

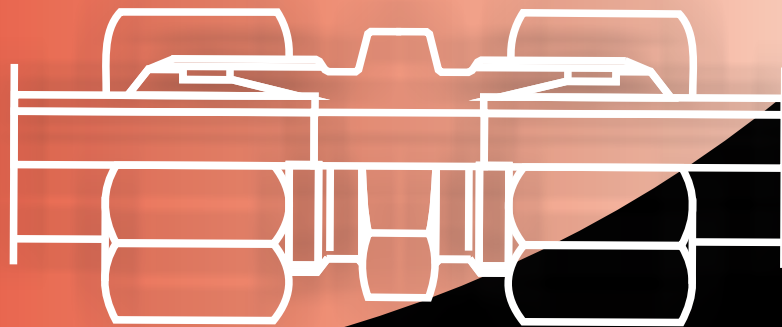
# **MF AUTOLINES**

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**6 MOPEDI ST, SEBENZA, EDENVALE**

**PO Box 1722, Edenvale, 1610, South Africa**



**UPDATED  
2017**



## MISSION

TO CONTINUE STRIVING TO DO THE VERY BEST, TO GIVE OUR CUSTOMERS EFFICIENT, RELIABLE SERVICE AND QUALITY PRODUCTS.

## VISION

TO BE KNOWN AS A RESPECTED SERVICE ORIENTATED COMPANY WITHIN OUR INDUSTRY.

## CONDITIONS

PRICES EXCLUDE VAT AND ARE SUBJECT TO CHANGE WITHOUT NOTICE.

## BANK DETAILS

**NEDBANK - EDENVALE**

**BRANCH CODE: 19 10 42**

**ACCOUNT: 1910-185-655**

**VAT NO: 4360151817**

**COMPANY REGISTRATION  
1996/026369/23**

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# TOOLS & ACCESSORIES

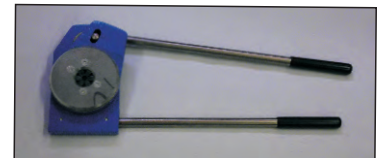
## UPS 1 HANDCRIMPER

| ITEMS  | DESCRIPTION                         |
|--------|-------------------------------------|
| 100000 | UPS1 HANDCRIMPER                    |
|        | • 6 POINT PRESSING                  |
|        | • USE WITH H COLLARS                |
|        | • INCL. TWO CRIMP SETS              |
|        | • CRIMPING RANGE 09-30MM ID COLLARS |
|        | • BENCH MOUNTED                     |
|        | • SEPERATE DIES ON REQUEST          |



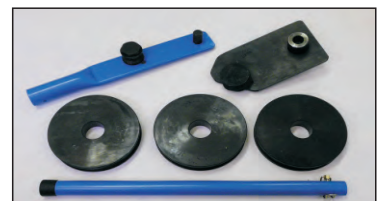
## UPJ 2 HANDCRIMPER

| ITEMS  | DESCRIPTION                         |
|--------|-------------------------------------|
| 100300 | UPJ 2 HANDCRIMPER                   |
|        | • 6 POINT PRESSING                  |
|        | • USE WITH H COLLARS                |
|        | • ONLY ONE CRIMP SET                |
|        | • CRIMPING RANGE 09-17MM ID COLLARS |



## PIPE BENDERS FOR STEEL TUBE

| ITEMS  | DESCRIPTION  |
|--------|--|
| 100500 | 06-18MM PIPE BENDER IN CARDBOARD BOX                           |
| 100501 | 06-18MM PIPE BENDER IN STEEL BOX                               |
|        | • PIPE BENDER WITH CHANGEABLE FORMERS FOR DIFFERENT PIPE SIZES |
|        | • 06, 08, 10, 12, 14, 15, 16 & 18MM                            |
| 100520 | 20-25MM PIPE BENDER  |
|        | • PIPE BENDER WITH CHANGEABLE FORMERS FOR DIFFERENT PIPE SIZES |
|        | • 20, 22 & 25MM  |



## PIPE BENDERS FOR BUNDY

| ITEMS  | DESCRIPTION                 |
|--------|-----------------------------|
| 100530 | 3/16 & 6MM BENDER FOR BUNDY |



## PIPE CUTTERS

| ITEMS  | DESCRIPTION               |
|--------|---------------------------|
| 100630 | STEEL PIPE CUTTER         |
|        | • CUTS 03-30MM STEEL PIPE |



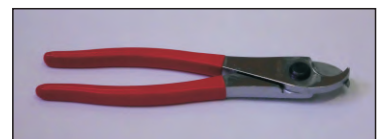
## FLARING TOOL

| ITEMS  | DESCRIPTION                              |
|--------|--|
| 100840 | FLARING TOOL                             |
|        | • COMES IN METAL BOX                     |
|        | • INCL. THREE DIE SETS 3/16, 06MM & 5/16 |
|        | • FLARES DOUBLE & SINGLE                 |
|        | • VICE MOUNTED                           |
|        | • ONLY FOR BUNDY TUBE                    |
| 100871 | 3/16 FLARE SET                           |
| 100872 | 1/4 FLARE SET                            |
| 100873 | 5/16 / 08MM FLARE SET                    |
| 100874 | 3/8 FLARE SET                            |
| 100875 | 1/2 FLARE SET                            |
| 100881 | 06MM FLARE SET                           |
| 100889 | 10 MM FLARE SET                          |
| 100890 | 12MM FLARE SET                           |



## HOSE CUTTERS

| ITEMS  | DESCRIPTION                         |
|--------|-------------------------------------|
| 100602 | 22MM HOSE CUTTER                    |
|        | • USE TO CUT PA TUBE OR RUBBER HOSE |
| 100606 | 22MM BLADE                          |
| 100620 | SILVER HOSE CUTTER                  |
|        | • USE TO CUT SILVER BRAIDED HOSE    |



## SECTION BOXES

| ITEMS  | DESCRIPTION    |
|--------|----------------|
| 100903 | 08 SECTION BOX |
| 100902 | 12 SECTION BOX |
| 100901 | 18 SECTION BOX |



## COPPER WASHER KIT

| ITEMS  | DESCRIPTION                            |
|--------|--|
| 100920 | COPPER WASHER KIT                      |
|        | • INCL. 18 DIFFERENT SIZES             |
|        | SIZES RANGE FROM 06-30MM - 1325 PIECES |



\* DOWTY AND ALUMINIUM WASHER KITS AVAILABLE ON REQUEST

## O-RING KITS

| ITEMS  | DESCRIPTION               |
|--------|---------------------------|
| 125903 | O-RING KIT IMPERIAL BOX G |
| 125904 | O-RING KIT METRIC BOX H   |
|        | • 70 SHORE HARDNESS       |
|        | • 30 SIZES                |
|        | • 382 - 385 PIECES        |



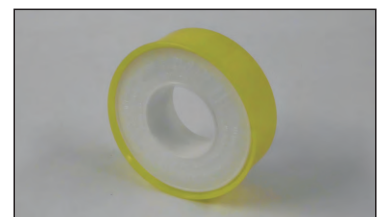
## BLOW GUN

| ITEMS | DESCRIPTION | SIZE           |
|-------|-------------|----------------|
| 3200  | BLOW GUN    | 1/4 BSP FEMALE |



## PTFE TAPE

| ITEMS  | DESCRIPTION | SOLD PER ROLL |
|--------|-------------|---------------|
| 100930 | PTFE TAPE   | ROLL          |



## PICKING TOOL

| ITEMS  | DESCRIPTION              |
|--------|--------------------------|
| 125905 | PICKING TOOL FOR O'RINGS |





## PZ SILVER BRAIDED FUEL HOSE

| ITEMS       | DESCRIPTION | HOSE ID-MM | HOSE OD-MM | WORKING PRESSURE |
|-------------|-------------|------------|------------|------------------|
| 101005      | NW02        | 4.5        | 9.5        | 20 BAR           |
| 101006      | NW04        | 5.5        | 10.5       | 20 BAR           |
| 101008      | NW06        | 7.5        | 12.5       | 15 BAR           |
| 101010      | NW08        | 9.5        | 14.0       | 15 BAR           |
| 101012      | NW10        | 11.5       | 18.0       | 15 BAR           |
| 101015      | NW13        | 14.5       | 22.0       | 15 BAR           |
| 101018      | NW16        | 17.0       | 25.0       | 15 BAR           |
| 101020 NW20 | NW20        | 22.0       | 32.0       | 10 BAR           |
| 101025 NW25 | NW25        | 25.0       | 33.0       | 10 BAR           |



MAX TEMP 80°C  
DIN 73379

## PZA COTTON COVERED FUEL HOSE

| ITEMS  | DESCRIPTION | HOSE ID-MM | HOSE OD-MM | WORKING PRESSURE |
|--------|-------------|------------|------------|------------------|
| 101303 | PZA 3       | 3.2        | 7.0        | 20 BAR           |
| 101304 | PZA 5       | 4.5        | 9.5        | 20 BAR           |
| 101306 | PZA 6       | 5.5        | 10.5       | 20 BAR           |
| 101308 | PZA 8       | 7.5        | 12.5       | 15 BAR           |
| 101310 | PZA10       | 9.5        | 15.0       | 15 BAR           |
| 101312 | PZA12       | 11.5       | 17.5       | 15 BAR           |
| 101315 | PZA15       | 14.5       | 21.5       | 12 BAR           |



MAX TEMP 80°C  
DIN 73379

## PZG SMOOTH FUEL HOSE

| ITEMS    | DESCRIPTION | HOSE ID-MM | HOSE OD-MM | WORKING PRESSURE | BURST PRESSURE |
|----------|-------------|------------|------------|------------------|----------------|
| 281-0209 | PZG 3       | 3.2        | 7.5        | 30 BAR           | 75 BAR         |
| 281-0310 | PZG 5       | 4.5        | 10.5       | 30 BAR           | 75 BAR         |
| 281-0400 | PZG 6       | 5.5        | 11.5       | 20 BAR           | 50 BAR         |
| 281-0600 | PZG 8       | 7.5        | 13.5       | 20 BAR           | 50 BAR         |
| 281-0800 | PZG10       | 9.3        | 15.3       | 20 BAR           | 50 BAR         |
| 281-1000 | PZG12       | 11.5       | 18.5       | 20 BAR           | 50 BAR         |



MAX TEMP 80°C  
DIN 73379

## CLEAR PVC REINFORCED HOSE 30 METER COILS

| ITEMS  | DESCRIPTION | HOSE ID-MM | HOSE OD-MM | WORKING PRESSURE | BURST PRESSURE |
|--------|-------------|------------|------------|------------------|----------------|
| 101906 | CR006       | 6.0        | 10.5       | 13 BAR           | 59 BAR         |
| 101908 | CR008       | 8.0        | 13.0       | 12 BAR           | 52 BAR         |
| 101910 | CR010       | 10.0       | 15.0       | 11 BAR           | 45 BAR         |
| 101912 | CR012       | 12.0       | 18.0       | 11 BAR           | 42 BAR         |
| 101916 | CR016       | 16.0       | 22.0       | 10 BAR           | 40 BAR         |
| 101919 | CR020       | 20.0       | 25.0       | 10 BAR           | 40 BAR         |
| 101925 | CR025       | 25.0       | 32.0       | 10 BAR           | 40 BAR         |



MAX TEMP 70°C

## SPIRAL GUARD - BLACK POLYETHELENE

| ITEMS  | DESCRIPTION | ID | OD | RANGE |
|--------|-------------|----|----|-------|
| 102016 | SG-16       | 13 | 16 | 13-18 |
| 102020 | SG-20       | 16 | 20 | 16-26 |
| 102025 | SG-25       | 21 | 25 | 22-28 |
| 102032 | SG-32       | 27 | 32 | 27-40 |
| 102040 | SG-40       | 34 | 40 | 34-44 |



## H COLLARS

| ITEMS  | DESCRIPTION | COLLAR ID-MM | BORE MM | LENGTH |
|--------|-------------|--------------|---------|--------|
| 104040 | H09         | 09.0         | 05.5    | 17.0   |
| 104050 | H10         | 10.0         | 06.5    | 17.0   |
| 104060 | H11         | 11.0         | 07.5    | 17.0   |
| 104062 | H12         | 12.0         | 07.5    | 20.0   |
| 104080 | H13         | 13.5         | 10.0    | 20.0   |
| 104084 | H14         | 14.0         | 10.0    | 20.0   |
| 104105 | H15         | 15.0         | 11.7    | 20.0   |
| 104100 | H16         | 16.0         | 11.7    | 20.0   |
| 104107 | H17         | 17.0         | 11.7    | 21.0   |
| 104118 | H18         | 18.0         | 13.8    | 21.0   |
| 104112 | H19         | 19.0         | 13.8    | 26.0   |
| 104120 | H20         | 20.0         | 13.8    | 26.5   |
| 104122 | H22         | 22.0         | 15.6    | 32.5   |
| 104123 | H23         | 23.0         | 17.0    | 32.5   |
| 104124 | H24         | 24.5         | 17.0    | 33.0   |
| 104126 | H26         | 26.5         | 19.5    | 32.5   |
| 104128 | H28         | 28.0         | 22.5    | 35.0   |
| 104130 | H30         | 30.0         | 24.0    | 32.5   |
| 104132 | H32         | 32.0         | 24.0    | 34.0   |
| 104133 | H33         | 33.0         | 24.0    | 34.0   |



## SN NIPPLES

| ITEMS  | DESCRIPTION | U NUT TO SUIT | HOSE ID-MM |
|--------|-------------|---------------|------------|
| 105050 | SN02        | 105510        | 04.5       |
| 105060 | SN04        | 105512        | 05.5       |
| 105080 | SN06        | 105514        | 07.5       |
| 105100 | SN08        | 105516        | 09.5       |
| 105112 | SN10        | 105518        | 11.5       |
| 105150 | SN13        | 105522        | 14.5       |

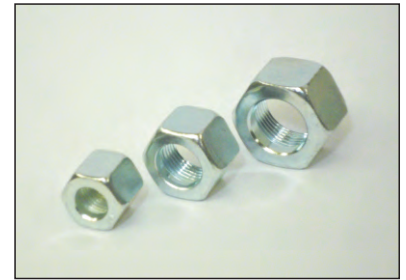


DIN 7608



## U NUTS

| ITEMS  | DESCRIPTION | THREAD SIZE | SN TO SUIT | HEX SW |
|--------|-------------|-------------|------------|--------|
| 105510 | UWM 2       | M10X1.0     | 105050     | 12     |
| 105512 | UWM 4       | M12X1.5     | 105060     | 14     |
| 105514 | UWM 6       | M14X1.5     | 105080     | 17     |
| 105516 | UWM 8       | M16X1.5     | 105100     | 19     |
| 105518 | UWM10       | M18X1.5     | 105112     | 22     |
| 105522 | UWM13       | M22X1.5     | 105150     | 27     |
| 105605 | UZ 2        | 1/8 BSP     | 105050     | 14     |
| 105606 | UZ 4        | 1/4 BSP     | 105060     | 17     |
| 105608 | UZ 6        | 1/4 BSP     | 105080     | 17     |
| 105610 | UZ 8        | 3/8 BSP     | 105100     | 19     |



DIN 3870

## RSN BANJOS FOR RUBBER HOSE

| ITEMS  | DESCRIPTION | HOSE ID | HOLE FOR BOLT |
|--------|-------------|---------|---------------|
| 106006 | RSN 1       | 4-5     | M06           |
| 106008 | RSN 2       | 4-5     | M08           |
| 106010 | RSN 4       | 5-6     | M10           |
| 106012 | RSN 6-4     | 5-6     | M12           |
| 106014 | RSN 8-4     | 5-6     | M14           |
| 106112 | RSN 6       | 8       | M12           |
| 106114 | RSN 8-6     | 8       | M14           |
| 106214 | RSN 8       | 10      | M14           |
| 106216 | RSN 10-8    | 10      | M16           |
| 106316 | RSN 10      | 12      | M16           |
| 106318 | RSN 13-8    | 12      | M18           |
| 106418 | RSN 13      | 15      | M18           |



DIN 7642

## DRSN BANJOS FOR RUBBER HOSE

| ITEMS  | DESCRIPTION | HOSE ID | HOLE FOR BOLT |
|--------|-------------|---------|---------------|
| 106808 | DRSN 2-2    | 4-5     | M08           |
| 106810 | DRSN 4-2    | 5-6     | M10           |
| 106812 | DRSN 6-2    | 8       | M12           |
| 106814 | DRSN 8-2    | 10      | M14           |



## HS BANJO BOLTS

| ITEMS  | DESCRIPTION | THREAD SIZE | SHAFT LENGTH | HEX SW |
|--------|-------------|-------------|--------------|--------|
| 107006 | HS 1        | M06X1.00    | 17.0         | 11     |
| 107008 | HS 2        | M08X1.00    | 17.0         | 12     |
| 107009 | HS 3-1.25   | M08X1.25    | 17.0         | 12     |
| 107010 | HS 4        | M10X1.00    | 19.0         | 14     |
| 107210 | HS 4-1.25   | M10X1.25    | 19.0         | 14     |
| 107011 | HS 5        | M10X1.50    | 19.0         | 14     |
| 107212 | HS 6-1.25   | M12X1.25    | 19.0         | 17     |
| 107012 | HS 6        | M12X1.50    | 24.0         | 17     |
| 107014 | HS 8        | M14X1.50    | 26.0         | 19     |
| 107016 | HS 10       | M16X1.50    | 28.0         | 22     |
| 107018 | HS 13       | M18X1.50    | 32.0         | 24     |
| 107022 | HS 16       | M22X1.50    | 39.0         | 27     |
| 107026 | HS 20       | M26X1.50    | 45.0         | 32     |
| 107030 | HS 26       | M30X1.50    | 51.0         | 36     |
| 107040 | HS 1/8      | 1/8 BSP     | 19.0         | 14     |
| 107041 | HS 1/4      | 1/4 BSP     | 26.0         | 19     |
| 107042 | HS 3/8      | 3/8 BSP     | 28.0         | 22     |
| 107043 | HS 1/2      | 1/2 BSP     | 39.0         | 27     |



DIN 7643

## DHS DOUBLE BANJO BOLTS

| ITEMS  | DESCRIPTION | THREAD SIZE | SHAFT LENGTH | HEX SW |
|--------|-------------|-------------|--------------|--------|
| 107108 | DHS 2       | M08X1.0     | 27.0         | 12     |
| 107110 | DHS 4       | M10X1.0     | 30.0         | 14     |
| 107112 | DHS 6       | M12X1.5     | 38.0         | 17     |
| 107114 | DHS 8       | M14X1.5     | 42.0         | 19     |
| 107116 | DHS 10      | M16X1.5     | 46.0         | 22     |
| 107118 | DHS 13      | M18X1.5     | 54.0         | 24     |



DIN 7643

## BE STANDPIPES

| ITEMS  | DESCRIPTION | STANDPIPE OD | HOSE ID |
|--------|-------------|--------------|---------|
| 108306 | BE 6-90°    | M06          | 5-6     |
| 108308 | BE 8-90°    | M08          | 8       |
| 108310 | BE10-90°    | M10          | 10      |
| 108312 | BE12-90°    | M12          | 12      |
| 108315 | BE15-90°    | M15          | 15      |
| 108307 | BE 6-45°    | M06          | 5-6     |
| 108309 | BE 8-45°    | M08          | 8       |
| 108311 | BE10-45°    | M10          | 10      |
| 108313 | BE12-45°    | M12          | 12      |
| 108504 | BE 4        | M04          | 5       |
| 108506 | BE 6        | M06          | 6       |
| 108508 | BE 8        | M08          | 8       |
| 108510 | BE 10       | M10          | 10      |
| 108512 | BE 12       | M12          | 12      |
| 108515 | BE 15       | M15          | 15      |
| 108518 | BE 18       | M18          | 18      |



## RL SOLDER BANJOS

| ITEMS  | DESCRIPTION | FOR PIPE OD | HOLE FOR BOLT |
|--------|-------------|-------------|---------------|
| 109008 | RL 3        | M05         | M08           |
| 109010 | RL 4        | M06         | M10           |
| 109012 | RL 6-6      | M06         | M12           |
| 109112 | RL 6        | M08         | M12           |
| 109114 | RL 8-6      | M08         | M14           |
| 109214 | RL 8        | M10         | M14           |
| 109216 | RL 10-8     | M10         | M16           |
| 109316 | RL 10       | M12         | M16           |
| 109318 | RL 13-10    | M12         | M18           |
| 109418 | RL 13       | M15         | M18           |
| 109422 | RL 16       | M18         | M22           |
| 109526 | RL 20       | M22         | M26           |
| 109530 | RL 25       | M28         | M30           |



DIN 7642

## DRL SOLDER BANJOS

| ITEMS  | DESCRIPTION | FOR PIPE OD | HOLE FOR BOLT |
|--------|-------------|-------------|---------------|
| 109608 | DRL 2-2     | M05         | M08           |
| 109610 | DRL 4-2     | M06         | M10           |
| 109612 | DRL 6-2     | M08         | M12           |
| 109614 | DRL 8-2     | M10         | M14           |



## LN SEALING CONES

| ITEMS  | DESCRIPTION | FOR PIPE OD | U NUT TO SUIT |
|--------|-------------|-------------|---------------|
| 109705 | LN 5        | M05         | 105510        |
| 109706 | LN 6        | M06         | 105512        |
| 109708 | LN 8        | M08         | 105514        |
| 109710 | LN 10       | M10         | 105516        |
| 109712 | LN 12       | M12         | 105518        |
| 109715 | LN 15       | M15         | 105522        |
| 109718 | LN 18       | M18         | 105526        |



DIN 7608

## AL SOLDER STUDS

| ITEMS  | DESCRIPTION | FOR PIPE OD | THREAD SIZE |
|--------|-------------|-------------|-------------|
| 109806 | LST 6-12    | M06         | M12X1.5     |
| 109808 | LST 8-14    | M08         | M14X1.5     |
| 109810 | LST10-16    | M10         | M16X1.5     |



DIN 7633

## SA HOSE NIPPLES

| ITEMS  | DESCRIPTION | FITS ID HOSE MM | THREAD SIZE |
|--------|-------------|-----------------|-------------|
| 110205 | SA 5-10     | 4-5             | M10X1.0     |
| 110206 | SA 6-12     | 5-6             | M12X1.5     |
| 110208 | SA 8-14     | 8               | M14X1.5     |
| 110210 | SA10-16     | 10              | M16X1.5     |
| 110212 | SA12-18     | 12              | M18X1.5     |



## RSP BANJOS FOR NYLON TUBE

| ITEMS  | DESCRIPTION | TUBE ID | HOLE FOR BOLT |
|--------|-------------|---------|---------------|
| 120505 | RSP 4-08    | M04     | M08           |
| 120506 | RSP 4-10    | M04     | M10           |
| 120507 | RSP 4-12    | M04     | M12           |
| 120508 | RSP 4-14    | M04     | M14           |
| 120509 | RSP 4-16    | M04     | M16           |
| 120516 | RSP 5-12    | M05     | M12           |
| 120520 | RSP 6-10    | M06     | M10           |
| 120521 | RSP 6-12    | M06     | M12           |
| 120522 | RSP 6-14    | M06     | M14           |
| 120523 | RSP 6-16    | M06     | M16           |
| 120530 | RSP 8-12    | M08     | M12           |
| 120531 | RPS 8-14    | M08     | M14           |
| 120532 | RSP 8-16    | M08     | M16           |
| 120540 | RSP 9-14    | M09     | M14           |
| 120541 | RSP 9-16    | M09     | M16           |



## SP NIPPLES FOR NYLON TUBE

| ITEMS  | DESCRIPTION | U NUT  | TUBE ID |
|--------|-------------|--------|---------|
| 120600 | SP 4-10     | 105510 | M04     |
| 120601 | SP 4-12     | 105512 | M04     |
| 120610 | SP 6-14     | 105514 | M06     |
| 120616 | SP 8-16     | 105516 | M08     |
| 120620 | SP 9-16     | 105516 | M09     |
| 120622 | SP 9-18     | 105518 | M09     |



## AF-CAB HOSE & REUSABLE FITTINGS

| ITEMS  | DESCRIPTION         | FITS ID |           |
|--------|---------------------|---------|-----------|
| 120900 | HAF-4 COLLAR        | 3/16    | 12 HEX SW |
| 120903 | BE 6L STANDPIPE     | 3/16    | 6.0 MM    |
| 120904 | AF-4 POLYAMIDE HOSE | 3/16    | 325 BAR   |
| 120916 | BE 6L 90° STANDPIPE | 3/16    | 6.0 MM    |
| 120934 | BE 6L 45° STANDPIPE | 3/16    | 6.0 MM    |



## INJECTOR SOLDER NIPPLE

| ITEMS  | DESCRIPTION | FITS OD TUBE | INJECTOR NUT TO SUIT |
|--------|-------------|--------------|----------------------|
| 123022 | DELN 12     | M6.0X2.0     | 123042               |
| 123024 | DELN 14     | M6.0X2.0     | 123044               |



## INJECTOR SLEEVES & NUTS

| ITEMS  | DESCRIPTION | FITS OD TUBE MM | INJECTOR NUT TO SUIT |
|--------|-------------|-----------------|----------------------|
| 123032 | DEVH 12     | M6.0X2.0        | 123042               |
| 123034 | DEVH 14     | M6.0X2.0        | 123044               |



| ITEMS  | DESCRIPTION | THREAD SIZE MM | INJECTOR SLEEVE TO SUIT |
|--------|-------------|----------------|-------------------------|
| 123042 | DEUM 12     | M12X1.5        | 123032                  |
| 123044 | DEUM 14     | M14X1.5        | 123034                  |

## TUBE NUT

| ITEMS  | DESCRIPTION      | THREAD SIZE | TUBE OD |
|--------|------------------|-------------|---------|
| 124800 | M08X1.0 TUBE NUT | 08X1.0      | 04      |





## VSS HEX PLUGS

| ITEMS  | DESCRIPTION | THREAD SIZE | HEX SW |
|--------|-------------|-------------|--------|
| 124110 | VSS 10      | M10X1.0     | 10     |
| 124112 | VSS 12      | M12X1.5     | 13     |
| 124114 | VSS 14      | M14X1.5     | 13     |
| 124116 | VSS 16      | M16X1.5     | 17     |
| 124118 | VSS 18      | M18X1.5     | 17     |
| 124120 | VSS 20      | M20X1.5     | 19     |
| 124122 | VSS 22      | M22X1.5     | 19     |
| 124124 | VSS 24      | M24X1.5     | 22     |
| 124126 | VSS 26      | M26X1.5     | 24     |
| 124130 | VSS 30      | M30X1.5     | 24     |
| 124209 | VSS 1/8     | 1/8 BSP     | 10     |
| 124213 | VSS 1/4     | 1/4 BSP     | 13     |
| 124217 | VSS 3/8     | 3/8 BSP     | 17     |
| 124221 | VSS 1/2     | 1/2 BSP     | 19     |
| 124227 | VSS 3/4     | 3/4 BSP     | 24     |
| 124233 | VSS 1"      | 1" BSP      | 27     |



DIN 910

## IVSS INTERNAL PLUGS

| ITEMS  | DESCRIPTION | THREAD SIZE | INSIDE HEX MM |
|--------|-------------|-------------|---------------|
| 124310 | IVSS 10     | M10X1.0     | 5             |
| 124312 | IVSS 12     | M12X1.5     | 6             |
| 124314 | IVSS 14     | M14X1.5     | 6             |
| 124316 | IVSS 16     | M16X1.5     | 8             |
| 124318 | IVSS 18     | M18X1.5     | 8             |
| 124320 | IVSS 20     | M20X1.5     | 10            |
| 124322 | IVSS 22     | M22X1.5     | 10            |
| 124324 | IVSS 24     | M24X1.5     | 12            |
| 124326 | IVSS 26     | M26X1.5     | 12            |
| 124330 | IVSS 30     | M30X1.5     | 17            |
| 124409 | IVSS 1/8    | 1/8 BSP     | 5             |
| 124413 | IVSS 1/4    | 1/4 BSP     | 6             |
| 124417 | IVSS 3/8    | 3/8 BSP     | 8             |
| 124421 | IVSS 1/2    | 1/2 BSP     | 10            |
| 124427 | IVSS 3/4    | 3/4 BSP     | 12            |
| 124433 | IVSS 1"     | 1" BSP      | 17            |



DIN 908

## IVSS INTERNAL PLUG

| ITEMS  | DESCRIPTION                | THREAD SIZE | INSIDE HEX MM |
|--------|----------------------------|-------------|---------------|
| 124338 | IVSS M08X1.0 (NO SHOULDER) | M08X1.0     | 4             |





# CU COPPER WASHERS

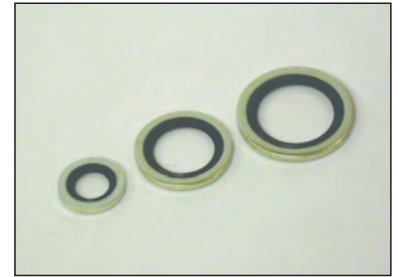
| ITEMS  | DESCRIPTION        | ID<br>MM | OD<br>MM | THICKNESS<br>MM |
|--------|--------------------|----------|----------|-----------------|
| 125006 | CU 5-9             | 05       | 09       | 1.0             |
| 125007 | CU 6-10            | 06       | 10       | 1.0             |
| 125008 | CU 6-12            | 06       | 12       | 1.0             |
| 125009 | CU 8-12            | 08       | 12       | 1.0             |
| 125011 | CU 8-14            | 08       | 14       | 1.0             |
| 125015 | CU 10-14 1/8 BSP   | 10       | 14       | 1.0             |
| 125016 | CU 10-16 1/8 BSP   | 10       | 16       | 1.0             |
| 125017 | CU 10-16           | 10       | 16       | 2.0             |
| 125020 | CU 12-16           | 12       | 16       | 1.5             |
| 125022 | CU 12-18           | 12       | 18       | 1.5             |
| 125025 | CU 13-18 1/4 BSP   | 13       | 18       | 1.5             |
| 125026 | CU 14-18           | 14       | 18       | 1.5             |
| 125027 | CU 13-18           | 13       | 18       | 1.0             |
| 125028 | CU 14-20           | 14       | 20       | 1.5             |
| 125030 | CU 14-20           | 14       | 20       | 2.0             |
| 125032 | CU 16-20           | 16       | 20       | 1.5             |
| 125034 | CU 16-22           | 16       | 22       | 1.5             |
| 125236 | CU 17-21 3/8 BSP   | 17       | 21       | 1.5             |
| 125238 | CU 17-23 3/8 BSP   | 17       | 23       | 1.5             |
| 125240 | CU 18-22           | 18       | 22       | 1.5             |
| 125242 | CU 18-24           | 18       | 24       | 1.5             |
| 125246 | CU 20-26           | 20       | 26       | 1.5             |
| 125248 | CU 21-26 1/2 BSP   | 21       | 26       | 1.5             |
| 125250 | CU 22-27           | 22       | 27       | 1.5             |
| 125252 | CU 22-29           | 22       | 29       | 1.5             |
| 125254 | CU 24-30           | 24       | 30       | 2.0             |
| 125256 | CU 24-32           | 24       | 32       | 2.0             |
| 125258 | CU 26-32           | 26       | 32       | 2.0             |
| 125260 | CU 27-32 3/4 BSP   | 27       | 32       | 2.0             |
| 125262 | CU 28-36           | 28       | 36       | 2.0             |
| 125264 | CU 30-36           | 30       | 36       | 2.0             |
| 125266 | CU 30-38           | 30       | 38       | 2.0             |
| 125268 | CU 32-38           | 32       | 38       | 2.0             |
| 125270 | CU 33-39 1" BSP    | 33       | 39       | 2.0             |
| 125274 | CU 36-42           | 36       | 42       | 2.0             |
| 125276 | CU 40-47           | 40       | 47       | 2.0             |
| 125277 | CU 42-49 1 1/4 BSP | 42       | 49       | 2.0             |
| 125278 | CU 45-52           | 45       | 52       | 2.0             |
| 125282 | CU 48-55 1 1/2 BSP | 48       | 55       | 2.0             |
| 125284 | CU 50-57           | 50       | 57       | 2.0             |
| 125288 | CU 60-68 2" BSP    | 60       | 68       | 2.0             |



DIN 7603

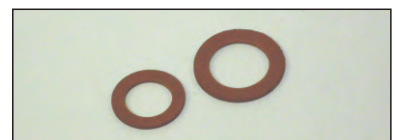
## DW DOWTY WASHERS

| ITEMS  | DESCRIPTION | DW ID | DW OD | THICKNESS MM |
|--------|-------------|-------|-------|--------------|
| 125480 | DW - 2      | 1/8   | 15.88 | 2.0          |
| 125481 | DW - 4      | 1/4   | 20.57 | 2.0          |
| 125482 | DW - 6      | 3/8   | 23.80 | 2.0          |
| 125483 | DW - 8      | 1/2   | 28.58 | 2.5          |
| 125488 | DW -10      | 5/8   | 31.75 | 2.5          |
| 125484 | DW -12      | 3/4   | 34.93 | 2.5          |
| 125485 | DW -16      | 1"    | 42.80 | 3.2          |
| 125486 | DW -20      | 1 1/4 | 52.38 | 3.2          |
| 125487 | DW -24      | 1 1/2 | 58.60 | 3.2          |
| 125489 | DW -32      | 2"    | 73.03 | 3.2          |
|        |             |       |       |              |
| 125491 | DW 06       | M06   | 11.00 | 1.0          |
| 125492 | DW 08       | M08   | 14.00 | 1.0          |
| 125493 | DW 10       | M10   | 16.08 | 1.5          |
| 125494 | DW 12       | M12   | 19.00 | 1.5          |
| 125495 | DW 14       | M14   | 22.00 | 1.5          |
| 125496 | DW 16       | M16   | 24.00 | 1.5          |
| 125498 | DW 18       | M18   | 26.00 | 1.5          |
| 125499 | DW 20       | M20   | 28.00 | 1.5          |
| 125500 | DW 22       | M22   | 30.00 | 2.0          |
| 125501 | DW 24       | M24   | 32.00 | 2.0          |
| 125484 | DW 26       | M26   | 34.93 | 2.5          |
| 125504 | DW 30       | M30   | 38.20 | 2.5          |



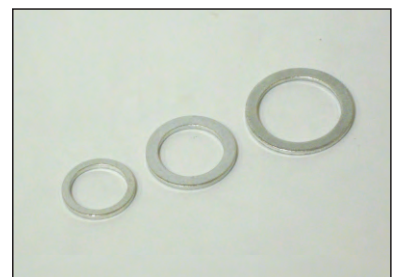
## VF FIBRE WASHERS

| ITEMS  | DESCRIPTION              | ID MM | OD MM | THICKNESS |
|--------|--------------------------|-------|-------|-----------|
| 125700 | VF - 15MM STOSS FLATFACE | 12.0  | 19.0  | 1.5       |
| 125710 | VF - 18MM STOSS FLATFACE | 15.0  | 24.0  | 1.5       |



## AL ALUMINIUM WASHERS

| ITEMS  | DESCRIPTION | ID MM | OD MM | THICKNESS MM |
|--------|-------------|-------|-------|--------------|
| 125607 | AL 6-10     | 06    | 10    | 1.0          |
| 125610 | AL 8-12     | 08    | 12    | 1.0          |
| 125615 | AL 10-14    | 10    | 14    | 1.0          |
| 125620 | AL 12-16    | 12    | 16    | 1.5          |
| 125628 | AL 14-20    | 14    | 20    | 1.5          |
| 125634 | AL 16-22    | 16    | 22    | 1.5          |
| 125642 | AL 18-24    | 18    | 24    | 1.5          |
| 125650 | AL 22-27    | 22    | 27    | 1.5          |
| 125658 | AL 26-32    | 26    | 32    | 2.0          |



DIN 7603

## DRRU GASKETS & O-RINGS

| ITEMS  | DESCRIPTION | ID MM | OD MM | THREAD SIZE |
|--------|-------------|-------|-------|-------------|
| 125800 | DRRU 10     | 10    | 15    | M10         |
| 125801 | DRRU 12     | 12    | 17    | M12         |
| 125802 | DRRU 14     | 14    | 19    | M14         |
| 125803 | DRRU 16     | 16    | 21    | M16         |
| 125804 | DRRU 18     | 18    | 23    | M18         |
| 125805 | DRRU 22     | 22    | 27    | M22         |
| 125806 | DRRU 26     | 26    | 31    | M26         |



## SGL NORMA HOSE CLAMPS

| ITEMS  | DESCRIPTION | CLAMPING RANGE MM | WIDTH MM |
|--------|-------------|-------------------|----------|
| 126208 | SGL 08-12   | 08-12             | 9        |
| 126210 | SGL 08-16   | 08-16             | 9        |
| 126212 | SGL 12-22   | 12-22             | 9        |
| 126216 | SGL 16-27   | 16-27             | 9        |
| 126220 | SGL 20-32   | 20-32             | 9        |
| 126225 | SGL 25-40   | 25-40             | 9        |
| 126235 | SGL 35-50   | 35-50             | 9        |
| 126240 | SGL 40-60   | 40-60             | 9        |
| 126250 | SGL 50-70   | 50-70             | 9        |
| 126260 | SGL 60-80   | 60-80             | 9        |
| 126270 | SGL 70-90   | 70-90             | 9        |
| 126280 | SGL 80-100  | 80-100            | 9        |
| 126290 | SGL 90-110  | 90-110            | 9        |



## RSGU PIPE CLAMPS

| ITEMS  | DESCRIPTION | TUBE OD | BAND WIDTH | BOLT SIZE MM |
|--------|-------------|---------|------------|--------------|
| 127700 | RSGU 06-12  | 06      | 12         | 5            |
| 127702 | RSGU 06-15  | 06      | 15         | 6            |
| 127705 | RSGU 08-12  | 08      | 12         | 5            |
| 127708 | RSGU 08-15  | 08      | 15         | 6            |
| 127710 | RSGU 10-12  | 10      | 12         | 5            |
| 127712 | RSGU 10-15  | 10      | 15         | 6            |
| 127714 | RSGU 12-12  | 12      | 12         | 5            |
| 127715 | RSGU 12-15  | 12      | 15         | 6            |
| 127720 | RSGU 15-15  | 15      | 15         | 6            |
| 127724 | RSGU 16-15  | 16      | 15         | 6            |
| 127730 | RSGU 18-15  | 18      | 15         | 6            |
| 127734 | RSGU 20-15  | 20      | 15         | 6            |
| 127736 | RSGU 22-15  | 22      | 15         | 6            |
| 127739 | RSGU 25-15  | 25      | 15         | 6            |
| 127742 | RSGU 28-20  | 28      | 20         | 8            |
| 127744 | RSGU 30-20  | 30      | 20         | 8            |
| 127754 | RSGU 35-20  | 35      | 20         | 8            |
| 127757 | RSGU 40-20  | 40      | 20         | 8            |
| 127760 | RSGU 45-20  | 45      | 20         | 8            |
| 127762 | RSGU 50-20  | 50      | 20         | 8            |

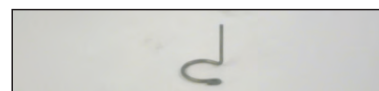


# BALL JOINTS

| ITEMS                | DESCRIPTION  | THREAD<br>MM | BALL<br>MM |
|----------------------|--------------|--------------|------------|
| 129000               | WGL M 5      | M05X0.80     | 8          |
| 129001               | WGL M 6      | M06X1.00     | 10         |
| 129002               | WGL M 6 LEFT | M06X1.00     | 10         |
| 129003               | WGL M 6 LONG | M06X1.00     | 10         |
| 129005               | WGL M 8      | M08X1.25     | 13         |
| 129006               | WGL M 8 LEFT | M08X1.25     | 13         |
| 129007               | WGL M 8 LONG | M08X1.25     | 13         |
| 129010               | WGL M 10     | M10X1.50     | 16         |
| 129012               | WGL M 12     | M12X1.75     | 16         |
| <b>BALL PLUG</b>     |              |              |            |
| 129101               | BZ M 6       | M06X1.00     | 10         |
| 129106               | BZ M 8       | M08X1.25     | 13         |
| <b>BALL SOCKET</b>   |              |              |            |
| 129121               | KP M 6       | M06X1.00     |            |
| 129126               | KP M 8       | M08X1.25     |            |
| <b>SECURING PLUG</b> |              |              |            |
| 129201               | SI M 6       | M06          |            |
| 129206               | SI M 8       | M08          |            |

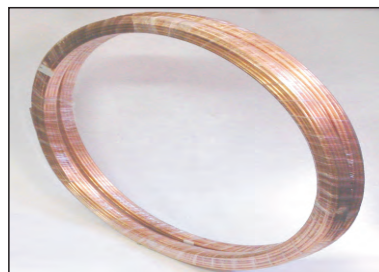


DIN 71802



# CU COPPER TUBE

| ITEMS  | DESCRIPTION    | OD<br>MM | ID<br>MM |
|--------|----------------|----------|----------|
| 127972 | 06X1.0 CU TUBE | 06       | 04       |
| 127973 | 08X1.0 CU TUBE | 08       | 06       |
| 127974 | 10X1.0 CU TUBE | 10       | 08       |
| 127975 | 12X1.0 CU TUBE | 12       | 10       |



50 METER COILS

# DKN BRASS STUFFING CONES / OLIVES

| ITEMS  | DESCRIPTION | ID   | TUBE |
|--------|-------------|------|------|
| 128000 | DKN 4       | M04  | M04  |
| 128002 | DKN 6       | M06  | M06  |
| 128003 | DKN 8       | M08  | M08  |
| 128004 | DKN 10      | M10  | M10  |
| 128005 | DKN 12      | M12  | M12  |
| 128114 | DKN 14      | M14  | M14  |
| 128115 | DKN 15      | M15  | M15  |
| 128116 | DKN 16      | M16  | M16  |
| 128102 | DKN 1/8     | 1/8  | 1/8  |
| 128103 | DKN 3/16    | 3/16 | 3/16 |
| 128104 | DKN 1/4     | 1/4  | 1/4  |
| 128105 | DKN 5/16    | 5/16 | 5/16 |
| 128106 | DKN 3/8     | 3/8  | 3/8  |
| 128108 | DKN 1/2     | 1/2  | 1/2  |



## VHP INSERTS FOR NYLON TUBE

| ITEMS  | DESCRIPTION | TUBE ID | TUBE OD |
|--------|-------------|---------|---------|
| 120200 | VHP 4-1.0   | M02     | M04     |
| 120210 | VHP 6-1.0   | M04     | M06     |
| 120215 | VHP 8-1.0   | M06     | M08     |
| 120215 | VHP 9-1.5   | M06     | M09     |
| 120225 | VHP10-1.0   | M08     | M10     |
| 120225 | VHP11-1.5   | M08     | M11     |
| 120235 | VHP12-1.5   | M09     | M12     |
| 120244 | VHP14-1.5   | M11     | M14     |
| 120250 | VHP15-1.5   | M12     | M15     |
| 120250 | VHP16-2.0   | M12     | M16     |
| 120260 | VHP18-2.0   | M14     | M18     |
| 120303 | VHP 3/16    | 3.79    | 3/16    |
| 120304 | VHP 1/4     | 4.35    | 1/4     |
| 120306 | VHP 3/8     | 6.73    | 3/8     |
| 120308 | VHP 1/2     | 9.70    | 1/2     |



## BRASS FITTING THREAD SIZES

| METRIC |        | IMPERIAL |              |
|--------|--------|----------|--------------|
| M04    | 08X1.0 | 1/8      | 5/16-24 UNF  |
| M06    | 10X1.0 | 3/16     | 3/8-24 UNF   |
| M08    | 12X1.0 | 1/4      | 7/16-24 UNF  |
| M10    | 16X1.5 | 5/16     | 1/2-24 UNF   |
| M12    | 18X1.5 | 3/8      | 9/16-24 UNF  |
|        |        | 1/2      | 11/16-20 UNF |

## BRASS NUTS

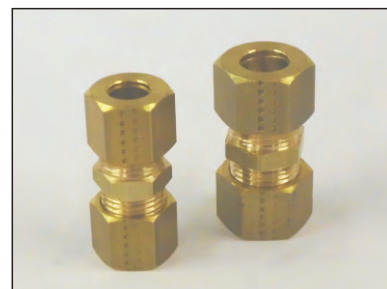
| ITEMS  | DESCRIPTION    | PIPE OD |
|--------|----------------|---------|
| 200104 | 04MM BRASS NUT | M04     |
| 200106 | 06MM BRASS NUT | M06     |
| 200108 | 08MM BRASS NUT | M08     |
| 200110 | 10MM BRASS NUT | M10     |
| 200112 | 12MM BRASS NUT | M12     |
|        |                |         |
| 201102 | 1/8 BRASS NUT  | 1/8     |
| 201103 | 3/16 BRASS NUT | 3/16    |
| 201104 | 1/4 BRASS NUT  | 1/4     |
| 201105 | 5/16 BRASS NUT | 5/16    |
| 201106 | 3/8 BRASS NUT  | 3/8     |
| 201108 | 1/2 BRASS NUT  | 1/2     |





