503128	3/4	1/2	----
15031212	3/4	3/4	----
15031216	3/4	1	----
15031612	1	3/4	----
15031616	1	1	----
15031620	1	1-1/4	----
15032020	1-1/4	1-1/4	----

1503 2049R 3107 1214 9355R

### FEMALE 45° UNION ELBOW SWIVEL ADAPTER

SAE 140331



PART #	FEMALE PIPE 1	FEMALE NPSM 2	
150422	1/8	1/8	----
150444	1/4	1/4	----
150466	3/8	3/8	----
150488	1/2	1/2	----
15041212	3/4	3/4	----
15041616	1	1	----

1504 2050R 1249 9385R

### MALE SWIVEL BRANCH TEE



PART #	FEMALE NPSM 1 & 2	MALE PIPE 3	
160122	1/8	1/8	----
160144	1/4	1/4	----
160166	3/8	3/8	----
160188	1/2	1/2	----
16011212	3/4	3/4	----
16011616	1	1	----

1601 2254R 1258 9406R

### FEMALE SWIVEL TEE



PART #	FEMALE NPSM 1 & 2	FEMALE PIPE 3	
160244	1/4	1/4	----
160266	3/8	3/8	----
160288	1/2	1/2	----
16021212	3/4	3/4	----
16021616	1	1	----

1602 2253R 1259 9456R

### FEMALE SWIVEL UNION TEE



PART #	FEMALE NPSM 1,2 & 3	
160344	1/4	----
160366	3/8	----
160388	1/2	----
16031212	3/4	----
16031616	1	----

1603 2255 1223 9705R