## BRASS COMPRESSION UNIONS

| ITEMS  | DESCRIPTION      | PIPE OD |
|--------|------------------|---------|
| 200204 | 04MM BRASS UNION | M04     |
| 200206 | 06MM BRASS UNION | M06     |
| 200208 | 08MM BRASS UNION | M08     |
| 200210 | 10MM BRASS UNION | M10     |
| 200212 | 12MM BRASS UNION | M12     |
| 200215 | 15MM BRASS UNION | M15     |
|        |                  |         |
| 201202 | 1/8 BRASS UNION  | 1/8     |
| 201203 | 3/16 BRASS UNION | 3/16    |
| 201204 | 1/4 BRASS UNION  | 1/4     |
| 201205 | 5/16 BRASS UNION | 5/16    |
| 201206 | 3/8 BRASS UNION  | 3/8     |
| 201208 | 1/2 BRASS UNION  | 1/2     |



## BRASS COMPRESSION ELBOWS

| ITEMS  | DESCRIPTION      | PIPE OD |
|--------|------------------|---------|
| 200304 | 04MM BRASS ELBOW | M04     |
| 200306 | 06MM BRASS ELBOW | M06     |
| 200308 | 08MM BRASS ELBOW | M08     |
| 200310 | 10MM BRASS ELBOW | M10     |
| 200312 | 12MM BRASS ELBOW | M12     |
|        |                  |         |
| 201302 | 1/8 BRASS ELBOW  | 1/8     |
| 201303 | 3/16 BRASS ELBOW | 3/16    |
| 201304 | 1/4 BRASS ELBOW  | 1/4     |
| 201305 | 5/16 BRASS ELBOW | 5/16    |
| 201306 | 3/8 BRASS ELBOW  | 3/8     |
| 201308 | 1/2 BRASS ELBOW  | 1/2     |



## BRASS COMPRESSION TEES

| ITEMS  | DESCRIPTION    | PIPE OD |
|--------|----------------|---------|
| 200404 | 04MM BRASS TEE | M04     |
| 200406 | 06MM BRASS TEE | M06     |
| 200408 | 08MM BRASS TEE | M08     |
| 200410 | 10MM BRASS TEE | M10     |
| 200412 | 12MM BRASS TEE | M12     |
|        |                |         |
| 201402 | 1/8 BRASS TEE  | 1/8     |
| 201403 | 3/16 BRASS TEE | 3/16    |
| 201404 | 1/4 BRASS TEE  | 1/4     |
| 201405 | 5/16 BRASS TEE | 5/16    |
| 201406 | 3/8 BRASS TEE  | 3/8     |
| 201408 | 1/2 BRASS TEE  | 1/2     |





## BRASS COMPRESSION MALE STUDS BSPT

| ITEMS  | DESCRIPTION                 | TUBE OD | THREAD |
|--------|-----------------------------|---------|--------|
| 210418 | 04-1/8 BSPT BRASS MALE STUD | M04     | 1/8    |
| 210618 | 06-1/8 BSPT BRASS MALE STUD | M06     | 1/8    |
| 210614 | 06-1/4 BSPT BRASS MALE STUD | M06     | 1/4    |
| 210818 | 08-1/8 BSPT BRASS MALE STUD | M08     | 1/8    |
| 210814 | 08-1/4 BSPT BRASS MALE STUD | M08     | 1/4    |
| 210838 | 08-3/8 BSPT BRASS MALE STUD | M08     | 3/8    |
| 211014 | 10-1/4 BSPT BRASS MALE STUD | M10     | 1/4    |
| 211038 | 10-3/8 BSPT BRASS MALE STUD | M10     | 3/8    |
| 211012 | 10-1/2 BSPT BRASS MALE STUD | M10     | 1/2    |
| 211238 | 12-3/8 BSPT BRASS MALE STUD | M12     | 3/8    |
| 211212 | 12-1/2 BSPT BRASS MALE STUD | M12     | 1/2    |



## BRASS COMPRESSION MALE STUDS NPT

| ITEMS  | DESCRIPTION                  | TUBE OD | THREAD |
|--------|------------------------------|---------|--------|
| 220218 | 1/8-1/8 NPT BRASS MALE STUD  | 1/8     | 1/8    |
| 220318 | 3/16-1/8 NPT BRASS MALE STUD | 3/16    | 1/8    |
| 220418 | 1/4-1/8 NPT BRASS MALE STUD  | 1/4     | 1/8    |
| 220414 | 1/4-1/4 NPT BRASS MALE STUD  | 1/4     | 1/4    |
| 220518 | 5/16-1/8 NPT BRASS MALE STUD | 5/16    | 1/8    |
| 220514 | 5/16-1/4 NPT BRASS MALE STUD | 5/16    | 1/4    |
| 220614 | 3/8-1/4 NPT BRASS MALE STUD  | 3/8     | 1/4    |
| 220638 | 3/8-3/8 NPT BRASS MALE STUD  | 3/8     | 3/8    |
| 220612 | 3/8-1/2 NPT BRASS MALE STUD  | 3/8     | 1/2    |
| 220838 | 1/2-3/8 NPT BRASS MALE STUD  | 1/2     | 3/8    |
| 220812 | 1/2-1/2 NPT BRASS MALE STUD  | 1/2     | 1/2    |



## BRASS COMPRESSION STUD ELBOWS BSPT

| ITEMS  | DESCRIPTION                  | PIPE OD | THREAD |
|--------|------------------------------|---------|--------|
| 230418 | 04-1/8 BSPT BRASS MALE ELBOW | M04     | 1/8    |
| 230618 | 06-1/8 BSPT BRASS MALE ELBOW | M06     | 1/8    |
| 230614 | 06-1/4 BSPT BRASS MALE ELBOW | M06     | 1/4    |
| 230818 | 08-1/8 BSPT BRASS MALE ELBOW | M08     | 1/8    |
| 230814 | 08-1/4 BSPT BRASS MALE ELBOW | M08     | 1/4    |
| 231014 | 10-1/4 BSPT BRASS MALE ELBOW | M10     | 1/4    |
| 231038 | 10-3/8 BSPT BRASS MALE ELBOW | M10     | 3/8    |
| 231012 | 10-1/2 BSPT BRASS MALE ELBOW | M10     | 1/2    |
| 231238 | 12-3/8 BSPT BRASS MALE ELBOW | M12     | 3/8    |
| 231212 | 12-1/2 BSPT BRASS MALE ELBOW | M12     | 1/2    |



## BRASS COMPRESSION MALE STUD ELBOWS NPT

| ITEMS  | DESCRIPTION                   | PIPE OD | THREAD |
|--------|-------------------------------|---------|--------|
| 240218 | 1/8-1/8 NPT BRASS STUD ELBOW  | 1/8     | 1/8    |
| 240318 | 3/16-1/8 NPT BRASS STUD ELBOW | 3/16    | 1/8    |
| 240418 | 1/4-1/8 NPT BRASS STUD ELBOW  | 1/4     | 1/8    |
| 240414 | 1/4-1/4 NPT BRASS STUD ELBOW  | 1/4     | 1/4    |
| 240518 | 5/16-1/8 NPT BRASS STUD ELBOW | 5/16    | 1/8    |
| 240514 | 5/16-1/4 NPT BRASS STUD ELBOW | 5/16    | 1/4    |
| 240614 | 3/8-1/4 NPT BRASS STUD ELBOW  | 3/8     | 1/4    |
| 240638 | 3/8-3/8 NPT BRASS STUD ELBOW  | 3/8     | 3/8    |
| 240838 | 1/2-3/8 NPT BRASS STUD ELBOW  | 1/2     | 3/8    |
| 240812 | 1/2-1/2 NPT BRASS STUD ELBOW  | 1/2     | 1/2    |



## EQUAL FEMALE TEE NICKEL PLATED BRASS

| ITEMS    | DESCRIPTION | THREAD SIZE |
|----------|-------------|-------------|
| 2003-1/8 | EFT 1/8     | 1/8 BSP     |
| 2003-1/4 | EFT 1/4     | 1/4 BSP     |
| 2003-3/8 | EFT 3/8     | 3/8 BSP     |
| 2003-1/2 | EFT 1/2     | 1/2 BSP     |



## EQUAL FEMALE ELBOW NICKEL PLATED BRASS

| ITEMS    | DESCRIPTION | THREAD SIZE |
|----------|-------------|-------------|
| 2013-1/8 | EFE 1/8     | 1/8 BSP     |
| 2013-1/4 | EFE 1/4     | 1/4 BSP     |
| 2013-3/8 | EFE 3/8     | 3/8 BSP     |
| 2013-1/2 | EFE 1/2     | 1/2 BSP     |



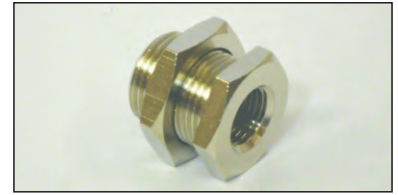
## MALE/FEMALE ELBOW NICKEL PLATED BRASS

| ITEMS    | DESCRIPTION | THREAD SIZE |
|----------|-------------|-------------|
| 2020-1/8 | MFE 1/8     | 1/8 BSP     |
| 2020-1/4 | MFE 1/4     | 1/4 BSP     |
| 2020-3/8 | MFE 3/8     | 3/8 BSP     |
| 2020-1/2 | MFE 1/2     | 1/2 BSP     |



## BULKHEAD ADAPTOR NICKEL PLATED BRASS

| ITEMS      | DESCRIPTION | BULKHEAD SIZE | FEMALE SIZE |
|------------|-------------|---------------|-------------|
| 2117-00-13 | BA20-1/4    | M20X1.5       | 1/4 BSP     |



## HEX NIPPLES NICKEL PLATED BRASS

| ITEMS    | DESCRIPTION | THREAD SIZE |
|----------|-------------|-------------|
| 2500-1/8 | HN 1/8      | 1/8 BSPT    |
| 2500-1/4 | HN 1/4      | 1/4 BSPT    |
| 2500-3/8 | HN 3/8      | 3/8 BSPT    |
| 2500-1/2 | HN 1/2      | 1/2 BSPT    |



## UNEQUAL HEX NIPPLES NICKEL PLATED BRASS

| ITEMS        | DESCRIPTION | THREAD SIZE    |
|--------------|-------------|----------------|
| 2510-1/8-1/4 | UHN 1/8-1/4 | 1/8 X 1/4 BSPT |
| 2510-1/4-3/8 | UHN 1/4-3/8 | 1/4 X 3/8 BSPT |
| 2510-1/4-1/2 | UHN 1/4-1/2 | 1/4 X 1/2 BSPT |
| 2510-3/8-1/2 | UHN 3/8-1/2 | 3/8 X 1/2 BSPT |



## REDUCERS BSP NICKEL PLATED BRASS

| ITEMS        | DESCRIPTION | THREAD SIZE     |
|--------------|-------------|-----------------|
| 2531-1/8-1/4 | RED 1/4-1/8 | 1/4M X 1/8F BSP |
| 2531-1/4-3/8 | RED 3/8-1/4 | 3/8M X 1/4F BSP |
| 2531-1/4-1/2 | RED 1/2-1/4 | 1/2M X 1/4F BSP |
| 2531-3/8-1/2 | RED 1/2-3/8 | 1/2M X 3/8F BSP |
| 2531-1/2-3/4 | RED 3/4-1/2 | 3/4M X 1/2F BSP |



## REDUCERS BSPT NICKEL PLATED BRASS

| ITEMS        | DESCRIPTION | THREAD SIZE    |
|--------------|-------------|----------------|
| 2532-1/8-1/4 | RED 1/4-1/8 | 1/4MX1/8F BSPT |
| 2532-1/4-3/8 | RED 3/8-1/4 | 3/8MX1/4F BSPT |
| 2532-3/8-1/2 | RED 1/2-3/8 | 1/2MX3/8F BSPT |
| 2532-1/2-3/4 | RED 3/4-1/2 | 3/4MX1/2F BSPT |



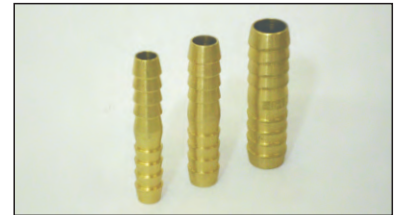
## HEX SOCKETS NICKEL PLATED BRASS

| ITEMS    | DESCRIPTION | THREAD SIZE |
|----------|-------------|-------------|
| 2543-1/8 | HSC 1/8     | 1/8 BSP     |
| 2543-1/4 | HSC 1/4     | 1/4 BSP     |
| 2543-3/8 | HSC 3/8     | 3/8 BSP     |
| 2543-1/2 | HSC 1/2     | 1/2 BSP     |
| 2543-3/4 | HSC 3/4     | 3/4 BSP     |



## HOSE MENDERS BRASS

| ITEMS      | DESCRIPTION | HOSE ID |
|------------|-------------|---------|
| 2600-07-07 | HM 1/4      | 1/4     |
| 2600-08-08 | HM 5/16     | 5/16    |
| 2600-10-10 | HM 3/8      | 3/8     |
| 2600-13-13 | HM 1/2      | 1/2     |



## BARB TEES BRASS

| ITEMS      | DESCRIPTION   | HOSE ID |
|------------|---------------|---------|
| 2603-07-07 | 1/4 BARB TEE  | 1/4     |
| 2603-08-08 | 5/16 BARB TEE | 5/16    |
| 2603-10-10 | 3/8 BARB TEE  | 3/8     |
| 2603-13-13 | 1/2 BARB TEE  | 1/2     |



## SILENCERS

| ITEMS      | DESCRIPTION     | THREAD SIZE |
|------------|-----------------|-------------|
| 2670-00-10 | CONE SHAPED-1/8 | 1/8 BSP     |
| 2670-00-13 | CONE SHAPED-1/4 | 1/4 BSP     |
| 2670-00-17 | CONE SHAPED-3/8 | 3/8 BSP     |
| 2670-00-21 | CONE SHAPED-1/2 | 1/2 BSP     |



## AF BRASS HOSE TAILS

| ITEMS       | DESCRIPTION | TAIL SIZE | THREAD SIZE |
|-------------|-------------|-----------|-------------|
| 2701-05-1/8 | AF 203 BT   | 05        | 1/8 BSPT    |
| 2701-07-1/8 | AF 204 BT   | 07        | 1/8 BSPT    |
| 2701-07-1/4 | AF 404 BT   | 07        | 1/4 BSPT    |
| 2701-07-3/8 | AF 604 BT   | 07        | 3/8 BSPT    |
| 2701-08-1/4 | AF 405 BT   | 08        | 1/4 BSPT    |
| 2701-08-3/8 | AF 605 BT   | 08        | 3/8 BSPT    |
| 2701-10-1/4 | AF 406 BT   | 10        | 1/4 BSPT    |
| 2701-10-3/8 | AF 606 BT   | 10        | 3/8 BSPT    |
| 2701-10-1/2 | AF 806 BT   | 10        | 1/2 BSPT    |
| 2701-12-1/4 | AF 408 BT   | 12        | 1/4 BSPT    |
| 2701-12-3/8 | AF 608 BT   | 12        | 3/8 BSPT    |
| 2701-12-1/2 | AF 808 BT   | 12        | 1/2 BSPT    |



## PNEUMATIC COUPLERS & PROBES

- SINGLE SHUT-OFF
- 35 BAR WORKING PRESSURE

### RECTUS 13 SERIES COUPLERS & PROBES

| ITEMS  | DESCRIPTION | THREAD SIZE        |
|--------|-------------|--------------------|
| 130605 | 13KAIW13MPX | 1/4 FEMALE COUPLER |
| 130620 | 13SFAK13SXN | 1/4 MALE PROBE     |



### RECTUS 14 SERIES COUPLERS & PROBES

| ITEMS  | DESCRIPTION | SIZE                 |
|--------|-------------|----------------------|
| 14-A2B | 22SFAK13SXN | 1/4 MALE PROBE       |
| 14-A3B | 22SFIW13SXN | 1/4 FEMALE PROBE     |
| 14-A8C | 22SFTF06SXN | 1/4 HOSE TAIL PROBE  |
| 14-A8D | 22SFTF08SXN | 5/16 HOSE TAIL PROBE |
| 14-A8E | 22SFTF10SXN | 3/8 HOSE TAIL PROBE  |
| 14-B53 | 14KAIW13MPX | 1/4 FEMALE COUPLER   |



### RECTUS 21 SERIES COUPLERS & PROBES

| ITEMS  | DESCRIPTION   | THREAD SIZE        |
|--------|---------------|--------------------|
| 130070 | 21 KAAW10MPX  | 1/8 MALE COUPLER   |
| 130072 | 21 KAIW 10MPX | 1/8 FEMALE COUPLER |
| 130078 | 21 SFAW10MXX  | 1/8 MALE PROBE     |
| 130080 | 21 SFIW 10MXX | 1/8 FEMALE PROBE   |





# RECTUS 26 SERIES COUPLERS & PROBES

| ITEMS   | DESCRIPTION | SIZE                 |
|---------|-------------|----------------------|
| 3201-A  | 26SFTF04MXX | 04 HOSE TAIL PROBE   |
| 3201-B  | 26SFTF06MXX | 06 HOSE TAIL PROBE   |
| 3201-C  | 26SFTF08MXX | 08 HOSE TAIL PROBE   |
| 3201-D  | 26SFTF10MXX | 10 HOSE TAIL PROBE   |
| 3201-F  | 26SFTF13MXX | 13 HOSE TAIL PROBE   |
|         |             |                      |
| 3203-B  | 26SFIW13MXX | 1/4 FEMALE PROBE     |
| 3203-D  | 26SFIW17MXX | 3/8 FEMALE PROBE     |
| 3203-F  | 26SFIW21MXX | 1/2 FEMALE PROBE     |
|         |             |                      |
| 3204-A  | 26SFAW10MXX | 1/8 MALE PROBE       |
| 3204-B  | 26SFAW13MXX | 1/4 MALE PROBE       |
| 3204-D  | 26SFAW17MXX | 3/8 MALE PROBE       |
| 3204-F  | 26SFAW21MXX | 1/2 MALE PROBE       |
|         |             |                      |
| 320B2-B | 26KATF06MPX | 06 HOSE TAIL COUPLER |
| 320B2-C | 26KATF08MPX | 08 HOSE TAIL COUPLER |
| 320B2-D | 26KATF10MPX | 10 HOSE TAIL COUPLER |
| 320B2-F | 26KATF13MPX | 13 HOSE TAIL COUPLER |
|         |             |                      |
| 320B3-B | 26KAIW13MPX | 1/4 FEMALE COUPLER   |
| 320B3-D | 26KAIW17MPX | 3/8 FEMALE COUPLER   |
| 320B3-F | 26KAIW21MPX | 1/2 FEMALE COUPLER   |
|         |             |                      |
| 320B4-A | 26KAAW10MPX | 1/8 MALE COUPLER     |
| 320B4-B | 26KAAW13MPX | 1/4 MALE COUPLER     |
| 320B4-D | 26KAAW17MPX | 3/8 MALE COUPLER     |
| 320B4-F | 26KAAW21MPX | 1/2 MALE COUPLER     |



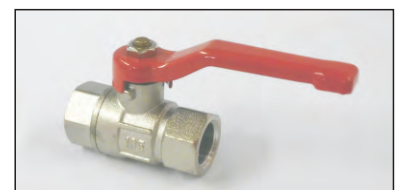
## B23

| ITEMS  | DESCRIPTION | THREAD SIZE        |
|--------|-------------|--------------------|
| 130705 | B23 COUPLER | 1/4 FEMALE COUPLER |
| 130720 | H2C PROBE   | 1/4 MALE PROBE     |



## LOW PRESSURE BALL VALVES

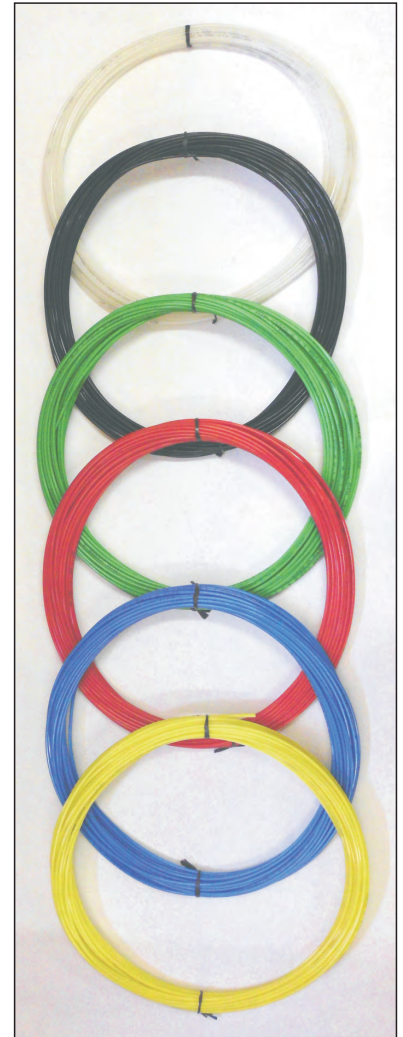
| ITEMS  | DESCRIPTION | THREAD SIZE |
|--------|-------------|-------------|
| 130814 | 1/4 LPBV    | 1/4 BSP     |
| 130838 | 3/8 LPBV    | 3/8 BSP     |
| 130812 | 1/2 LPBV    | 1/2 BSP     |





# METRIC NYLON TUBE-30M COILS

| ITEMS    | DESCRIPTION | OD | ID | WALL | WORKING PRESSURE | BURST PRESSURE |
|----------|-------------|----|----|------|------------------|----------------|
| 40-04-00 | 04MM WHITE  | 04 | 02 | 1.0  | 45 BAR           | 133 BAR        |
| 40-04-01 | 04MM BLACK  | 04 | 02 | 1.0  | 45 BAR           | 133 BAR        |
| 40-04-02 | 04MM GREEN  | 04 | 02 | 1.0  | 45 BAR           | 133 BAR        |
| 40-04-03 | 04MM RED    | 04 | 02 | 1.0  | 45 BAR           | 133 BAR        |
| 40-04-04 | 04MM BLUE   | 04 | 02 | 1.0  | 45 BAR           | 133 BAR        |
| 40-04-05 | 04MM YELLOW | 04 | 02 | 1.0  | 45 BAR           | 133 BAR        |
| 40-06-00 | 06MM WHITE  | 06 | 04 | 1.0  | 27 BAR           | 80 BAR         |
| 40-06-01 | 06MM BLACK  | 06 | 04 | 1.0  | 27 BAR           | 80 BAR         |
| 40-06-02 | 06MM GREEN  | 06 | 04 | 1.0  | 27 BAR           | 80 BAR         |
| 40-06-03 | 06MM RED    | 06 | 04 | 1.0  | 27 BAR           | 80 BAR         |
| 40-06-04 | 06MM BLUE   | 06 | 04 | 1.0  | 27 BAR           | 80 BAR         |
| 40-06-05 | 06MM YELLOW | 06 | 04 | 1.0  | 27 BAR           | 80 BAR         |
| 40-08-00 | 08MM WHITE  | 08 | 06 | 1.0  | 19 BAR           | 57 BAR         |
| 40-08-01 | 08MM BLACK  | 08 | 06 | 1.0  | 19 BAR           | 57 BAR         |
| 40-08-02 | 08MM GREEN  | 08 | 06 | 1.0  | 19 BAR           | 57 BAR         |
| 40-08-03 | 08MM RED    | 08 | 06 | 1.0  | 19 BAR           | 57 BAR         |
| 40-08-04 | 08MM BLUE   | 08 | 06 | 1.0  | 19 BAR           | 57 BAR         |
| 40-08-05 | 08MM YELLOW | 08 | 06 | 1.0  | 19 BAR           | 57 BAR         |
| 40-09-01 | 09MM BLACK  | 09 | 06 | 1.5  | 27 BAR           | 80 BAR         |
| 40-10-00 | 10MM WHITE  | 10 | 08 | 1.0  | 15 BAR           | 44 BAR         |
| 40-10-01 | 10MM BLACK  | 10 | 08 | 1.0  | 15 BAR           | 44 BAR         |
| 40-10-02 | 10MM GREEN  | 10 | 08 | 1.0  | 15 BAR           | 44 BAR         |
| 40-10-03 | 10MM RED    | 10 | 08 | 1.0  | 15 BAR           | 44 BAR         |
| 40-10-04 | 10MM BLUE   | 10 | 08 | 1.0  | 15 BAR           | 44 BAR         |
| 40-10-05 | 10MM YELLOW | 10 | 08 | 1.0  | 15 BAR           | 44 BAR         |
| 40-11-01 | 11MM BLACK  | 11 | 08 | 1.5  | 21 BAR           | 63 BAR         |
| 40-12-00 | 12MM WHITE  | 12 | 09 | 1.5  | 19 BAR           | 57 BAR         |
| 40-12-01 | 12MM BLACK  | 12 | 09 | 1.5  | 19 BAR           | 57 BAR         |
| 40-12-02 | 12MM GREEN  | 12 | 09 | 1.5  | 19 BAR           | 57 BAR         |
| 40-12-03 | 12MM RED    | 12 | 09 | 1.5  | 19 BAR           | 57 BAR         |
| 40-12-04 | 12MM BLUE   | 12 | 09 | 1.5  | 19 BAR           | 57 BAR         |
| 40-12-05 | 12MM YELLOW | 12 | 09 | 1.5  | 19 BAR           | 57 BAR         |
| 40-14-01 | 14MM BLACK  | 14 | 11 | 1.5  | 19 BAR           | 57 BAR         |
| 40-14-03 | 14MM RED    | 14 | 11 | 1.5  | 19 BAR           | 57 BAR         |
| 40-15-01 | 15MM BLACK  | 15 | 12 | 1.5  | 15 BAR           | 44 BAR         |
| 40-16-01 | 16MM BLACK  | 16 | 12 | 2.0  | 15 BAR           | 44 BAR         |



MAX TEMP 70° C

## IMPERIAL NYLON TUBE-30M COILS

| ITEMS    | DESCRIPTION | OD   | ID   | WALL | WORKING PRESSURE | BURST PRESSURE |
|----------|-------------|------|------|------|------------------|----------------|
| 41-02-00 | 1/8 WHITE   | 1/8  | 2.18 | 0.5  | 25 BAR           | 75 BAR         |
| 41-02-01 | 1/8 BLACK   | 1/8  | 2.18 | 0.5  | 25 BAR           | 75 BAR         |
| 41-03-00 | 3/16 WHITE  | 3/16 | 3.76 | 0.5  | 16 BAR           | 47 BAR         |
| 41-03-01 | 3/16 BLACK  | 3/16 | 3.76 | 0.5  | 16 BAR           | 47 BAR         |
| 41-04-00 | 1/4 WHITE   | 1/4  | 4.35 | 1.0  | 25 BAR           | 75 BAR         |
| 41-04-01 | 1/4 BLACK   | 1/4  | 4.35 | 1.0  | 25 BAR           | 75 BAR         |
| 41-06-00 | 3/8 WHITE   | 3/8  | 6.73 | 1.4  | 16 BAR           | 47 BAR         |
| 41-06-01 | 3/8 BLACK   | 3/8  | 6.73 | 1.4  | 16 BAR           | 47 BAR         |
| 41-08-00 | 1/2 WHITE   | 1/2  | 9.70 | 1.5  | 17 BAR           | 50 BAR         |
| 41-08-01 | 1/2 BLACK   | 1/2  | 9.70 | 1.5  | 17 BAR           | 50 BAR         |
| 41-12-00 | 3/4 WHITE   | 3/4  | 15.1 | 2.0  | 44.5 BAR         | 63 BAR         |
| 41-12-01 | 3/4 BLACK   | 3/4  | 15.1 | 2.0  | 44.5 BAR         | 63 BAR         |



MAX TEMP 70° C

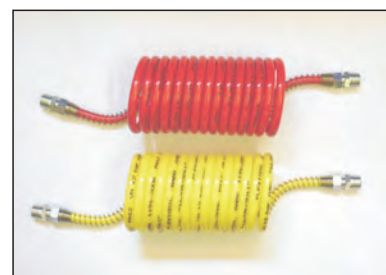
## BLUE AIR COILS NO FITTINGS

| ITEMS    | DESCRIPTION   | OD MM | ID MM | WORKING LENGTH | WORKING PRESSURE | BURST PRESSURE |
|----------|---------------|-------|-------|----------------|------------------|----------------|
| 40-AC-25 | BLUE AIR COIL | 08    | 06    | 2.5M           | 19 BAR           | 57 BAR         |
| 40-AC-50 | BLUE AIR COIL | 08    | 06    | 5.0M           | 19 BAR           | 57 BAR         |
| 40-AC-75 | BLUE AIR COIL | 08    | 06    | 7.5M           | 19 BAR           | 57 BAR         |



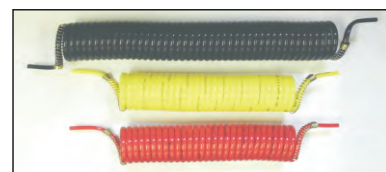
## SUZI COILS

| ITEMS       | DESCRIPTION       | OD MM | THREAD SIZE | WORKING LENGTH | WORKING PRESSURE | BURST PRESSURE |
|-------------|-------------------|-------|-------------|----------------|------------------|----------------|
| 40-SC-03    | RED SUZI COIL 1/2 | 12    | 1/2 BSPT    | 2.5M           | 19 BAR           | 57 BAR         |
| 40-SC-05    | YEL SUZI COIL 1/2 | 12    | 1/2 BSPT    | 2.5M           | 19 BAR           | 57 BAR         |
| 40-S16-03   | RED SUZI COIL M16 | 12    | M16         | 2.5M           | 19 BAR           | 57 BAR         |
| 40-S16-05   | YEL SUZI COIL M16 | 12    | M16         | 2.5M           | 19 BAR           | 57 BAR         |
| 40-SC-03-5M | RED SUZI COIL 1/2 | 12    | 1/2 BSPT    | 5.0M           | 19 BAR           | 57 BAR         |
| 40-SC-05-5M | YEL SUZI COIL 1/2 | 12    | 1/2 BSPT    | 5.0M           | 19 BAR           | 57 BAR         |



## SUZI COILS NO FITTINGS

| ITEMS     | DESCRIPTION     | OD MM | ID | WORKING LENGTH | WORKING PRESSURE | BURST PRESSURE |
|-----------|-----------------|-------|----|----------------|------------------|----------------|
| 40-S12-01 | BLACK SUZI COIL | 12    | 09 | 7.5M           | 19 BAR           | 57 BAR         |
| 40-S12-03 | RED SUZI COIL   | 12    | 09 | 5.0M           | 19 BAR           | 57 BAR         |
| 40-S12-05 | YEL SUZI COIL   | 12    | 09 | 5.0M           | 19 BAR           | 57 BAR         |



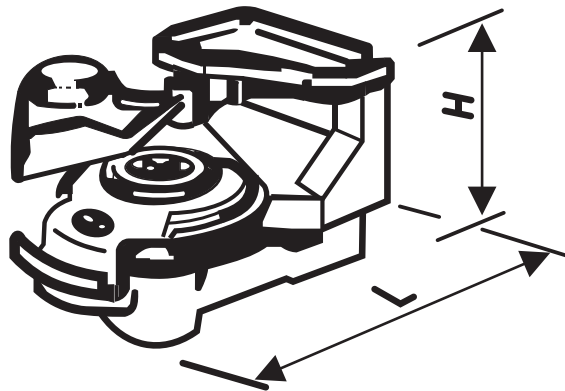
## F & J COUPLERS

| ITEMS   | DESCRIPTION            | THREAD SIZE | LENGTH MM |
|---------|------------------------|-------------|-----------|
| 40-BA06 | F & J FEMALE COUPLER   | 1/2 BSP     | 64.0      |
| 40-BA07 | SHORT STEM CHECK VALVE | 1/2 BSP     | 69.5      |
| 40-BA08 | LONG STEM CHECK VALVE  | 1/2 BSP     | 117.5     |
| 40-BD01 | F & J MALE COUPLER     | 1/2 BSP     | 71.5      |
| 40-BD08 | STRIKER PLUG           | 1/2 BSP     | 49.0      |
| 40-DC01 | FEMALE DUST COVER      | 1/2 BSP     | 114.5     |
| 40-DC02 | MALE DUST COVER        |             | 66.0      |



## PALM COUPLERS

| ITEMS  | DESCRIPTION          | THREAD SIZE | L  | H  |
|--------|----------------------|-------------|----|----|
| 676911 | YELLOW WITHOUT VALVE | 16X1.5      | 95 | 56 |
| 676913 | RED WITHOUT VALVE    | 16X1.5      | 95 | 56 |
| 676921 | YELLOW WITH VALVE    | 16X1.5      | 95 | 62 |
| 676922 | RED WITH VALVE       | 16X1.5      | 95 | 62 |



# THREAD SIZES AND WORKING PRESSURE ON STEEL COMPRESSION FITTINGS

## EXTRA LIGHT SERIES-LL

| TUBE OD | THREAD SIZE ON NUT | WORKING PRESSURE |
|---------|--------------------|------------------|
| 04LL    | M08X1.0            | 100 BAR          |
| 06LL    | M10X1.0            | 100 BAR          |
| 08LL    | M12X1.0            | 100 BAR          |
| 10LL    | M14X1.5            | 100 BAR          |
| 12LL    | M16X1.5            | 100 BAR          |
| 16LL    | M22X1.5            | 100 BAR          |
| 18LL    | M24X1.5            | 100 BAR          |
| 22LL    | M28X1.5            | 100 BAR          |

## LIGHT SERIES-L

| TUBE OD | THREAD SIZE ON NUT | WORKING PRESSURE |
|---------|--------------------|------------------|
| 06L     | M12X1.5            | 500 BAR          |
| 08L     | M14X1.5            | 500 BAR          |
| 10L     | M16X1.5            | 500 BAR          |
| 12L     | M18X1.5            | 400 BAR          |
| 15L     | M22X1.5            | 400 BAR          |
| 18L     | M26X1.5            | 400 BAR          |
| 22L     | M30X2.0            | 250 BAR          |
| 28L     | M36X2.0            | 250 BAR          |
| 35L     | M45X2.0            | 250 BAR          |
| 42L     | M52X2.0            | 250 BAR          |

## HEAVY SERIES-S

| TUBE OD | THREAD SIZE ON NUT | WORKING PRESSURE |
|---------|--------------------|------------------|
| 06S     | M14X1.5            | 800 BAR          |
| 08S     | M16X1.5            | 800 BAR          |
| 10S     | M18X1.5            | 800 BAR          |
| 12S     | M20X1.5            | 630 BAR          |
| 14S     | M22X1.5            | 630 BAR          |
| 16S     | M24X1.5            | 630 BAR          |
| 20S     | M30X2.0            | 400 BAR          |
| 25S     | M36X2.0            | 400 BAR          |
| 30S     | M42X2.0            | 400 BAR          |
| 38S     | M52X2.0            | 400 BAR          |

## D CUT RINGS

| ITEMS  | DESCRIPTION | PIPE OD |
|--------|-------------|---------|
| 500004 | D04LL       | M04     |
| 500006 | D06LL       | M06     |
| 600006 | D06L        | M06     |
| 500008 | D08LL       | M08     |
| 600008 | D08L        | M08     |
| 600010 | D10L        | M10     |
| 600012 | D12L        | M12     |
| 600014 | D14S        | M14     |
| 600015 | D15L        | M15     |
| 500016 | D16LL       | M16     |
| 600016 | D16S        | M16     |
| 600018 | D18L        | M18     |
| 600020 | D20S        | M20     |
| 600022 | D22L        | M22     |
| 600025 | D25S        | M25     |
| 600028 | D28L        | M28     |
| 600030 | D30S        | M30     |
| 600035 | D35L        | M35     |
| 600038 | D38S        | M38     |
| 600042 | D42L        | M42     |



## M NUTS

| ITEMS  | DESCRIPTION | PIPE OD |
|--------|-------------|---------|
| 500104 | M04LL       | M04     |
| 500106 | M06LL       | M06     |
| 600106 | M06L        | M06     |
| 600107 | M06S        | M06     |
| 500108 | M08LL       | M08     |
| 600108 | M08L        | M08     |
| 600109 | M08S        | M08     |
| 600110 | M10L        | M10     |
| 600111 | M10S        | M10     |
| 600112 | M12L        | M12     |
| 600113 | M12S        | M12     |
| 600114 | M14S        | M14     |
| 600115 | M15L        | M15     |
| 500116 | M16LL       | M16     |
| 600116 | M16S        | M16     |
| 600118 | M18L        | M18     |
| 600120 | M20S        | M20     |
| 600122 | M22L        | M22     |
| 600125 | M25S        | M25     |
| 600128 | M28L        | M28     |
| 600130 | M30S        | M30     |
| 600135 | M35L        | M35     |
| 600138 | M38S        | M38     |
| 600142 | M42L        | M42     |

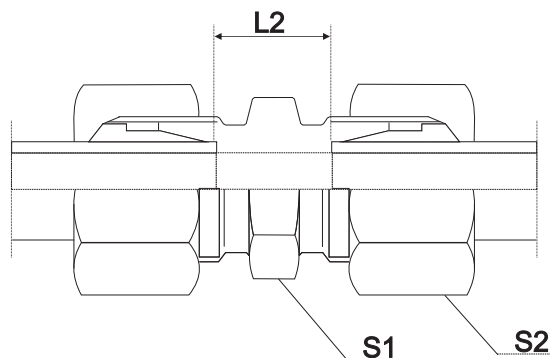




**\* PLEASE NOTE - DIMENSIONS ON STEEL COMPRESSION FITTINGS MAY DIFFER FROM DIAGRAM DUE TO DIFFERENT SOURCE OF SUPPLY**

## G UNIONS

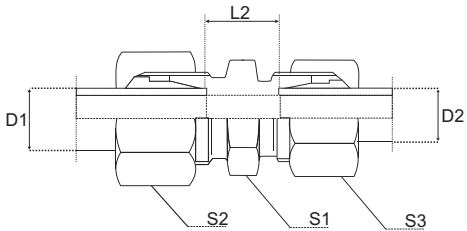
| ITEMS   | DESCRIPTION | PIPE OD | L2 | S1 | S2 |
|---------|-------------|---------|----|----|----|
| 500204  | G04LL       | M04     | 9  | 12 | 10 |
| 500206  | G06LL       | M06     | 9  | 12 | 12 |
| 600206  | G06L        | M06     | 10 | 12 | 14 |
| 600206S | G06S        | M06     | 13 | 14 | 17 |
| 500208  | G08LL       | M08     | 12 | 12 | 14 |
| 600208  | G08L        | M08     | 11 | 14 | 17 |
| 600208S | G08S        | M08     | 15 | 17 | 19 |
| 600209  | G09L        | M09     | 11 | 14 | 17 |
| 600210  | G10L        | M10     | 12 | 17 | 19 |
| 600210S | G10S        | M10     | 15 | 19 | 22 |
| 600211  | G11L        | M11     | 11 | 17 | 19 |
| 600212  | G12L        | M12     | 13 | 19 | 22 |
| 600212S | G12S        | M12     | 17 | 22 | 24 |
| 600214  | G14S        | M14     | 17 | 24 | 27 |
| 600215  | G15L        | M15     | 13 | 24 | 27 |
| 500216  | G16LL       | M16     | 13 | 27 | 27 |
| 600216  | G16S        | M16     | 17 | 27 | 30 |
| 600218  | G18L        | M18     | 15 | 27 | 32 |
| 600220  | G20S        | M20     | 22 | 32 | 36 |
| 600222  | G22L        | M22     | 18 | 32 | 36 |
| 600225  | G25S        | M25     | 24 | 41 | 41 |
| 600228  | G28L        | M28     | 18 | 41 | 41 |
| 600230  | G30S        | M30     | 23 | 46 | 50 |
| 600235  | G35L        | M35     | 20 | 46 | 50 |
| 600238  | G38S        | M38     | 26 | 55 | 60 |
| 600242  | G42L        | M42     | 21 | 55 | 60 |





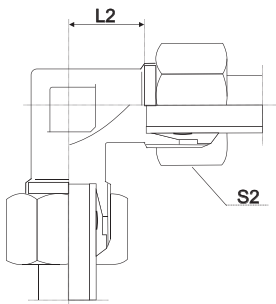
# GR UNIONS

| ITEMS  | DESCRIPTION | D1  | D2  | L2   | S1 | S2 | S3 |
|--------|-------------|-----|-----|------|----|----|----|
| 601806 | GR08/06L    | M08 | M06 | 11   | 14 | 17 | 14 |
| 601006 | GR10/06L    | M10 | M06 | 12   | 17 | 19 | 14 |
| 601008 | GR10/08L    | M10 | M08 | 12   | 17 | 19 | 17 |
| 601206 | GR12/06L    | M12 | M06 | 13   | 19 | 22 | 14 |
| 601208 | GR12/08L    | M12 | M08 | 13   | 19 | 22 | 17 |
| 601210 | GR12/10L    | M12 | M10 | 14   | 19 | 22 | 19 |
| 601512 | GR15/12L    | M15 | M12 | 15   | 24 | 27 | 22 |
| 601815 | GR18/15L    | M18 | M15 | 16.5 | 27 | 32 | 27 |



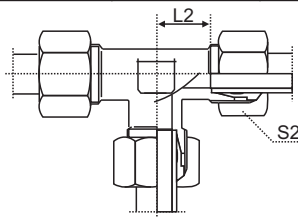
# W ELBOW UNIONS

| ITEMS  | DESCRIPTION | PIPE OD | L2   | S2 |
|--------|-------------|---------|------|----|
| 500304 | W04LL       | M04     | 11   | 10 |
| 500306 | W06LL       | M06     | 9.5  | 12 |
| 600306 | W06L        | M06     | 10   | 14 |
| 500308 | W08LL       | M08     | 11.5 | 14 |
| 600308 | W08L        | M08     | 14   | 17 |
| 600310 | W10L        | M10     | 15   | 19 |
| 600312 | W12L        | M12     | 17   | 22 |
| 600313 | W12S        | M12     | 17   | 24 |
| 600315 | W15L        | M15     | 18   | 27 |
| 600316 | W16S        | M16     | 22   | 30 |
| 600318 | W18L        | M18     | 22   | 32 |
| 600320 | W20S        | M20     | 25   | 36 |
| 600322 | W22L        | M22     | 26   | 36 |
| 600325 | W25S        | M25     | 27   | 46 |
| 600328 | W28L        | M28     | 24   | 41 |
| 600330 | W30S        | M30     | 35.5 | 50 |
| 600335 | W35L        | M35     | 34.5 | 50 |
| 600338 | W38S        | M38     | 41.0 | 60 |



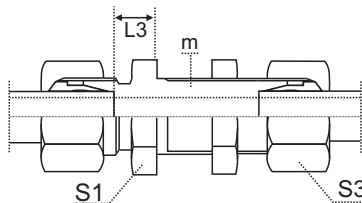
## T EQUAL UNIONS

| ITEMS  | DESCRIPTION | PIPE OD | L2   | S2 |
|--------|-------------|---------|------|----|
| 500404 | T04LL       | M04     | 8    | 10 |
| 500406 | T06LL       | M06     | 9    | 12 |
| 600406 | T06L        | M06     | 12   | 14 |
| 500408 | T08LL       | M08     | 11.5 | 14 |
| 600408 | T08L        | M08     | 14   | 17 |
| 600410 | T10L        | M10     | 14   | 19 |
| 600411 | T10S        | M10     | 16   | 22 |
| 600412 | T12L        | M12     | 17   | 22 |
| 600413 | T12S        | M12     | 21   | 24 |
| 600415 | T15L        | M15     | 20   | 27 |
| 600416 | T16S        | M16     | 22   | 30 |
| 600418 | T18L        | M18     | 22   | 32 |
| 600420 | T20S        | M20     | 25   | 36 |
| 600422 | T22L        | M22     | 24   | 36 |
| 600425 | T25S        | M25     | 26   | 46 |
| 600428 | T28L        | M28     | 26   | 41 |
| 600430 | T30S        | M30     | 35.5 | 50 |
| 600435 | T35L        | M35     | 34.5 | 50 |
| 600438 | T38S        | M38     | 41.0 | 60 |



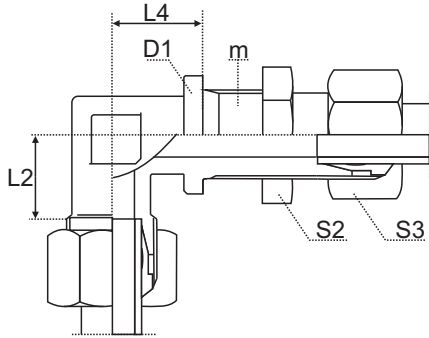
## SV BULKHEADS

| ITEMS  | DESCRIPTION | PIPE OD | L3   | S1 | S3 | M      |
|--------|-------------|---------|------|----|----|--------|
| 600506 | SV06L       | M06     | 7.0  | 17 | 14 | 12X1.5 |
| 600508 | SV08L       | M08     | 8.0  | 19 | 17 | 14X1.5 |
| 600510 | SV10L       | M10     | 10.0 | 22 | 19 | 16X1.5 |
| 600511 | SV10S       | M10     | 14.5 | 24 | 22 | 18X1.5 |
| 600512 | SV12L       | M12     | 10.0 | 24 | 22 | 18X1.5 |
| 600513 | SV12S       | M12     | 14.5 | 27 | 24 | 20X1.5 |
| 600515 | SV15L       | M15     | 11.0 | 27 | 27 | 22X1.5 |
| 600516 | SV16S       | M16     | 16.0 | 32 | 30 | 24X1.5 |
| 600518 | SV18L       | M18     | 13.5 | 32 | 32 | 26X1.5 |
| 600522 | SV22L       | M22     | 16.0 | 36 | 36 | 30X2.0 |
| 600525 | SV25S       | M25     | 20.0 | 46 | 46 | 36X2.0 |



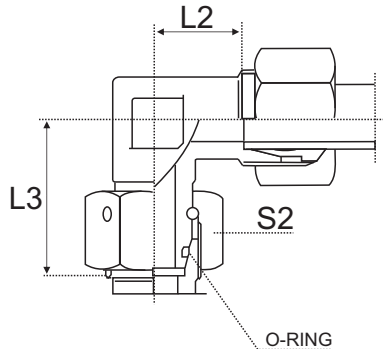
## WSV BULKHEAD ELBOWS

| ITEMS  | DESCRIPTION | PIPE OD | L2   | L4 | D1   | S2 | S3 | M      |
|--------|-------------|---------|------|----|------|----|----|--------|
| 600606 | WSV06L      | M06     | 12.0 | 14 | 17.5 | 17 | 14 | 12X1.5 |
| 600608 | WSV08L      | M08     | 14.0 | 17 | 19.0 | 19 | 17 | 14X1.5 |
| 600610 | WSV10L      | M10     | 15.0 | 18 | 22.5 | 22 | 19 | 16X1.5 |
| 600612 | WSV12L      | M12     | 17.0 | 20 | 24.0 | 24 | 22 | 18X1.5 |
| 600613 | WSV12S      | M12     | 20.0 | 21 | 27.5 | 27 | 24 | 20X1.5 |
| 600615 | WSV15L      | M15     | 20.0 | 23 | 27.0 | 30 | 27 | 22X1.5 |
| 600618 | WSV18L      | M18     | 23.5 | 24 | 32.5 | 36 | 32 | 26X1.5 |
| 600622 | WSV22L      | M22     | 27.5 | 30 | 36.0 | 41 | 36 | 30X2.0 |



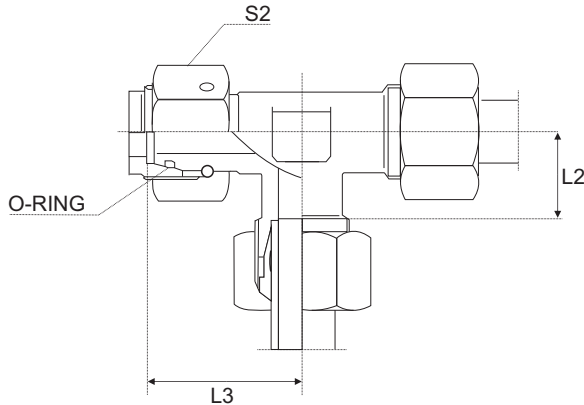
## EVW SWIVEL ELBOWS

| ITEMS  | DESCRIPTION | PIPE OD | L2   | L3   | S2 |
|--------|-------------|---------|------|------|----|
| 600706 | EVW06L      | M06     | 12.0 | 26.0 | 14 |
| 600708 | EVW08L      | M08     | 14.0 | 26.0 | 17 |
| 600710 | EVW10L      | M10     | 15.0 | 29.0 | 19 |
| 600711 | EVW10S      | M10     | 17.5 | 30.0 | 22 |
| 600712 | EVW12L      | M12     | 17.0 | 29.5 | 22 |
| 600713 | EVW12S      | M12     | 18.0 | 31.0 | 24 |
| 600715 | EVW15L      | M15     | 19.0 | 32.5 | 27 |
| 600716 | EVW16S      | M16     | 22.0 | 34.0 | 30 |
| 600718 | EVW18L      | M18     | 23.5 | 34.0 | 32 |
| 600720 | EVW20S      | M20     | 26.5 | 43.0 | 36 |
| 600722 | EVW22L      | M22     | 25.5 | 37.0 | 36 |
| 600725 | EVW25S      | M25     | 28.0 | 48.0 | 46 |
| 600728 | EVW28L      | M28     | 26.0 | 40.0 | 41 |
| 600735 | EVW35L      | M35     | 34.0 | 50.0 | 50 |



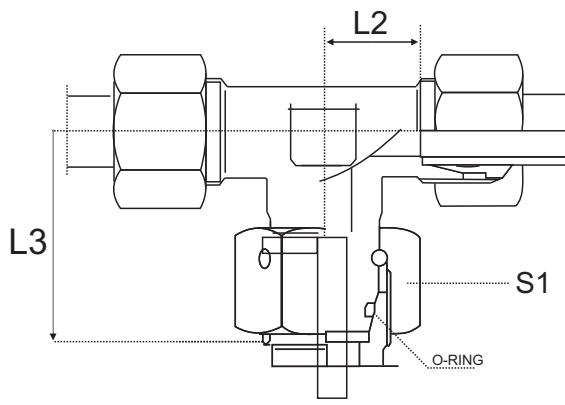
## EVL SWIVEL ON RUN

| ITEMS  | DESCRIPTION | PIPE OD | L2   | L3   | S2 |
|--------|-------------|---------|------|------|----|
| 600806 | EVL06L      | M06     | 12.0 | 26.0 | 14 |
| 600808 | EVL08L      | M08     | 14.0 | 26.0 | 17 |
| 600810 | EVL10L      | M10     | 15.0 | 29.0 | 19 |
| 600812 | EVL12L      | M12     | 17.0 | 29.5 | 22 |
| 600815 | EVL15L      | M15     | 20.0 | 32.5 | 27 |
| 600816 | EVL16S      | M16     | 22.5 | 36.5 | 30 |
| 600818 | EVL18L      | M18     | 23.5 | 34.0 | 32 |
| 600822 | EVL22L      | M22     | 27.5 | 38.0 | 36 |



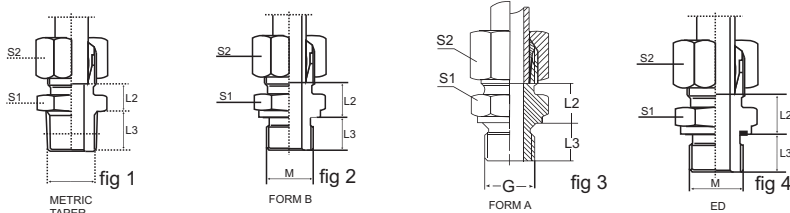
## EVT SWIVEL ON BRANCH

| ITEMS  | DESCRIPTION | PIPE OD | L2   | L3   | S1 |
|--------|-------------|---------|------|------|----|
| 600906 | EVT06L      | M06     | 12.0 | 25.0 | 14 |
| 600908 | EVT08L      | M08     | 14.0 | 26.5 | 17 |
| 600910 | EVT10L      | M10     | 15.0 | 28.0 | 19 |
| 600912 | EVT12L      | M12     | 16.0 | 29.5 | 22 |
| 600915 | EVT15L      | M15     | 19.0 | 32.0 | 27 |
| 600916 | EVT16S      | M16     | 22.0 | 34.0 | 30 |
| 600918 | EVT18L      | M18     | 23.0 | 34.0 | 32 |
| 600922 | EVT22L      | M22     | 27.5 | 38.5 | 36 |



# GE MALE STUDS METRIC

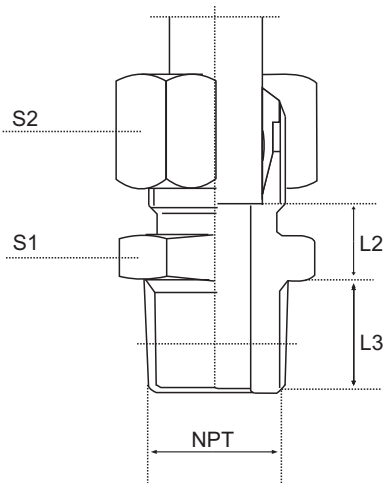
| ITEMS  | DESCRIPTION   | PIPE OD | FIG. | L2   | L3 | S1 | S2 | R/M     |
|--------|---------------|---------|------|------|----|----|----|---------|
| 510452 | GE04LLM06X1.0 | M04     | 1    | 6.50 | 8  | 10 | 10 | 08X1.0  |
| 510456 | GE04LLM08X1.0 | M04     | 1    | 6.50 | 8  | 10 | 10 | 08X1.0  |
| 510460 | GE04LLM10X1.0 | M04     | 1    | 6.50 | 8  | 10 | 10 | 10X1.0  |
| 510652 | GE06LLM06X1.0 | M06     | 1    | 6.50 | 8  | 11 | 12 | 06X1.0  |
| 510656 | GE06LLM08X1.0 | M06     | 1    | 6.50 | 8  | 11 | 12 | 08X1.0  |
| 510660 | GE06LLM10X1.0 | M06     | 1    | 6.50 | 8  | 11 | 12 | 10X1.00 |
| 610660 | GE06LM10X1.0  | M06     | 2    | 8.50 | 8  | 14 | 14 | 10X1.0  |
| 610667 | GE06LM12X1.5  | M06     | 2    | 10.0 | 12 | 17 | 14 | 12X1.5  |
| 610671 | GE06LM14X1.5  | M06     | 2    | 10.0 | 12 | 19 | 14 | 14X1.5  |
| 610675 | GE06LM16X1.5  | M06     | 3    | 10.0 | 12 | 22 | 14 | 16X1.5  |
| 610682 | GE06LM22X1.5  | M06     | 3    | 10.0 | 12 | 27 | 14 | 22X1.5  |
| 510860 | GE08LLM10X1.0 | M08     | 1    | 8.50 | 8  | 12 | 14 | 10X1.0  |
| 610867 | GE08LM12X1.5  | M08     | 2    | 10.0 | 12 | 17 | 17 | 12X1.5  |
| 610871 | GE08LM14X1.5  | M08     | 2    | 10.0 | 12 | 19 | 17 | 14X1.5  |
| 610875 | GE08LM16X1.5  | M08     | 3    | 10.0 | 12 | 22 | 17 | 16X1.5  |
| 610882 | GE08LM22X1.5  | M08     | 3    | 10.0 | 12 | 27 | 17 | 22X1.5  |
| 611067 | GE10LM12X1.5  | M10     | 2    | 10.0 | 12 | 17 | 19 | 12X1.5  |
| 611071 | GE10LM14X1.5  | M10     | 2    | 11.0 | 12 | 19 | 19 | 14X1.5  |
| 611072 | GE10LMED      | M10     | 4    | 11.0 | 12 | 19 | 19 | 14X1.5  |
| 611075 | GE10LM16X1.5  | M10     | 3    | 10.0 | 12 | 22 | 19 | 16X1.5  |
| 611082 | GE10LM22X1.5  | M10     | 3    | 10.0 | 12 | 27 | 19 | 22X1.5  |
| 611267 | GE12LM12X1.5  | M12     | 2    | 11.0 | 12 | 19 | 22 | 12X1.5  |
| 611271 | GE12LM14X1.5  | M12     | 2    | 12.5 | 12 | 19 | 22 | 14X1.5  |
| 611275 | GE12LM16X1.5  | M12     | 2    | 12.5 | 12 | 22 | 22 | 16X1.5  |
| 611276 | GE12LMED      | M12     | 4    | 12.5 | 12 | 22 | 22 | 16X1.5  |
| 611278 | GE12LM18X1.5  | M12     | 2    | 12.5 | 12 | 24 | 22 | 18X1.5  |
| 611282 | GE12LM22X1.5  | M12     | 3    | 10.0 | 12 | 27 | 22 | 22X1.5  |
| 611571 | GE15LM14X1.5  | M15     | 2    | 13.0 | 12 | 24 | 27 | 14X1.5  |
| 611575 | GE15LM16X1.5  | M15     | 2    | 13.0 | 12 | 24 | 27 | 16X1.5  |
| 611578 | GE15LM18X1.5  | M15     | 2    | 13.5 | 12 | 24 | 27 | 18X1.5  |
| 611582 | GE15LM22X1.5  | M15     | 3    | 10.0 | 12 | 27 | 27 | 22X1.5  |
| 611589 | GE15LM26X1.5  | M15     | 2    | 15.0 | 16 | 24 | 27 | 26X1.5  |
| 611683 | GE16SMED      | M16     | 4    | 18.5 | 14 | 27 | 30 | 22X1.5  |
| 611878 | GE18LM18X1.5  | M18     | 2    | 13.0 | 12 | 27 | 32 | 18X1.5  |
| 611882 | GE18LM22X1.5  | M18     | 2    | 14.5 | 14 | 27 | 32 | 22X1.5  |
| 611883 | GE18LMED      | M18     | 4    | 14.5 | 14 | 27 | 32 | 22X1.5  |
| 612282 | GE22LM22X1.5  | M22     | 2    | 16.5 | 14 | 32 | 36 | 22X1.5  |
| 612289 | GE22LM26X1.5  | M22     | 2    | 16.5 | 16 | 32 | 36 | 26X1.5  |





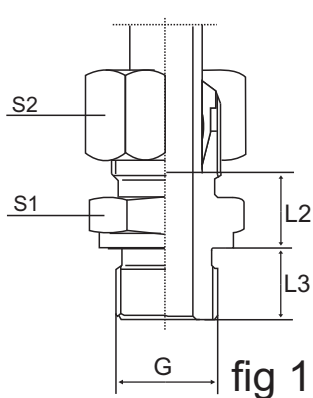
# GE MALE STUDS NPT

| ITEMS  | DESCRIPTION  | PIPE OD | L2   | L3   | S1 | S2 | NPT |
|--------|--------------|---------|------|------|----|----|-----|
| 510418 | GE04LL1/8NPT | M04     | 6.5  | 10.0 | 11 | 10 | 1/8 |
| 510618 | GE06LL1/8NPT | M06     | 6.5  | 10.0 | 11 | 12 | 1/8 |
| 610618 | GE06L1/8NPT  | M06     | 7.0  | 10.0 | 12 | 14 | 1/8 |
| 610614 | GE06L1/4NPT  | M06     | 8.0  | 15.0 | 14 | 14 | 1/4 |
| 510818 | GE08LL1/8NPT | M08     | 8.5  | 10.0 | 12 | 14 | 1/8 |
| 610818 | GE08L1/8 NPT | M08     | 8.0  | 10.0 | 17 | 17 | 1/8 |
| 610814 | GE08L1/4NPT  | M08     | 8.0  | 15.0 | 17 | 17 | 1/4 |
| 610838 | GE08L3/8NPT  | M08     | 9.0  | 15.0 | 19 | 17 | 3/8 |
| 611014 | GE10L1/4NPT  | M10     | 9.0  | 15.0 | 17 | 19 | 1/4 |
| 611038 | GE10L3/8NPT  | M10     | 10.0 | 15.0 | 19 | 19 | 3/8 |
| 611039 | GE10S3/8NPT  | M10     | 12.5 | 15.0 | 19 | 22 | 3/8 |
| 611012 | GE10L1/2NPT  | M10     | 10.5 | 19.5 | 22 | 19 | 1/2 |
| 611214 | GE12L1/4NPT  | M12     | 10.0 | 15.0 | 19 | 22 | 1/4 |
| 611238 | GE12L3/8NPT  | M12     | 10.0 | 15.0 | 19 | 22 | 3/8 |
| 611239 | GE12S3/8NPT  | M12     | 14.5 | 15.0 | 22 | 24 | 3/8 |
| 611212 | GE12L1/2NPT  | M12     | 10.5 | 19.5 | 22 | 22 | 1/2 |
| 611213 | GE12S1/2NPT  | M12     | 15.0 | 19.5 | 22 | 24 | 1/2 |
| 611412 | GE14S1/2NPT  | M14     | 16.5 | 19.5 | 24 | 27 | 1/2 |
| 611538 | GE15L3/8NPT  | M15     | 11.0 | 15.0 | 24 | 27 | 3/8 |
| 611512 | GE15L1/2NPT  | M15     | 11.5 | 19.5 | 24 | 27 | 1/2 |
| 611612 | GE16S1/2NPT  | M16     | 15.0 | 19.5 | 27 | 30 | 1/2 |
| 611812 | GE18L1/2NPT  | M18     | 11.5 | 19.5 | 27 | 32 | 1/2 |
| 612034 | GE20S3/4NPT  | M20     | 17.0 | 20.0 | 32 | 36 | 3/4 |
| 612234 | GE22L3/4NPT  | M22     | 13.5 | 20.0 | 32 | 36 | 3/4 |
| 612510 | GE25S1"NPT   | M25     | 20.0 | 25.0 | 41 | 46 | 1"  |
| 612810 | GE28L1"NPT   | M28     | 14.5 | 25.0 | 41 | 41 | 1"  |

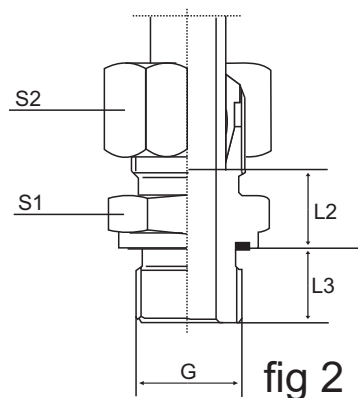


# GE MALE STUDS BSP

| ITEMS  | DESCRIPTION | PIPE OD | FIG. | L2   | L3 | S1 | S2 | G   |
|--------|-------------|---------|------|------|----|----|----|-----|
| 640610 | GE06LR1/8   | M06     | 1    | 9.0  | 9  | 14 | 14 | 1/8 |
| 640613 | GE06LR1/4   | M06     | 1    | 10.0 | 12 | 19 | 14 | 1/4 |
| 640810 | GE08LR1/8   | M08     | 1    | 9.5  | 8  | 14 | 17 | 1/8 |
| 640813 | GE08LR1/4   | M08     | 1    | 10.0 | 12 | 19 | 17 | 1/4 |
| 640817 | GE08LR3/8   | M08     | 1    | 11.5 | 12 | 22 | 17 | 3/8 |
| 641013 | GE10LR1/4   | M10     | 1    | 11.0 | 12 | 19 | 19 | 1/4 |
| 641017 | GE10LR3/8   | M10     | 1    | 12.5 | 12 | 22 | 19 | 3/8 |
| 641021 | GE10LR1/2   | M10     | 1    | 13.0 | 14 | 27 | 19 | 1/2 |
| 641213 | GE12LR1/4   | M12     | 1    | 11.0 | 12 | 19 | 22 | 1/4 |
| 641217 | GE12LR3/8   | M12     | 1    | 12.5 | 12 | 22 | 22 | 3/8 |
| 641221 | GE12LR1/2   | M12     | 1    | 13.0 | 14 | 27 | 22 | 1/2 |
| 641222 | GE12LRED    | M12     | 2    | 13.0 | 14 | 27 | 22 | 1/2 |
| 641421 | GE14SR1/2   | M14     | 1    | 17.0 | 14 | 27 | 27 | 1/2 |
| 641517 | GE15LR3/8   | M15     | 1    | 12.0 | 12 | 24 | 27 | 3/8 |
| 641521 | GE15LR1/2   | M15     | 1    | 13.0 | 14 | 27 | 27 | 1/2 |
| 641522 | GE15LRED    | M15     | 2    | 13.0 | 14 | 27 | 27 | 1/2 |
| 641527 | GE15LR3/4   | M15     | 1    | 15.0 | 16 | 32 | 27 | 3/4 |
| 641621 | GE16SR1/2   | M16     | 1    | 16.5 | 14 | 27 | 30 | 1/2 |
| 641821 | GE18LR1/2   | M18     | 1    | 14.0 | 14 | 27 | 32 | 1/2 |
| 641822 | GE18LRED    | M18     | 2    | 14.0 | 14 | 27 | 32 | 1/2 |
| 641827 | GE18LR3/4   | M18     | 1    | 14.5 | 16 | 32 | 32 | 3/4 |
| 642021 | GE20SR1/2   | M20     | 1    | 20.5 | 14 | 32 | 36 | 1/2 |
| 642027 | GE20SR3/4   | M20     | 1    | 20.5 | 16 | 32 | 36 | 3/4 |
| 642227 | GE22LR3/4   | M22     | 1    | 15.0 | 15 | 32 | 36 | 3/4 |
| 642233 | GE22LR1"    | M22     | 1    | 17.5 | 18 | 41 | 36 | 1"  |
| 642533 | GE25SR1"    | M25     | 1    | 23.0 | 18 | 41 | 46 | 1"  |
| 642833 | GE28LR1"    | M28     | 1    | 16.0 | 18 | 41 | 41 | 1"  |



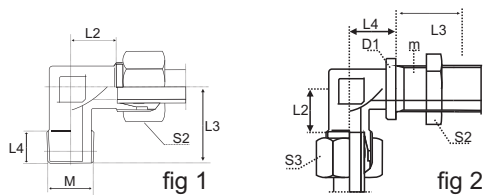
FORM B



ED

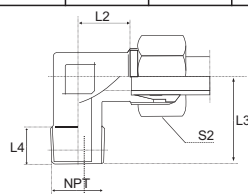
# WE MALE STUDS ELBOWS METRIC

| ITEMS  | DESCRIPTION   | PIPE OD | FIG | L2   | L3 | L4 | S2 |    |    | M      |
|--------|---------------|---------|-----|------|----|----|----|----|----|--------|
| 520456 | WE04LLM08X1.0 | M04     | 1   | 9.0  | 17 | 9  | 10 |    |    | 08X1.0 |
| 520656 | WE06LLM08X1.0 | M06     | 1   | 9.5  | 17 | 9  | 12 |    |    | 08X1.0 |
| 520660 | WE06LLM10X1.0 | M06     | 1   | 9.5  | 17 | 9  | 12 |    |    | 10X1.0 |
| 520860 | WE08LLM10X1.0 | M08     | 1   | 11.5 | 17 | 10 | 14 |    |    | 10X1.0 |
|        |               | PIPE OD | FIG | L2   | L3 | L4 | S2 | S3 | D1 | M      |
| 620867 | WE08LM12X1.5  | M08     | 2   | 13   | 20 | 17 | 17 | 17 | 17 | 12X1.5 |
| 620882 | WE08LM22X1.5  | M08     | 2   | 18   | 25 | 21 | 27 | 17 | 27 | 22X1.5 |
| 621275 | WE12LM16X1.5  | M12     | 2   | 15   | 25 | 20 | 22 | 22 | 22 | 16X1.5 |
| 621282 | WE12LM22X1.5  | M12     | 2   | 15   | 25 | 20 | 27 | 22 | 27 | 22X1.5 |
| 621582 | WE15LM22X1.5  | M15     | 2   | 24   | 25 | 20 | 27 | 27 | 27 | 22X1.5 |



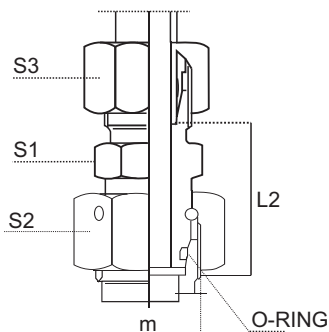
# WE MALE STUDS ELBOWS NPT

| ITEMS  | DESCRIPTION  | PIPE OD | L2   | L3   | L4   | S2 | NPT |
|--------|--------------|---------|------|------|------|----|-----|
| 520418 | WE04LL1/8NPT | M04     | 8.0  | 17.5 | 8.0  | 10 | 1/8 |
| 520618 | WE06LL1/8NPT | M06     | 8.0  | 17.0 | 12.0 | 12 | 1/8 |
| 620618 | WE06L1/8NPT  | M06     | 10.0 | 20.0 | 11.5 | 14 | 1/8 |
| 620614 | WE06L1/4NPT  | M06     | 13.0 | 26.0 | 15.0 | 14 | 1/4 |
| 520818 | WE08LL1/8NPT | M08     | 11.5 | 20.0 | 11.0 | 14 | 1/8 |
| 620818 | WE08L1/8 NPT | M08     | 14.0 | 24.0 | 10.0 | 17 | 1/8 |
| 620814 | WE08L1/4NPT  | M08     | 14.0 | 26.0 | 15.0 | 17 | 1/4 |
| 620838 | WE08L3/8NPT  | M08     | 16.0 | 28.0 | 15.0 | 17 | 3/8 |
| 621014 | WE10L1/4NPT  | M10     | 15.0 | 26.0 | 14.0 | 19 | 1/4 |
| 621038 | WE10L3/8NPT  | M10     | 17.0 | 28.0 | 15.0 | 19 | 3/8 |
| 621012 | WE10L1/2NPT  | M10     | 20.0 | 34.0 | 19.5 | 19 | 1/2 |
| 621214 | WE12L1/4NPT  | M12     | 16.0 | 27.0 | 16.0 | 22 | 1/4 |
| 621238 | WE12L3/8NPT  | M12     | 16.0 | 28.0 | 15.0 | 22 | 3/8 |
| 621239 | WE12S3/8NPT  | M12     | 20.0 | 31.0 | 15.0 | 24 | 3/8 |
| 621212 | WE12L1/2NPT  | M12     | 17.0 | 34.0 | 20.0 | 22 | 1/2 |
| 621538 | WE15L3/8NPT  | M15     | 21.0 | 33.0 | 15.0 | 27 | 3/8 |
| 621512 | WE15L1/2NPT  | M15     | 19.0 | 34.0 | 20.0 | 27 | 1/2 |
| 621612 | WE16S1/2NPT  | M16     | 22.0 | 36.0 | 20.0 | 30 | 1/2 |
| 621812 | WE18L1/2NPT  | M18     | 22.0 | 36.0 | 20.0 | 32 | 1/2 |
| 622234 | WE22L3/4NPT  | M22     | 27.5 | 42.0 | 22.0 | 36 | 3/4 |



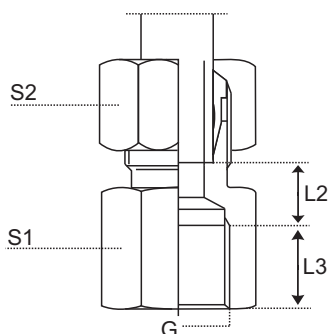
# KOR TUBE END REDUCERS

| ITEMS  | DESCRIPTION | PIPE OD | SWIVEL SIDE | L2   | S1 | S2 | S3 | M      |
|--------|-------------|---------|-------------|------|----|----|----|--------|
| 630806 | KOR08/06L   | M06     | M08L        | 24.0 | 12 | 17 | 14 | 14X1.5 |
| 631006 | KOR10/06L   | M06     | M10L        | 25.0 | 14 | 19 | 14 | 16X1.5 |
| 631008 | KOR10/08L   | M08     | M10L        | 25.0 | 14 | 19 | 17 | 16X1.5 |
| 631206 | KOR12/06L   | M06     | M12L        | 25.0 | 17 | 22 | 14 | 18X1.5 |
| 631208 | KOR12/08L   | M08     | M12L        | 25.0 | 17 | 22 | 17 | 18X1.5 |
| 631210 | KOR12/10L   | M10     | M12L        | 26.0 | 17 | 22 | 19 | 18X1.5 |
| 631506 | KOR15/06L   | M06     | M15L        | 29.0 | 19 | 27 | 14 | 22X1.5 |
| 631508 | KOR15/08L   | M08     | M15L        | 30.0 | 17 | 27 | 17 | 22X1.5 |
| 631510 | KOR15/10L   | M10     | M15L        | 30.0 | 19 | 27 | 19 | 22X1.5 |
| 631512 | KOR15/12L   | M12     | M15L        | 30.0 | 19 | 27 | 22 | 22X1.5 |
| 631810 | KOR18/10L   | M10     | M18L        | 29.5 | 24 | 32 | 19 | 26X1.5 |
| 631812 | KOR18/12L   | M12     | M18L        | 29.5 | 24 | 32 | 22 | 26X1.5 |
| 631815 | KOR18/15L   | M15     | M18L        | 29.5 | 24 | 32 | 27 | 26X1.5 |
| 632212 | KOR22/12L   | M12     | M22L        | 31.0 | 27 | 36 | 22 | 30X2.0 |
| 632215 | KOR22/15L   | M15     | M22L        | 31.0 | 27 | 36 | 27 | 30X2.0 |
| 632218 | KOR22/18L   | M18     | M22L        | 32.0 | 27 | 36 | 32 | 30X2.0 |



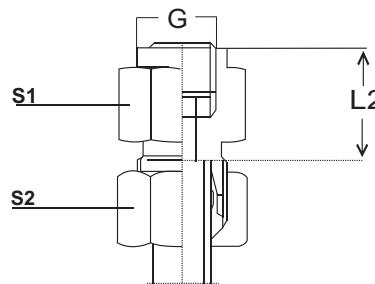
# GAI FEMALE STUDS

| ITEMS  | DESCRIPTION | PIPE OD | L2   | L3 | S1 | S2 | G   |
|--------|-------------|---------|------|----|----|----|-----|
| 650610 | GAI06LR1/8  | M06     | 9.0  | 10 | 14 | 14 | 1/8 |
| 650813 | GAI08LR1/4  | M08     | 10.0 | 14 | 19 | 17 | 1/4 |
| 651013 | GAI10LR1/4  | M10     | 11.0 | 14 | 19 | 19 | 1/4 |
| 651217 | GAI12LR3/8  | M12     | 12.0 | 14 | 24 | 22 | 3/8 |
| 651521 | GAI15LR1/2  | M15     | 14.0 | 17 | 27 | 27 | 1/2 |
| 651621 | GAI16SR1/2  | M16     | 14.5 | 17 | 30 | 30 | 1/2 |
| 651821 | GAI18LR1/2  | M18     | 13.5 | 17 | 27 | 32 | 1/2 |



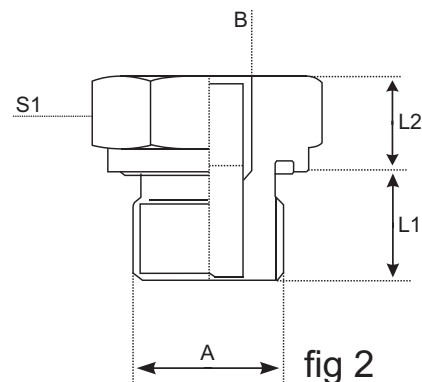
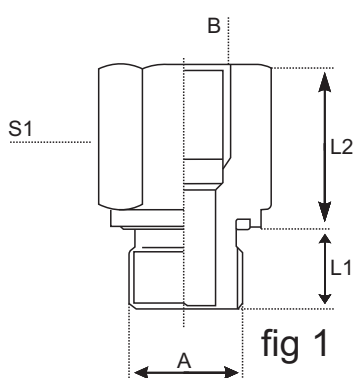
# MAV GAUGE CONNECTORS

| ITEMS  | DESCRIPTION  | PIPE OD | L2 | S1 | S2 | G   |
|--------|--------------|---------|----|----|----|-----|
| 660613 | MAV06LR      | M06     | 23 | 19 | 14 | 1/4 |
| 660621 | MAV06SR      | M06     | 30 | 30 | 17 | 1/2 |
| 660813 | MAV08LR      | M08     | 23 | 19 | 17 | 1/4 |
| 660821 | MAV08SR      | M08     | 30 | 30 | 19 | 1/2 |
| 661013 | MAV10LR      | M10     | 23 | 19 | 19 | 1/4 |
| 661021 | MAV10SR      | M10     | 30 | 30 | 22 | 1/2 |
| 661213 | MAV12LR      | M12     | 23 | 19 | 22 | 1/4 |
| 661221 | MAV12SR      | M12     | 30 | 30 | 24 | 1/2 |
| 660013 | MAV RING 1/4 |         |    |    |    |     |
| 660021 | MAV RING 1/2 |         |    |    |    |     |



# RI REDUCERS BSPP

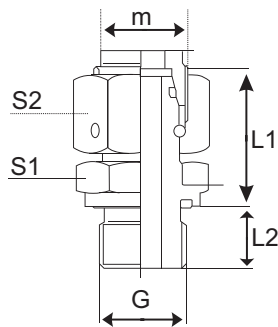
| ITEMS  | DESCRIPTION  | FIG | A     | B   | L1 | L2 | S1 |
|--------|--------------|-----|-------|-----|----|----|----|
| 671013 | RI 1/8X1/4   | 1   | 1/8   | 1/4 | 8  | 23 | 19 |
| 671317 | RI 1/4X3/8   | 1   | 1/4   | 3/8 | 12 | 24 | 24 |
| 671321 | RI 1/4X1/2   | 1   | 1/4   | 1/2 | 12 | 28 | 30 |
| 671713 | RI 3/8X1/4   | 1   | 3/8   | 1/4 | 12 | 24 | 22 |
| 671721 | RI 3/8X1/2   | 1   | 3/8   | 1/2 | 12 | 29 | 30 |
| 672113 | RI 1/2X1/4   | 2   | 1/2   | 1/4 | 14 | 10 | 27 |
| 672117 | RI 1/2X3/8   | 1   | 1/2   | 3/8 | 14 | 22 | 27 |
| 672127 | RI 1/2X3/4   | 1   | 1/2   | 3/4 | 16 | 26 | 32 |
| 672717 | RI 3/4X3/8   | 2   | 3/4   | 3/8 | 16 | 10 | 32 |
| 672721 | RI 3/4X1/2   | 1   | 3/4   | 1/2 | 16 | 26 | 32 |
| 673321 | RI 1" X1/2   | 2   | 1"    | 1/2 | 18 | 11 | 41 |
| 673327 | RI 1" X3/4   | 1   | 1"    | 3/4 | 18 | 29 | 41 |
| 674227 | RI 1 1/4X3/4 | 2   | 1 1/4 | 3/4 | 20 | 12 | 50 |
| 674833 | RI 1 1/2X1"  | 2   | 1 1/2 | 1"  | 22 | 14 | 55 |





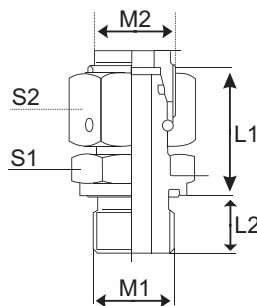
## EVGE - LRED

| ITEMS  | DESCRIPTION | PIPE OD | L1   | L2 | S1 | S2 | G   | M      |
|--------|-------------|---------|------|----|----|----|-----|--------|
| 680611 | EVGE06LRED  | M06     | 24.5 | 8  | 14 | 14 | 1/8 | 12X1.5 |
| 680814 | EVGE08LRED  | M08     | 29.5 | 12 | 19 | 17 | 1/4 | 14X1.5 |
| 681014 | EVGE10LRED  | M10     | 27.5 | 12 | 19 | 19 | 1/4 | 16X1.5 |
| 681218 | EVGE12LRED  | M12     | 34.0 | 12 | 22 | 22 | 3/8 | 18X1.5 |
| 681522 | EVGE15LRED  | M15     | 32.0 | 14 | 27 | 27 | 1/2 | 22X1.5 |
| 681622 | EVGE16SRED  | M16     | 35.0 | 14 | 27 | 30 | 1/2 | 24X1.5 |
| 681822 | EVGE18LRED  | M18     | 30.5 | 14 | 27 | 32 | 1/2 | 26X1.5 |
| 682227 | EVGE22RLED  | M22     | 32.0 | 16 | 32 | 36 | 3/4 | 30X2.0 |



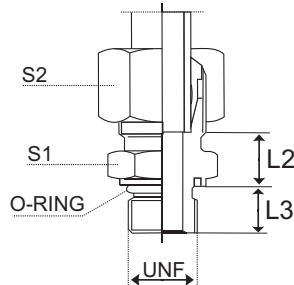
## EVGE - LMED

| ITEMS  | DESCRIPTION | PIPE OD | L1   | L2 | S1 | S2 | M1     | M2     |
|--------|-------------|---------|------|----|----|----|--------|--------|
| 680661 | EVGE06LMED  | M06     | 24.5 | 8  | 14 | 14 | 10X1.0 | 12X1.5 |
| 680868 | EVGE08LMED  | M08     | 26.5 | 12 | 17 | 17 | 12X1.5 | 14X1.5 |
| 681072 | EVGE10LMED  | M10     | 27.5 | 12 | 19 | 19 | 14X1.5 | 16X1.5 |
| 681276 | EVGE12LMED  | M12     | 30.5 | 12 | 22 | 22 | 16X1.5 | 18X1.5 |
| 681579 | EVGE15LMED  | M15     | 31.5 | 12 | 24 | 27 | 18X1.5 | 22X1.5 |
| 681883 | EVGE18LMED  | M18     | 31.5 | 14 | 27 | 32 | 22X1.5 | 26X1.5 |
| 682290 | EVGE22LMED  | M22     | 32.5 | 16 | 32 | 36 | 26X1.5 | 30X2.0 |



# GE - UNF'S

| ITEMS  | DESCRIPTION     | PIPE OD | L2 | L3 | S1 | S2 | UNF     |
|--------|-----------------|---------|----|----|----|----|---------|
| 691071 | GE10L7/16-20UNF | M10     | 11 | 9  | 17 | 19 | 7/16-20 |
| 691578 | GE15L7/8-14UNF  | M15     | 13 | 12 | 27 | 27 | 7/8-14  |

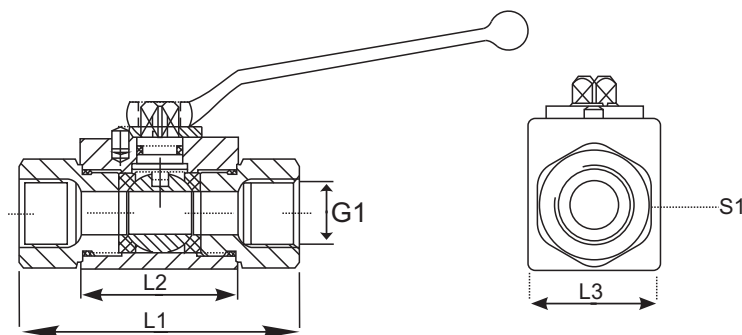


# BKHR - BALLVALVES

| ITEMS  | DESCRIPTION | PRESSURE | L1  | L2 | L3 | S1 | G1  |
|--------|-------------|----------|-----|----|----|----|-----|
| 690013 | BKHR-1/4    | PN 500   | 69  | 40 | 26 | 22 | 1/4 |
| 690017 | BKHR-3/8    | PN 500   | 72  | 43 | 32 | 27 | 3/8 |
| 690021 | BKHR-1/2    | PN 500   | 83  | 48 | 35 | 30 | 1/2 |
| 690027 | BKHR-3/4    | PN 420   | 95  | 62 | 49 | 41 | 3/4 |
| 690033 | BKHR-1"     | PN 315   | 113 | 66 | 58 | 50 | 1"  |

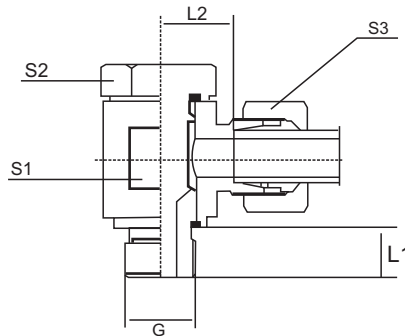


\* HIGH PRESSURE - 2 WAY



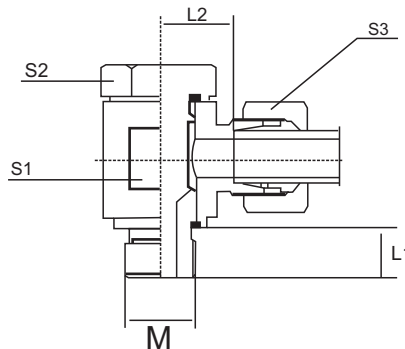
# WHO - LRED

| ITEMS   | DESCRIPTION | PIPE OD | L1 | L2   | S1 | S2 | S3 | G   |
|---------|-------------|---------|----|------|----|----|----|-----|
| 69-0611 | WHO06LRED   | M06     | 8  | 12   | 17 | 17 | 14 | 1/8 |
| 69-0814 | WHO08LRED   | M08     | 12 | 14.5 | 22 | 19 | 17 | 1/4 |
| 69-1014 | WHO10LRED   | M10     | 12 | 15.5 | 22 | 19 | 19 | 1/4 |
| 69-1218 | WHO12LRED   | M12     | 12 | 18   | 27 | 24 | 22 | 3/8 |
| 69-1522 | WHO15LRED   | M15     | 14 | 22   | 32 | 30 | 27 | 1/2 |
| 69-1822 | WHO18LRED   | M18     | 14 | 21.5 | 32 | 30 | 32 | 1/2 |



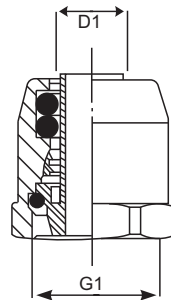
# WHO - LMED

| ITEMS   | DESCRIPTION | PIPE OD | L1 | L2   | S1 | S2 | S3 | M      |
|---------|-------------|---------|----|------|----|----|----|--------|
| 69-0661 | WHO06LMED   | M06     | 8  | 12   | 17 | 17 | 14 | 10X1.0 |
| 69-0868 | WHO08LMED   | M08     | 12 | 14.5 | 22 | 19 | 17 | 12X1.5 |
| 69-1072 | WHO10LMED   | M10     | 12 | 15.5 | 22 | 19 | 19 | 14X1.5 |
| 69-1276 | WHO12LMED   | M12     | 12 | 18   | 27 | 24 | 22 | 16X1.5 |
| 69-1579 | WHO15LMED   | M15     | 12 | 22   | 32 | 27 | 27 | 18X1.5 |
| 69-1883 | WHO18LMED   | M18     | 14 | 21.5 | 32 | 30 | 32 | 22X1.5 |



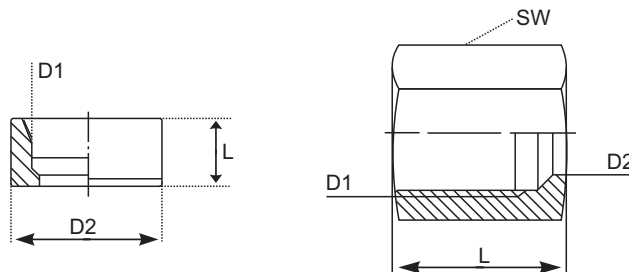
## PUSH-IN STEEL V-NUTS

| ITEMS  | DESCRIPTION    | D1<br>FOR TUBE OD | G1     |
|--------|----------------|-------------------|--------|
| 640300 | 06X1.0-M12X1.5 | 06X1.0            | 12X1.5 |
| 640301 | 08X1.0-M14X1.5 | 08X1.0            | 14X1.5 |
| 640305 | 10X1.0-M16X1.5 | 10X1.0            | 16X1.5 |
| 640309 | 12X1.5-M18X1.5 | 12X1.5            | 18X1.5 |



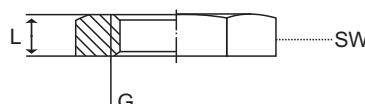
## STOSS NUTS & THRUST RINGS

| ITEMS  | DESCRIPTION      | L  | D1 | D2     | SW |
|--------|------------------|----|----|--------|----|
| 700003 | 15MM STOSS NUT   | 27 | 15 | 22X1.5 | 27 |
| 700005 | 18MM STOSS NUT   | 27 | 18 | 26X1.5 | 32 |
| 700053 | 15MM THRUST RING | 9  | 15 | 20     |    |
| 700055 | 18MM THRUST RING | 9  | 18 | 24     |    |



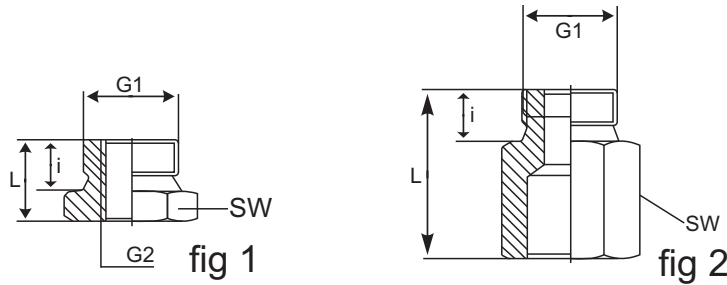
## LOCKNUTS

| ITEMS  | DESCRIPTION | G      | L | SW |
|--------|-------------|--------|---|----|
| 700312 | M12 LOCKNUT | 12X1.5 | 6 | 17 |
| 700314 | M14 LOCKNUT | 14X1.5 | 6 | 19 |
| 700316 | M16 LOCKNUT | 16X1.5 | 6 | 22 |
| 700318 | M18 LOCKNUT | 18X1.5 | 6 | 24 |
| 700320 | M20 LOCKNUT | 20X1.5 | 6 | 27 |
| 700322 | M22 LOCKNUT | 22X1.5 | 8 | 27 |
| 700326 | M26 LOCKNUT | 26X1.5 | 8 | 32 |



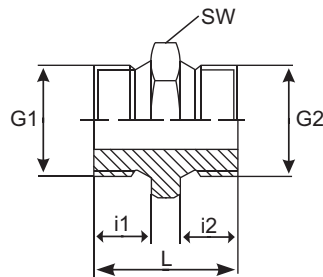
# REDUCERS

| ITEMS  | DESCRIPTION     | FIG | G1     | G2      | L  | i  | SW |
|--------|-----------------|-----|--------|---------|----|----|----|
| 700512 | M22/M12 REDUCER | 1   | 22X1.5 | 12X1.5  | 19 | 12 | 27 |
| 700514 | M22/M14 REDUCER | 1   | 22X1.5 | 14X1.5  | 19 | 12 | 27 |
| 700518 | M22/M16 REDUCER | 1   | 22X1.5 | 16X1.5  | 19 | 12 | 27 |
| 700521 | M22-1/2 REDUCER | 2   | 22X1.5 | 1/2 BSP | 35 | 12 | 27 |
| 700618 | M16/M22 REDUCER | 2   | 16X1.5 | 22X1.5  | 35 | 12 | 27 |



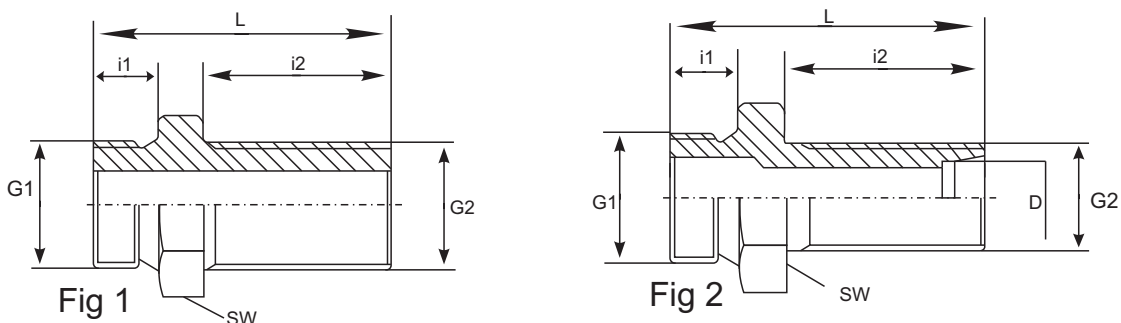
# FLAT FACE NIPPLES

| ITEMS  | DESCRIPTION    | G1     | G2     | L  | i1 | i2 | SW |
|--------|----------------|--------|--------|----|----|----|----|
| 701102 | M22/M22 NIPPLE | 22X1.5 | 22X1.5 | 30 | 12 | 12 | 27 |
| 701112 | M26/M22 NIPPLE | 26X1.5 | 22X1.5 | 30 | 12 | 12 | 32 |
| 701119 | M26/M26 NIPPLE | 26X1.5 | 26X1.5 | 30 | 12 | 12 | 32 |



# BULKHEAD BODIES

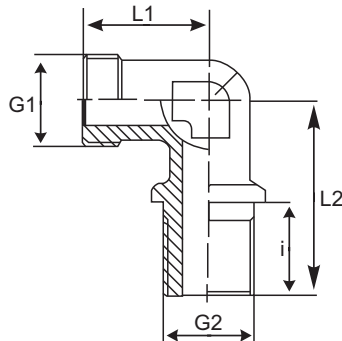
| ITEMS  | DESCRIPTION      | FIG | G1      | G2     | L  | i1 | i2 | SW | D  |
|--------|------------------|-----|---------|--------|----|----|----|----|----|
| 701202 | M22/M22 B.H BODY | 1   | 22X1.5  | 22X1.5 | 54 | 12 | 34 | 27 |    |
| 701203 | 1/2-M18 B.H BODY | 2   | 1/2 BSP | 18X1.5 | 54 | 12 | 34 | 27 | 12 |
| 701204 | M22/M18 B.H BODY | 2   | 22X1.5  | 18X1.5 | 54 | 12 | 34 | 27 | 12 |
| 701205 | M16/M18 B.H BODY | 2   | 16X1.5  | 18X1.5 | 54 | 12 | 34 | 22 | 12 |
| 701210 | M16/M22 B.H BODY | 1   | 16X1.5  | 22X1.5 | 54 | 12 | 34 | 27 |    |





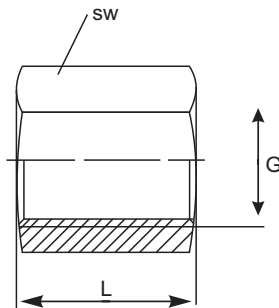
## BULKHEAD BODY ELBOWS

| ITEMS  | DESCRIPTION       | G1     | G2     | L1 | L2 | i  |
|--------|-------------------|--------|--------|----|----|----|
| 702003 | M22/M22 B.H ELBOW | 22X1.5 | 22X1.5 | 33 | 45 | 25 |
| 702007 | M22/M26 B.H ELBOW | 22X1.5 | 26X1.5 | 36 | 47 | 25 |



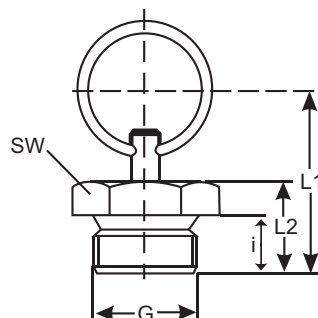
## SOCKETS

| ITEMS  | DESCRIPTION | G      | L  | SW |
|--------|-------------|--------|----|----|
| 702212 | M12 SOCKET  | 12X1.5 | 25 | 17 |
| 702214 | M14 SOCKET  | 14X1.5 | 29 | 17 |
| 702216 | M16 SOCKET  | 16X1.5 | 25 | 19 |
| 702218 | M18 SOCKET  | 18X1.5 | 29 | 22 |
| 702222 | M22 SOCKET  | 22X1.5 | 25 | 27 |



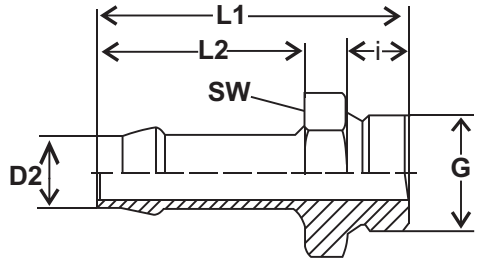
## SPRING PLUGS

| ITEMS  | DESCRIPTION         | G       | L1 | L2 | i  | SW |
|--------|---------------------|---------|----|----|----|----|
| 710916 | 1/2 BSP SPRING PLUG | 1/2 BSP | 38 | 18 | 12 | 27 |
| 710921 | M22 SPRING PLUG     | 22X1.5  | 38 | 18 | 12 | 27 |



# HOSETAILS

| ITEMS  | DESCRIPTION       | G      | D2 | L1 | L2 | i  | SW |
|--------|-------------------|--------|----|----|----|----|----|
| 711316 | M16-1/2 HOSETAILS | 16X1.5 | 14 | 57 | 41 | 12 | 22 |
| 711322 | M22-1/2 HOSETAILS | 22X1.5 | 14 | 60 | 41 | 12 | 27 |



# TESTPOINTS

| ITEMS  | DESCRIPTION | FIG | G1     | G2     | L1 | L2 | SW |
|--------|-------------|-----|--------|--------|----|----|----|
| 711600 | M16 FEMALE  | 1   | 16X1.5 | 16X1.5 | 12 | 35 | 22 |
| 711800 | M18 FEMALE  | 1   | 16X1.5 | 18X1.5 | 12 | 36 | 24 |
| 712200 | M22 FEMALE  | 1   | 16X1.5 | 22X1.5 | 12 | 35 | 27 |
| 711601 | M16 MALE    | 2   | 16X1.5 | 16X1.5 | 12 | 33 | 17 |
| 712201 | M22 MALE    | 2   | 16X1.5 | 22X1.5 | 12 | 29 | 27 |

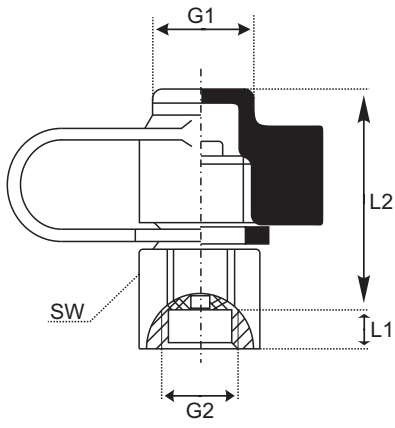


Fig 1

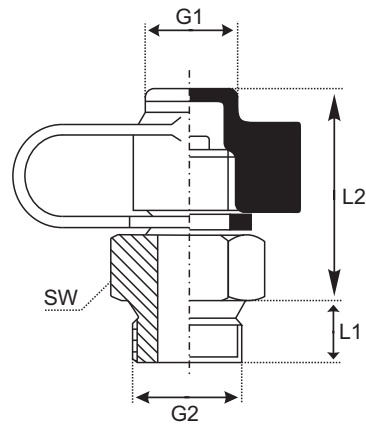
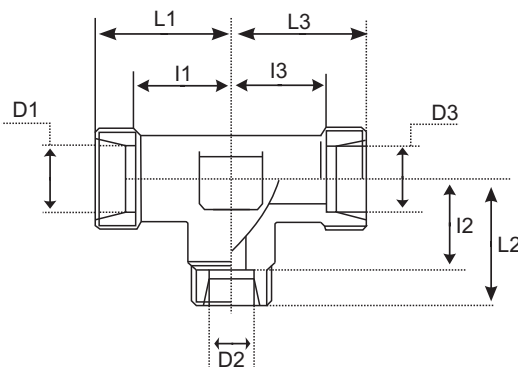


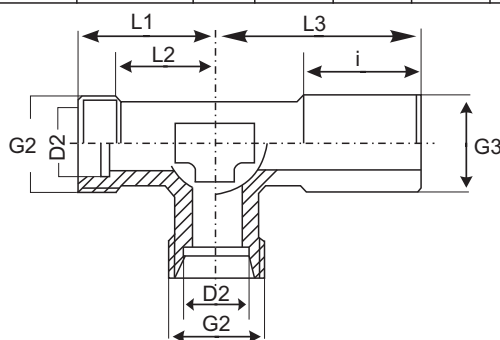
Fig 2

# STOSS BRAKE TEE BODIES

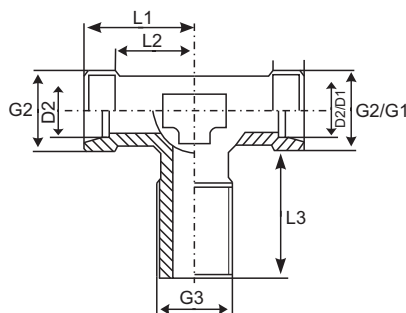
| ITEMS    | DESCRIPTION | D1 | D2 | D3 | L1 | L2 | L3 | i1 | i2 | i3 |
|----------|-------------|----|----|----|----|----|----|----|----|----|
| 73080608 | T08T06T08   | 8  | 6  | 8  | 21 | 21 | 21 | 14 | 14 | 14 |
| 73120612 | T12T06T12   | 12 | 6  | 12 | 24 | 24 | 24 | 17 | 14 | 17 |
| 73120812 | T12T08T12   | 12 | 8  | 12 | 24 | 24 | 24 | 17 | 14 | 17 |



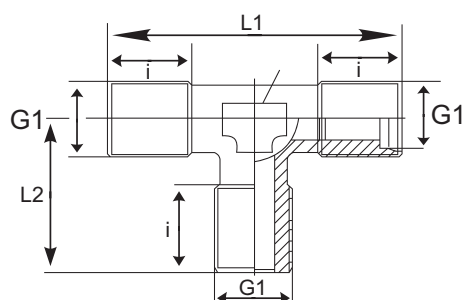
| ITEMS    | DESCRIPTION | G2     | G3     | D2 | L1 | L2 | L3 | i  |
|----------|-------------|--------|--------|----|----|----|----|----|
| 73121282 | T12T12M22   | 18X1.5 | 22X1.5 | 12 | 24 | 17 | 42 | 24 |



| ITEMS    | DESCRIPTION | G2     | G3     | D1 | D2 | G1     | L1 | L2 | L3 |
|----------|-------------|--------|--------|----|----|--------|----|----|----|
| 73127512 | T12M16T12   | 18X1.5 | 16X1.5 |    | 12 |        | 24 | 15 | 28 |
| 73128212 | T12M22T12   | 18X1.5 | 22X1.5 |    | 12 |        | 28 | 10 | 35 |
| 73127506 | T12M16T06   | 18X1.5 | 16X1.5 | 06 | 12 | 12X1.5 | 24 | 14 | 30 |



| ITEMS    | DESCRIPTION | G1     | L1 | L2 | i  |
|----------|-------------|--------|----|----|----|
| 73828282 | M22M22M22   | 22X1.5 | 84 | 42 | 25 |



## BARB TEE STEEL

| ITEMS      | DESCRIPTION | FOR HOSE ID |
|------------|-------------|-------------|
| 838-020202 | BARB TEE    | 4.5 (3/16)  |
| 838-040404 | BARB TEE    | 6.0 (1/4)   |
| 838-060606 | BARB TEE    | 7.5 (5/16)  |
| 838-080808 | BARB TEE    | 9.5 (3/8)   |
| 838-131313 | BARB TEE    | 12.7 (1/2)  |



## TYRE FILL LEVER

| ITEMS    | DESCRIPTION               | FOR HOSE ID |
|----------|---------------------------|-------------|
| 899-0807 | TYRE FILL THUMBLOCK LEVER | 6.0 (1/4)   |



## TYRE FILL WING NUT

| ITEMS    | DESCRIPTION      | FOR HOSE ID |
|----------|------------------|-------------|
| 899-0808 | M16X1.5 WING NUT | 6.0 (1/4)   |



# STEAM CLEANER GUN & FITTINGS

## GUN, LANCE & NOZZLE

| ITEMS    | DESCRIPTION        | THREADS |
|----------|--------------------|---------|
| 800-0010 | STEAM CLEAN GUN    | 22X1.5  |
| 800-0020 | STEAM CLEAN LANCE  | 22X1.5  |
| 800-0030 | STEAM CLEAN NOZZLE |         |
| 800-0040 | SPARE M18 NUT      | 18X1.5  |



## COLLARS

| ITEMS    | DESCRIPTION | FOR HOSE | LENGTH | CRIMP SPECS |
|----------|-------------|----------|--------|-------------|
| 801-0600 | 1/4 COLLAR  | 1 WIRE   | 30.0   | 16.2MM      |
| 801-0800 | 5/16 COLLAR | 1 WIRE   | 30.0   | 17.7MM      |
| 801-1000 | 3/8 COLLAR  | 1 WIRE   | 31.5   | 20.0MM      |



## HOSETAILS & NUTS

| ITEMS    | DESCRIPTION            | L NUT | FEMALE NUT |
|----------|------------------------|-------|------------|
| 803-0621 | M21-1/4 HOSETAIL       | 19.5  | 21X1.5     |
| 803-0821 | M21-5/16 HOSETAIL      | 19.5  | 21X1.5     |
| 803-1021 | M21-3/8 HOSETAIL       | 21.5  | 21X1.5     |
| 802-0622 | M22-1/4 HOSETAIL       | 19.5  | 22X1.5     |
| 802-0822 | M22-5/16 HOSETAIL      | 19.5  | 22X1.5     |
| 802-1022 | M22-3/8 HOSETAIL       | 19.5  | 22X1.5     |
| 812-0622 | M22 LONG-1/4 HOSETAIL  | 21.5  | 22X1.5     |
| 812-0822 | M22 LONG-5/16 HOSETAIL | 21.5  | 22X1.5     |
| 812-1022 | M22 LONG-3/8 HOSETAIL  | 21.5  | 22X1.5     |



## FLANGE TAILS

| ITEMS    | DESCRIPTION      |
|----------|------------------|
| 807-0600 | 1/4 FLANGE TAIL  |
| 807-0800 | 5/16 FLANGE TAIL |



## RUBBER CUFFS

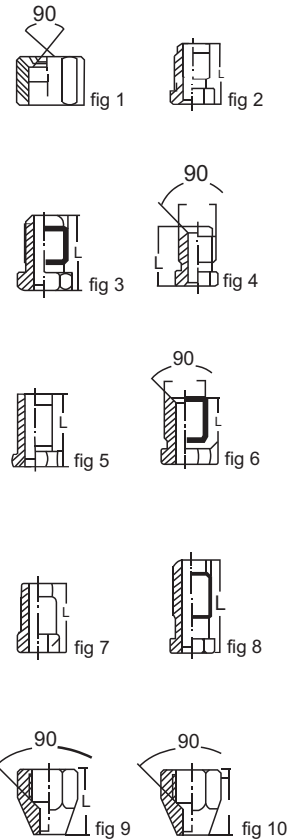
| ITEMS    | DESCRIPTION      |
|----------|------------------|
| 809-0600 | 1/4 RUBBER CUFF  |
| 809-0800 | 5/16 RUBBER CUFF |
| 809-1000 | 3/8 RUBBER CUFF  |





# COHLINE NUTS FOR BRAKE TUBE

| ITEMS    | MALE/FEMALE | FIG | THREAD SIZE | TUBE OD | ACROSS FLATS | O/L LENGTH | FLARE TYPE |
|----------|-------------|-----|-------------|---------|--------------|------------|------------|
| 933-0300 | FEMALE      | 1   | M10X1.0     | 4.75    | 13           | 16.0       | DOUBLE     |
| 971-0300 | MALE        | 2   | M10X1.0     | 4.75    | 11           | 16.0       | SINGLE     |
| 971-0400 | MALE        | 2   | M12X1.0     | 6.00    | 12           | 20.0       | SINGLE     |
| 971-0403 | MALE        | 3   | M12X1.0     | 4.75    | 13           | 20.0       | SINGLE     |
| 971-0600 | MALE        | 2   | M14X1.5     | 8.00    | 14           | 25.0       | SINGLE     |
| 971-0651 | MALE        | 2   | M14X1.0     | 8.00    | 14           | 16.5       | SINGLE     |
| 971-0800 | MALE        | 2   | M16X1.5     | 10.0    | 17           | 25.0       | SINGLE     |
| 972-0300 | MALE        | 4   | M10X1.0     | 4.75    | 11           | 17.0       | DOUBLE     |
| 972-0400 | MALE        | 4   | M12X1.0     | 6.00    | 12           | 20.0       | DOUBLE     |
| 972-0403 | MALE        | 4   | M12X1.0     | 4.75    | 12           | 20.0       | DOUBLE     |
| 972-0600 | MALE        | 4   | M14X1.5     | 8.00    | 14           | 25.0       | DOUBLE     |
| 972-0651 | MALE        | 4   | M14X1.0     | 8.00    | 14           | 16.5       | DOUBLE     |
| 973-0300 | MALE        | 5   | 3/8-24UNF   | 4.75    | 11           | 20.0       | SINGLE     |
| 974-0300 | MALE        | 6   | 3/8-24UNF   | 4.75    | 10           | 20.0       | DOUBLE     |
| 974-0600 | MALE        | 6   | 1/2-20UNF   | 8.00    | 13           | 16.0       | DOUBLE     |
| 974-1008 | MALE        | 6   | 5/8-18UNF   | 10.0    | 17           | 16.5       | DOUBLE     |
| 999-0200 | MALE        | 2   | 12-20UNF    | 6.00    | 13           | 17.0       | DOUBLE     |
| 999-0203 | MALE        | 6   | M10X1.25    | 4.75    | 10           | 15.0       | DOUBLE     |
| 999-0204 | MALE        | 7   | M10X1.25    | 4.75    | 10           | 19.0       | SINGLE     |
| 999-0210 | MALE        | 6   | 7/16-24UNF  | 6.00    | 11           | 15.5       | DOUBLE     |
| 999-0215 | MALE        | 6   | 1/2-20UNF   | 4.75    | 13           | 18.0       | DOUBLE     |
| 999-0216 | MALE        | 6   | 7/16-20UNF  | 4.75    | 12           | 18.0       | DOUBLE     |
| 999-0217 | MALE        | 6   | 7/16-20UNF  | 6.00    | 12           | 21.0       | DOUBLE     |
| 999-0218 | MALE        | 2   | 7/16-20UNF  | 4.75    | 11           | 21.0       | SINGLE     |
| 999-0224 | MALE        | 8   | M10X1.0     | 4.75    | 11           | 24.0       | SINGLE     |
| 999-0404 | FEMALE      | 9   | 3/8-24UNF   | 4.75    | 14           | 17.5       | DOUBLE     |
| 999-0443 | FEMALE      | 10  | 3/8-24UNF   | 4.75    | 14           | 17.5       | SINGLE     |



# COHLINE ADAPTORS

| ITEMS       | FEMALE | FIG | THREAD SIZE | ACROSS FLATS | O/L LENGTH | FLARE TYPE |
|-------------|--------|-----|-------------|--------------|------------|------------|
| 9306-0303   | FEMALE | 11  | M10X1.0     | 13           | 24         | SINGLE     |
| 9307-0303   | FEMALE | 12  | M10X1.0     | 13           | 24         | DOUBLE     |
| 9307-0404   | FEMALE | 12  | M12X1.0     | 17           | 29         | DOUBLE     |
|             |        |     |             | d            |            |            |
| 9306-030303 | FEMALE | 15  | M10X1.0     | 7.3          |            | SINGLE     |
| 9307-040404 | FEMALE | 15  | M12X1.0     | 8.3          |            | DOUBLE     |

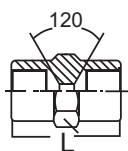


fig 11

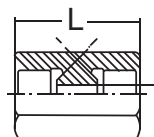


fig 12

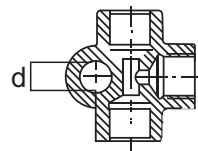


fig 15

# PNEUMATIC PUSH-IN FITTINGS

- MAX 10 BAR WORKING PRESSURE
- NOT DESIGNED FOR USE ON AIR BRAKE SYSTEMS

## BULKHEAD UNIONS

| ITEMS | DESCRIPTION   | TUBE OD |
|-------|---------------|---------|
| FSB04 | 04MM BULKHEAD | M04     |
| FSB06 | 06MM BULKHEAD | M06     |
| FSB08 | 08MM BULKHEAD | M08     |
| FSB10 | 10MM BULKHEAD | M10     |
| FSB12 | 12MM BULKHEAD | M12     |



## MALE STUDS

| ITEMS     | DESCRIPTION      | TUBE OD | THREAD SIZE |
|-----------|------------------|---------|-------------|
| FSC04-1/8 | 04-1/8 MALE STUD | M04     | 1/8 BSPT    |
| FSC04-1/4 | 04-1/4 MALE STUD | M04     | 1/4 BSPT    |
| FSC04-M5  | 04-M5 MALE STUD  | M04     | M05         |
| FSC06-1/8 | 06-1/8 MALE STUD | M06     | 1/8 BSPT    |
| FSC06-1/4 | 06-1/4 MALE STUD | M06     | 1/4 BSPT    |
| FSC06-3/8 | 06-3/8 MALE STUD | M06     | 3/8 BSPT    |
| FSC08-1/8 | 08-1/8 MALE STUD | M08     | 1/8 BSPT    |
| FSC08-1/4 | 08-1/4 MALE STUD | M08     | 1/4 BSPT    |
| FSC08-3/8 | 08-3/8 MALE STUD | M08     | 3/8 BSPT    |
| FSC08-1/2 | 08-1/2 MALE STUD | M08     | 1/2 BSPT    |
| FSC10-1/8 | 10-1/8 MALE STUD | M10     | 1/8 BSPT    |
| FSC10-1/4 | 10-1/4 MALE STUD | M10     | 1/4 BSPT    |
| FSC10-3/8 | 10-3/8 MALE STUD | M10     | 3/8 BSPT    |
| FSC10-1/2 | 10-1/2 MALE STUD | M10     | 1/2 BSPT    |
| FSC12-1/4 | 12-1/4 MALE STUD | M12     | 1/4 BSPT    |
| FSC12-3/8 | 12-3/8 MALE STUD | M12     | 3/8 BSPT    |
| FSC12-1/2 | 12-1/2 MALE STUD | M12     | 1/2 BSPT    |



## MALE STUD ELBOWS

| ITEMS     | DESCRIPTION       | TUBE OD | THREAD SIZE |
|-----------|-------------------|---------|-------------|
| FSE04-1/8 | 04-1/8 STUD ELBOW | M04     | 1/8 BSPT    |
| FSE04-1/4 | 04-1/4 STUD ELBOW | M04     | 1/4 BSPT    |
| FSE04-M5  | 04-M5 STUD ELBOW  | M04     | M5          |
| FSE06-1/8 | 06-1/8 STUD ELBOW | M06     | 1/8 BSPT    |
| FSE06-1/4 | 06-1/4 STUD ELBOW | M06     | 1/4 BSPT    |
| FSE06-3/8 | 06-3/8 STUD ELBOW | M06     | 3/8 BSPT    |



## MALE STUD ELBOWS

| ITEMS     | DESCRIPTION       | TUBE OD | THREAD SIZE |
|-----------|-------------------|---------|-------------|
| FSE08-1/8 | 08-1/8 STUD ELBOW | M08     | 1/8 BSPT    |
| FSE08-1/4 | 08-1/4 STUD ELBOW | M08     | 1/4 BSPT    |
| FSE08-3/8 | 08-3/8 STUD ELBOW | M08     | 3/8 BSPT    |
| FSE08-1/2 | 08-1/2 STUD ELBOW | M08     | 1/2 BSPT    |
| FSE10-1/8 | 10-1/8 STUD ELBOW | M10     | 1/8 BSPT    |
| FSE10-1/4 | 10-1/4 STUD ELBOW | M10     | 1/4 BSPT    |
| FSE10-3/8 | 10-3/8 STUD ELBOW | M10     | 3/8 BSPT    |
| FSE10-1/2 | 10-1/2 STUD ELBOW | M10     | 1/2 BSPT    |
| FSE12-1/4 | 12-1/4 STUD ELBOW | M12     | 1/4 BSPT    |
| FSE12-3/8 | 12-3/8 STUD ELBOW | M12     | 3/8 BSPT    |
| FSE12-1/2 | 12-1/2 STUD ELBOW | M12     | 1/2 BSPT    |



## FEMALE STUDS

| ITEMS     | DESCRIPTION        | TUBE OD | THREAD SIZE |
|-----------|--------------------|---------|-------------|
| FSF06-1/8 | 06-1/8 FEMALE STUD | M06     | 1/8         |
| FSF06-1/4 | 06-1/4 FEMALE STUD | M06     | 1/4         |
| FSF08-1/4 | 08-1/4 FEMALE STUD | M08     | 1/4         |
| FSF10-1/4 | 10-1/4 FEMALE STUD | M10     | 1/4         |
| FSF12-1/4 | 12-1/4 FEMALE STUD | M12     | 1/4         |



## FEMALE BULKHEADS

| ITEMS      | DESCRIPTION        | TUBE OD | THREAD SIZE |
|------------|--------------------|---------|-------------|
| FSFP06-1/8 | 06-1/8 FEMALE BLKH | M06     | 1/8         |
| FSFP06-1/4 | 06-1/4 FEMALE BLKH | M06     | 1/4         |
| FSFP08-1/4 | 08-1/4 FEMALE BLKH | M08     | 1/4         |



## BRANCH TEES

| ITEMS     | DESCRIPTION       | TUBE OD | THREAD SIZE |
|-----------|-------------------|---------|-------------|
| FST04-1/8 | 04-1/8 BRANCH TEE | M04     | 1/8 BSPT    |
| FST06-1/8 | 06-1/8 BRANCH TEE | M06     | 1/8 BSPT    |
| FST06-1/4 | 06-1/4 BRANCH TEE | M06     | 1/4 BSPT    |
| FST08-1/8 | 08-1/8 BRANCH TEE | M08     | 1/8 BSPT    |
| FST08-1/4 | 08-1/4 BRANCH TEE | M08     | 1/4 BSPT    |
| FST10-1/4 | 10-1/4 BRANCH TEE | M10     | 1/4 BSPT    |
| FST10-3/8 | 10-3/8 BRANCH TEE | M10     | 3/8 BSPT    |
| FST12-1/4 | 12-1/4 BRANCH TEE | M12     | 1/4 BSPT    |
| FST12-1/2 | 12-1/2 BRANCH TEE | M12     | 1/2 BSPT    |



## RUN TEE

| ITEMS      | DESCRIPTION    | TUBE OD | THREAD SIZE |
|------------|----------------|---------|-------------|
| FSTL04-1/8 | 04-1/8 RUN TEE | M04     | 1/8 BSPT    |
| FSTL06-1/8 | 06-1/8 RUN TEE | M06     | 1/8 BSPT    |
| FSTL06-1/4 | 06-1/4 RUN TEE | M06     | 1/4 BSPT    |
| FSTL08-1/4 | 08-1/4 RUN TEE | M08     | 1/4 BSPT    |



## EQUAL UNION

| ITEMS | DESCRIPTION    | TUBE OD |
|-------|----------------|---------|
| FUE04 | 04 EQUAL UNION | M04     |
| FUE06 | 06 EQUAL UNION | M06     |
| FUE08 | 08 EQUAL UNION | M08     |
| FUE10 | 10 EQUAL UNION | M10     |
| FUE12 | 12 EQUAL UNION | M12     |
| FUE14 | 14 EQUAL UNION | M14     |
| FUE15 | 15 EQUAL UNION | M15     |
| FUE16 | 16 EQUAL UNION | M16     |



## UNEQUAL UNION

| ITEMS     | DESCRIPTION | TUBE OD | TUBE OD |
|-----------|-------------|---------|---------|
| FUER06-04 | 06-04 UNION | M06     | M04     |
| FUER08-06 | 08-06 UNION | M08     | M06     |
| FUER10-08 | 10-08 UNION | M10     | M08     |
| FUER12-10 | 12-10 UNION | M12     | M10     |



## EQUAL ELBOW

| ITEMS | DESCRIPTION    | TUBE OD |
|-------|----------------|---------|
| FUL04 | 04 EQUAL ELBOW | M04     |
| FUL06 | 06 EQUAL ELBOW | M06     |
| FUL08 | 08 EQUAL ELBOW | M08     |
| FUL10 | 10 EQUAL ELBOW | M10     |
| FUL12 | 12 EQUAL ELBOW | M12     |



## EQUAL TEE

| ITEMS | DESCRIPTION  | TUBE OD |
|-------|--------------|---------|
| FUT04 | 04 EQUAL TEE | M04     |
| FUT06 | 06 EQUAL TEE | M06     |
| FUT08 | 08 EQUAL TEE | M08     |
| FUT10 | 10 EQUAL TEE | M10     |
| FUT12 | 12 EQUAL TEE | M12     |



## EQUAL Y

| ITEMS | DESCRIPTION | TUBE OD |
|-------|-------------|---------|
| FUY04 | 04 EQUAL Y  | M04     |
| FUY06 | 06 EQUAL Y  | M06     |
| FUY08 | 08 EQUAL Y  | M08     |
| FUY10 | 10 EQUAL Y  | M10     |
| FUY12 | 12 EQUAL Y  | M12     |



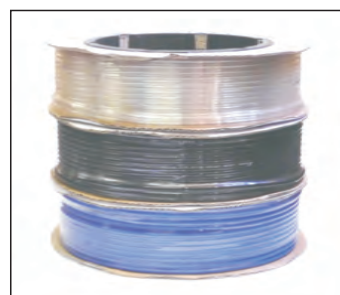
## TUBE TO STEM REDUCERS

| ITEMS      | DESCRIPTION   | TUBE OD | STEM |
|------------|---------------|---------|------|
| TR2PK06-04 | 06-04 REDUCER | M04     | 06   |
| TR2PK08-04 | 08-04 REDUCER | M04     | 08   |
| TR2PK08-06 | 08-06 REDUCER | M06     | 08   |
| TR2PK10-06 | 10-06 REDUCER | M06     | 10   |
| TR2PK10-08 | 10-08 REDUCER | M08     | 10   |
| TR2PK12-08 | 12-08 REDUCER | M08     | 12   |
| TR2PK12-10 | 12-10 REDUCER | M10     | 12   |



## POLYURETHANE TUBING

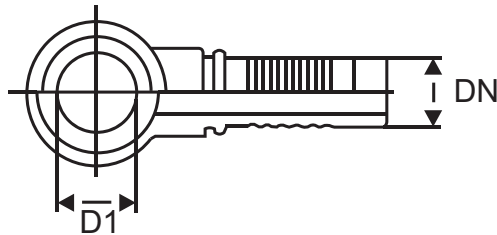
| ITEMS   | DESCRIPTION | TUBE OD | TUBE ID | WALL | WORKING PRESSURE | BURST PRESSURE |
|---------|-------------|---------|---------|------|------------------|----------------|
| PU04-00 | 04MM CLEAR  | 4.0     | 2.0     | 1.00 | 7 BAR            | 23 BAR         |
| PU04-01 | 04MM BLACK  | 4.0     | 2.0     | 1.00 | 7 BAR            | 23 BAR         |
| PU04-04 | 04MM BLUE   | 4.0     | 2.0     | 1.00 | 7 BAR            | 23 BAR         |
| PU06-00 | 06MM CLEAR  | 6.0     | 4.0     | 1.00 | 7 BAR            | 23 BAR         |
| PU06-01 | 06MM BLACK  | 6.0     | 4.0     | 1.00 | 7 BAR            | 23 BAR         |
| PU06-04 | 06MM BLUE   | 6.0     | 4.0     | 1.00 | 7 BAR            | 23 BAR         |
| PU08-00 | 08MM CLEAR  | 8.0     | 5.5     | 1.25 | 7 BAR            | 23 BAR         |
| PU08-01 | 08MM BLACK  | 8.0     | 5.5     | 1.25 | 7 BAR            | 23 BAR         |
| PU08-04 | 08MM BLUE   | 8.0     | 5.5     | 1.25 | 7 BAR            | 23 BAR         |
| PU10-00 | 10MM CLEAR  | 10.0    | 6.5     | 1.75 | 7 BAR            | 23 BAR         |
| PU10-01 | 10MM BLACK  | 10.0    | 6.5     | 1.75 | 7 BAR            | 23 BAR         |
| PU10-04 | 10MM BLUE   | 10.0    | 6.5     | 1.75 | 7 BAR            | 23 BAR         |
| PU12-00 | 12MM CLEAR  | 12.0    | 8.0     | 2.00 | 7 BAR            | 23 BAR         |
| PU12-01 | 12MM BLACK  | 12.0    | 8.0     | 2.00 | 7 BAR            | 23 BAR         |
| PU12-04 | 12MM BLUE   | 12.0    | 8.0     | 2.00 | 7 BAR            | 23 BAR         |





# METRIC BANJOS

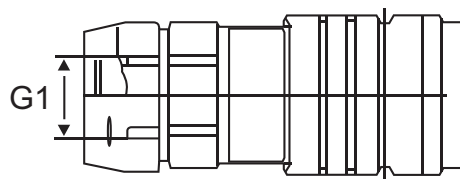
| ITEMS       | DESCRIPTION   | D1<br>FOR BOLT | DN<br>HOSE ID |
|-------------|---------------|----------------|---------------|
| XPRS-12-1/4 | M12-1/4 BANJO | M12            | 1/4           |
| XPRS-14-1/4 | M14-1/4 BANJO | M14            | 1/4           |
| XPRS-14-3/8 | M14-3/8 BANJO | M14            | 3/8           |
| XPRS-16-3/8 | M16-3/8 BANJO | M16            | 3/8           |
| XPRS-16-1/2 | M16-1/2 BANJO | M16            | 1/2           |
| XPRS-18-3/8 | M18-3/8 BANJO | M18            | 3/8           |
| XPRS-18-1/2 | M18-1/2 BANJO | M18            | 1/2           |
| XPRS-18-5/8 | M18-5/8 BANJO | M18            | 5/8           |
| XPRS-26-3/4 | M26-3/4 BANJO | M26            | 3/4           |



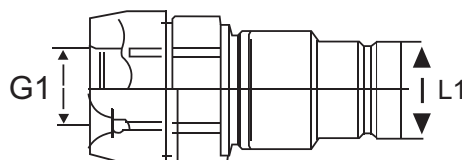
# FLAT-FACE COUPLERS & PROBES

## FEMALE BSP

| ITEMS  | DESCRIPTION   | G1        |
|--------|---------------|-----------|
| FF1004 | 1/4 COUPLER   | 1/4 BSP   |
| FF1006 | 3/8 COUPLER   | 3/8 BSP   |
| FF1008 | 1/2 COUPLER   | 1/2 BSP   |
| FF1012 | 3/4 COUPLER   | 3/4 BSP   |
| FF1016 | 1" COUPLER    | 1" BSP    |
| FF1020 | 1 1/4 COUPLER | 1 1/4 BSP |



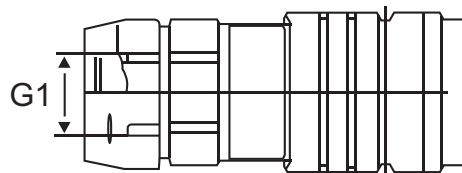
| ITEMS  | DESCRIPTION | G1        | L1     |
|--------|-------------|-----------|--------|
| FM1004 | 1/4 PROBE   | 1/4 BSP   | 16.1MM |
| FM1006 | 3/8 PROBE   | 3/8 BSP   | 19.8MM |
| FM1008 | 1/2 PROBE   | 1/2 BSP   | 24.5MM |
| FM1012 | 3/4 PROBE   | 3/4 BSP   | 27.0MM |
| FM1016 | 1" PROBE    | 1" BSP    | 30.0MM |
| FM1020 | 1 1/4 PROBE | 1 1/4 BSP | 36.0MM |



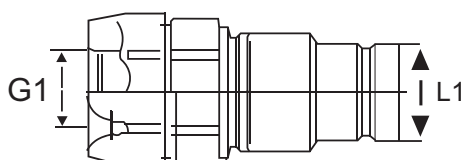
# 'FASTER' FLAT-FACE COUPLERS & PROBES

## FEMALE BSP

| ITEMS           | DESCRIPTION | G1      |
|-----------------|-------------|---------|
| FFH04-1/4 GAS-F | 1/4 COUPLER | 1/4 BSP |
| FFH06-3/8 GAS-F | 3/8 COUPLER | 3/8 BSP |
| FFH08-1/2 GAS-F | 1/2 COUPLER | 1/2 BSP |
| FFH12-3/4 GAS-F | 3/4 COUPLER | 3/4 BSP |



| ITEMS           | DESCRIPTION | G1      | L1     |
|-----------------|-------------|---------|--------|
| FFH04-1/4 GAS-M | 1/4 PROBE   | 1/4 BSP | 16.1MM |
| FFH06-3/8 GAS-M | 3/8 PROBE   | 3/8 BSP | 19.8MM |
| FFH08-1/2 GAS-M | 1/2 PROBE   | 1/2 BSP | 24.5MM |
| FFH12-3/4 GAS-M | 3/4 PROBE   | 3/4 BSP | 30.0MM |



# MINI-MESS HOSE & FITTINGS

## HOSE

| ITEMS    | DESCRIPTION | ID   | OD   | PRESSURE |
|----------|-------------|------|------|----------|
| 9-201290 | DN2 HOSE    | 02MM | 05MM | 630 BAR  |



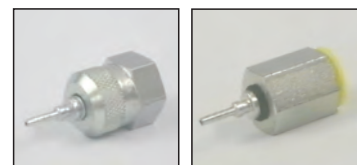
## COLLAR

| ITEMS    | DESCRIPTION    | LENGTH | FINAL CRIMPING DIAM. |
|----------|----------------|--------|----------------------|
| 9-260003 | COLLAR/FERRULE | 15MM   | 07MM                 |



## HOSE FITTINGS

| ITEMS    | DESCRIPTION          | FEMALE THREAD |
|----------|----------------------|---------------|
| 9-261015 | FEMALE FOR TESTPOINT | M16X2.0       |
| 9-261045 | FEMALE FOR GAUGE     | 1/4 BSP       |



## DKOL TESTPOINT

| ITEMS    | DESCRIPTION | THREAD UNDER TESTPOINT | THREAD UNDER DKOL |
|----------|-------------|------------------------|-------------------|
| 9-261510 | DKO-06L     | M16X2.0                | M12X1.5           |
| 9-261511 | DKO-08L     | M16X2.0                | M14X1.5           |
| 9-261512 | DKO-10L     | M16X2.0                | M16X1.5           |
| 9-261513 | DKO-12L     | M16X2.0                | M18X1.5           |
| 9-261514 | DKO-15L     | M16X2.0                | M22X1.5           |
| 9-261515 | DKO-18L     | M16X2.0                | M26X1.5           |



## TESTPOINT

| ITEMS    | DESCRIPTION        | THREAD UNDER TESTPOINT | MALE THREAD |
|----------|--------------------|------------------------|-------------|
| 9-261303 | 1/4 BSP MALE       | M16X2.0                | 1/4 BSP     |
| 9-3701   | M10 MALE TESTPOINT | M18X1.5                | M10X1.0     |



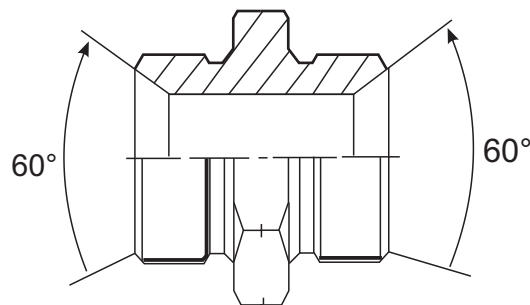
## GAUGES

| ITEMS    | DESCRIPTION        | THREAD  | BAR |
|----------|--------------------|---------|-----|
| 9-292104 | BOTTOM ENTRY GAUGE | 1/4 BSP | 40  |
| 9-292109 | BOTTOM ENTRY GAUGE | 1/4 BSP | 400 |



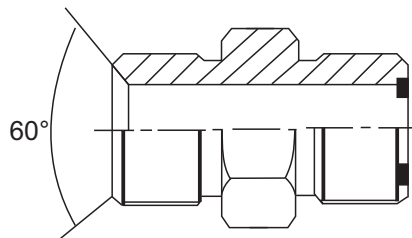
# BSP MALE - BSP MALE ADAPTORS

| ITEMS       | DESCRIPTION                      | BSP<br>THREAD | BSP<br>THREAD |
|-------------|----------------------------------|---------------|---------------|
| AD01-02     | 1/8 BSP MALE - 1/8 BSP MALE      | 1/8 BSP       | 1/8 BSP       |
| AD01-0204   | 1/8 BSP MALE - 1/4 BSP MALE      | 1/8 BSP       | 1/4 BSP       |
| AD01-0206   | 1/8 BSP MALE - 3/8 BSP MALE      | 1/8 BSP       | 3/8 BSP       |
| AD01-0208   | 1/8 BSP MALE - 1/2 BSP MALE      | 1/8 BSP       | 1/2 BSP       |
| AD01-04     | 1/4 BSP MALE - 1/4 BSP MALE      | 1/4 BSP       | 1/4 BSP       |
| AD01-0406   | 1/4 BSP MALE - 3/8 BSP MALE      | 1/4 BSP       | 3/8 BSP       |
| AD01-0408   | 1/4 BSP MALE - 1/2 BSP MALE      | 1/4 BSP       | 1/2 BSP       |
| AD01-06     | 3/8 BSP MALE - 3/8 BSP MALE      | 3/8 BSP       | 3/8 BSP       |
| AD01-0608   | 3/8 BSP MALE - 1/2 BSP MALE      | 3/8 BSP       | 1/2 BSP       |
| AD01-0612   | 3/8 BSP MALE - 3/4 BSP MALE      | 3/8 BSP       | 3/4 BSP       |
| AD01-08     | 1/2 BSP MALE - 1/2 BSP MALE      | 1/2 BSP       | 1/2 BSP       |
| AD01-0810   | 1/2 BSP MALE - 5/8 BSP MALE      | 1/2 BSP       | 5/8 BSP       |
| AD01-0812   | 1/2 BSP MALE - 3/4 BSP MALE      | 1/2 BSP       | 3/4 BSP       |
| AD01-0816   | 1/2 BSP MALE - 1" BSP MALE       | 1/2 BSP       | 1" BSP        |
| AD01-0808DW | 1/2 BSP MALE - 1/2 BSP MALE + DW | 1/2 BSP       | 1/2 BSP       |
| AD01-10     | 5/8 BSP MALE - 5/8 BSP MALE      | 5/8 BSP       | 5/8 BSP       |
| AD01-1012   | 5/8 BSP MALE - 3/4 BSP MALE      | 5/8 BSP       | 3/4 BSP       |
| AD01-12     | 3/4 BSP MALE - 3/4 BSP MALE      | 3/4 BSP       | 3/4 BSP       |
| AD01-1216   | 3/4 BSP MALE - 1" BSP MALE       | 3/4 BSP       | 1" BSP        |
| AD01-1220   | 3/4 BSP MALE - 1 1/4 BSP MALE    | 3/4 BSP       | 1 1/4 BSP     |
| AD01-16     | 1" BSP MALE - 1" BSP MALE        | 1" BSP        | 1" BSP        |
| AD01-1620   | 1" BSP MALE - 1 1/4 BSP MALE     | 1" BSP        | 1 1/4 BSP     |
| AD01-1624   | 1" BSP MALE - 1 1/2 BSP MALE     | 1" BSP        | 1 1/2 BSP     |
| AD01-20     | 1 1/4 BSP MALE - 1 1/4 BSP MALE  | 1 1/4 BSP     | 1 1/4 BSP     |
| AD01-2024   | 1 1/4 BSP MALE - 1 1/2 BSP MALE  | 1 1/4 BSP     | 1 1/2 BSP     |
| AD01-24     | 1 1/2 BSP MALE - 1 1/2 BSP MALE  | 1 1/2 BSP     | 1 1/2 BSP     |
| AD01-2432   | 1 1/2 BSP MALE - 2" BSP MALE     | 1 1/2 BSP     | 2" BSP        |
| AD01-32     | 2" BSP MALE - 2" BSP MALE        | 2" BSP        | 2" BSP        |



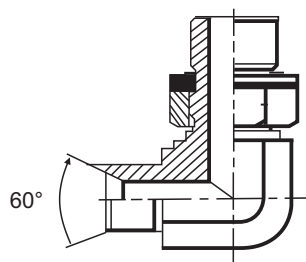
# BSP MALE - ORFS MALE ADAPTOR

| ITEMS     | DESCRIPTION                        | BSP THREAD | ORFS THREAD |
|-----------|------------------------------------|------------|-------------|
| AD02-0206 | 1/8 BSP MALE - 11/16 ORFS MALE     | 1/8 BSP    | 11/16-16    |
| AD02-0404 | 1/4 BSP MALE - 9/16 ORFS MALE      | 1/4 BSP    | 9/16-18     |
| AD02-0406 | 1/4 BSP MALE - 11/16 ORFS MALE     | 1/4 BSP    | 11/16-16    |
| AD02-0408 | 1/4 BSP MALE - 13/16 ORFS MALE     | 1/4 BSP    | 13/16-16    |
| AD02-0604 | 3/8 BSP MALE - 9/16 ORFS MALE      | 3/8 BSP    | 9/16-18     |
| AD02-0606 | 3/8 BSP MALE - 11/16 ORFS MALE     | 3/8 BSP    | 11/16-16    |
| AD02-0608 | 3/8 BSP MALE - 13/16 ORFS MALE     | 3/8 BSP    | 13/16-16    |
| AD02-0804 | 1/2 BSP MALE - 9/16 ORFS MALE      | 1/2 BSP    | 9/16-18     |
| AD02-0806 | 1/2 BSP MALE - 11/16 ORFS MALE     | 1/2 BSP    | 11/16-16    |
| AD02-0808 | 1/2 BSP MALE - 13/16 ORFS MALE     | 1/2 BSP    | 13/16-16    |
| AD02-0810 | 1/2 BSP MALE - 1" ORFS MALE        | 1/2 BSP    | 1-14        |
| AD02-0812 | 1/2 BSP MALE - 1 3/16 ORFS MALE    | 1/2 BSP    | 1 3/16-12   |
| AD02-1208 | 3/4 BSP MALE - 13/16 ORFS MALE     | 3/4 BSP    | 13/16-16    |
| AD02-1210 | 3/4 BSP MALE - 1" ORFS MALE        | 3/4 BSP    | 1-14        |
| AD02-1212 | 3/4 BSP MALE - 1 3/16 ORFS MALE    | 3/4 BSP    | 1 3/16-12   |
| AD02-1216 | 3/4 BSP MALE - 1 7/16 ORFS MALE    | 3/4 BSP    | 1 7/16-12   |
| AD02-1612 | 1" BSP MALE - 1 3/16 ORFS MALE     | 1" BSP     | 1 3/16-12   |
| AD02-1616 | 1" BSP MALE - 1 7/16 ORFS MALE     | 1" BSP     | 1 7/16-12   |
| AD02-1620 | 1" BSP MALE - 1 11/16 ORFS MALE    | 1" BSP     | 1 11/16-12  |
| AD02-2016 | 1 1/4 BSP MALE - 1 7/16 ORFS MALE  | 1 1/4 BSP  | 1 7/16-12   |
| AD02-2020 | 1 1/4 BSP MALE - 1 11/16 ORFS MALE | 1 1/4 BSP  | 1 11/16-12  |



# BSP MALE - BSP MALE 90°

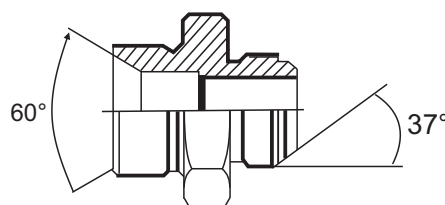
| ITEMS   | DESCRIPTION                     | BSP THREAD | BSP THREAD |
|---------|---------------------------------|------------|------------|
| AD03-04 | 1/4 BSP MALE - 1/4 BSP MALE 90° | 1/4 BSP    | 1/4 BSP    |
| AD03-06 | 3/8 BSP MALE - 3/8 BSP MALE 90° | 3/8 BSP    | 3/8 BSP    |
| AD03-08 | 1/2 BSP MALE - 1/2 BSP MALE 90° | 1/2 BSP    | 1/2 BSP    |
| AD03-12 | 3/4 BSP MALE - 3/4 BSP MALE 90° | 3/4 BSP    | 3/4 BSP    |
| AD03-16 | 1" BSP MALE - 1" BSP MALE 90°   | 1" BSP     | 1" BSP     |





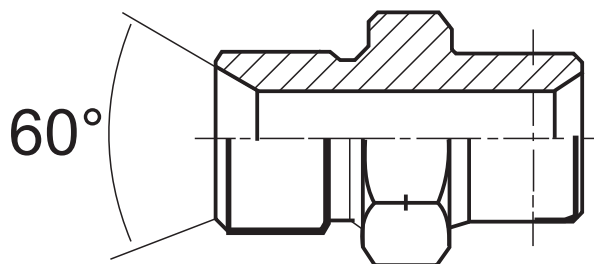
# BSP MALE - JIC MALE ADAPTOR

| ITEMS     | DESCRIPTION                      | BSP<br>THREAD | JIC<br>THREAD |
|-----------|----------------------------------|---------------|---------------|
| AD04-0204 | 1/8 BSP MALE - 7/16 JIC MALE     | 1/8 BSP       | 7/16-20       |
| AD04-0206 | 1/8 BSP MALE - 9/16 JIC MALE     | 1/8 BSP       | 9/16-18       |
| AD04-0404 | 1/4 BSP MALE - 7/16 JIC MALE     | 1/4 BSP       | 7/16-20       |
| AD04-0406 | 1/4 BSP MALE - 9/16 JIC MALE     | 1/4 BSP       | 9/16-18       |
| AD04-0408 | 1/4 BSP MALE - 3/4 JIC MALE      | 1/4 BSP       | 3/4-16        |
| AD04-0604 | 3/8 BSP MALE - 7/16 JIC MALE     | 3/8 BSP       | 7/16-20       |
| AD04-0606 | 3/8 BSP MALE - 9/16 JIC MALE     | 3/8 BSP       | 9/16-18       |
| AD04-0608 | 3/8 BSP MALE - 3/4 JIC MALE      | 3/8 BSP       | 3/4-16        |
| AD04-0610 | 3/8 BSP MALE - 7/8 JIC MALE      | 3/8 BSP       | 7/8-14        |
| AD04-0612 | 3/8 BSP MALE - 1 1/16 JIC MALE   | 3/8 BSP       | 1 1/16-12     |
| AD04-0804 | 1/2 BSP MALE - 7/16 JIC MALE     | 1/2 BSP       | 7/16-20       |
| AD04-0806 | 1/2 BSP MALE - 9/16 JIC MALE     | 1/2 BSP       | 9/16-18       |
| AD04-0808 | 1/2 BSP MALE - 3/4 JIC MALE      | 1/2 BSP       | 3/4-16        |
| AD04-0810 | 1/2 BSP MALE - 7/8 JIC MALE      | 1/2 BSP       | 7/8-14        |
| AD04-0812 | 1/2 BSP MALE - 1 1/16 JIC MALE   | 1/2 BSP       | 1 1/16-12     |
| AD04-0816 | 1/2 BSP MALE - 1 5/16 JIC MALE   | 1/2 BSP       | 1 5/16-12     |
| AD04-1008 | 5/8 BSP MALE - 3/4 JIC MALE      | 5/8 BSP       | 3/4-16        |
| AD04-1010 | 5/8 BSP MALE - 7/8 JIC MALE      | 5/8 BSP       | 7/8-14        |
| AD04-1012 | 5/8 BSP MALE - 1 1/16 JIC MALE   | 5/8 BSP       | 1 1/16-12     |
| AD04-1206 | 3/4 BSP MALE - 9/16 JIC MALE     | 3/4 BSP       | 9/16-18       |
| AD04-1208 | 3/4 BSP MALE - 3/4 JIC MALE      | 3/4 BSP       | 3/4-16        |
| AD04-1210 | 3/4 BSP MALE - 7/8 JIC MALE      | 3/4 BSP       | 7/8-14        |
| AD04-1212 | 3/4 BSP MALE - 1 1/16 JIC MALE   | 3/4 BSP       | 1 1/16-12     |
| AD04-1216 | 3/4 BSP MALE - 1 5/16 JIC MALE   | 3/4 BSP       | 1 5/16-12     |
| AD04-1220 | 3/4 BSP MALE - 1 5/8 JIC MALE    | 3/4 BSP       | 1 5/8-12      |
| AD04-1608 | 1" BSP MALE - 3/4 JIC MALE       | 1" BSP        | 3/4-16        |
| AD04-1612 | 1" BSP MALE - 1 1/16 JIC MALE    | 1" BSP        | 1 1/16-12     |
| AD04-1616 | 1" BSP MALE - 1 5/16 JIC MALE    | 1" BSP        | 1 5/16-12     |
| AD04-1620 | 1" BSP MALE - 1 5/8 JIC MALE     | 1" BSP        | 1 5/8-12      |
| AD04-1624 | 1" BSP MALE - 1 7/8 JIC MALE     | 1" BSP        | 1 7/8-12      |
| AD04-2012 | 1 1/4 BSP MALE - 1 1/16 JIC MALE | 1 1/4 BSP     | 1 1/16-12     |
| AD04-2016 | 1 1/4 BSP MALE - 1 5/16 JIC MALE | 1 1/4 BSP     | 1 5/16-12     |
| AD04-2020 | 1 1/4 BSP MALE - 1 5/8 JIC MALE  | 1 1/4 BSP     | 1 5/8-12      |
| AD04-2024 | 1 1/4 BSP MALE - 1 7/8 JIC MALE  | 1 1/4 BSP     | 1 7/8-12      |
| AD04-2416 | 1 1/2 BSP MALE - 1 5/16 JIC MALE | 1 1/2 BSP     | 1 5/16-12     |
| AD04-2420 | 1 1/2 BSP MALE - 1 5/8 JIC MALE  | 1 1/2 BSP     | 1 5/8-12      |
| AD04-2424 | 1 1/2 BSP MALE - 1 7/8 JIC MALE  | 1 1/2 BSP     | 1 7/8-12      |
| AD04-3232 | 2" BSP MALE - 2 1/2 JIC MALE     | 2" BSP        | 2 1/2-12      |



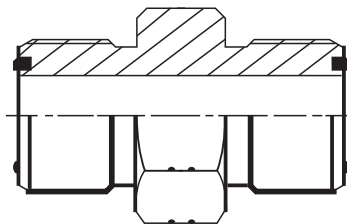
# BSP MALE - BSPT MALE ADAPTOR

| ITEMS     | DESCRIPTION                      | BSP<br>THREAD | BSPT<br>THREAD |
|-----------|----------------------------------|---------------|----------------|
| AD05-02   | 1/8 BSP MALE - 1/8 BSPT MALE     | 1/8 BSP       | 1/8 BSPT       |
| AD05-0204 | 1/8 BSP MALE - 1/4 BSPT MALE     | 1/8 BSP       | 1/4 BSPT       |
| AD05-0402 | 1/4 BSP MALE - 1/8 BSPT MALE     | 1/4 BSP       | 1/8 BSPT       |
| AD05-04   | 1/4 BSP MALE - 1/4 BSPT MALE     | 1/4 BSP       | 1/4 BSPT       |
| AD05-0406 | 1/4 BSP MALE - 3/8 BSPT MALE     | 1/4 BSP       | 3/8 BSPT       |
| AD05-0408 | 1/4 BSP MALE - 1/2 BSPT MALE     | 1/4 BSP       | 1/2 BSPT       |
| AD05-0602 | 3/8 BSP MALE - 1/8 BSPT MALE     | 3/8 BSP       | 1/8 BSPT       |
| AD05-0604 | 3/8 BSP MALE - 1/4 BSPT MALE     | 3/8 BSP       | 1/4 BSPT       |
| AD05-06   | 3/8 BSP MALE - 3/8 BSPT MALE     | 3/8 BSP       | 3/8 BSPT       |
| AD05-0608 | 3/8 BSP MALE - 1/2 BSPT MALE     | 3/8 BSP       | 1/2 BSPT       |
| AD05-0612 | 3/8 BSP MALE - 3/4 BSPT MALE     | 3/8 BSP       | 3/4 BSPT       |
| AD05-0804 | 1/2 BSP MALE - 1/4 BSPT MALE     | 1/2 BSP       | 1/4 BSPT       |
| AD05-0806 | 1/2 BSP MALE - 3/8 BSPT MALE     | 1/2 BSP       | 3/8 BSPT       |
| AD05-08   | 1/2 BSP MALE - 1/2 BSPT MALE     | 1/2 BSP       | 1/2 BSPT       |
| AD05-0812 | 1/2 BSP MALE - 3/4 BSPT MALE     | 1/2 BSP       | 3/4 BSPT       |
| AD05-1008 | 5/8 BSP MALE - 1/2 BSPT MALE     | 5/8 BSP       | 1/2 BSPT       |
| AD05-1206 | 3/4 BSP MALE - 3/8 BSPT MALE     | 3/4 BSP       | 3/8 BSPT       |
| AD05-1208 | 3/4 BSP MALE - 1/2 BSPT MALE     | 3/4 BSP       | 1/2 BSPT       |
| AD05-12   | 3/4 BSP MALE - 3/4 BSPT MALE     | 3/4 BSP       | 3/4 BSPT       |
| AD05-1216 | 3/4 BSP MALE - 1" BSPT MALE      | 3/4 BSP       | 1" BSPT        |
| AD05-1612 | 1" BSP MALE - 3/4 BSPT MALE      | 1" BSP        | 3/4 BSPT       |
| AD05-16   | 1" BSP MALE - 1" BSPT MALE       | 1" BSP        | 1" BSPT        |
| AD05-1620 | 1" BSP MALE - 1 1/4 BSPT MALE    | 1" BSP        | 1 1/4 BSPT     |
| AD05-2016 | 1 1/4 BSP MALE - 1" BSPT MALE    | 1 1/4 BSP     | 1" BSPT        |
| AD05-20   | 1 1/4 BSP MALE - 1 1/4 BSPT MALE | 1 1/4 BSP     | 1 1/4 BSPT     |
| AD05-2024 | 1 1/4 BSP MALE - 1 1/2 BSPT MALE | 1 1/4 BSP     | 1 1/2 BSPT     |
| AD05-2420 | 1 1/2 BSP MALE - 1 1/4 BSPT MALE | 1 1/2 BSP     | 1 1/4 BSPT     |
| AD05-24   | 1 1/2 BSP MALE - 1 1/2 BSPT MALE | 1 1/2 BSP     | 1 1/2 BSPT     |
| AD05-32   | 2" BSP MALE - 2" BSPT MALE       | 2" BSP        | 2" BSPT        |



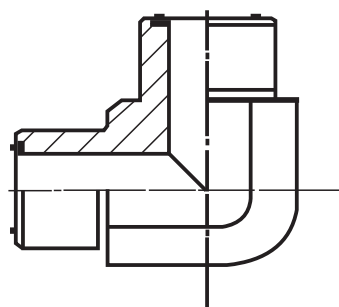
## ORFS MALE - ORFS MALE ADAPTOR

| ITEMS     | DESCRIPTION                           | ORFS THREAD | ORFS THREAD |
|-----------|---------------------------------------|-------------|-------------|
| AD06-04   | 9/16 ORFS MALE - 9/16 ORFS MALE       | 9/16-18     | 9/16-18     |
| AD06-0406 | 9/16 ORFS MALE - 11/16 ORFS MALE      | 9/16-18     | 11/16-16    |
| AD06-0408 | 9/16 ORFS MALE - 13/16 ORFS MALE      | 9/16-18     | 13/16-16    |
| AD06-06   | 11/16 ORFS MALE - 11/16 ORFS MALE     | 11/16-16    | 11/16-16    |
| AD06-0608 | 11/16 ORFS MALE - 13/16 ORFS MALE     | 11/16-16    | 13/16-16    |
| AD06-08   | 13/16 ORFS MALE - 13/16 ORFS MALE     | 13/16-16    | 13/16-16    |
| AD06-0810 | 13/16 ORFS MALE - 1" ORFS MALE        | 13/16-16    | 1-14        |
| AD06-10   | 1" ORFS MALE - 1" ORFS MALE           | 1-14        | 1-14        |
| AD06-1012 | 1" ORFS MALE - 1 3/16 ORFS MALE       | 1-14        | 1 3/16-12   |
| AD06-12   | 1 3/16 ORFS MALE - 1 3/16 ORFS MALE   | 1 3/16-12   | 1 3/16-12   |
| AD06-1216 | 1 3/16 ORFS MALE - 1 7/16 ORFS MALE   | 1 3/16-12   | 1 7/16-12   |
| AD06-16   | 1 7/16 ORFS MALE - 1 7/16 ORFS MALE   | 1 7/16-12   | 1 7/16-12   |
| AD06-1620 | 1 7/16 ORFS MALE - 1 11/16 ORFS MALE  | 1 7/16-12   | 1 11/16-12  |
| AD06-20   | 1 11/16 ORFS MALE - 1 11/16 ORFS MALE | 1 11/16-12  | 1 11/16-12  |
| AD06-24   | 2" ORFS MALE - 2" ORFS MALE           | 2-12        | 2-12        |



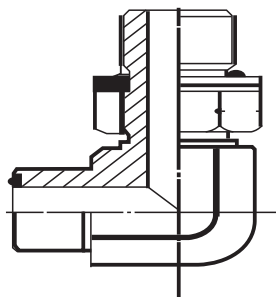
## ORFS MALE - ORFS MALE 90° ADAPTOR

| ITEMS   | DESCRIPTION                                   | ORFS THREAD | ORFS THREAD |
|---------|---|-------------|-------------|
| AD07-04 | 9/16 ORFS MALE - 9/16 ORFS MALE 90°           | 9/16-18     | 9/16-18     |
| AD07-06 | 11/16 ORFS MALE - 11/16 ORFS MALE 90°         | 11/16-16    | 11/16-16    |
| AD07-08 | 13/16 ORFS MALE - 13/16 ORFS MALE 90°         | 13/16-16    | 13/16-16    |
| AD07-10 | 1" ORFS MALE - 1" ORFS MALE 90°               | 1-14        | 1-14        |
| AD07-12 | 1 3/16 ORFS MALE - 1 3/16 ORFS MALE 90°       | 1 3/16-12   | 1 3/16-12   |
| AD07-16 | 1 7/16 ORFS MALE - 1 7/16 ORFS MALE 90°       | 1 7/16-12   | 1 7/16-12   |
| AD07-20 | 1 11/16 ORFS MALE - 1 11/16 ORFS MALE 90° 90° | 1 11/16-12  | 1 11/16-12  |
| AD07-24 | 2" ORFS MALE - 2-12 ORFS MALE 90°             | 2-12        | 2-12        |



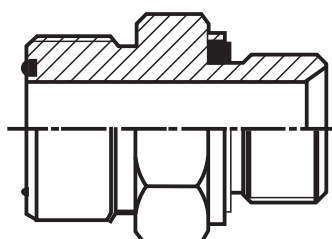
# ORFS MALE - BSP MALE 90° ADAPTOR

| ITEMS     | DESCRIPTION                            | ORFS THREAD | BSP THREAD |
|-----------|--|-------------|------------|
| AD08-0404 | 9/16 ORFS MALE - 1/4 BSP MALE 90°      | 9/16-18     | 1/4 BSP    |
| AD08-0406 | 9/16 ORFS MALE - 3/8 BSP MALE 90°      | 9/16-18     | 3/8 BSP    |
| AD08-0604 | 11/16 ORFS MALE - 1/4 BSP MALE 90°     | 11/16-16    | 1/4 BSP    |
| AD08-0606 | 11/16 ORFS MALE - 3/8 BSP MALE 90°     | 11/16-16    | 3/8 BSP    |
| AD08-0608 | 11/16 ORFS MALE - 1/2 BSP MALE 90°     | 11/16-16    | 1/2 BSP    |
| AD08-0806 | 13/16 ORFS MALE - 3/8 BSP MALE 90°     | 13/16-16    | 3/8 BSP    |
| AD08-0808 | 13/16 ORFS MALE - 1/2 BSP MALE 90°     | 13/16-16    | 1/2 BSP    |
| AD08-1008 | 1" ORFS MALE - 1/2 BSP MALE 90°        | 1-14        | 1/2 BSP    |
| AD08-1012 | 1" ORFS MALE - 3/4 BSP MALE 90°        | 1-14        | 3/4 BSP    |
| AD08-1208 | 1 3/16 ORFS MALE - 1/2 BSP MALE 90°    | 1 3/16-12   | 1/2 BSP    |
| AD08-1212 | 1 3/16 ORFS MALE - 3/4 BSP MALE 90°    | 1 3/16-12   | 3/4 BSP    |
| AD08-1216 | 1 3/16 ORFS MALE - 1" BSP MALE 90°     | 1 3/16-12   | 1" BSP     |
| AD08-1616 | 1 7/16 ORFS MALE - 1" BSP MALE 90°     | 1 7/16-12   | 1" BSP     |
| AD08-1620 | 1 7/16 ORFS MALE - 1 1/4 BSP MALE 90°  | 1 7/16-12   | 1 1/4 BSP  |
| AD08-2020 | 1 11/16 ORFS MALE - 1 1/4 BSP MALE 90° | 1 11/16-12  | 1/4 BSP    |
| AD08-2016 | 1 11/16 ORFS MALE - 1" BSP MALE 90°    | 1 11/16-12  | 1" BSP     |



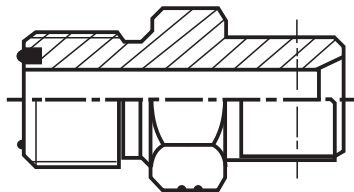
# ORFS MALE - METRIC MALE ADAPTOR

| ITEMS     | DESCRIPTION                    | ORFS THREAD | METRIC THREAD |
|-----------|--------------------------------|-------------|---------------|
| AD09-0616 | 11/16 ORFS MALE - M16X1.5 MALE | 11/16-16    | M16X1.5       |
| AD09-0618 | 11/16 ORFS MALE - M18X1.5 MALE | 11/16-16    | M18X1.5       |
| AD09-0822 | 13/16 ORFS MALE - M22X1.5 MALE | 13/16-16    | M22X1.5       |
| AD09-1022 | 1" ORFS MALE - M22X1.5 MALE    | 1-14        | M22X1.5       |



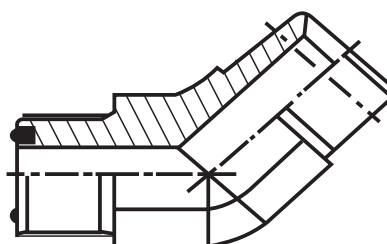
## ORFS MALE - NPT MALE ADAPTOR

| ITEMS     | DESCRIPTION                        | ORFS THREAD | NPT THREAD |
|-----------|------------------------------------|-------------|------------|
| AD10-0402 | 9/16 ORFS MALE - 1/8 NPT MALE      | 9/16-18     | 1/8 NPT    |
| AD10-0404 | 9/16 ORFS MALE - 1/4 NPT MALE      | 9/16-18     | 1/4 NPT    |
| AD10-0406 | 9/16 ORFS MALE - 3/8 NPT MALE      | 9/16-18     | 3/8 NPT    |
| AD10-0408 | 9/16 ORFS MALE - 1/2 NPT MALE      | 9/16-18     | 1/2 NPT    |
| AD10-0604 | 11/16 ORFS MALE - 1/4 NPT MALE     | 11/16-16    | 1/4 NPT    |
| AD10-0606 | 11/16 ORFS MALE - 3/8 NPT MALE     | 11/16-16    | 3/8 NPT    |
| AD10-0608 | 11/16 ORFS MALE - 1/2 NPT MALE     | 11/16-16    | 1/2 NPT    |
| AD10-0804 | 13/16 ORFS MALE - 1/4 NPT MALE     | 13/16-16    | 1/4 NPT    |
| AD10-0806 | 13/16 ORFS MALE - 3/8 NPT MALE     | 13/16-16    | 3/8 NPT    |
| AD10-0808 | 13/16 ORFS MALE - 1/2 NPT MALE     | 13/16-16    | 1/2 NPT    |
| AD10-0812 | 13/16 ORFS MALE - 3/4 NPT MALE     | 13/16-16    | 3/4 NPT    |
| AD10-1008 | 1" ORFS MALE - 1/2 NPT MALE        | 1-14        | 1/2 NPT    |
| AD10-1012 | 1" ORFS MALE - 3/4 NPT MALE        | 1-14        | 3/4 NPT    |
| AD10-1208 | 1 3/16 ORFS MALE - 1/2 NPT MALE    | 1 3/16-12   | 1/2 NPT    |
| AD10-1212 | 1 3/16 ORFS MALE - 3/4 NPT MALE    | 1 3/16-12   | 3/4 NPT    |
| AD10-1216 | 1 3/16 ORFS MALE - 1" NPT MALE     | 1 3/16-12   | 1" NPT     |
| AD10-1612 | 1 7/16 ORFS MALE - 3/4 NPT MALE    | 1 7/16-12   | 3/4 NPT    |
| AD10-1616 | 1 7/16 ORFS MALE - 1" NPT MALE     | 1 7/16-12   | 1" NPT     |
| AD10-1620 | 1 7/16 ORFS MALE - 1 1/4 NPT MALE  | 1 7/16-12   | 1 1/4 NPT  |
| AD10-2016 | 1 11/16 ORFS MALE - 1" NPT MALE    | 1 11/16-12  | 1" NPT     |
| AD10-2020 | 1 11/16 ORFS MALE - 1 1/4 NPT MALE | 1 11/16-12  | 1 1/4 NPT  |
| AD10-2424 | 2" ORFS MALE - 1 1/2 NPT MALE      | 2-12        | 1 1/2 NPT  |



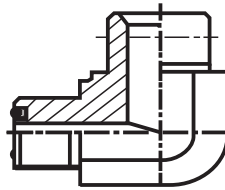
## ORFS MALE - NPT MALE 45° ADAPTOR

| ITEMS     | DESCRIPTION                         | ORFS THREAD | NPT THREAD |
|-----------|-------------------------------------|-------------|------------|
| AD11-0406 | 9/16 ORFS MALE - 3/8 NPT MALE 45°   | 9/16-18     | 3/8 NPT    |
| AD11-0604 | 11/16 ORFS MALE - 1/4 NPT MALE 45°  | 11/16-16    | 1/4 NPT    |
| AD11-0606 | 11/16 ORFS MALE - 3/8 NPT MALE 45°  | 11/16-16    | 3/8 NPT    |
| AD11-0808 | 13/16 ORFS MALE - 1/2 NPT MALE 45°  | 13/16-16    | 1/2 NPT    |
| AD11-1212 | 1 3/16 ORFS MALE - 3/4 NPT MALE 45° | 1 3/16-12   | 3/4 NPT    |



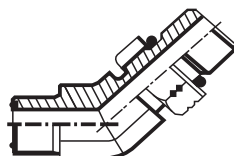
## ORFS MALE - NPT MALE 90° ADAPTOR

| ITEMS     | DESCRIPTION                            | ORFS<br>THREAD | NPT<br>THREAD |
|-----------|--|----------------|---------------|
| AD12-0402 | 9/16 ORFS MALE - 1/8 NPT MALE 90°      | 9/16-18        | 1/8 NPT       |
| AD12-0404 | 9/16 ORFS MALE - 1/4 NPT MALE 90°      | 9/16-18        | 1/4 NPT       |
| AD12-0406 | 9/16 ORFS MALE - 3/8 NPT MALE 90°      | 9/16-18        | 3/8 NPT       |
| AD12-0604 | 11/16 ORFS MALE - 1/4 NPT MALE 90°     | 11/16-16       | 1/4 NPT       |
| AD12-0606 | 11/16 ORFS MALE - 3/8 NPT MALE 90°     | 11/16-16       | 3/8 NPT       |
| AD12-0608 | 11/16 ORFS MALE - 1/2 NPT MALE 90°     | 11/16-16       | 1/2 NPT       |
| AD12-0804 | 13/16 ORFS MALE - 1/4 NPT MALE 90°     | 13/16-16       | 1/4 NPT       |
| AD12-0806 | 13/16 ORFS MALE - 3/8 NPT MALE 90°     | 13/16-16       | 3/8 NPT       |
| AD12-0808 | 13/16 ORFS MALE - 1/2 NPT MALE 90°     | 13/16-16       | 1/2 NPT       |
| AD12-0812 | 13/16 ORFS MALE - 3/4 NPT MALE 90°     | 13/16-16       | 3/4 NPT       |
| AD12-1008 | 1" ORFS MALE - 1/2 NPT MALE 90°        | 1-14           | 1/2 NPT       |
| AD12-1012 | 1" ORFS MALE - 3/4 NPT MALE 90°        | 1-14           | 3/4 NPT       |
| AD12-1208 | 1 3/16 ORFS MALE - 1/2 NPT MALE 90°    | 1 3/16-12      | 1/2 NPT       |
| AD12-1212 | 1 3/16 ORFS MALE - 3/4 NPT MALE 90°    | 1 3/16-12      | 3/4 NPT       |
| AD12-1216 | 1 3/16 ORFS MALE - 1" NPT MALE 90°     | 1 3/16-12      | 1" NPT        |
| AD12-1616 | 1 7/16 ORFS MALE - 1" NPT MALE 90°     | 1 7/16-12      | 1" NPT        |
| AD12-2020 | 1 11/16 ORFS MALE - 1 1/4 NPT MALE 90° | 1 11/16-12     | 1 1/4 NPT     |
| AD12-2424 | 2" ORFS MALE - 1 1/2 NPT MALE 90°      | 2-12           | 1 1/2 NPT     |



## ORFS MALE - SAE MALE 45° ADAPTOR

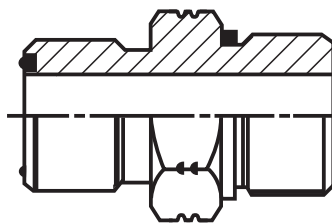
| ITEMS     | DESCRIPTION                            | ORFS<br>THREAD | SAE<br>THREAD |
|-----------|--|----------------|---------------|
| AD13-0404 | 9/16 ORFS MALE - 7/16 SAE MALE 45°     | 9/16-18        | 7/16-20       |
| AD13-0406 | 9/16 ORFS MALE - 9/16 SAE MALE 45°     | 9/16-18        | 9/16-18       |
| AD13-0604 | 11/16 ORFS MALE - 7/16 SAE MALE 45°    | 11/16-16       | 7/16-20       |
| AD13-0606 | 11/16 ORFS MALE - 9/16 SAE MALE 45°    | 11/16-16       | 9/16-18       |
| AD13-0608 | 11/16 ORFS MALE - 3/4 SAE MALE 45°     | 11/16-16       | 3/4-16        |
| AD13-0810 | 13/16 ORFS MALE - 7/8 SAE MALE 45°     | 13/16-16       | 7/8-14        |
| AD13-0806 | 13/16 ORFS MALE - 9/16 SAE MALE 45°    | 13/16-16       | 9/16-18       |
| AD13-0808 | 13/16 ORFS MALE - 3/4 SAE MALE 45°     | 13/16-16       | 3/4-16        |
| AD13-1008 | 1" ORFS MALE - 3/4 SAE MALE 45°        | 1-14           | 3/4-16        |
| AD13-1010 | 1" ORFS MALE - 7/8 SAE MALE 45°        | 1-14           | 7/8-14        |
| AD13-1210 | 1 3/16 ORFS MALE - 7/8 SAE MALE 45°    | 1 3/16-12      | 7/8-14        |
| AD13-1212 | 1 3/16 ORFS MALE - 1 1/16 SAE MALE 45° | 1 3/16-12      | 1 1/16-12     |
| AD13-1616 | 1 7/16 ORFS MALE - 1 5/16 SAE MALE 45° | 1 7/16-12      | 1 5/16-12     |





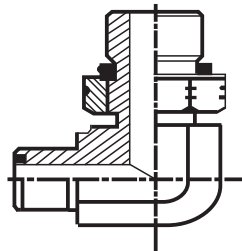
# ORFS MALE - SAE MALE ADAPTOR

| ITEMS     | DESCRIPTION                        | ORFS<br>THREAD | SAE<br>THREAD |
|-----------|------------------------------------|----------------|---------------|
| AD14-0404 | 9/16 ORFS MALE - 7/16 SAE MALE     | 9/16-18        | 7/16-20       |
| AD14-0405 | 9/16 ORFS MALE - 1/2 SAE MALE      | 9/16-18        | 1/2-20        |
| AD14-0406 | 9/16 ORFS MALE - 9/16 SAE MALE     | 9/16-18        | 9/16-18       |
| AD14-0408 | 9/16 ORFS MALE - 3/4 SAE MALE      | 9/16-18        | 3/4-16        |
| AD14-0604 | 11/16 ORFS MALE - 7/16 SAE MALE    | 11/16-16       | 7/16-20       |
| AD14-0605 | 11/16 ORFS MALE - 1/2 SAE MALE     | 11/16-16       | 1/2-20        |
| AD14-0606 | 11/16 ORFS MALE - 9/16 SAE MALE    | 11/16-16       | 9/16-18       |
| AD14-0608 | 11/16 ORFS MALE - 3/4 SAE MALE     | 11/16-16       | 3/4-16        |
| AD14-0610 | 11/16 ORFS MALE - 7/8 SAE MALE     | 11/16-16       | 7/8-14        |
| AD14-0806 | 13/16 ORFS MALE - 9/16 SAE MALE    | 13/16-16       | 9/16-18       |
| AD14-0808 | 13/16 ORFS MALE - 3/4 SAE MALE     | 13/16-16       | 3/4-16        |
| AD14-0810 | 13/16 ORFS MALE - 7/8 SAE MALE     | 13/16-16       | 7/8-14        |
| AD14-0812 | 13/16 ORFS MALE - 1 1/16 SAE MALE  | 13/16-16       | 1 1/16-12     |
| AD14-1008 | 1" ORFS MALE - 3/4 SAE MALE        | 1-14           | 3/4-16        |
| AD14-1010 | 1" ORFS MALE - 7/8 SAE MALE        | 1-14           | 7/8-14        |
| AD14-1012 | 1" ORFS MALE - 1 1/16 SAE MALE     | 1-14           | 1 1/16-12     |
| AD14-1208 | 1 3/16 ORFS MALE - 3/4 SAE MALE    | 1 3/16-12      | 3/4-16        |
| AD14-1210 | 1 3/16 ORFS MALE - 7/8 SAE MALE    | 1 3/16-12      | 7/8-14        |
| AD14-1212 | 1 3/16 ORFS MALE - 1 1/16 SAE MALE | 1 3/16-12      | 1 1/16-12     |
| AD14-1216 | 1 3/16 ORFS MALE - 1 5/16 SAE MALE | 1 3/16-12      | 1 5/16-12     |
| AD14-1612 | 1 7/16 ORFS MALE - 1 1/16 SAE MALE | 1 7/16-12      | 1 1/16-12     |
| AD14-1616 | 1 7/16 ORFS MALE - 1 5/16 SAE MALE | 1 7/16-12      | 1 5/16-12     |
| AD14-1620 | 1 7/16 ORFS MALE - 1 5/8 SAE MALE  | 1 7/16-12      | 1 5/8-12      |
| AD14-2020 | 1 11/16 ORFS MALE - 1 5/8 SAE MALE | 1 11/16-12     | 1 5/8-12      |



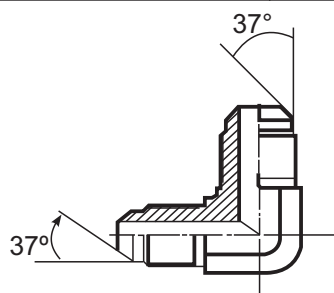
# ORFS MALE - SAE MALE 90° ADAPTOR

| ITEMS     | DESCRIPTION                            | ORFS THREAD | SAE THREAD |
|-----------|--|-------------|------------|
| AD15-0404 | 9/16 ORFS MALE - 7/16 SAE MALE 90°     | 9/16-18     | 7/16-20    |
| AD15-0406 | 9/16 ORFS MALE - 9/16 SAE MALE 90°     | 9/16-18     | 9/16-18    |
| AD15-0604 | 11/16 ORFS MALE - 7/16 SAE MALE 90°    | 11/16-16    | 7/16-20    |
| AD15-0606 | 11/16 ORFS MALE - 9/16 SAE MALE 90°    | 11/16-16    | 9/16-18    |
| AD15-0608 | 11/16 ORFS MALE - 3/4 SAE MALE 90°     | 11/16-16    | 3/4-16     |
| AD15-0806 | 13/16 ORFS MALE - 9/16 SAE MALE 90°    | 13/16-16    | 9/16-18    |
| AD15-0808 | 13/16 ORFS MALE - 3/4 SAE MALE 90°     | 13/16-16    | 3/4-16     |
| AD15-0810 | 13/16 ORFS MALE - 7/8 SAE MALE 90°     | 13/16-16    | 7/8-14     |
| AD15-0812 | 13/16 ORFS MALE - 1 1/16 SAE MALE 90°  | 13/16-16    | 1 1/16-12  |
| AD15-1008 | 1" ORFS MALE - 3/4 SAE MALE 90°        | 1-14        | 3/4-16     |
| AD15-1010 | 1" ORFS MALE - 7/8 SAE MALE 90°        | 1-14        | 7/8-14     |
| AD15-1012 | 1" ORFS MALE - 1 1/16 SAE MALE 90°     | 1-14        | 1 1/16-12  |
| AD15-1208 | 1 3/16 ORFS MALE - 3/4 SAE MALE 90°    | 1 3/16-12   | 3/4-16     |
| AD15-1210 | 1 3/16 ORFS MALE - 7/8 SAE MALE 90°    | 1 3/16-12   | 7/8-14     |
| AD15-1212 | 1 3/16 ORFS MALE - 1 1/16 SAE MALE 90° | 1 3/16-12   | 1 1/16-12  |
| AD15-1216 | 1 3/16 ORFS MALE - 1 5/16 SAE MALE 90° | 1 3/16-12   | 1 5/16-12  |
| AD15-1612 | 1 7/16 ORFS MALE - 1 1/16 SAE MALE 90° | 1 7/16-12   | 1 1/16-12  |
| AD15-1616 | 1 7/16 ORFS MALE - 1 5/16 SAE MALE 90° | 1 7/16-12   | 1 5/16-12  |
| AD15-2020 | 1 11/16 ORFS MALE - 1 5/8 SAE MALE 90° | 1 11/16-12  | 1 5/8-12   |



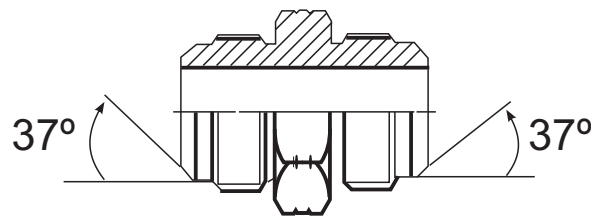
# JIC MALE - JIC MALE 90° ADAPTOR

| ITEMS   | DESCRIPTION                           | JIC THREAD | JIC THREAD |
|---------|---------------------------------------|------------|------------|
| AD16-04 | 7/16 JIC MALE - 7/16 JIC MALE 90°     | 7/16-20    | 7/16-20    |
| AD16-05 | 1/2 JIC MALE - 1/2 JIC MALE 90°       | 1/2-20     | 1/2-20     |
| AD16-06 | 9/16 JIC MALE - 9/16 JIC MALE 90°     | 9/16-18    | 9/16-18    |
| AD16-08 | 3/4 JIC MALE - 3/4 JIC MALE 90°       | 3/4-16     | 3/4-16     |
| AD16-10 | 7/8 JIC MALE - 7/8 JIC MALE 90°       | 7/8-14     | 7/8-14     |
| AD16-12 | 1 1/16 JIC MALE - 1 1/16 JIC MALE 90° | 1 1/16-12  | 1 1/16-12  |
| AD16-16 | 1 5/16 JIC MALE - 1 5/16 JIC MALE 90° | 1 5/16-12  | 1 5/16-12  |
| AD16-20 | 1 5/8 JIC MALE - 1 5/8 JIC MALE 90°   | 1 5/8-12   | 1 5/8-12   |



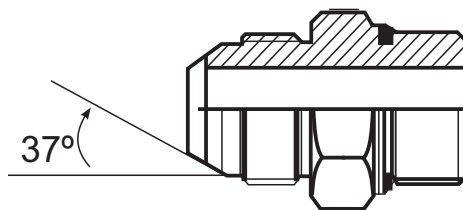
# JIC MALE - JIC MALE ADAPTOR

| ITEMS     | DESCRIPTION                       | JIC<br>THREAD | JIC<br>THREAD | PRICE  |
|-----------|-----------------------------------|---------------|---------------|--------|
| AD17-04   | 7/16 JIC MALE - 7/16 JIC MALE     | 7/16-20       | 7/16-20       | 10.35  |
| AD17-0405 | 7/16 JIC MALE - 1/2-20 JIC MALE   | 7/16-20       | 1/2-20        | 12.80  |
| AD17-0406 | 7/16 JIC MALE - 9/16 JIC MALE     | 7/16-20       | 9/16-18       | 12.60  |
| AD17-0408 | 7/16 JIC MALE - 3/4 JIC MALE      | 7/16-20       | 3/4-16        | 27.25  |
| AD17-05   | 1/2- JIC MALE - 1/2 JIC MALE      | 1/2-20        | 1/2-20        | 13.65  |
| AD17-06   | 9/16 JIC MALE - 9/16 JIC MALE     | 9/16-18       | 9/16-18       | 11.50  |
| AD17-0608 | 9/16 JIC MALE - 3/4 JIC MALE      | 9/16-18       | 3/4-16        | 22.20  |
| AD17-08   | 3/4 JIC MALE - 3/4 JIC MALE       | 3/4-16        | 3/4-16        | 16.90  |
| AD17-0810 | 3/4 JIC MALE - 7/8 JIC MALE       | 3/4-16        | 7/8-14        | 36.10  |
| AD17-0812 | 3/4 JIC MALE - 1 1/16 JIC MALE    | 3/4-16        | 1 1/16-12     | 40.00  |
| AD17-10   | 7/8 JIC MALE - 7/8 JIC MALE       | 7/8-14        | 7/8-14        | 22.80  |
| AD17-1012 | 7/8 JIC MALE - 1 1/16 JIC MALE    | 7/8-14        | 1 1/16-12     | 42.90  |
| AD17-1016 | 7/8 JIC MALE - 1 5/16 JIC MALE    | 7/8-14        | 1 5/16-12     | 74.00  |
| AD17-12   | 1 1/16 JIC MALE - 1 1/16 JIC MALE | 1 1/16-12     | 1 1/16-12     | 32.55  |
| AD17-1216 | 1 1/16 JIC MALE - 1 5/16 JIC MALE | 1 1/16-12     | 1 5/16-12     | 74.90  |
| AD17-16   | 1 5/16 JIC MALE - 1 5/16 JIC MALE | 1 5/16-12     | 1 5/16-12     | 51.00  |
| AD17-1620 | 1 5/16 JIC MALE - 1 5/8 JIC MALE  | 1 5/16-12     | 1 5/8-12      | 140.35 |
| AD17-20   | 1 5/8 JIC MALE - 1 5/8 JIC MALE   | 1 5/8-12      | 1 5/8-12      | 111.45 |
| AD17-24   | 1 7/8 JIC MALE - 1 7/8 JIC MALE   | 1 7/8-12      | 1 7/8-12      | 156.25 |
| AD17-32   | 2 1/2 JIC MALE - 2 1/2 JIC MALE   | 2 1/2-12      | 2 1/2-12      | 456.70 |



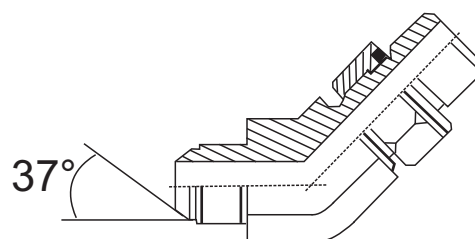
# JIC MALE - METRIC MALE ADAPTOR

| ITEMS       | DESCRIPTION                            | JIC THREAD | METRIC THREAD | PRICE |
|-------------|--|------------|---------------|-------|
| AD18-0412   | 7/16 JIC MALE - M12X1.5 MALE           | 7/16-20    | M12X1.5       | 19.15 |
| AD18-0422   | 7/16 JIC MALE - M22X1.5 MALE           | 7/16-20    | M22X1.5       | 34.45 |
| AD18-0512   | 1/2 JIC MALE - M12X1.5 MALE            | 1/2-20     | M12X1.5       | 22.70 |
| AD18-0612   | 9/16 JIC MALE - M12X1.5 MALE NO O-RING | 9/16-18    | M12X1.5       | 23.80 |
| AD18-0614   | 9/16 JIC MALE - M14X1.5 MALE           | 9/16-18    | M14X1.5       | 24.25 |
| AD18-0616   | 9/16 JIC MALE - M16X1.5 MALE           | 9/16-18    | M16X1.5       | 25.15 |
| AD18-0618   | 9/16 JIC MALE - M18X1.5 MALE           | 9/16-18    | M18X1.5       | 33.70 |
| AD18-0814   | 3/4 JIC MALE - M14X1.5 MALE            | 3/4-16     | M14X1.5       | 26.15 |
| AD18-0816   | 3/4 JIC MALE - M16X1.5 MALE            | 3/4-16     | M16X1.5       | 30.60 |
| AD18-0818   | 3/4 JIC MALE - M18X1.5 MALE            | 3/4-16     | M18X1.5       | 28.60 |
| AD18-0822   | 3/4 JIC MALE - M22X1.5 MALE            | 3/4-16     | M22X1.5       | 37.30 |
| AD18-1018   | 7/8 JIC MALE - M18X1.5 MALE            | 7/8-14     | M18X1.5       | 34.85 |
| AD18-1018DW | 7/8 JIC MALE - M18X1.5 MALE WITH DW    | 7/8-14     | M18X1.5       | 49.70 |
| AD18-1218   | 1 1/16 JIC MALE - M18X1.5 MALE         | 1 1/16-12  | M18X1.5       | 48.80 |
| AD18-1222   | 1 1/16 JIC MALE - M22X1.5 MALE         | 1 1/16-12  | M22X1.5       | 43.35 |
| AD18-1230   | 1 1/16 JIC MALE - M30X2.0 MALE WITH DW | 1 1/16-12  | M30X2.0       | 64.30 |



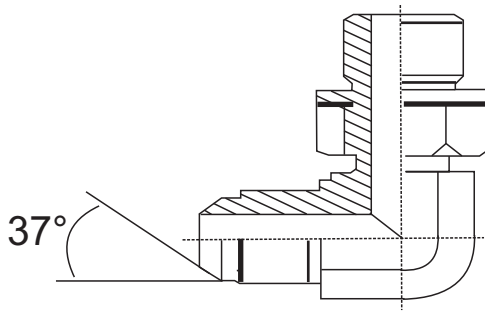
# JIC MALE - METRIC MALE ADAPTOR 45°

| ITEMS         | DESCRIPTION                     | JIC THREAD | METRIC THREAD | PRICE |
|---------------|---------------------------------|------------|---------------|-------|
| AD18-0512-45° | 1/2 JIC MALE - M12X1.5 MALE 45° | 1/2-20     | M12X1.5       | 70.95 |



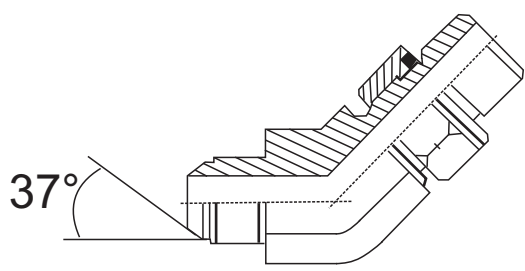
# JIC MALE - METRIC MALE ADAPTOR 90°

| ITEMS         | DESCRIPTION                      | JIC THREAD | METRIC THREAD | PRICE  |
|---------------|----------------------------------|------------|---------------|--------|
| AD18-0616-90° | 9/16 JIC MALE - M16X1.5 MALE 90° | 9/16-18    | M16X1.5       | 83.35  |
| AD18-0816-90° | 3/4 JIC MALE - M16X1.5 MALE 90°  | 3/4-16     | M16X1.5       | 100.75 |
| AD18-0818-90° | 3/4 JIC MALE - M18X1.5 MALE 90°  | 3/4-16     | M18X1.5       | 97.20  |
| AD18-0822-90° | 3/4 JIC MALE - M22X1.5 MALE 90°  | 3/4-16     | M22X1.5       | 130.40 |



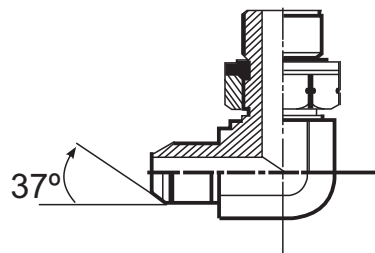
# JIC MALE - BSP MALE ADAPTOR 45°

| ITEMS         | DESCRIPTION                        | JIC THREAD | BSP THREAD | PRICE  |
|---------------|------------------------------------|------------|------------|--------|
| AD19-04-45°   | 7/16 JIC MALE - 1/4 BSP MALE 45°   | 7/16-20    | 1/4 BSP    | 72.25  |
| AD19-06-45°   | 9/16 JIC MALE - 3/8 BSP MALE 45°   | 9/16-18    | 3/8 BSP    | 89.25  |
| AD19-08-45°   | 3/4 JIC MALE - 1/2 BSP MALE 45°    | 3/4-16     | 1/2 BSP    | 115.60 |
| AD19-0806-45° | 3/4 JIC MALE - 3/8 BSP MALE 45°    | 3/4-16     | 3/8 BSP    | 107.35 |
| AD19-12-45°   | 1 1/16 JIC MALE - 3/4 BSP MALE 45° | 1 1/16-12  | 3/4 BSP    | 151.15 |
| AD19-16-45°   | 1 5/16 JIC MALE - 1" BSP MALE 45°  | 1 5/16-12  | 1" BSP     | 240.30 |



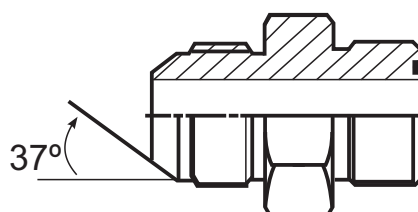
## JIC MALE - BSP MALE ADAPTOR 90°

| ITEMS     | DESCRIPTION                          | JIC THREAD | BSP THREAD | PRICE  |
|-----------|--------------------------------------|------------|------------|--------|
| AD19-0402 | 7/16 JIC MALE - 1/8 BSP MALE 90°     | 7/16-20    | 1/8 BSP    | 74.30  |
| AD19-0404 | 7/16 JIC MALE - 1/4 BSP MALE 90°     | 7/16-20    | 1/4 BSP    | 61.65  |
| AD19-0406 | 7/16 JIC MALE - 3/8 BSP MALE 90°     | 7/16-20    | 3/8 BSP    | 103.20 |
| AD19-0604 | 9/16 JIC MALE - 1/4 BSP MALE 90°     | 9/16-18    | 1/4 BSP    | 78.85  |
| AD19-0606 | 9/16 JIC MALE - 3/8 BSP MALE 90°     | 9/16-18    | 3/8 BSP    | 80.90  |
| AD19-0608 | 9/16 JIC MALE - 1/2 BSP MALE 90°     | 9/16-18    | 1/2 BSP    | 123.85 |
| AD19-0804 | 3/4 JIC MALE - 1/4 BSP MALE 90°      | 3/4-16     | 1/4 BSP    | 99.10  |
| AD19-0806 | 3/4 JIC MALE - 3/8 BSP MALE 90°      | 3/4-16     | 3/8 BSP    | 83.35  |
| AD19-0808 | 3/4 JIC MALE - 1/2 BSP MALE 90°      | 3/4-16     | 1/2 BSP    | 92.30  |
| AD19-0810 | 3/4 JIC MALE - 5/8 BSP MALE 90°      | 3/4-16     | 5/8 BSP    | 145.65 |
| AD19-0812 | 3/4 JIC MALE - 3/4 BSP MALE 90°      | 3/4-16     | 3/4 BSP    | 175.45 |
| AD19-1006 | 7/8 JIC MALE - 3/8 BSP MALE 90°      | 7/8-14     | 3/8 BSP    | 147.25 |
| AD19-1008 | 7/8 JIC MALE - 1/2 BSP MALE 90°      | 7/8-14     | 1/2 BSP    | 147.25 |
| AD19-1012 | 7/8 JIC MALE - 3/4 BSP MALE 90°      | 7/8-14     | 3/4 BSP    | 169.25 |
| AD19-1208 | 1 1/16 JIC MALE - 1/2 BSP MALE 90°   | 1 1/16-12  | 1/2 BSP    | 147.40 |
| AD19-1212 | 1 1/16 JIC MALE - 3/4 BSP MALE 90°   | 1 1/16-12  | 3/4 BSP    | 140.90 |
| AD19-1216 | 1 1/16 JIC MALE - 1" BSP MALE 90°    | 1 1/16-12  | 1" BSP     | 268.30 |
| AD19-1612 | 1 5/16 JIC MALE - 3/4 BSP MALE 90°   | 1 5/16-12  | 3/4 BSP    | 247.65 |
| AD19-1616 | 1 5/16 JIC MALE - 1" BSP MALE 90°    | 1 5/16-12  | 1" BSP     | 224.30 |
| AD19-1620 | 1 5/16 JIC MALE - 1 1/4 BSP MALE 90° | 1 5/16-12  | 1 1/4 BSP  | 507.75 |
| AD19-2016 | 1 5/8 JIC MALE - 1" BSP MALE 90°     | 1 5/8-12   | 1" BSP     | 499.95 |
| AD19-2020 | 1 5/8 JIC MALE - 1 1/4 BSP MALE 90°  | 1 5/8-12   | 1 1/4 BSP  | 516.20 |
| AD19-2424 | 1 7/8 JIC MALE - 1 1/2 BSP MALE 90°  | 1 7/8-12   | 1 1/2 BSP  | 722.40 |



## JIC MALE - ORFS MALE ADAPTOR

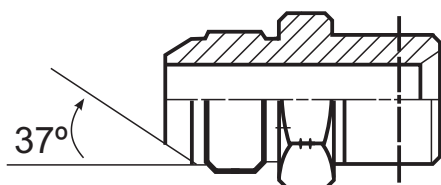
| ITEMS     | DESCRIPTION                        | JIC THREAD | ORFS THREAD | PRICE |
|-----------|------------------------------------|------------|-------------|-------|
| AD20-0606 | 9/16 JIC MALE - 11/16 ORFS MALE    | 9/16 - 18  | 11/16-16    | 16.50 |
| AD20-0808 | 3/4 JIC MALE - 13/16 ORFS MALE     | 3/4-16     | 13/16-16    | 23.05 |
| AD20-1010 | 7/8 JIC MALE - 1" ORFS MALE        | 7/8-14     | 1-14        | 60.15 |
| AD20-1212 | 1 1/16 JIC MALE - 1 3/16 ORFS MALE | 1 1/16-12  | 1 3/16-12   | 43.30 |
| AD20-1616 | 1 5/16 JIC MALE - 1 7/16 ORFS MALE | 1 5/16-12  | 1 7/16-12   | 85.50 |





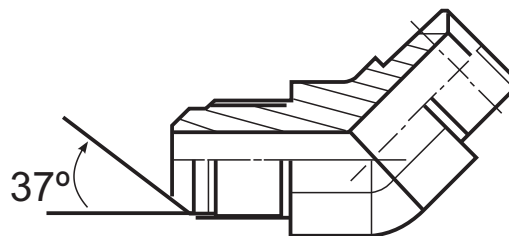
# JIC MALE - NPT MALE ADAPTOR

| ITEMS     | DESCRIPTION                      | JIC THREAD | NPT THREAD | PRICE  |
|-----------|----------------------------------|------------|------------|--------|
| AD21-0402 | 7/16 JIC MALE - 1/8 NPT MALE     | 7/16-20    | 1/8 NPT    | 8.90   |
| AD21-0404 | 7/16 JIC MALE - 1/4 NPT MALE     | 7/16-20    | 1/4 NPT    | 9.60   |
| AD21-0406 | 7/16 JIC MALE - 3/8 NPT MALE     | 7/16-20    | 3/8 NPT    | 14.90  |
| AD21-0408 | 7/16 JIC MALE - 1/2 NPT MALE     | 7/16-20    | 1/2 NPT    | 20.10  |
| AD21-0502 | 1/2 JIC MALE - 1/8 NPT MALE      | 1/2-20     | 1/8 NPT    | 12.80  |
| AD21-0504 | 1/2 JIC MALE - 1/4 NPT MALE      | 1/2-20     | 1/4 NPT    | 13.60  |
| AD21-0506 | 1/2 JIC MALE - 3/8 NPT MALE      | 1/2-20     | 3/8 NPT    | 19.80  |
| AD21-0602 | 9/16 JIC MALE - 1/8 NPT MALE     | 9/16-18    | 1/8 NPT    | 13.80  |
| AD21-0604 | 9/16 JIC MALE - 1/4 NPT MALE     | 9/16-18    | 1/4 NPT    | 12.75  |
| AD21-0606 | 9/16 JIC MALE - 3/8 NPT MALE     | 9/16-18    | 3/8 NPT    | 12.10  |
| AD21-0608 | 9/16 JIC MALE - 1/2 NPT MALE     | 9/16-18    | 1/2 NPT    | 18.20  |
| AD21-0612 | 9/16 JIC MALE - 3/4 NPT MALE     | 9/16-18    | 3/4 NPT    | 43.35  |
| AD21-0804 | 3/4 JIC MALE - 1/4 NPT MALE      | 3/4-16     | 1/4 NPT    | 17.95  |
| AD21-0806 | 3/4 JIC MALE - 3/8 NPT MALE      | 3/4-16     | 3/8 NPT    | 15.95  |
| AD21-0808 | 3/4 JIC MALE - 1/2 NPT MALE      | 3/4-16     | 1/2 NPT    | 17.55  |
| AD21-0812 | 3/4 JIC MALE - 3/4 NPT MALE      | 3/4-16     | 3/4 NPT    | 28.40  |
| AD21-0816 | 3/4 JIC MALE - 1" NPT MALE       | 3/4-16     | 1" NPT     | 65.00  |
| AD21-1006 | 7/8 JIC MALE - 3/8 NPT MALE      | 7/8-14     | 3/8 NPT    | 22.00  |
| AD21-1008 | 7/8 JIC MALE - 1/2 NPT MALE      | 7/8-14     | 1/2 NPT    | 20.60  |
| AD21-1012 | 7/8 JIC MALE - 3/4 NPT MALE      | 7/8-14     | 3/4 NPT    | 35.60  |
| AD21-1206 | 1 1/16 JIC MALE - 3/8 NPT MALE   | 1 1/16-12  | 3/8 NPT    | 40.35  |
| AD21-1208 | 1 1/16 JIC MALE - 1/2 NPT MALE   | 1 1/16-12  | 1/2 NPT    | 30.85  |
| AD21-1212 | 1 1/16 JIC MALE - 3/4 NPT MALE   | 1 1/16-12  | 3/4 NPT    | 30.00  |
| AD21-1216 | 1 1/16 JIC MALE - 1" NPT MALE    | 1 1/16-12  | 1" NPT     | 49.10  |
| AD21-1220 | 1 1/16 JIC MALE - 1 1/4 NPT MALE | 1 1/16-12  | 1 1/4 NPT  | 127.35 |
| AD21-1606 | 1 5/16 JIC MALE - 3/8 NPT MALE   | 1 5/16-12  | 3/8 NPT    | 94.95  |
| AD21-1608 | 1 5/16 JIC MALE - 1/2 NPT MALE   | 1 5/16-12  | 1/2 NPT    | 71.85  |
| AD21-1612 | 1 5/16 JIC MALE - 3/4 NPT MALE   | 1 5/16-12  | 3/4 NPT    | 52.00  |
| AD21-1616 | 1 5/16 JIC MALE - 1" NPT MALE    | 1 5/16-12  | 1" NPT     | 48.80  |
| AD21-1620 | 1 5/16 JIC MALE - 1 1/4 NPT MALE | 1 5/16-12  | 1 1/4 NPT  | 103.90 |
| AD21-2012 | 1 5/8 JIC MALE - 3/4 NPT MALE    | 1 5/8-12   | 3/4 NPT    | 122.80 |
| AD21-2016 | 1 5/8 JIC MALE - 1" NPT MALE     | 1 5/8-12   | 1" NPT     | 104.50 |
| AD21-2020 | 1 5/8 JIC MALE - 1 1/4 NPT MALE  | 1 5/8-12   | 1 1/4 NPT  | 93.25  |
| AD21-2024 | 1 5/8 JIC MALE - 1 1/2 NPT MALE  | 1 5/8-12   | 1 1/2 NPT  | 173.35 |
| AD21-2420 | 1 7/8 JIC MALE - 1 1/4 NPT MALE  | 1 7/8-12   | 1 1/4 NPT  | 172.55 |
| AD21-2424 | 1 7/8 JIC MALE - 1 1/2 NPT MALE  | 1 7/8-12   | 1 1/2 NPT  | 134.55 |
| AD21-2432 | 1 7/8 JIC MALE - 2" NPT MALE     | 1 7/8-12   | 2" NPT     | 287.25 |
| AD21-3224 | 2 1/2 JIC MALE - 1 1/2 NPT MALE  | 2 1/2-12   | 1 1/2 NPT  | 367.85 |
| AD21-3232 | 2 1/2 JIC MALE - 2" NPT MALE     | 2 1/2-12   | 2" NPT     | 301.50 |



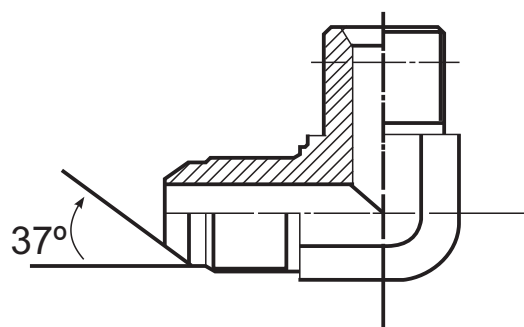
# JIC MALE - NPT MALE 45°

| ITEMS     | DESCRIPTION                          | JIC<br>THREAD | NPT<br>THREAD | PRICE   |
|-----------|--------------------------------------|---------------|---------------|---------|
| AD22-0402 | 7/16 JIC MALE - 1/8 NPT MALE 45°     | 7/16-20       | 1/8 NPT       | 39.85   |
| AD22-0404 | 7/16 JIC MALE - 1/4 NPT MALE 45°     | 7/16-20       | 1/4 NPT       | 42.90   |
| AD22-0406 | 7/16 JIC MALE - 3/8 NPT MALE 45°     | 7/16-20       | 3/8 NPT       | 53.70   |
| AD22-0408 | 7/16 JIC MALE - 1/2 NPT MALE 45°     | 7/16-20       | 1/2 NPT       | 69.45   |
| AD22-0502 | 1/2 JIC MALE - 1/8 NPT MALE 45°      | 1/2-20        | 1/8 NPT       | 57.80   |
| AD22-0504 | 1/2 JIC MALE - 1/4 NPT MALE 45°      | 1/2-20        | 1/4 NPT       | 57.80   |
| AD22-0602 | 9/16 JIC MALE - 1/8 NPT MALE 45°     | 9/16-18       | 1/8 NPT       | 51.60   |
| AD22-0604 | 9/16 JIC MALE - 1/4 NPT MALE 45°     | 9/16-18       | 1/4 NPT       | 49.55   |
| AD22-0606 | 9/16 JIC MALE - 3/8 NPT MALE 45°     | 9/16-18       | 3/8 NPT       | 51.60   |
| AD22-0608 | 9/16 JIC MALE - 1/2 NPT MALE 45°     | 9/16-18       | 1/2 NPT       | 78.45   |
| AD22-0804 | 3/4 JIC MALE - 1/4 NPT MALE 45°      | 3/4-16        | 1/4 NPT       | 84.65   |
| AD22-0806 | 3/4 JIC MALE - 3/8 NPT MALE 45°      | 3/4-16        | 3/8 NPT       | 64.00   |
| AD22-0808 | 3/4 JIC MALE - 1/2 NPT MALE 45°      | 3/4-16        | 1/2 NPT       | 64.00   |
| AD22-0812 | 3/4 JIC MALE - 3/4 NPT MALE 45°      | 3/4-16        | 3/4 NPT       | 123.85  |
| AD22-1008 | 7/8 JIC MALE - 1/2 NPT MALE 45°      | 7/8-14        | 1/2 NPT       | 82.60   |
| AD22-1012 | 7/8 JIC MALE - 3/4 NPT MALE 45°      | 7/8-14        | 3/4 NPT       | 115.60  |
| AD22-1208 | 1 1/16 JIC MALE - 1/2 NPT MALE 45°   | 1 1/16-12     | 1/2 NPT       | 115.60  |
| AD22-1212 | 1 1/16 JIC MALE - 3/4 NPT MALE 45°   | 1 1/16-12     | 3/4 NPT       | 101.15  |
| AD22-1216 | 1 1/16 JIC MALE - 1" NPT MALE 45°    | 1 1/16-12     | 1" NPT        | 161.00  |
| AD22-1612 | 1 5/16 JIC MALE - 3/4 NPT MALE 45°   | 1 5/16-12     | 3/4 NPT       | 165.15  |
| AD22-1616 | 1 5/16 JIC MALE - 1" NPT MALE 45°    | 1 5/16-12     | 1" NPT        | 146.55  |
| AD22-1620 | 1 5/16 JIC MALE - 1 1/4 NPT MALE 45° | 1 5/16-12     | 1 1/4 NPT     | 321.05  |
| AD22-2016 | 1 5/8 JIC MALE - 1" NPT MALE 45°     | 1 5/8-12      | 1" NPT        | 381.40  |
| AD22-2020 | 1 5/8 JIC MALE - 1 1/4 NPT MALE 45°  | 1 5/8-12      | 1 1/4 NPT     | 340.55  |
| AD22-2424 | 1 7/8 JIC MALE - 1 1/2 NPT MALE 45°  | 1 7/8-12      | 1 1/2 NPT     | 577.90  |
| AD22-3232 | 2 1/2 JIC MALE - 2" NPT MALE 45°     | 2 1/2-12      | 2" NPT        | 1049.80 |



# JIC MALE - NPT MALE ADAPTOR 90°

| ITEMS     | DESCRIPTION                          | JIC THREAD | NPT THREAD | PRICE  |
|-----------|--------------------------------------|------------|------------|--------|
| AD23-0402 | 7/16 JIC MALE - 1/8 NPT MALE 90°     | 7/16-20    | 1/8 NPT    | 30.00  |
| AD23-0404 | 7/16 JIC MALE - 1/4 NPT MALE 90°     | 7/16-20    | 1/4 NPT    | 30.60  |
| AD23-0406 | 7/16 JIC MALE - 3/8 NPT MALE 90°     | 7/16-20    | 3/8 NPT    | 49.95  |
| AD23-0408 | 7/16 JIC MALE - 1/2 NPT MALE 90°     | 7/16-20    | 1/2 NPT    | 69.10  |
| AD23-0502 | 1/2 JIC MALE - 1/8 NPT MALE 90°      | 1/2-20     | 1/8 NPT    | 42.10  |
| AD23-0504 | 1/2 JIC MALE - 1/4 NPT MALE 90°      | 1/2-20     | 1/4 NPT    | 43.35  |
| AD23-0506 | 1/2 JIC MALE - 3/8 NPT MALE 90°      | 1/2-20     | 3/8 NPT    | 57.00  |
| AD23-0602 | 9/16 JIC MALE - 1/8 NPT MALE 90°     | 9/16-18    | 1/8 NPT    | 44.15  |
| AD23-0604 | 9/16 JIC MALE - 1/4 NPT MALE 90°     | 9/16-18    | 1/4 NPT    | 31.80  |
| AD23-0606 | 9/16 JIC MALE - 3/8 NPT MALE 90°     | 9/16-18    | 3/8 NPT    | 39.20  |
| AD23-0608 | 9/16 JIC MALE - 1/2 NPT MALE 90°     | 9/16-18    | 1/2 NPT    | 53.90  |
| AD23-0804 | 3/4 JIC MALE - 1/4 NPT MALE 90°      | 3/4-16     | 1/4 NPT    | 68.00  |
| AD23-0806 | 3/4 JIC MALE - 3/8 NPT MALE 90°      | 3/4-16     | 3/8 NPT    | 46.90  |
| AD23-0808 | 3/4 JIC MALE - 1/2 NPT MALE 90°      | 3/4-16     | 1/2 NPT    | 48.45  |
| AD23-0812 | 3/4 JIC MALE - 3/4 NPT MALE 90°      | 3/4-16     | 3/4 NPT    | 87.00  |
| AD23-1006 | 7/8 JIC MALE - 3/8 NPT MALE 90°      | 7/8-14     | 3/8 NPT    | 78.45  |
| AD23-1008 | 7/8 JIC MALE - 1/2 NPT MALE 90°      | 7/8-14     | 1/2 NPT    | 65.50  |
| AD23-1012 | 7/8 JIC MALE - 3/4 NPT MALE 90°      | 7/8-14     | 3/4 NPT    | 92.30  |
| AD23-1206 | 1 1/16 JIC MALE - 3/8 NPT MALE 90°   | 1 1/16-12  | 3/8 NPT    | 102.35 |
| AD23-1208 | 1 1/16 JIC MALE - 1/2 NPT MALE 90°   | 1 1/16-12  | 1/2 NPT    | 96.40  |
| AD23-1212 | 1 1/16 JIC MALE - 3/4 NPT MALE 90°   | 1 1/16-12  | 3/4 NPT    | 75.35  |
| AD23-1216 | 1 1/16 JIC MALE - 1" NPT MALE 90°    | 1 1/16-12  | 1" NPT     | 140.35 |
| AD23-1220 | 1 1/16 JIC MALE - 1 1/4 NPT MALE 90° | 1 1/16-12  | 1 1/4 NPT  | 314.30 |
| AD23-1612 | 1 5/16 JIC MALE - 3/4 NPT MALE 90°   | 1 5/16-12  | 3/4 NPT    | 165.15 |
| AD23-1616 | 1 5/16 JIC MALE - 1" NPT MALE 90°    | 1 5/16-12  | 1" NPT     | 124.95 |
| AD23-1620 | 1 5/16 JIC MALE - 1 1/4 NPT MALE 90° | 1 5/16-12  | 1 1/4 NPT  | 344.90 |
| AD23-2016 | 1 5/8 JIC MALE - 1" NPT MALE 90°     | 1 5/8-12   | 1" NPT     | 324.35 |
| AD23-2020 | 1 5/8 JIC MALE - 1 1/4 NPT MALE 90°  | 1 5/8-12   | 1 1/4 NPT  | 313.65 |
| AD23-2024 | 1 5/8 JIC MALE - 1 1/2 NPT MALE 90°  | 1 5/8-12   | 1 1/2 NPT  | 572.15 |
| AD23-2420 | 1 7/8 JIC MALE - 1 1/4 NPT MALE 90°  | 1 7/8-12   | 1 1/4 NPT  | 373.30 |
| AD23-2424 | 1 7/8 JIC MALE - 1 1/2 NPT MALE 90°  | 1 7/8-12   | 1 1/2 NPT  | 507.75 |
| AD23-3232 | 2 1/2 JIC MALE - 2" NPT MALE 90°     | 2 1/2-12   | 2" NPT     | 707.50 |



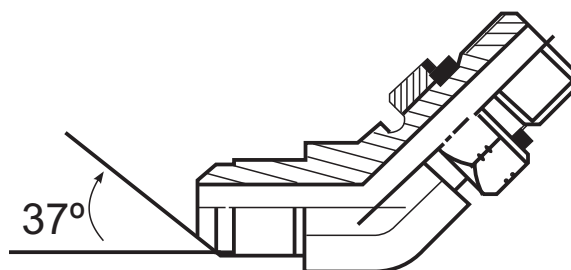
# JIC MALE - SAE MALE ADAPTOR

| ITEMS     | DESCRIPTION                       | JIC<br>THREAD | SAE<br>THREAD | PRICE  |
|-----------|-----------------------------------|---------------|---------------|--------|
| AD24-0404 | 7/16 JIC MALE - 7/16 SAE MALE     | 7/16-20       | 7/16-20       | 10.05  |
| AD24-0405 | 7/16 JIC MALE - 1/2 SAE MALE      | 7/16-20       | 1/2-20        | 19.80  |
| AD24-0406 | 7/16 JIC MALE - 9/16 SAE MALE     | 7/16-20       | 9/16-18       | 12.30  |
| AD24-0408 | 7/16 JIC MALE - 3/4 SAE MALE      | 7/16-20       | 3/4-16        | 26.00  |
| AD24-0504 | 1/2 JIC MALE - 7/16 SAE MALE      | 1/2-20        | 7/16-20       | 15.25  |
| AD24-0505 | 1/2 JIC MALE - 1/2 SAE MALE       | 1/2-20        | 1/2-20        | 14.25  |
| AD24-0506 | 1/2 JIC MALE - 9/16 SAE MALE      | 1/2-20        | 9/16-18       | 31.80  |
| AD24-0604 | 9/16 JIC MALE - 7/16 SAE MALE     | 9/16-18       | 7/16-20       | 17.75  |
| AD24-0605 | 9/16 JIC MALE - 1/2 SAE MALE      | 9/16-18       | 1/2-20        | 21.60  |
| AD24-0606 | 9/16 JIC MALE - 9/16 SAE MALE     | 9/16-18       | 9/16-18       | 13.40  |
| AD24-0608 | 9/16 JIC MALE - 3/4 SAE MALE      | 9/16-18       | 3/4-16        | 20.00  |
| AD24-0610 | 9/16 JIC MALE - 7/8 SAE MALE      | 9/16-18       | 7/8-14        | 26.65  |
| AD24-0612 | 9/16 JIC MALE - 1 1/16 SAE MALE   | 9/16-18       | 1 1/16-12     | 49.55  |
| AD24-0804 | 3/4 JIC MALE - 7/16 SAE MALE      | 3/4-16        | 7/16-20       | 16.70  |
| AD24-0806 | 3/4 JIC MALE - 9/16 SAE MALE      | 3/4-16        | 9/16-18       | 20.00  |
| AD24-0808 | 3/4 JIC MALE - 3/4 SAE MALE       | 3/4-16        | 3/4-16        | 19.10  |
| AD24-0810 | 3/4 JIC MALE - 7/8 SAE MALE       | 3/4-16        | 7/8-14        | 25.20  |
| AD24-0812 | 3/4 JIC MALE - 1 1/16 SAE MALE    | 3/4-16        | 1 1/16-12     | 39.00  |
| AD24-0816 | 3/4 JIC MALE - 1 5/16 SAE MALE    | 3/4-16        | 1 5/16-12     | 90.70  |
| AD24-1006 | 7/8 JIC MALE - 9/16 SAE MALE      | 7/8-14        | 9/16-18       | 33.00  |
| AD24-1008 | 7/8 JIC MALE - 3/4 SAE MALE       | 7/8-14        | 3/4-16        | 27.70  |
| AD24-1010 | 7/8 JIC MALE - 7/8 SAE MALE       | 7/8-14        | 7/8-14        | 26.95  |
| AD24-1012 | 7/8 JIC MALE - 1 1/16 SAE MALE    | 7/8-14        | 1 1/16-12     | 57.45  |
| AD24-1016 | 7/8 JIC MALE - 1 5/16 SAE MALE    | 7/8-14        | 1 5/16-12     | 78.10  |
| AD24-1206 | 1 1/16 JIC MALE - 9/16 SAE MALE   | 1 1/16-12     | 9/16-18       | 77.40  |
| AD24-1208 | 1 1/16 JIC MALE - 3/4 SAE MALE    | 1 1/16-12     | 3/4-16        | 44.10  |
| AD24-1210 | 1 1/16 JIC MALE - 7/8 SAE MALE    | 1 1/16-12     | 7/8-14        | 38.20  |
| AD24-1212 | 1 1/16 JIC MALE - 1 1/16 SAE MALE | 1 1/16-12     | 1 1/16-12     | 38.90  |
| AD24-1216 | 1 1/16 JIC MALE - 1 5/16 SAE MALE | 1 1/16-12     | 1 5/16-12     | 57.60  |
| AD24-1220 | 1 1/16 JIC MALE - 1 5/8 SAE MALE  | 1 1/16-12     | 1 5/8-12      | 152.75 |
| AD24-1610 | 1 5/16 JIC MALE - 7/8 SAE MALE    | 1 5/16-12     | 7/8-14        | 61.30  |
| AD24-1612 | 1 5/16 JIC MALE - 1 1/16 SAE MALE | 1 5/16-12     | 1 1/16-12     | 61.90  |
| AD24-1616 | 1 5/16 JIC MALE - 1 5/16 SAE MALE | 1 5/16-12     | 1 5/16-12     | 58.65  |
| AD24-1620 | 1 5/16 JIC MALE - 1 5/8 SAE MALE  | 1 5/16-12     | 1 5/8-12      | 115.70 |
| AD24-2016 | 1 5/8 JIC MALE - 1 5/16 SAE MALE  | 1 5/8-12      | 1 5/16-12     | 136.25 |
| AD24-2020 | 1 5/8 JIC MALE - 1 5/8 SAE MALE   | 1 5/8-12      | 1 5/8-12      | 133.70 |
| AD24-2024 | 1 5/8 JIC MALE - 1 7/8 SAE MALE   | 1 5/8-12      | 1 7/8-12      | 240.60 |
| AD24-2420 | 1 7/8 JIC MALE - 1 5/8 SAE MALE   | 1 7/8-12      | 1 5/8-12      | 226.55 |
| AD24-2424 | 1 7/8 JIC MALE - 1 7/8 SAE MALE   | 1 7/8-12      | 1 7/8-12      | 173.35 |
| AD24-3232 | 2 1/2 JIC MALE - 2 1/2 SAE MALE   | 2 1/2-12      | 2 1/2-12      | 371.50 |



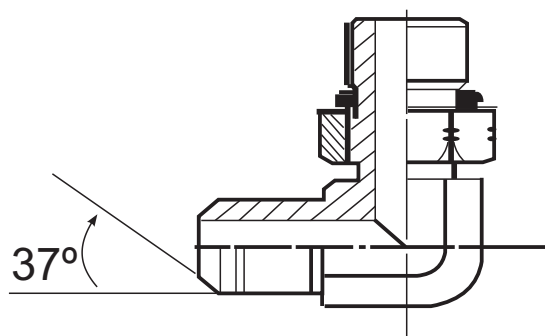
# JIC MALE - SAE MALE 45°

| ITEMS     | DESCRIPTION                           | JIC<br>THREAD | SAE<br>THREAD | PRICE  |
|-----------|---------------------------------------|---------------|---------------|--------|
| AD25-0404 | 7/16 JIC MALE - 7/16 SAE MALE 45°     | 7/16-20       | 7/16-20       | 63.00  |
| AD25-0406 | 7/16 JIC MALE - 9/16 SAE MALE 45°     | 7/16-20       | 9/16-18       | 73.00  |
| AD25-0505 | 1/2 JIC MALE - 1/2 SAE MALE 45°       | 1/2-20        | 1/2-20        | 78.45  |
| AD25-0606 | 9/16 JIC MALE - 9/16 SAE MALE 45°     | 9/16-18       | 9/16-18       | 76.55  |
| AD25-0608 | 9/16 JIC MALE - 3/4 SAE MALE 45°      | 9/16-18       | 3/4-16        | 99.20  |
| AD25-0806 | 3/4 JIC MALE - 9/16 SAE MALE 45°      | 3/4-16        | 9/16-18       | 103.45 |
| AD25-0808 | 3/4 JIC MALE - 3/4 SAE MALE 45°       | 3/4-16        | 3/4-16        | 96.90  |
| AD25-0810 | 3/4 JIC MALE - 7/8 SAE MALE 45°       | 3/4-16        | 7/8-14        | 121.50 |
| AD25-1006 | 7/8 JIC MALE - 9/16 SAE MALE 45°      | 7/8-14        | 9/16-18       | 134.15 |
| AD25-1008 | 7/8 JIC MALE - 3/4 SAE MALE 45°       | 7/8-14        | 3/4-16        | 127.95 |
| AD25-1010 | 7/8 JIC MALE - 7/8 SAE MALE 45°       | 7/8-14        | 7/8-14        | 122.80 |
| AD25-1012 | 7/8 JIC MALE - 1 1/16 SAE MALE 45°    | 7/8-14        | 1 1/16-12     | 161.00 |
| AD25-1212 | 1 1/16 JIC MALE - 1 1/16 SAE MALE 45° | 1 1/16-12     | 1 1/16-12     | 143.75 |
| AD25-1210 | 1 1/16 JIC MALE - 7/8 SAE MALE 45°    | 1 1/16-12     | 7/8-14        | 161.00 |
| AD25-1216 | 1 1/16 JIC MALE - 1 5/16 SAE MALE 45° | 1 1/16-12     | 1 5/16-12     | 247.65 |
| AD25-1616 | 1 5/16 JIC MALE - 1 5/16 SAE MALE 45° | 1 5/16-12     | 1 5/16-12     | 239.45 |
| AD25-2020 | 1 5/8 JIC MALE - 1 5/8 SAE MALE 45°   | 1 5/8-12      | 1 5/8-12      | 522.10 |
| AD25-2424 | 1 7/8 JIC MALE - 1 7/8 SAE MALE 45°   | 1 7/8-12      | 1 7/8-12      | 762.90 |



# JIC MALE - SAE MALE 90°

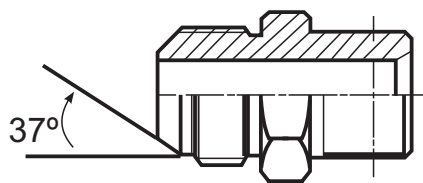
| ITEMS     | DESCRIPTION                           | JIC THREAD | SAE THREAD | PRICE  |
|-----------|---------------------------------------|------------|------------|--------|
| AD26-0404 | 7/16 JIC MALE - 7/16 SAE MALE 90°     | 7/16-20    | 7/16-20    | 55.90  |
| AD26-0405 | 7/16 JIC MALE - 1/2 SAE MALE 90°      | 7/16-20    | 1/2-20     | 85.60  |
| AD26-0406 | 7/16 JIC MALE - 9/16 SAE MALE 90°     | 7/16-20    | 9/16-18    | 66.40  |
| AD26-0504 | 1/2 JIC MALE - 7/16 SAE MALE 90°      | 1/2-20     | 7/16-20    | 77.45  |
| AD26-0505 | 1/2 JIC MALE - 1/2 SAE MALE 90°       | 1/2-20     | 1/2-20     | 73.90  |
| AD26-0506 | 1/2 JIC MALE - 9/16 SAE MALE 90°      | 1/2-20     | 9/16-18    | 85.00  |
| AD26-0604 | 9/16 JIC MALE - 7/16 SAE MALE 90°     | 9/16-18    | 7/16-20    | 71.15  |
| AD26-0605 | 9/16 JIC MALE - 1/2 SAE MALE 90°      | 9/16-18    | 1/2-20     | 82.60  |
| AD26-0606 | 9/16 JIC MALE - 9/16 SAE MALE 90°     | 9/16-18    | 9/16-18    | 59.00  |
| AD26-0608 | 9/16 JIC MALE - 3/4 SAE MALE 90°      | 9/16-18    | 3/4-16     | 77.80  |
| AD26-0610 | 9/16 JIC MALE - 7/8 SAE MALE 90°      | 9/16-18    | 7/8-14     | 111.45 |
| AD26-0804 | 3/4 JIC MALE - 7/16 SAE MALE 90°      | 3/4-16     | 7/16-20    | 117.85 |
| AD26-0806 | 3/4 JIC MALE - 9/16 SAE MALE 90°      | 3/4-16     | 9/16-18    | 94.60  |
| AD26-0808 | 3/4 JIC MALE - 3/4 SAE MALE 90°       | 3/4-16     | 3/4-16     | 75.70  |
| AD26-0810 | 3/4 JIC MALE - 7/8 SAE MALE 90°       | 3/4-16     | 7/8-14     | 117.70 |
| AD26-0812 | 3/4 JIC MALE - 1 1/16 SAE MALE 90°    | 3/4-16     | 1 1/16-12  | 124.95 |
| AD26-1006 | 7/8 JIC MALE - 9/16 SAE MALE 90°      | 7/8-14     | 9/16-18    | 97.75  |
| AD26-1008 | 7/8 JIC MALE - 3/4 SAE MALE 90°       | 7/8-14     | 3/4-16     | 122.80 |
| AD26-1010 | 7/8 JIC MALE - 7/8 SAE MALE 90°       | 7/8-14     | 7/8-14     | 114.95 |
| AD26-1012 | 7/8 JIC MALE - 1 1/16 SAE MALE 90°    | 7/8-14     | 1 1/16-12  | 152.70 |
| AD26-1208 | 1 1/16 JIC MALE - 3/4 SAE MALE 90°    | 1 1/16-12  | 3/4-16     | 144.50 |
| AD26-1210 | 1 1/16 JIC MALE - 7/8 SAE MALE 90°    | 1 1/16-12  | 7/8-14     | 132.60 |
| AD26-1212 | 1 1/16 JIC MALE - 1 1/16 SAE MALE 90° | 1 1/16-12  | 1 1/16-12  | 125.10 |
| AD26-1216 | 1 1/16 JIC MALE - 1 5/16 SAE MALE 90° | 1 1/16-12  | 1 5/16-12  | 243.30 |
| AD26-1610 | 1 5/16 JIC MALE - 7/8 SAE MALE 90°    | 1 5/16-12  | 7/8-14     | 210.50 |
| AD26-1612 | 1 5/16 JIC MALE - 1 1/16 SAE MALE 90° | 1 5/16-12  | 1 1/16-12  | 244.95 |
| AD26-1616 | 1 5/16 JIC MALE - 1 5/16 SAE MALE 90° | 1 5/16-12  | 1 5/16-12  | 238.80 |
| AD26-1620 | 1 5/16 JIC MALE - 1 5/8 SAE MALE 90°  | 1 5/16-12  | 1 5/8-12   | 485.65 |
| AD26-2016 | 1 5/8 JIC MALE - 1 5/16 SAE MALE 90°  | 1 5/8-12   | 1 5/16-12  | 513.40 |
| AD26-2020 | 1 5/8 JIC MALE - 1 5/8 SAE MALE 90°   | 1 5/8-12   | 1 5/8-12   | 485.65 |
| AD26-2024 | 1 5/8 JIC MALE - 1 7/8 SAE MALE 90°   | 1 5/8-12   | 1 7/8-12   | 675.30 |
| AD26-2424 | 1 7/8 JIC MALE - 1 7/8 SAE MALE 90°   | 1 7/8-12   | 1 7/8-12   | 681.15 |





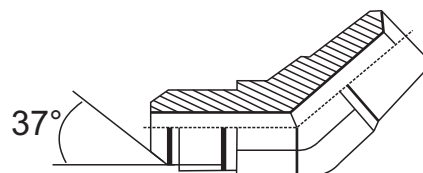
# JIC MALE - BSPT MALE ADAPTOR

| ITEMS     | DESCRIPTION                       | JIC THREAD | BSPT THREAD | PRICE  |
|-----------|-----------------------------------|------------|-------------|--------|
| AD27-0402 | 7/16 JIC MALE - 1/8 BSPT MALE     | 7/16-20    | 1/8 BSPT    | 15.55  |
| AD27-0404 | 7/16 JIC MALE - 1/4 BSPT MALE     | 7/16-20    | 1/4 BSPT    | 15.60  |
| AD27-0406 | 7/16 JIC MALE - 3/8 BSPT MALE     | 7/16-20    | 3/8 BSPT    | 21.65  |
| AD27-0408 | 7/16 JIC MALE - 1/2 BSPT MALE     | 7/16-20    | 1/2 BSPT    | 31.15  |
| AD27-0502 | 1/2 JIC MALE - 1/8 BSPT MALE      | 1/2-20     | 1/8 BSPT    | 15.90  |
| AD27-0602 | 9/16 JIC MALE - 1/8 BSPT MALE     | 9/16-18    | 1/8 BSPT    | 16.50  |
| AD27-0604 | 9/16 JIC MALE - 1/4 BSPT MALE     | 9/16-18    | 1/4 BSPT    | 16.50  |
| AD27-0606 | 9/16 JIC MALE - 3/8 BSPT MALE     | 9/16-18    | 3/8 BSPT    | 16.50  |
| AD27-0608 | 9/16 JIC MALE - 1/2 BSPT MALE     | 9/16-18    | 1/2 BSPT    | 26.40  |
| AD27-0804 | 3/4 JIC MALE - 1/4 BSPT MALE      | 3/4-16     | 1/4 BSPT    | 26.95  |
| AD27-0806 | 3/4 JIC MALE - 3/8 BSPT MALE      | 3/4-16     | 3/8 BSPT    | 24.55  |
| AD27-0808 | 3/4 JIC MALE - 1/2 BSPT MALE      | 3/4-16     | 1/2 BSPT    | 21.25  |
| AD27-0812 | 3/4 JIC MALE - 3/4 BSPT MALE      | 3/4-16     | 3/4 BSPT    | 68.00  |
| AD27-0816 | 3/4 JIC MALE - 1" BSPT MALE       | 3/4-16     | 1" BSPT     | 75.45  |
| AD27-1006 | 7/8 JIC MALE - 3/8 BSPT MALE      | 7/8-14     | 3/8 BSPT    | 27.10  |
| AD27-1008 | 7/8 JIC MALE - 1/2 BSPT MALE      | 7/8-14     | 1/2 BSPT    | 29.70  |
| AD27-1012 | 7/8 JIC MALE - 3/4 BSPT MALE      | 7/8-14     | 3/4 BSPT    | 42.30  |
| AD27-1208 | 1 1/16 JIC MALE - 1/2 BSPT MALE   | 1 1/16-12  | 1/2 BSPT    | 44.40  |
| AD27-1212 | 1 1/16 JIC MALE - 3/4 BSPT MALE   | 1 1/16-12  | 3/4 BSPT    | 42.90  |
| AD27-1216 | 1 1/16 JIC MALE - 1" BSPT MALE    | 1 1/16-12  | 1" BSPT     | 56.15  |
| AD27-1612 | 1 5/16 JIC MALE - 3/4 BSPT MALE   | 1 5/16-12  | 3/4 BSPT    | 50.45  |
| AD27-1616 | 1 5/16 JIC MALE - 1" BSPT MALE    | 1 5/16-12  | 1" BSPT     | 64.00  |
| AD27-1620 | 1 5/16 JIC MALE - 1 1/4 BSPT MALE | 1 5/16-12  | 1 1/4 BSPT  | 105.60 |
| AD27-2020 | 1 5/8 JIC MALE - 1 1/4 BSPT MALE  | 1 5/8-12   | 1 1/4 BSPT  | 132.50 |
| AD27-2424 | 1 7/8 JIC MALE - 1 1/2 BSPT MALE  | 1 7/8-12   | 1 1/2 BSPT  | 156.05 |



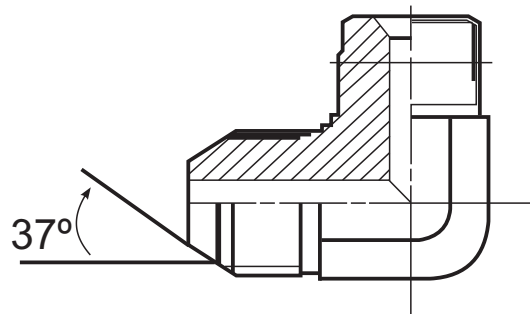
# JIC MALE - BSPT MALE ADAPTOR 45°

| ITEMS         | DESCRIPTION                       | JIC THREAD | BSPT THREAD | PRICE |
|---------------|-----------------------------------|------------|-------------|-------|
| AD27-0408-45° | 7/16 JIC MALE - 1/2 BSPT MALE 45° | 7/16-20    | 1/2 BSPT    | 68.10 |



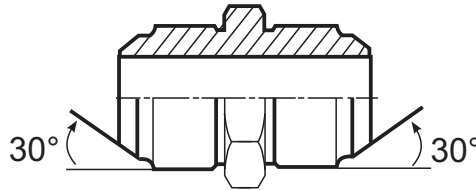
# JIC MALE - BSPT MALE 90°

| ITEMS     | DESCRIPTION                           | JIC THREAD | BSPT THREAD | PRICE  |
|-----------|---------------------------------------|------------|-------------|--------|
| AD28-0402 | 7/16 JIC MALE - 1/8 BSPT MALE 90°     | 7/16-20    | 1/8 BSPT    | 36.55  |
| AD28-0404 | 7/16 JIC MALE - 1/4 BSPT MALE 90°     | 7/16-20    | 1/4 BSPT    | 38.40  |
| AD28-0406 | 7/16 JIC MALE - 3/8 BSPT MALE 90°     | 7/16-20    | 3/8 BSPT    | 45.85  |
| AD28-0408 | 7/16 JIC MALE - 1/2 BSPT MALE 90°     | 7/16-20    | 1/2 BSPT    | 56.75  |
| AD28-0502 | 1/2 JIC MALE - 1/8 BSPT MALE 90°      | 1/2-20     | 1/8 BSPT    | 39.85  |
| AD28-0504 | 1/2 JIC MALE - 1/4 BSPT MALE 90°      | 1/2-20     | 1/4 BSPT    | 41.70  |
| AD28-0602 | 9/16 JIC MALE - 1/8 BSPT MALE 90°     | 9/16-18    | 1/8 BSPT    | 45.40  |
| AD28-0604 | 9/16 JIC MALE - 1/4 BSPT MALE 90°     | 9/16-18    | 1/4 BSPT    | 45.40  |
| AD28-0606 | 9/16 JIC MALE - 3/8 BSPT MALE 90°     | 9/16-18    | 3/8 BSPT    | 45.40  |
| AD28-0608 | 9/16 JIC MALE - 1/2 BSPT MALE 90°     | 9/16-18    | 1/2 BSPT    | 59.25  |
| AD28-0804 | 3/4 JIC MALE - 1/4 BSPT MALE 90°      | 3/4-16     | 1/4 BSPT    | 59.25  |
| AD28-0806 | 3/4 JIC MALE - 3/8 BSPT MALE 90°      | 3/4-16     | 3/8 BSPT    | 61.10  |
| AD28-0808 | 3/4 JIC MALE - 1/2 BSPT MALE 90°      | 3/4-16     | 1/2 BSPT    | 63.40  |
| AD28-1008 | 7/8 JIC MALE - 1/2 BSPT MALE 90°      | 7/8-14     | 1/2 BSPT    | 76.20  |
| AD28-1012 | 7/8 JIC MALE - 3/4 BSPT MALE 90°      | 7/8-14     | 3/4 BSPT    | 97.60  |
| AD28-1016 | 7/8 JIC MALE - 1" BSPT MALE 90°       | 7/8-14     | 1" BSPT     | 141.80 |
| AD28-1208 | 1 1/16 JIC MALE - 1/2 BSPT MALE 90°   | 1 1/16-12  | 1/2 BSPT    | 89.20  |
| AD28-1212 | 1 1/16 JIC MALE - 3/4 BSPT MALE 90°   | 1 1/16-12  | 3/4 BSPT    | 90.90  |
| AD28-1216 | 1 1/16 JIC MALE - 1" BSPT MALE 90°    | 1 1/16-12  | 1" BSPT     | 148.85 |
| AD28-1612 | 1 5/16 JIC MALE - 3/4 BSPT MALE 90°   | 1 5/16-12  | 3/4 BSPT    | 155.40 |
| AD28-1616 | 1 5/16 JIC MALE - 1" BSPT MALE 90°    | 1 5/16-12  | 1" BSPT     | 146.15 |
| AD28-1620 | 1 5/16 JIC MALE - 1 1/4 BSPT MALE 90° | 1 5/16-12  | 1 1/4 BSPT  | 306.90 |
| AD28-2016 | 1 5/8 JIC MALE - 1" BSPT MALE 90°     | 1 5/8-12   | 1" BSPT     | 306.10 |
| AD28-2020 | 1 5/8 JIC MALE - 1 1/4 BSPT MALE 90°  | 1 5/8-12   | 1 1/4 BSPT  | 307.15 |
| AD28-2424 | 1 7/8 JIC MALE - 1 1/2 BSPT MALE 90°  | 1 7/8-12   | 1 1/2 BSPT  | 510.15 |
| AD28-3232 | 2 1/2 JIC MALE - 2" BSPT MALE 90°     | 2 1/2-12   | 2" BSPT     | 525.05 |



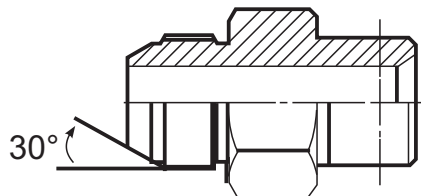
## KOMATSU MALE - KOMATSU MALE ADAPTOR

| ITEMS   | DESCRIPTION                  | METRIC THREAD | METRIC THREAD |
|---------|------------------------------|---------------|---------------|
| AD29-14 | 14X1.5 - 14X1.5 KOMATSU MALE | 14X1.5        | 14X1.5        |
| AD29-18 | 18X1.5 - 18X1.5 KOMATSU MALE | 18X1.5        | 18X1.5        |
| AD29-22 | 22X1.5 - 22X1.5 KOMATSU MALE | 22X1.5        | 22X1.5        |
| AD29-24 | 24X1.5 - 24X1.5 KOMATSU MALE | 24X1.5        | 24X1.5        |
| AD29-30 | 30X1.5 - 30X1.5 KOMATSU MALE | 30X1.5        | 30X1.5        |
| AD29-33 | 33X1.5 - 33X1.5 KOMATSU MALE | 33X1.5        | 33X1.5        |



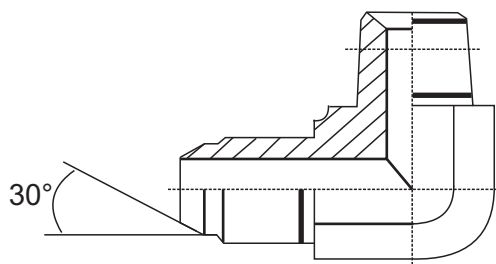
## KOMATSU MALE - BSPT MALE ADAPTOR

| ITEMS     | DESCRIPTION                    | METRIC THREAD | BSPT THREAD |
|-----------|--------------------------------|---------------|-------------|
| AD30-1404 | 14X1.5 KOMATSU - 1/4 BSPT MALE | 14X1.5        | 1/4 BSPT    |
| AD30-1806 | 18X1.5 KOMATSU - 3/8 BSPT MALE | 18X1.5        | 3/8 BSPT    |
| AD30-2208 | 22X1.5 KOMATSU - 1/2 BSPT MALE | 22X1.5        | 1/2 BSPT    |
| AD30-2408 | 24X1.5 KOMATSU - 1/2 BSPT MALE | 24X1.5        | 1/2 BSPT    |
| AD30-3012 | 30X1.5 KOMATSU - 3/4 BSPT MALE | 30X1.5        | 3/4 BSPT    |



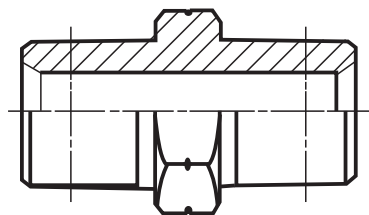
## KOMATSU MALE - BSPT MALE ADAPTOR 90°

| ITEMS         | DESCRIPTION                        | METRIC THREAD | BSPT THREAD |
|---------------|------------------------------------|---------------|-------------|
| AD30-1402-90° | 14X1.5 KOMATSU - 1/8 BSPT MALE 90° | 14X1.5        | 1/8 BSPT    |



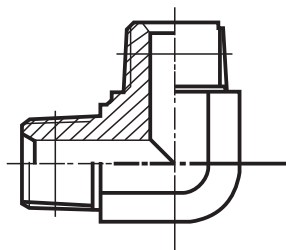
# NPT MALE - NPT MALE ADAPTORS

| ITEMS     | DESCRIPTION                     | NPT<br>THREAD | NPT<br>THREAD |
|-----------|---------------------------------|---------------|---------------|
| AD31-02   | 1/8 NPT MALE - 1/8 NPT MALE     | 1/8 NPT       | 1/8 NPT       |
| AD31-0204 | 1/8 NPT MALE - 1/4 NPT MALE     | 1/8 NPT       | 1/4 NPT       |
| AD31-0206 | 1/8 NPT MALE - 3/8 NPT MALE     | 1/8 NPT       | 3/8 NPT       |
| AD31-04   | 1/4 NPT MALE - 1/4 NPT MALE     | 1/4 NPT       | 1/4 NPT       |
| AD31-0406 | 1/4 NPT MALE - 3/8 NPT MALE     | 1/4 NPT       | 3/8 NPT       |
| AD31-0408 | 1/4 NPT MALE - 1/2 NPT MALE     | 1/4 NPT       | 1/2 NPT       |
| AD31-06   | 3/8 NPT MALE - 3/8 NPT MALE     | 3/8 NPT       | 3/8 NPT       |
| AD31-0608 | 3/8 NPT MALE - 1/2 NPT MALE     | 3/8 NPT       | 1/2 NPT       |
| AD31-0612 | 3/8 NPT MALE - 3/4 NPT MALE     | 3/8 NPT       | 3/4 NPT       |
| AD31-08   | 1/2 NPT MALE - 1/2 NPT MALE     | 1/2 NPT       | 1/2 NPT       |
| AD31-0812 | 1/2 NPT MALE - 3/4 NPT MALE     | 1/2 NPT       | 3/4 NPT       |
| AD31-0816 | 1/2 NPT MALE - 1" NPT MALE      | 1/2 NPT       | 1" NPT        |
| AD31-12   | 3/4 NPT MALE - 3/4 NPT MALE     | 3/4 NPT       | 3/4 NPT       |
| AD31-1216 | 3/4 NPT MALE - 1" NPT MALE      | 3/4 NPT       | 1" NPT        |
| AD31-1220 | 3/4 NPT MALE - 1 1/4 NPT MALE   | 3/4 NPT       | 1 1/4 NPT     |
| AD31-16   | 1" NPT MALE - 1" NPT MALE       | 1" NPT        | 1" NPT        |
| AD31-1620 | 1" NPT MALE - 1 1/4 NPT MALE    | 1" NPT        | 1 1/4 NPT     |
| AD31-1624 | 1" NPT MALE - 1 1/2 NPT MALE    | 1" NPT        | 1 1/2 NPT     |
| AD31-20   | 1 1/4 NPT MALE - 1 1/4 NPT MALE | 1 1/4 NPT     | 1 1/4 NPT     |
| AD31-2024 | 1 1/4 NPT MALE - 1 1/2 NPT MALE | 1 1/4 NPT     | 1 1/2 NPT     |
| AD31-24   | 1 1/2 NPT MALE - 1 1/2 NPT MALE | 1 1/2 NPT     | 1 1/2 NPT     |
| AD31-2432 | 1 1/2 NPT MALE - 2" NPT MALE    | 1 1/2 NPT     | 2" NPT        |
| AD31-32   | 2" NPT MALE - 2" NPT MALE       | 2" NPT        | 2" NPT        |



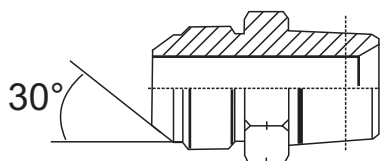
## NPT MALE - NPT MALE ADAPTOR 90°

| ITEMS     | DESCRIPTION                         | NPT<br>THREAD | NPT<br>THREAD |
|-----------|-------------------------------------|---------------|---------------|
| AD32-02   | 1/8 NPT MALE - 1/8 NPT MALE 90°     | 1/8 NPT       | 1/8 NPT       |
| AD32-0204 | 1/8 NPT MALE - 1/4 NPT MALE 90°     | 1/8 NPT       | 1/4 NPT       |
| AD32-04   | 1/4 NPT MALE - 1/4 NPT MALE 90°     | 1/4 NPT       | 1/4 NPT       |
| AD32-06   | 3/8 NPT MALE - 3/8 NPT MALE 90°     | 3/8 NPT       | 3/8 NPT       |
| AD32-08   | 1/2 NPT MALE - 1/2 NPT MALE 90°     | 1/2 NPT       | 1/2 NPT       |
| AD32-12   | 3/4 NPT MALE - 3/4 NPT MALE 90°     | 3/4 NPT       | 3/4 NPT       |
| AD32-16   | 1" NPT MALE - 1" NPT MALE 90°       | 1" NPT        | 1" NPT        |
| AD32-20   | 1 1/4 NPT MALE - 1 1/4 NPT MALE 90° | 1 1/4 NPT     | 1 1/4 NPT     |
| AD32-24   | 1 1/2 NPT MALE - 1 1/2 NPT MALE 90° | 1 1/2 NPT     | 1 1/2 NPT     |
| AD32-32   | 2" NPT MALE - 2" NPT MALE 90°       | 2" NPT        | 2" NPT        |



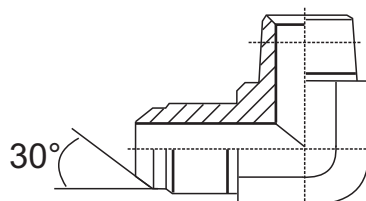
## JIS MALE - BSPT MALE ADAPTOR

| ITEMS     | DESCRIPTION                  | JIS<br>THREAD | BSPT<br>THREAD |
|-----------|------------------------------|---------------|----------------|
| AD33-0404 | 1/4 JIS MALE - 1/4 BSPT MALE | 1/4 JIS       | 1/4 BSPT       |
| AD33-0606 | 3/8 JIS MALE - 3/8 BSPT MALE | 3/8 JIS       | 3/8 BSPT       |
| AD33-0808 | 1/2 JIS MALE - 1/2 BSPT MALE | 1/2 JIS       | 1/2 BSPT       |
| AD33-1212 | 3/4 JIS MALE - 3/4 BSPT MALE | 3/4 JIS       | 3/4 BSPT       |



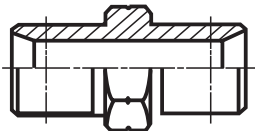
## JIS MALE - BSPT MALE ADAPTOR 90°

| ITEMS     | DESCRIPTION                      | JIS<br>THREAD | BSPT<br>THREAD |
|-----------|----------------------------------|---------------|----------------|
| AD34-0404 | 1/4 JIS MALE - 1/4 BSPT MALE 90° | 1/4 JIS       | 1/4 BSPT       |
| AD34-0606 | 3/8 JIS MALE - 3/8 BSPT MALE 90° | 3/8 JIS       | 3/8 BSPT       |
| AD34-0808 | 1/2 JIS MALE - 1/2 BSPT MALE 90° | 1/2 JIS       | 1/2 BSPT       |
| AD34-1212 | 3/4 JIS MALE - 3/4 BSPT MALE 90° | 3/4 JIS       | 3/4 BSPT       |



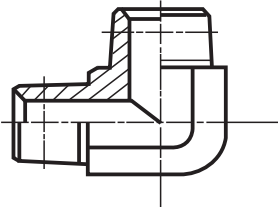
# BSPT MALE - BSPT MALE ADAPTOR

| ITEMS     | DESCRIPTION                       | BSPT THREAD | BSPT THREAD |
|-----------|-----------------------------------|-------------|-------------|
| AD35-02   | 1/8 BSPT MALE - 1/8 BSPT MALE     | 1/8 BSPT    | 1/8 BSPT    |
| AD35-0204 | 1/8 BSPT MALE - 1/4 BSPT MALE     | 1/8 BSPT    | 1/4 BSPT    |
| AD35-0206 | 1/8 BSPT MALE - 3/8 BSPT MALE     | 1/8 BSPT    | 3/8 BSPT    |
| AD35-04   | 1/4 BSPT MALE - 1/4 BSPT MALE     | 1/4 BSPT    | 1/4 BSPT    |
| AD35-0406 | 1/4 BSPT MALE - 3/8 BSPT MALE     | 1/4 BSPT    | 3/8 BSPT    |
| AD35-0408 | 1/4 BSPT MALE - 1/2 BSPT MALE     | 1/4 BSPT    | 1/2 BSPT    |
| AD35-06   | 3/8 BSPT MALE - 3/8 BSPT MALE     | 3/8 BSPT    | 3/8 BSPT    |
| AD35-0608 | 3/8 BSPT MALE - 1/2 BSPT MALE     | 3/8 BSPT    | 1/2 BSPT    |
| AD35-0612 | 3/8 BSPT MALE - 3/4 BSPT MALE     | 3/8 BSPT    | 3/4 BSPT    |
| AD35-08   | 1/2 BSPT MALE - 1/2 BSPT MALE     | 1/2 BSPT    | 1/2 BSPT    |
| AD35-0812 | 1/2 BSPT MALE - 3/4 BSPT MALE     | 1/2 BSPT    | 3/4 BSPT    |
| AD35-0816 | 1/2 BSPT MALE - 1" BSPT MALE      | 1/2 BSPT    | 1" BSPT     |
| AD35-12   | 3/4 BSPT MALE - 3/4 BSPT MALE     | 3/4 BSPT    | 3/4 BSPT    |
| AD35-1216 | 3/4 BSPT MALE - 1" BSPT MALE      | 3/4 BSPT    | 1" BSPT     |
| AD35-1220 | 3/4 BSPT MALE - 1 1/4 BSPT MALE   | 3/4 BSPT    | 1 1/4 BSPT  |
| AD35-16   | 1" BSPT MALE - 1" BSPT MALE       | 1" BSPT     | 1" BSPT     |
| AD35-1620 | 1" BSPT MALE - 1 1/4 BSPT MALE    | 1" BSPT     | 1 1/4 BSPT  |
| AD35-20   | 1 1/4 BSPT MALE - 1 1/4 BSPT MALE | 1 1/4 BSPT  | 1 1/4 BSPT  |
| AD35-2024 | 1 1/4 BSPT MALE - 1 1/2 BSPT MALE | 1 1/4 BSPT  | 1 1/2 BSPT  |
| AD35-24   | 1 1/2 BSPT MALE - 1 1/2 BSPT MALE | 1 1/2 BSPT  | 1 1/2 BSPT  |
| AD35-2432 | 1 1/2 BSPT MALE - 2" BSPT MALE    | 1 1/2 BSPT  | 2" BSPT     |
| AD35-32   | 2" BSPT MALE - 2" BSPT MALE       | 2" BSPT     | 2" BSPT     |



# BSPT MALE - BSPT MALE ADAPTOR 90°

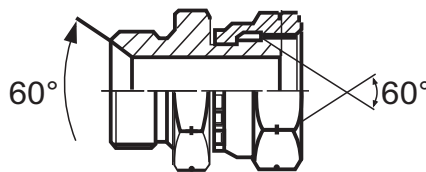
| ITEMS     | DESCRIPTION                       | BSPT THREAD | BSPT THREAD |
|-----------|-----------------------------------|-------------|-------------|
| AD36-02   | 1/8 BSPT MALE - 1/8 BSPT MALE 90° | 1/8 BSPT    | 1/8 BSPT    |
| AD36-0204 | 1/8 BSPT MALE - 1/4 BSPT MALE 90° | 1/8 BSPT    | 1/4 BSPT    |
| AD36-04   | 1/4 BSPT MALE - 1/4 BSPT MALE 90° | 1/4 BSPT    | 1/4 BSPT    |
| AD36-06   | 3/8 BSPT MALE - 3/8 BSPT MALE 90° | 3/8 BSPT    | 3/8 BSPT    |
| AD36-0608 | 3/8 BSPT MALE - 1/2 BSPT MALE 90° | 3/8 BSPT    | 1/2 BSPT    |
| AD36-08   | 1/2 BSPT MALE - 1/2 BSPT MALE 90° | 1/2 BSPT    | 1/2 BSPT    |
| AD35-0812 | 1/2 BSPT MALE - 3/4 BSPT MALE 90° | 1/2 BSPT    | 3/4 BSPT    |
| AD35-12   | 3/4 BSPT MALE - 3/4 BSPT MALE 90° | 3/4 BSPT    | 3/4 BSPT    |
| AD35-16   | 1" BSPT MALE - 1" BSPT MALE 90°   | 1" BSPT     | 1" BSPT     |





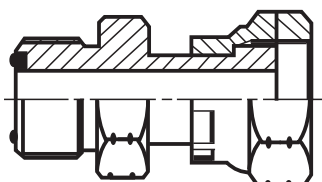
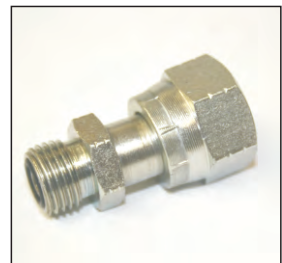
# BSP MALE - BSP FEMALE SWIVEL ADAPTOR

| ITEMS     | DESCRIPTION                   | BSP MALE | BSP FEMALE |
|-----------|-------------------------------|----------|------------|
| AD37-0204 | 1/8 BSP MALE - 1/4 BSP FEMALE | 1/8 BSP  | 1/4 BSP    |
| AD37-04   | 1/4 BSP MALE - 1/4 BSP FEMALE | 1/4 BSP  | 1/4 BSP    |
| AD37-0406 | 1/4 BSP MALE - 3/8 BSP FEMALE | 1/4 BSP  | 3/8 BSP    |
| AD37-06   | 3/8 BSP MALE - 3/8 BSP FEMALE | 3/8 BSP  | 3/8 BSP    |
| AD37-0608 | 3/8 BSP MALE - 1/2 BSP FEMALE | 3/8 BSP  | 1/2 BSP    |
| AD37-0806 | 1/2 BSP MALE - 3/8 BSP FEMALE | 1/2 BSP  | 3/8 BSP    |
| AD37-08   | 1/2 BSP MALE - 1/2 BSP FEMALE | 1/2 BSP  | 1/2 BSP    |
| AD37-0812 | 1/2 BSP MALE - 3/4 BSP FEMALE | 1/2 BSP  | 3/4 BSP    |
| AD37-12   | 3/4 BSP MALE - 3/4 BSP FEMALE | 3/4 BSP  | 3/4 BSP    |
| AD37-1216 | 3/4 BSP MALE - 1" BSP FEMALE  | 3/4 BSP  | 1" BSP     |
| AD37-16   | 1" BSP MALE - 1" BSP FEMALE   | 1" BSP   | 1" BSP     |



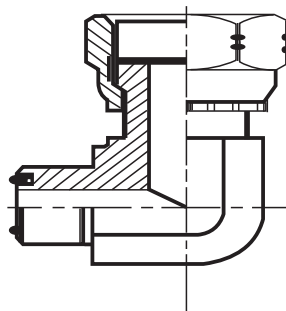
# ORFS MALE - ORFS FEMALE SWIVEL ADAPTOR

| ITEMS     | DESCRIPTION                            | ORFS MALE  | ORFS FEMALE |
|-----------|--|------------|-------------|
| AD38-0406 | 9/16 ORFS MALE - 11/16 ORFS FEMALE     | 9/16-18    | 11/16-16    |
| AD38-0408 | 9/16 ORFS MALE - 13/16 ORFS FEMALE     | 9/16-18    | 13/16-16    |
| AD38-0604 | 11/16 ORFS MALE - 9/16 ORFS FEMALE     | 11/16-16   | 9/16-18     |
| AD38-0608 | 11/16 ORFS MALE - 13/16 ORFS FEMALE    | 11/16-16   | 13/16-16    |
| AD38-0610 | 11/16 ORFS MALE - 1" ORFS FEMALE       | 11/16-16   | 1-14        |
| AD38-0806 | 13/16 ORFS MALE - 11/16 ORFS FEMALE    | 13/16-16   | 11/16-16    |
| AD38-0810 | 13/16 ORFS MALE - 1" ORFS FEMALE       | 13/16-16   | 1-14        |
| AD38-0812 | 13/16 ORFS MALE - 1 3/16 ORFS FEMALE   | 13/16-16   | 1 3/16-12   |
| AD38-0816 | 13/16 ORFS MALE - 1 7/16 ORFS FEMALE   | 13/16-16   | 1 7/16-12   |
| AD38-1008 | 1" ORFS MALE - 13/16 ORFS FEMALE       | 1-14       | 13/16-16    |
| AD38-1012 | 1" ORFS MALE - 1 3/16 ORFS FEMALE      | 1-14       | 1 3/16-12   |
| AD38-1016 | 1" ORFS MALE - 1 7/16 ORFS FEMALE      | 1-14       | 1 7/16-12   |
| AD38-1208 | 1 3/16 ORFS MALE - 13/16 ORFS FEMALE   | 1 3/16-12  | 13/16-16    |
| AD38-1210 | 1 3/16 ORFS MALE - 1" ORFS FEMALE      | 1 3/16-12  | 1-14        |
| AD38-1216 | 1 3/16 ORFS MALE - 1 7/16 ORFS FEMALE  | 1 3/16-12  | 1 7/16-12   |
| AD38-1612 | 1 7/16 ORFS MALE - 1 3/16 ORFS FEMALE  | 1 7/16-12  | 1 3/16-12   |
| AD38-1620 | 1 7/16 ORFS MALE - 1 11/16 ORFS FEMALE | 1 7/16-12  | 1 11/16-12  |
| AD38-2024 | 1 11/16 ORFS MALE - 2" ORFS FEMALE     | 1 11/16-12 | 2-12        |



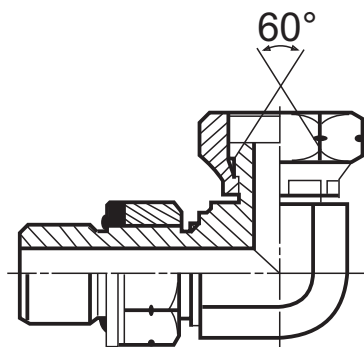
## ORFS MALE - ORFS FEMALE ADAPTOR 90°

| ITEMS   | DESCRIPTION                                 | ORFS MALE  | ORFS FEMALE |
|---------|---|------------|-------------|
| AD39-04 | 9/16 ORFS MALE - 9/16 ORFS FEMALE 90°       | 9/16-18    | 9/16-18     |
| AD39-06 | 11/16 ORFS MALE - 11/16 ORFS FEMALE 90°     | 11/16-16   | 11/16-16    |
| AD39-08 | 13/16 ORFS MALE - 13/16 ORFS FEMALE 90°     | 13/16-16   | 13/16-16    |
| AD39-10 | 1" ORFS MALE - 1" ORFS FEMALE 90°           | 1-14       | 1-14        |
| AD39-12 | 1 3/16 ORFS MALE - 1 3/16 ORFS FEMALE 90°   | 1 3/16-12  | 1 3/16-12   |
| AD39-16 | 1 7/16 ORFS MALE - 1 7/16 ORFS FEMALE 90°   | 1 7/16-12  | 1 7/16-12   |
| AD39-20 | 1 11/16 ORFS MALE - 1 11/16 ORFS FEMALE 90° | 1 11/16-12 | 1 11/16-12  |
| AD39-24 | 2" ORFS MALE - 2" ORFS FEMALE 90°           | 2-12       | 2-12        |



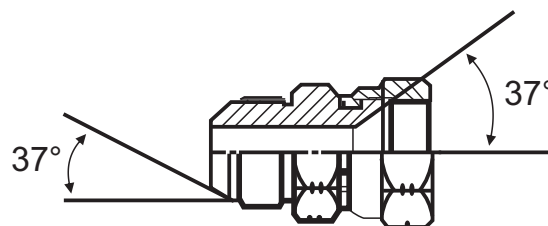
## BSP MALE - BSP FEMALE SWIVEL ADAPTOR 90°

| ITEMS   | DESCRIPTION                       | BSP MALE | BSP FEMALE |
|---------|-----------------------------------|----------|------------|
| AD40-04 | 1/4 BSP MALE - 1/4 BSP FEMALE 90° | 1/4 BSP  | 1/4 BSP    |
| AD40-06 | 3/8 BSP MALE - 3/8 BSP FEMALE 90° | 3/8 BSP  | 3/8 BSP    |
| AD40-08 | 1/2 BSP MALE - 1/2 BSP FEMALE 90° | 1/2 BSP  | 1/2 BSP    |
| AD40-12 | 3/4 BSP MALE - 3/4 BSP FEMALE 90° | 3/4 BSP  | 3/4 BSP    |



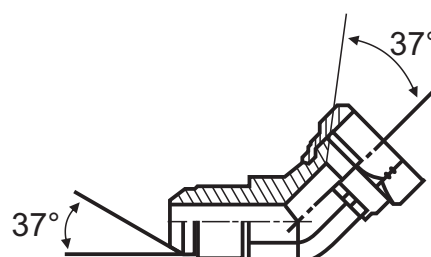
# JIC MALE - JIC FEMALE SWIVEL ADAPTOR

| ITEMS     | DESCRIPTION                         | JIC MALE  | JIC FEMALE |
|-----------|-------------------------------------|-----------|------------|
| AD41-04   | 7/16 JIC MALE - 7/16 JIC FEMALE     | 7/16-20   | 7/16-20    |
| AD41-0406 | 7/16 JIC MALE - 9/16 JIC FEMALE     | 7/16-20   | 9/16-18    |
| AD41-0408 | 7/16 JIC MALE - 3/4 JIC FEMALE      | 7/16-20   | 3/4-16     |
| AD41-06   | 9/16 JIC MALE - 9/16 JIC FEMALE     | 9/16-18   | 9/16-18    |
| AD41-0608 | 9/16 JIC MALE - 3/4 JIC FEMALE      | 9/16-18   | 3/4-16     |
| AD41-0610 | 9/16 JIC MALE - 7/8 JIC FEMALE      | 9/16-18   | 7/8-14     |
| AD41-08   | 3/4 JIC MALE - 3/4 JIC FEMALE       | 3/4-16    | 3/4-16     |
| AD41-0806 | 3/4 JIC MALE - 9/16 JIC FEMALE      | 3/4-16    | 9/16-18    |
| AD41-0810 | 3/4 JIC MALE - 7/8 JIC FEMALE       | 3/4-16    | 7/8-14     |
| AD41-0812 | 3/4 JIC MALE - 1 1/16 JIC FEMALE    | 3/4-16    | 1 1/16-12  |
| AD41-1012 | 7/8 JIC MALE - 1 1/16 JIC FEMALE    | 7/8-14    | 1 1/16-12  |
| AD41-1208 | 1 1/16 JIC MALE - 3/4 JIC FEMALE    | 1 1/16-12 | 3/4-16     |
| AD41-12   | 1 1/16 JIC MALE - 1 1/16 JIC FEMALE | 1 1/16-12 | 1 1/16-12  |
| AD41-1216 | 1 1/16 JIC MALE - 1 5/16 JIC FEMALE | 1 1/16-12 | 1 5/16-12  |
| AD41-16   | 1 5/16 JIC MALE - 1 5/16 JIC FEMALE | 1 5/16-12 | 1 5/16-12  |



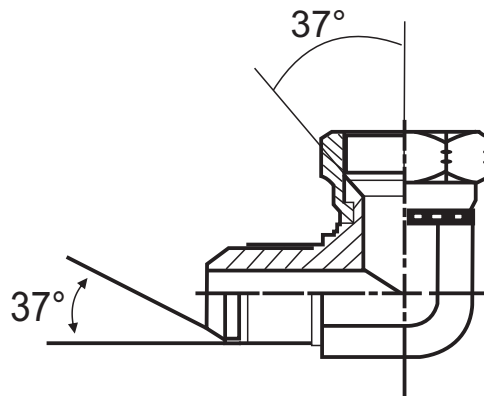
# JIC MALE - JIC FEMALE SWIVEL ADAPTOR 45°

| ITEMS   | DESCRIPTION                             | JIC MALE  | JIC FEMALE |
|---------|---|-----------|------------|
| AD42-04 | 7/16 JIC MALE - 7/16 JIC FEMALE 45°     | 7/16-20   | 7/16-20    |
| AD42-05 | 1/2 JIC MALE - 1/2 JIC FEMALE 45°       | 1/2-20    | 1/2-20     |
| AD42-06 | 9/16 JIC MALE - 9/16 JIC FEMALE 45°     | 9/16-18   | 9/16-18    |
| AD42-08 | 3/4 JIC MALE - 3/4 JIC FEMALE 45°       | 3/4-16    | 3/4-16     |
| AD42-10 | 7/8 JIC MALE - 7/8 JIC FEMALE 45°       | 7/8-14    | 7/8-14     |
| AD42-12 | 1 1/16 JIC MALE - 1 1/16 JIC FEMALE 45° | 1 1/16-12 | 1 1/16-12  |
| AD42-16 | 1 5/16 JIC MALE - 1 5/16 JIC FEMALE 45° | 1 5/16-12 | 1 5/16-12  |
| AD42-20 | 1 5/8 JIC MALE - 1 5/8 JIC FEMALE 45°   | 1 5/8-12  | 1 5/8-12   |
| AD42-24 | 1 7/8 JIC MALE - 1 7/8 JIC FEMALE 45°   | 1 7/8-12  | 1 7/8-12   |
| AD42-32 | 2 1/2 JIC MALE - 2 1/2 JIC FEMALE 45°   | 2 1/2-12  | 2 1/2-12   |



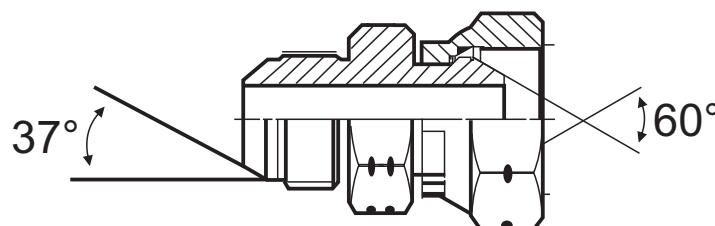
## JIC MALE - JIC FEMALE SWIVEL ADAPTOR 90°

| ITEMS   | DESCRIPTION                             | JIC MALE  | JIC FEMALE |
|---------|---|-----------|------------|
| AD43-04 | 7/16 JIC MALE - 7/16 JIC FEMALE 90°     | 7/16-20   | 7/16-20    |
| AD43-05 | 1/2 JIC MALE - 1/2 JIC FEMALE 90°       | 1/2-20    | 1/2-20     |
| AD43-06 | 9/16 JIC MALE - 9/16 JIC FEMALE 90°     | 9/16-18   | 9/16-18    |
| AD43-08 | 3/4 JIC MALE - 3/4 JIC FEMALE 90°       | 3/4-16    | 3/4-16     |
| AD43-10 | 7/8 JIC MALE - 7/8 JIC FEMALE 90°       | 7/8-14    | 7/8-14     |
| AD43-12 | 1 1/16 JIC MALE - 1 1/16 JIC FEMALE 90° | 1 1/16-12 | 1 1/16-12  |
| AD43-16 | 1 5/16 JIC MALE - 1 5/16 JIC FEMALE 90° | 1 5/16-12 | 1 5/16-12  |
| AD43-20 | 1 5/8 JIC MALE - 1 5/8 JIC FEMALE 90°   | 1 5/8-12  | 1 5/8-12   |
| AD43-24 | 1 7/8 JIC MALE - 1 7/8 JIC FEMALE 90°   | 1 7/8-12  | 1 7/8-12   |
| AD43-32 | 2 1/2 JIC MALE - 2 1/2 JIC FEMALE 90    | 2 1/2-12  | 2 1/2-12   |



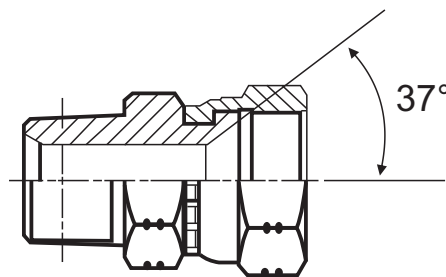
## JIC MALE - BSP FEMALE SWIVEL ADAPTOR

| ITEMS     | DESCRIPTION                      | JIC MALE  | BSP FEMALE |
|-----------|----------------------------------|-----------|------------|
| AD44-0606 | 9/16 JIC MALE - 3/8 BSP FEMALE   | 9/16-18   | 3/8 BSP    |
| AD44-0808 | 3/4 JIC MALE - 1/2 BSP FEMALE    | 3/4-16    | 1/2 BSP    |
| AD44-1212 | 1 1/16 JIC MALE - 3/4 BSP FEMALE | 1 1/16-12 | 3/4 BSP    |
| AD44-1616 | 1 5/16 JIC MALE - 1" BSP FEMALE  | 1 5/16-12 | 1" BSP     |



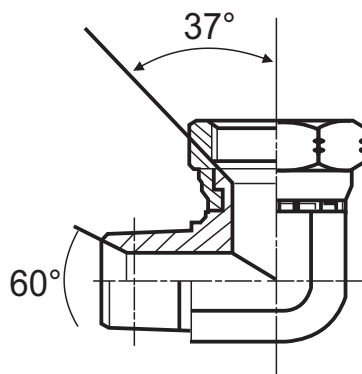
# NPT MALE - JIC FEMALE SWIVEL ADAPTOR

| ITEMS     | DESCRIPTION                       | NPT MALE  | JIC FEMALE |
|-----------|-----------------------------------|-----------|------------|
| AD45-0404 | 1/4 NPT MALE - 7/16 JIC FEMALE    | 1/4 NPT   | 7/16-20    |
| AD45-0405 | 1/4 NPT MALE - 1/2 JIC FEMALE     | 1/4 NPT   | 1/2-20     |
| AD45-0406 | 1/4 NPT MALE - 9/16 JIC FEMALE    | 1/4 NPT   | 9/16-18    |
| AD45-0606 | 3/8 NPT MALE - 9/16 JIC FEMALE    | 3/8 NPT   | 9/16-18    |
| AD45-0608 | 3/8 NPT MALE - 3/4 JIC FEMALE     | 3/8 NPT   | 3/4-16     |
| AD45-0610 | 3/8 NPT MALE - 7/8 JIC FEMALE     | 3/8 NPT   | 7/8-14     |
| AD45-0806 | 1/2 NPT MALE - 9/16 JIC FEMALE    | 1/2 NPT   | 9/16-18    |
| AD45-0808 | 1/2 NPT MALE - 3/4 JIC FEMALE     | 1/2 NPT   | 3/4-16     |
| AD45-0810 | 1/2 NPT MALE - 7/8 JIC FEMALE     | 1/2 NPT   | 7/8-14     |
| AD45-0812 | 1/2 NPT MALE - 1 1/16 JIC FEMALE  | 1/2 NPT   | 1 1/16-12  |
| AD45-1212 | 3/4 NPT MALE - 1 1/16 JIC FEMALE  | 3/4 NPT   | 1 1/16-12  |
| AD45-1616 | 1" NPT MALE - 1 5/16 JIC FEMALE   | 1" NPT    | 1 5/16-12  |
| AD45-2020 | 1 1/4 NPT MALE - 1 5/8 JIC FEMALE | 1 1/4 NPT | 1 5/8-12   |
| AD45-2424 | 1 1/2 NPT MALE - 1 7/8 JIC FEMALE | 1 1/2 NPT | 1 7/8-12   |



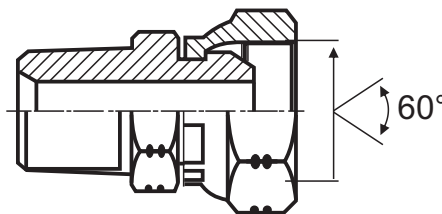
# NPT MALE - JIC FEMALE SWIVEL ADAPTOR 90°

| ITEMS     | DESCRIPTION                          | NPT MALE | JIC FEMALE |
|-----------|--------------------------------------|----------|------------|
| AD46-0606 | 3/8 NPT MALE - 9/16 JIC FEMALE 90°   | 3/8 NPT  | 9/16-18    |
| AD46-0808 | 1/2 NPT MALE - 3/4 JIC FEMALE 90°    | 1/2 NPT  | 3/4-16     |
| AD46-1212 | 3/4 NPT MALE - 1 1/16 JIC FEMALE 90° | 3/4 NPT  | 1 1/16-12  |



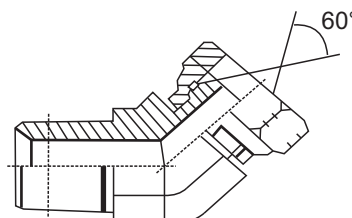
# NPT MALE - NPT FEMALE SWIVEL ADAPTOR

| ITEMS     | DESCRIPTION                       | NPT MALE  | NPT FEMALE |
|-----------|-----------------------------------|-----------|------------|
| AD47-02   | 1/8 NPT MALE - 1/8 NPT FEMALE     | 1/8 NPT   | 1/8 NPT    |
| AD47-0204 | 1/8 NPT MALE - 1/4 NPT FEMALE     | 1/8 NPT   | 1/4 NPT    |
| AD47-04   | 1/4 NPT MALE - 1/4 NPT FEMALE     | 1/4 NPT   | 1/4 NPT    |
| AD47-0406 | 1/4 NPT MALE - 3/8 NPT FEMALE     | 1/4 NPT   | 3/8 NPT    |
| AD47-0408 | 1/4 NPT MALE - 1/2 NPT FEMALE     | 1/4 NPT   | 1/2 NPT    |
| AD47-0604 | 3/8 NPT MALE - 1/4 NPT FEMALE     | 3/8 NPT   | 1/4 NPT    |
| AD47-06   | 3/8 NPT MALE - 3/8 NPT FEMALE     | 3/8 NPT   | 3/8 NPT    |
| AD47-0608 | 3/8 NPT MALE - 1/2 NPT FEMALE     | 3/8 NPT   | 1/2 NPT    |
| AD47-0806 | 1/2 NPT MALE - 3/8 NPT FEMALE     | 1/2 NPT   | 3/8 NPT    |
| AD47-0812 | 1/2 NPT MALE - 3/4 NPT FEMALE     | 1/2 NPT   | 3/4 NPT    |
| AD47-08   | 1/2 NPT MALE - 1/2 NPT FEMALE     | 1/2 NPT   | 1/2 NPT    |
| AD47-1208 | 3/4 NPT MALE - 1/2 NPT FEMALE     | 3/4 NPT   | 1/2 NPT    |
| AD47-12   | 3/4 NPT MALE - 3/4 NPT FEMALE     | 3/4 NPT   | 3/4 NPT    |
| AD47-1216 | 3/4 NPT MALE - 1" NPT FEMALE      | 3/4 NPT   | 1" NPT     |
| AD47-1612 | 1" NPT MALE - 3/4 NPT FEMALE      | 1" NPT    | 3/4 NPT    |
| AD47-16   | 1" NPT MALE - 1" NPT FEMALE       | 1" NPT    | 1" NPT     |
| AD47-20   | 1 1/4 NPT MALE - 1 1/4 NPT FEMALE | 1 1/4 NPT | 1 1/4 NPT  |
| AD47-24   | 1 1/2 NPT MALE - 1 1/2 NPT FEMALE | 1 1/2 NPT | 1 1/2 NPT  |
| AD47-32   | 2" NPT MALE - 2" NPT FEMALE       | 2" NPT    | 2" NPT     |



# NPT MALE - NPT FEMALE ADAPTOR 45°

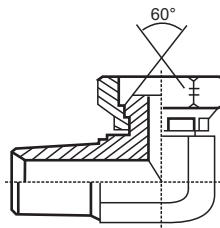
| ITEMS   | DESCRIPTION                           | NPT MALE  | NPT FEMALE |
|---------|---------------------------------------|-----------|------------|
| AD48-02 | 1/8 NPT MALE - 1/8 NPT FEMALE 45°     | 1/8 NPT   | 1/8 NPT    |
| AD48-04 | 1/4 NPT MALE - 1/4 NPT FEMALE 45°     | 1/4 NPT   | 1/4 NPT    |
| AD48-06 | 3/8 NPT MALE - 3/8 NPT FEMALE 45°     | 3/8 NPT   | 3/8 NPT    |
| AD48-08 | 1/2 NPT MALE - 1/2 NPT FEMALE 45°     | 1/2 NPT   | 1/2 NPT    |
| AD48-12 | 3/4 NPT MALE - 3/4 NPT FEMALE 45°     | 3/4 NPT   | 3/4 NPT    |
| AD48-16 | 1" NPT MALE - 1" NPT FEMALE 45°       | 1" NPT    | 1" NPT     |
| AD48-20 | 1 1/4 NPT MALE - 1 1/4 NPT FEMALE 45° | 1 1/4 NPT | 1 1/4 NPT  |





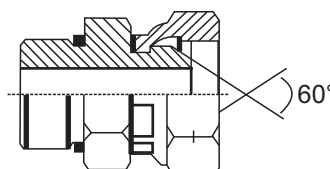
## NPT MALE - NPT FEMALE SWIVEL ADAPTOR 90°

| ITEMS     | DESCRIPTION                           | NPT MALE  | NPT FEMALE |
|-----------|---------------------------------------|-----------|------------|
| AD49-02   | 1/8 NPT MALE - 1/8 NPT FEMALE 90°     | 1/8 NPT   | 1/8 NPT    |
| AD49-04   | 1/4 NPT MALE - 1/4 NPT FEMALE 90°     | 1/4 NPT   | 1/4 NPT    |
| AD49-0406 | 1/4 NPT MALE - 3/8 NPT FEMALE 90°     | 1/4 NPT   | 3/8 NPT    |
| AD49-0604 | 3/8 NPT MALE - 1/4 NPT FEMALE 90°     | 3/8 NPT   | 1/4 NPT    |
| AD49-06   | 3/8 NPT MALE - 3/8 NPT FEMALE 90°     | 3/8 NPT   | 3/8 NPT    |
| AD49-0608 | 3/8 NPT MALE - 1/2 NPT FEMALE 90°     | 3/8 NPT   | 1/2 NPT    |
| AD49-0806 | 1/2 NPT MALE - 3/8 NPT FEMALE 90°     | 1/2 NPT   | 3/8 NPT    |
| AD49-08   | 1/2 NPT MALE - 1/2 NPT FEMALE 90°     | 1/2 NPT   | 1/2 NPT    |
| AD49-0812 | 1/2 NPT MALE - 3/4 NPT FEMALE 90°     | 1/2 NPT   | 3/4 NPT    |
| AD49-1208 | 3/4 NPT MALE - 1/2 NPT FEMALE 90°     | 3/4 NPT   | 1/2 NPT    |
| AD49-12   | 3/4 NPT MALE - 3/4 NPT FEMALE 90°     | 3/4 NPT   | 3/4 NPT    |
| AD49-16   | 1" NPT MALE - 1" NPT FEMALE 90°       | 1" NPT    | 1" NPT     |
| AD49-20   | 1 1/4 NPT MALE - 1 1/4 NPT FEMALE 90° | 1 1/4 NPT | 1 1/4 NPT  |
| AD49-24   | 1 1/2 NPT MALE - 1 1/2 NPT FEMALE 90° | 1 1/2 NPT | 1 1/2 NPT  |
| AD49-32   | 2" NPT MALE - 2" NPT FEMALE 90°       | 2" NPT    | 2" NPT     |



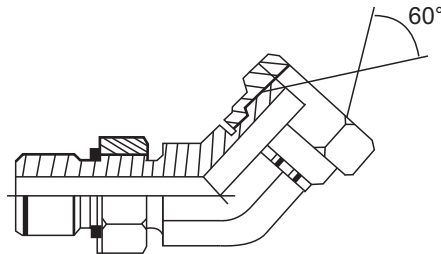
## SAE MALE - BSP FEMALE SWIVEL ADAPTOR

| ITEMS     | DESCRIPTION                      | SAE MALE  | BSP FEMALE |
|-----------|----------------------------------|-----------|------------|
| AD50-0404 | 7/16 SAE MALE - 1/4 BSP FEMALE   | 7/16-20   | 1/4 BSP    |
| AD50-0406 | 7/16 SAE MALE - 3/8 BSP FEMALE   | 7/16-20   | 3/8 BSP    |
| AD50-0604 | 9/16 SAE MALE - 1/4 BSP FEMALE   | 9/16-18   | 1/4 BSP    |
| AD50-0606 | 9/16 SAE MALE - 3/8 BSP FEMALE   | 9/16-18   | 3/8 BSP    |
| AD50-0608 | 9/16 SAE MALE - 1/2 BSP FEMALE   | 9/16-18   | 1/2 BSP    |
| AD50-0806 | 3/4 SAE MALE - 3/8 BSP FEMALE    | 3/4-16    | 3/8 BSP    |
| AD50-0808 | 3/4 SAE MALE - 1/2 BSP FEMALE    | 3/4-16    | 1/2 BSP    |
| AD50-0812 | 3/4 SAE MALE - 3/4 BSP FEMALE    | 3/4-16    | 3/4 BSP    |
| AD50-1008 | 7/8 SAE MALE - 1/2 BSP FEMALE    | 7/8-14    | 1/2 BSP    |
| AD50-1012 | 7/8 SAE MALE - 3/4 BSP FEMALE    | 7/8-14    | 3/4 BSP    |
| AD50-1208 | 1 1/16 SAE MALE - 1/2 BSP FEMALE | 1 1/16-12 | 1/2 BSP    |
| AD50-1212 | 1 1/16 SAE MALE - 3/4 BSP FEMALE | 1 1/16-12 | 3/4 BSP    |
| AD50-1216 | 1 1/16 SAE MALE - 1" BSP FEMALE  | 1 1/16-12 | 1" BSP     |
| AD50-1612 | 1 5/16 SAE MALE - 3/4 BSP FEMALE | 1 5/16-12 | 3/4 BSP    |
| AD50-1616 | 1 5/16 SAE MALE - 1" BSP FEMALE  | 1 5/16-12 | 1" BSP     |



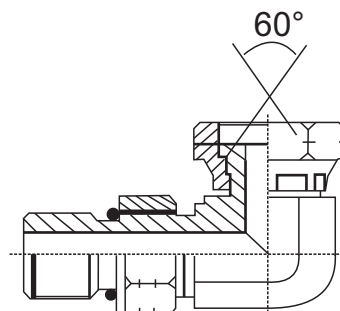
## SAE MALE - BSP FEMALE SWIVEL ADAPTOR 45°

| ITEMS     | DESCRIPTION                          | SAE MALE | BSP FEMALE |
|-----------|--------------------------------------|----------|------------|
| AD51-0606 | 9/16 SAE MALE - 3/8 BSP FEMALE 45°   | 9/16-18  | 3/8 BSP    |
| AD51-0806 | 3/4-16 SAE MALE - 3/8 BSP FEMALE 45° | 3/4-16   | 3/8 BSP    |



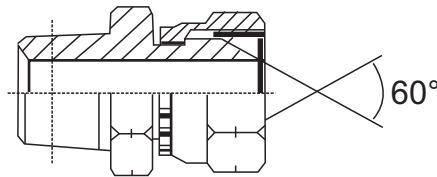
## SAE MALE - BSP FEMALE SWIVEL ADAPTOR 90°

| ITEMS     | DESCRIPTION                          | SAE MALE  | BSP FEMALE |
|-----------|--------------------------------------|-----------|------------|
| AD52-0404 | 7/16 SAE MALE - 1/4 BSP FEMALE 90°   | 7/16-20   | 1/4 BSP    |
| AD52-0604 | 9/16 SAE MALE - 1/4 BSP FEMALE 90°   | 9/16-18   | 1/4 BSP    |
| AD52-0606 | 9/16 SAE MALE - 3/8 BSP FEMALE 90°   | 9/16-18   | 3/8 BSP    |
| AD52-0806 | 3/4 SAE MALE - 3/8 BSP FEMALE 90°    | 3/4-16    | 3/8 BSP    |
| AD52-0808 | 3/4 SAE MALE - 1/2 BSP FEMALE 90°    | 3/4-16    | 1/2 BSP    |
| AD52-0812 | 3/4 SAE MALE - 3/4 BSP FEMALE 90°    | 3/4-16    | 3/4 BSP    |
| AD52-1008 | 7/8 SAE MALE - 1/2 BSP FEMALE 90°    | 7/8-14    | 1/2 BSP    |
| AD52-1208 | 1 1/16 SAE MALE - 1/2 BSP FEMALE 90° | 1 1/16-12 | 1/2 BSP    |
| AD52-1212 | 1 1/16 SAE MALE - 3/4 BSP FEMALE 90° | 1 1/16-12 | 3/4 BSP    |
| AD52-1616 | 1 5/16 SAE MALE - 1" BSP FEMALE 90°  | 1 5/16-12 | 1" BSP     |



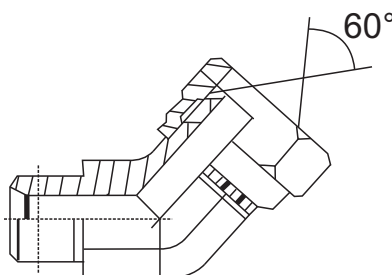
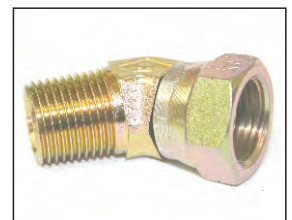
# BSPT MALE - BSP FEMALE SWIVEL ADAPTOR

| ITEMS     | DESCRIPTION                        | BSPT MALE  | BSP FEMALE |
|-----------|------------------------------------|------------|------------|
| AD53-02   | 1/8 BSPT MALE - 1/8 BSP FEMALE     | 1/8 BSPT   | 1/8 BSP    |
| AD53-0204 | 1/8 BSPT MALE - 1/4 BSP FEMALE     | 1/8 BSPT   | 1/4 BSP    |
| AD53-04   | 1/4 BSPT MALE - 1/4 BSP FEMALE     | 1/4 BSPT   | 1/4 BSP    |
| AD53-0406 | 1/4 BSPT MALE - 3/8 BSP FEMALE     | 1/4 BSPT   | 3/8 BSP    |
| AD53-0604 | 3/8 BSPT MALE - 1/4 BSP FEMALE     | 3/8 BSPT   | 1/4 BSP    |
| AD53-06   | 3/8 BSPT MALE - 3/8 BSP FEMALE     | 3/8 BSPT   | 3/8 BSP    |
| AD53-0608 | 3/8 BSPT MALE - 1/2 BSP FEMALE     | 3/8 BSPT   | 1/2 BSP    |
| AD53-0806 | 1/2 BSPT MALE - 3/8 BSP FEMALE     | 1/2 BSPT   | 3/8 BSP    |
| AD53-08   | 1/2 BSPT MALE - 1/2 BSP FEMALE     | 1/2 BSPT   | 1/2 BSP    |
| AD53-0812 | 1/2 BSPT MALE - 3/4 BSP FEMALE     | 1/2 BSPT   | 3/4 BSP    |
| AD53-12   | 3/4 BSPT MALE - 3/4 BSP FEMALE     | 3/4 BSPT   | 3/4 BSP    |
| AD53-1216 | 3/4 BSPT MALE - 1" BSP FEMALE      | 3/4 BSPT   | 1" BSP     |
| AD53-16   | 1" BSPT MALE - 1" BSP FEMALE       | 1" BSPT    | 1" BSP     |
| AD53-20   | 1 1/4 BSPT MALE - 1 1/4 BSP FEMALE | 1 1/4 BSPT | 1 1/4 BSP  |



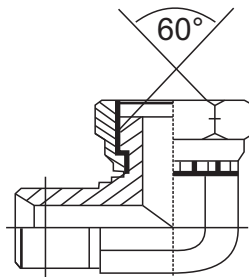
# BSPT MALE - BSP FEMALE SWIVEL ADAPTOR 45°

| ITEMS   | DESCRIPTION                        | BSPT MALE | BSP FEMALE |
|---------|------------------------------------|-----------|------------|
| AD54-04 | 1/4 BSPT MALE - 1/4 BSP FEMALE 45° | 1/4 BSPT  | 1/4 BSP    |
| AD54-06 | 3/8 BSPT MALE - 3/8 BSP FEMALE 45° | 3/8 BSPT  | 3/8 BSP    |
| AD54-08 | 1/2 BSPT MALE - 1/2 BSP FEMALE 45° | 1/2 BSPT  | 1/2 BSP    |
| AD54-12 | 3/4 BSPT MALE - 3/4 BSP FEMALE 45° | 3/4 BSPT  | 3/4 BSP    |
| AD54-16 | 1" BSPT MALE - 1" BSP FEMALE 45°   | 1" BSPT   | 1" BSP     |



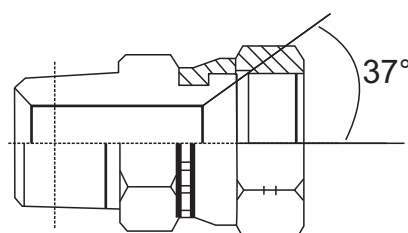
## BSPT MALE - BSP FEMALE SWIVEL ADAPTOR 90°

| ITEMS     | DESCRIPTION                            | BSPT MALE  | BSP FEMALE |
|-----------|--|------------|------------|
| AD55-02   | 1/8 BSPT MALE - 1/8 BSP FEMALE 90°     | 1/8 BSPT   | 1/8 BSP    |
| AD55-04   | 1/4 BSPT MALE - 1/4 BSP FEMALE 90°     | 1/4 BSPT   | 1/4 BSP    |
| AD55-0406 | 1/4 BSPT MALE - 3/8 BSP FEMALE 90°     | 1/4 BSPT   | 3/8 BSP    |
| AD55-0604 | 3/8 BSPT MALE - 1/4 BSP FEMALE 90°     | 3/8 BSPT   | 1/4 BSP    |
| AD55-06   | 3/8 BSPT MALE - 3/8 BSP FEMALE 90°     | 3/8 BSPT   | 3/8 BSP    |
| AD55-0608 | 3/8 BSPT MALE - 1/2 BSP FEMALE 90°     | 3/8 BSPT   | 1/2 BSP    |
| AD55-08   | 1/2 BSPT MALE - 1/2 BSP FEMALE 90°     | 1/2 BSPT   | 1/2 BSP    |
| AD55-0812 | 1/2 BSPT MALE - 3/4 BSP FEMALE 90°     | 1/2 BSPT   | 3/4 BSP    |
| AD55-12   | 3/4 BSPT MALE - 3/4 BSP FEMALE 90°     | 3/4 BSPT   | 3/4 BSP    |
| AD55-1208 | 3/4 BSPT MALE - 1/2 BSP FEMALE 90°     | 3/4 BSPT   | 1/2 BSP    |
| AD55-16   | 1" BSPT MALE - 1" BSP FEMALE 90°       | 1" BSPT    | 1" BSP     |
| AD55-20   | 1 1/4 BSPT MALE - 1 1/4 BSP FEMALE 90° | 1 1/4 BSPT | 1 1/4 BSP  |



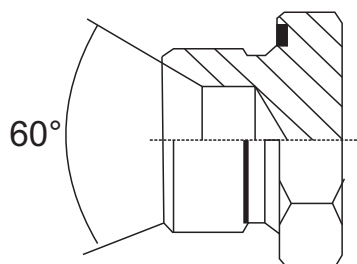
## BSPT MALE - JIC FEMALE SWIVEL ADAPTOR

| ITEMS     | DESCRIPTION                        | BSPT MALE  | JIC FEMALE |
|-----------|------------------------------------|------------|------------|
| AD56-0204 | 1/8 BSPT MALE - 7/16 JIC FEMALE    | 1/8 BSPT   | 7/16-20    |
| AD56-0406 | 1/4 BSPT MALE - 9/16 JIC FEMALE    | 1/4 BSPT   | 9/16-18    |
| AD56-0606 | 3/8 BSPT MALE - 9/16 JIC FEMALE    | 3/8 BSPT   | 9/16-18    |
| AD56-0608 | 3/8 BSPT MALE - 3/4 JIC FEMALE     | 3/8 BSPT   | 3/4-16     |
| AD56-0808 | 1/2 BSPT MALE - 3/4 JIC FEMALE     | 1/2 BSPT   | 3/4-16     |
| AD56-0810 | 1/2 BSPT MALE - 7/8 JIC FEMALE     | 1/2 BSPT   | 7/8-14     |
| AD56-1212 | 3/4 BSPT MALE - 1 1/6 JIC FEMALE   | 3/4 BSPT   | 1 1/16-12  |
| AD56-1616 | 1" BSPT MALE - 1 5/16 JIC FEMALE   | 1" BSPT    | 1 5/16-12  |
| AD56-2020 | 1 1/4 BSPT MALE - 1 5/8 JIC FEMALE | 1 1/4 BSPT | 1 5/8-12   |
| AD56-2424 | 1 1/2 BSPT MALE - 1 7/8 JIC FEMALE | 1 1/2 BSPT | 1 7/8-12   |



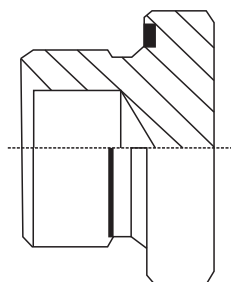
## BSP HEX PLUG ED

| ITEMS   | DESCRIPTION  | BSP<br>MALE |
|---------|--------------|-------------|
| AP57-02 | 1/8 BSP PLUG | 1/8 BSP     |
| AP57-04 | 1/4 BSP PLUG | 1/4 BSP     |
| AP57-06 | 3/8 BSP PLUG | 3/8 BSP     |
| AP57-08 | 1/2 BSP PLUG | 1/2 BSP     |
| AP57-12 | 3/4 BSP PLUG | 3/4 BSP     |
| AP57-16 | 1" BSP PLUG  | 1" BSP      |



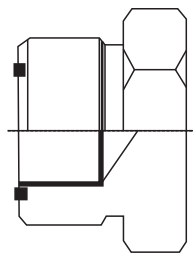
## BSP ALLEN KEY PLUG ED

| ITEMS   | DESCRIPTION              | BSP<br>MALE |
|---------|--------------------------|-------------|
| AP58-02 | 1/8 BSP ALLEN KEY PLUG   | 1/8 BSP     |
| AP58-04 | 1/4 BSP ALLEN KEY PLUG   | 1/4 BSP     |
| AP58-06 | 3/8 BSP ALLEN KEY PLUG   | 3/8 BSP     |
| AP58-08 | 1/2 BSP ALLEN KEY PLUG   | 1/2 BSP     |
| AP58-12 | 3/4 BSP ALLEN KEY PLUG   | 3/4 BSP     |
| AP58-16 | 1" BSP ALLAN KEY PLUG    | 1" BSP      |
| AP58-20 | 1 1/4 BSP ALLAN KEY PLUG | 1 1/4 BSP   |
| AP58-24 | 1 1/2 BSP ALLAN KEY PLUG | 1 1/2 BSP   |



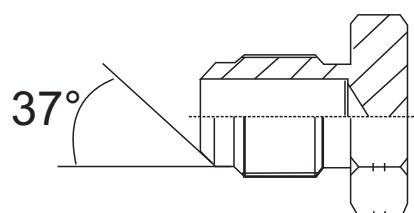
## ORFS HEX PLUG

| ITEMS   | DESCRIPTION       | ORFS MALE  |
|---------|-------------------|------------|
| AP59-04 | 9/16 ORFS PLUG    | 9/16-18    |
| AP59-06 | 11/16 ORFS PLUG   | 11/16-16   |
| AP59-08 | 13/16 ORFS PLUG   | 13/16-16   |
| AP59-10 | 1" ORFS PLUG      | 1-14       |
| AP59-12 | 1 3/16 ORFS PLUG  | 1 3/16-12  |
| AP59-16 | 1 7/16 ORFS PLUG  | 1 7/16-12  |
| AP59-20 | 1 11/16 ORFS PLUG | 1 11/16-12 |
| AP59-24 | 2" ORFS PLUG      | 2-12       |



## JIC HEX PLUG

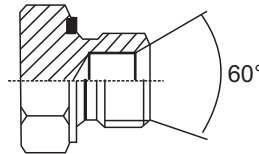
| ITEMS   | DESCRIPTION     | JIC MALE  |
|---------|-----------------|-----------|
| AP60-04 | 7/16 JIC PLUG   | 7/16-20   |
| AP60-05 | 1/2 JIC PLUG    | 1/2-20    |
| AP60-06 | 9/16 JIC PLUG   | 9/16-18   |
| AP60-08 | 3/4 JIC PLUG    | 3/4-16    |
| AP60-10 | 7/8 JIC PLUG    | 7/8-14    |
| AP60-12 | 1 1/16 JIC PLUG | 1 1/16-12 |
| AP60-14 | 1 3/16 JIC PLUG | 1 3/16-12 |
| AP60-16 | 1 5/16 JIC PLUG | 1 5/16-12 |
| AP60-20 | 1 5/8 JIC PLUG  | 1 5/8-12  |
| AP60-24 | 1 7/8 JIC PLUG  | 1 7/8-12  |
| AP60-32 | 2 1/2 JIC PLUG  | 2 1/2-12  |





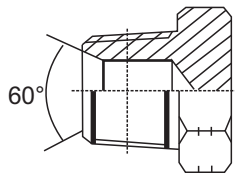
## METRIC HEX PLUG - 60°

| ITEMS    | DESCRIPTION       | METRIC MALE |
|----------|-------------------|-------------|
| AP61-M10 | 10X1.0 PLUG - 60° | M10X1.0     |
| AP61-M12 | 12X1.5 PLUG - 60° | M12X1.5     |
| AP61-M14 | 14X1.5 PLUG - 60° | M14X1.5     |
| AP61-M16 | 16X1.5 PLUG - 60° | M16X1.5     |
| AP61-M18 | 18X1.5 PLUG - 60° | M18X1.5     |



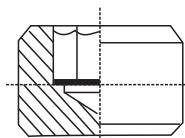
## NPT HEX PLUG

| ITEMS   | DESCRIPTION    | NPT MALE  |
|---------|----------------|-----------|
| AP62-02 | 1/8 NPT PLUG   | 1/8 NPT   |
| AP62-04 | 1/4 NPT PLUG   | 1/4 NPT   |
| AP62-06 | 3/8 NPT PLUG   | 3/8 NPT   |
| AP62-08 | 1/2 NPT PLUG   | 1/2 NPT   |
| AP62-12 | 3/4 NPT PLUG   | 3/4 NPT   |
| AP62-16 | 1" NPT PLUG    | 1" NPT    |
| AP62-20 | 1 1/4 NPT PLUG | 1 1/4 NPT |
| AP62-24 | 1 1/2 NPT PLUG | 1 1/2 NPT |
| AP62-32 | 2" NPT PLUG    | 2" NPT    |



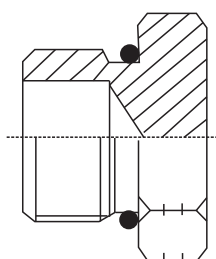
## NPT ALLEN KEY PLUG

| ITEMS   | DESCRIPTION            | NPT MALE |
|---------|------------------------|----------|
| AP63-02 | 1/8 NPT ALLEN KEY PLUG | 1/8 NPT  |
| AP63-04 | 1/4 NPT ALLEN KEY PLUG | 1/4 NPT  |
| AP63-06 | 3/8 NPT ALLEN KEY PLUG | 3/8 NPT  |
| AP63-08 | 1/2 NPT ALLEN KEY PLUG | 1/2 NPT  |
| AP63-12 | 3/4 NPT ALLEN KEY PLUG | 3/4 NPT  |
| AP63-16 | 1" NPT ALLEN KEY PLUG  | 1" NPT   |



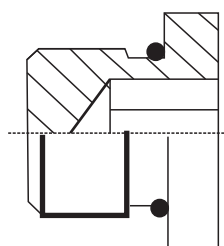
## SAE HEX PLUG

| ITEMS   | DESCRIPTION     | SAE MALE  |
|---------|-----------------|-----------|
| AP64-04 | 7/16 SAE PLUG   | 7/16-20   |
| AP64-05 | 1/2 SAE PLUG    | 1/2-20    |
| AP64-06 | 9/16 SAE PLUG   | 9/16-18   |
| AP64-08 | 3/4 SAE PLUG    | 3/4-16    |
| AP64-10 | 7/8 SAE PLUG    | 7/8-14    |
| AP64-12 | 1 1/16 SAE PLUG | 1 1/16-12 |
| AP64-14 | 1 3/16 SAE PLUG | 1 3/16-12 |
| AP64-16 | 1 5/16 SAE PLUG | 1 5/16-12 |
| AP64-20 | 1 5/8 SAE PLUG  | 1 5/8-12  |
| AP64-24 | 1 7/8 SAE PLUG  | 1 7/8-12  |
| AP64-32 | 2 1/2 SAE PLUG  | 2 1/2-12  |



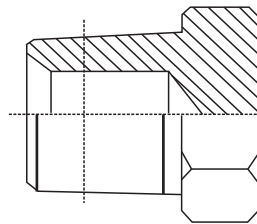
## SAE ALLEN KEY PLUG

| ITEMS   | DESCRIPTION               | SAE MALE  |
|---------|---------------------------|-----------|
| AP65-04 | 7/16 SAE ALLEN KEY PLUG   | 7/16-20   |
| AP65-05 | 1/2 SAE ALLEN KEY PLUG    | 1/2-20    |
| AP65-06 | 9/16 SAE ALLEN KEY PLUG   | 9/16-18   |
| AP65-08 | 3/4 SAE ALLEN KEY PLUG    | 3/4-16    |
| AP65-12 | 1 1/16 SAE ALLEN KEY PLUG | 1 1/16-12 |



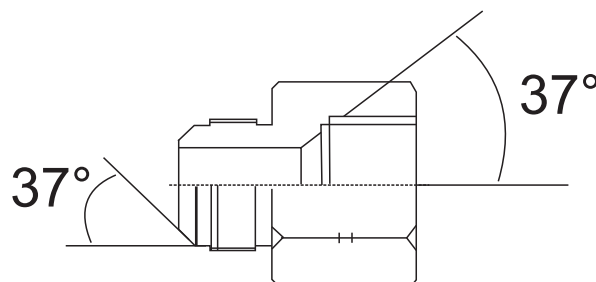
## BSPT HEX PLUG

| ITEMS   | DESCRIPTION     | BSPT MALE  |
|---------|-----------------|------------|
| AP66-02 | 1/8 BSPT PLUG   | 1/8 BSPT   |
| AP66-04 | 1/4 BSPT PLUG   | 1/4 BSPT   |
| AP66-06 | 3/8 BSPT PLUG   | 3/8 BSPT   |
| AP66-08 | 1/2 BSPT PLUG   | 1/2 BSPT   |
| AP66-12 | 3/4 BSPT PLUG   | 3/4 BSPT   |
| AP66-16 | 1" BSPT PLUG    | 1" BSPT    |
| AP66-20 | 1 1/4 BSPT PLUG | 1 1/4 BSPT |
| AP66-24 | 1 1/2 BSPT PLUG | 1 1/2 BSPT |
| AP66-32 | 2" BSPT PLUG    | 2" BSPT    |



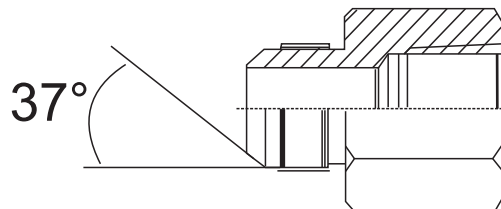
## JIC MALE - JIC FEMALE REDUCER

| ITEMS     | DESCRIPTION                            | JIC MALE  | JIC FEMALE |
|-----------|--|-----------|------------|
| AR67-0406 | 7/16 JIC MALE - 9/16 JIC FEMALE        | 7/16-20   | 9/16-18    |
| AR67-0408 | 7/16 JIC MALE - 3/4 JIC FEMALE         | 7/16-20   | 3/4-16     |
| AR67-0412 | 7/16 JIC MALE - 1 1/16 JIC FEMALE      | 7/16-20   | 1 1/16-12  |
| AR67-0608 | 9/16 JIC MALE - 3/4 JIC FEMALE         | 9/16-18   | 3/4-16     |
| AR67-0610 | 9/16 JIC MALE - 7/8 JIC FEMALE         | 9/16-18   | 7/8-14     |
| AR67-0612 | 9/16 JIC MALE - 1 1/16 JIC FEMALE      | 9/16-18   | 1 1/16-12  |
| AR67-0810 | 3/4 JIC MALE - 7/8 JIC FEMALE FIXED    | 3/4-16    | 7/8-14     |
| AR67-0812 | 3/4 JIC MALE - 1 1/16 JIC FEMALE       | 3/4-16    | 1 1/16-12  |
| AR67-0816 | 3/4 JIC MALE - 1 5/16 JIC FEMALE       | 3/4-16    | 1 5/16-12  |
| AR67-1012 | 7/8 JIC MALE - 1 1/16 JIC FEMALE FIXED | 7/8-14    | 1 1/16-12  |
| AR67-1216 | 1 1/16 JIC MALE - 1 5/16 JIC FEMALE    | 1 1/16-12 | 1 5/16-12  |
| AR67-1220 | 1 1/16 JIC MALE - 1 5/8 JIC FEMALE     | 1 1/16-12 | 1 5/8-12   |
| AR67-1620 | 1 5/16 JIC MALE - 1 5/8 JIC FEMALE     | 1 5/16-12 | 1 5/8-12   |
| AR67-2024 | 1 5/8 JIC MALE - 1 7/8 JIC FEMALE      | 1 5/8-12  | 1 7/8-12   |



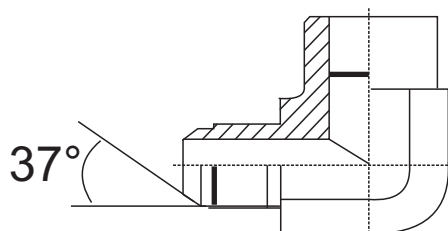
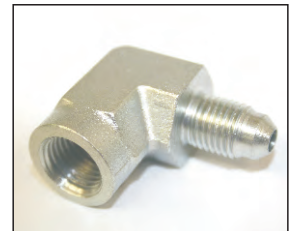
## JIC MALE - NPT FEMALE REDUCER

| ITEMS     | DESCRIPTION                      | JIC SIZE  | NPT SIZE |
|-----------|----------------------------------|-----------|----------|
| AR68-0402 | 7/16 JIC MALE - 1/8 NPT FEMALE   | 7/16-20   | 1/8 NPT  |
| AR68-0404 | 7/16 JIC MALE - 1/4 NPT FEMALE   | 7/16-20   | 1/4 NPT  |
| AR68-0604 | 9/16 JIC MALE - 1/4 NPT FEMALE   | 9/16-18   | 1/4 NPT  |
| AR68-0606 | 9/16 JIC MALE - 3/8 NPT FEMALE   | 9/16-18   | 3/8 NPT  |
| AR68-0608 | 9/16 JIC MALE - 1/2 NPT FEMALE   | 9/16-18   | 1/2 NPT  |
| AR68-0806 | 3/4 JIC MALE - 3/8 NPT FEMALE    | 3/4-16    | 3/8 NPT  |
| AR68-0808 | 3/4 JIC MALE - 1/2 NPT FEMALE    | 3/4-16    | 1/2 NPT  |
| AR68-1008 | 7/8 JIC MALE - 1/2 NPT FEMALE    | 7/8-14    | 1/2 NPT  |
| AR68-1208 | 1 1/16 JIC MALE - 1/2 NPT FEMALE | 1 1/16-12 | 1/2 NPT  |
| AR68-1212 | 1 1/16 JIC MALE - 3/4 NPT FEMALE | 1 1/16-12 | 3/4 NPT  |
| AR68-1612 | 1 5/16 JIC MALE - 3/4 NPT FEMALE | 1 5/16-12 | 3/4 NPT  |
| AR68-1616 | 1 5/16 JIC MALE - 1" NPT FEMALE  | 1 5/16-12 | 1" NPT   |



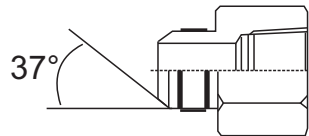
## JIC MALE - NPT FEMALE REDUCER 90°

| ITEMS     | DESCRIPTION                           | JIC MALE  | NPT FEMALE |
|-----------|---------------------------------------|-----------|------------|
| AR69-0402 | 7/16 JIC MALE - 1/8 NPT FEMALE 90°    | 7/16-20   | 1/8 NPT    |
| AR69-0404 | 7/16 JIC MALE - 1/4 NPT FEMALE 90°    | 7/16-20   | 1/4 NPT    |
| AR69-0406 | 7/16 JIC MALE - 3/8 NPT FEMALE 90°    | 7/16-20   | 3/8 NPT    |
| AR69-0504 | 1/2 JIC MALE - 1/4 NPT FEMALE 90°     | 1/2-20    | 1/4 NPT    |
| AR69-0604 | 9/16 JIC MALE - 1/4 NPT FEMALE 90°    | 9/16-18   | 1/4 NPT    |
| AR69-0606 | 9/16 JIC MALE - 3/8 NPT FEMALE 90°    | 9/16-18   | 3/8 NPT    |
| AR69-0804 | 3/4 JIC MALE - 1/4 NPT FEMALE 90°     | 3/4-16    | 1/4 NPT    |
| AR69-0806 | 3/4 JIC MALE - 3/8 NPT FEMALE 90°     | 3/4-16    | 3/8 NPT    |
| AR69-0808 | 3/4 JIC MALE - 1/2 NPT FEMALE 90°     | 3/4-16    | 1/2 NPT    |
| AR69-1008 | 7/8 JIC MALE - 1/2 NPT FEMALE 90°     | 7/8-14    | 1/2 NPT    |
| AR69-1208 | 1 1/16 JIC MALE - 1/2 NPT FEMALE 90°  | 1 1/16-12 | 1/2 NPT    |
| AR69-1212 | 1 1/16 JIC MALE - 3/4 NPT FEMALE 90°  | 1 1/16-12 | 3/4 NPT    |
| AR69-1616 | 1 5/16 JIC MALE - 1" NPT FEMALE 90°   | 1 5/16-12 | 1" NPT     |
| AR69-2020 | 1 5/8 JIC MALE - 1 1/4 NPT FEMALE 90° | 1 5/8-12  | 1 1/4 NPT  |



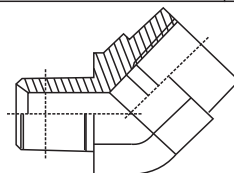
## JIC MALE - BSPT FEMALE REDUCER

| ITEMS     | DESCRIPTION                       | JIC MALE  | BSPT FEMALE |
|-----------|-----------------------------------|-----------|-------------|
| AR70-0402 | 7/16 JIC MALE - 1/8 BSPT FEMALE   | 7/16-20   | 1/8 BSPT    |
| AR70-0404 | 7/16 JIC MALE - 1/4 BSPT FEMALE   | 7/16-20   | 1/4 BSPT    |
| AR70-0604 | 9/16 JIC MALE - 1/4 BSPT FEMALE   | 9/16-18   | 1/4 BSPT    |
| AR70-0606 | 9/16 JIC MALE - 3/8 BSPT FEMALE   | 9/16-18   | 3/8 BSPT    |
| AR70-0806 | 3/4 JIC MALE - 3/8 BSPT FEMALE    | 3/4-16    | 3/8 BSPT    |
| AR70-0808 | 3/4 JIC MALE - 1/2 BSPT FEMALE    | 3/4-16    | 1/2 BSPT    |
| AR70-1208 | 1 1/16 JIC MALE - 1/2 BSPT FEMALE | 1 1/16-12 | 1/2 BSPT    |
| AR70-1212 | 1 1/16 JIC MALE - 3/4 BSPT FEMALE | 1 1/16-12 | 3/4 BSPT    |
| AR70-1616 | 1 5/16 JIC MALE - 1" BSPT FEMALE  | 1 5/16-12 | 1" BSPT     |



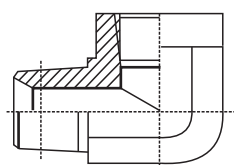
## NPT MALE - NPT FEMALE REDUCER 45°

| ITEMS       | DESCRIPTION                       | NPT MALE | NPT FEMALE |
|-------------|-----------------------------------|----------|------------|
| AR71-02-45° | 1/8 NPT MALE - 1/8 NPT FEMALE 45° | 1/8 NPT  | 1/8 NPT    |
| AR71-04-45° | 1/4 NPT MALE - 1/4 NPT FEMALE 45° | 1/4 NPT  | 1/4 NPT    |
| AR71-06-45° | 3/8 NPT MALE - 3/8 NPT FEMALE 45° | 3/8 NPT  | 3/8 NPT    |
| AR71-08-45° | 1/2 NPT MALE - 1/2 NPT FEMALE 45° | 1/2 NPT  | 1/2 NPT    |
| AR71-12-45° | 3/4 NPT MALE - 3/4 NPT FEMALE 45° | 3/4 NPT  | 3/4 NPT    |
| AR71-16-45° | 1" NPT MALE - 1" NPT FEMALE 45°   | 1" NPT   | 1" NPT     |



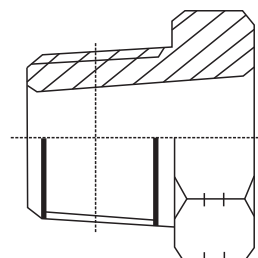
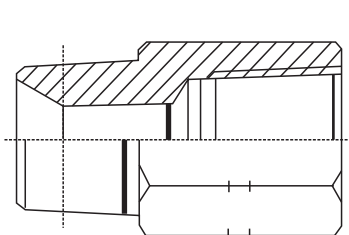
## NPT MALE - NPT FEMALE REDUCER 90°

| ITEMS     | DESCRIPTION                           | NPT MALE  | NPT FEMALE |
|-----------|---------------------------------------|-----------|------------|
| AR71-02   | 1/8 NPT MALE - 1/8 NPT FEMALE 90°     | 1/8 NPT   | 1/8 NPT    |
| AR71-04   | 1/4 NPT MALE - 1/4 NPT FEMALE 90°     | 1/4 NPT   | 1/4 NPT    |
| AR71-0406 | 1/4 NPT MALE - 3/8 NPT FEMALE 90°     | 1/4 NPT   | 3/8 NPT    |
| AR71-06   | 3/8 NPT MALE - 3/8 NPT FEMALE 90°     | 3/8 NPT   | 3/8 NPT    |
| AR71-08   | 1/2 NPT MALE - 1/2 NPT FEMALE 90°     | 1/2 NPT   | 1/2 NPT    |
| AR71-12   | 3/4 NPT MALE - 3/4 NPT FEMALE 90°     | 3/4 NPT   | 3/4 NPT    |
| AR71-16   | 1" NPT MALE - 1" NPT FEMALE 90°       | 1" NPT    | 1" NPT     |
| AR71-20   | 1 1/4 NPT MALE - 1 1/4 NPT FEMALE 90° | 1 1/4 NPT | 1 1/4 NPT  |
| AR71-24   | 1 1/2 NPT MALE - 1 1/2 NPT FEMALE 90° | 1 1/2 NPT | 1 1/2 NPT  |
| AR71-32   | 2" NPT MALE - 2" NPT FEMALE 90°       | 2" NPT    | 2" NPT     |



# NPT MALE - NPT FEMALE REDUCER

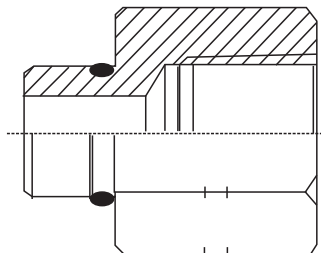
| ITEMS     | DESCRIPTION                       | NPT MALE  | NPT FEMALE |
|-----------|-----------------------------------|-----------|------------|
| AR72-02   | 1/8 NPT MALE - 1/8 NPT FEMALE     | 1/8 NPT   | 1/8 NPT    |
| AR72-0204 | 1/8 NPT MALE - 1/4 NPT FEMALE     | 1/8 NPT   | 1/4 NPT    |
| AR72-0402 | 1/4 NPT MALE - 1/8 NPT FEMALE     | 1/4 NPT   | 1/8 NPT    |
| AR72-04   | 1/4 NPT MALE - 1/4 NPT FEMALE     | 1/4 NPT   | 1/4 NPT    |
| AR72-0406 | 1/4 NPT MALE - 3/8 NPT FEMALE     | 1/4 NPT   | 3/8 NPT    |
| AR72-0602 | 3/8 NPT MALE - 1/8 NPT FEMALE     | 3/8 NPT   | 1/8 NPT    |
| AR72-0604 | 3/8 NPT MALE - 1/4 NPT FEMALE     | 3/8 NPT   | 1/4 NPT    |
| AR72-06   | 3/8 NPT MALE - 3/8 NPT FEMALE     | 3/8 NPT   | 3/8 NPT    |
| AR72-0608 | 3/8 NPT MALE - 1/2 NPT FEMALE     | 3/8 NPT   | 1/2 NPT    |
| AR72-0802 | 1/2 NPT MALE - 1/8 NPT FEMALE     | 1/2 NPT   | 1/8 NPT    |
| AR72-0804 | 1/2 NPT MALE - 1/4 NPT FEMALE     | 1/2 NPT   | 1/4 NPT    |
| AR72-0806 | 1/2 NPT MALE - 3/8 NPT FEMALE     | 1/2 NPT   | 3/8 NPT    |
| AR72-08   | 1/2 NPT MALE - 1/2 NPT FEMALE     | 1/2 NPT   | 1/2 NPT    |
| AR72-0812 | 1/2 NPT MALE - 3/4 NPT FEMALE     | 1/2 NPT   | 3/4 NPT    |
| AR72-1204 | 3/4 NPT MALE - 1/4 NPT FEMALE     | 3/4 NPT   | 1/4 NPT    |
| AR72-1206 | 3/4 NPT MALE - 3/8 NPT FEMALE     | 3/4 NPT   | 3/8 NPT    |
| AR72-1208 | 3/4 NPT MALE - 1/2 NPT FEMALE     | 3/4 NPT   | 1/2 NPT    |
| AR72-12   | 3/4 NPT MALE - 3/4 NPT FEMALE     | 3/4 NPT   | 3/4 NPT    |
| AR72-1216 | 3/4 NPT MALE - 1" NPT FEMALE      | 3/4 NPT   | 1" NPT     |
| AR72-1604 | 1" NPT MALE - 1/4 NPT FEMALE      | 1" NPT    | 1/4 NPT    |
| AR72-1606 | 1" NPT MALE - 3/8 NPT FEMALE      | 1" NPT    | 3/8 NPT    |
| AR72-1608 | 1" NPT MALE - 1/2 NPT FEMALE      | 1" NPT    | 1/2 NPT    |
| AR72-1612 | 1" NPT MALE - 3/4 NPT FEMALE      | 1" NPT    | 3/4 NPT    |
| AR72-2008 | 1 1/4 NPT MALE - 1/2 NPT FEMALE   | 1 1/4 NPT | 1/2 NPT    |
| AR72-2012 | 1 1/4 NPT MALE - 3/4 NPT FEMALE   | 1 1/4 NPT | 3/4 NPT    |
| AR72-2016 | 1 1/4 NPT MALE - 1" NPT FEMALE    | 1 1/4 NPT | 1" NPT     |
| AR72-2412 | 1 1/2 NPT MALE - 3/4 NPT FEMALE   | 1 1/2 NPT | 3/4 NPT    |
| AR72-2416 | 1 1/2 NPT MALE - 1" NPT FEMALE    | 1 1/2 NPT | 1" NPT     |
| AR72-2420 | 1 1/2 NPT MALE - 1 1/4 NPT FEMALE | 1 1/2 NPT | 1 1/4 NPT  |
| AR72-3216 | 2" NPT MALE - 1" NPT FEMALE       | 2" NPT    | 1" NPT     |
| AR72-3220 | 2" NPT MALE - 1 1/4 NPT FEMALE    | 2" NPT    | 1 1/4 NPT  |
| AR72-3224 | 2" NPT MALE - 1 1/2 NPT FEMALE    | 2" NPT    | 1 1/2 NPT  |





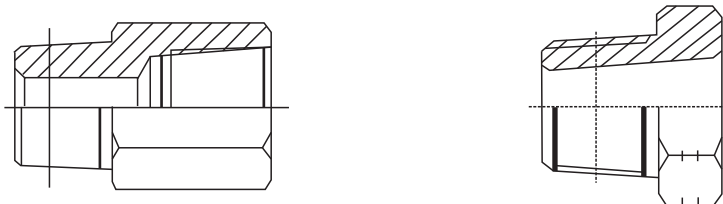
# SAE MALE - NPT FEMALE REDUCER

| ITEMS     | DESCRIPTION                      | SAE MALE  | NPT FEMALE |
|-----------|----------------------------------|-----------|------------|
| AR73-0404 | 7/16 SAE MALE - 1/4 NPT FEMALE   | 7/16-20   | 1/4 NPT    |
| AR73-0406 | 7/16 SAE MALE - 3/8 NPT FEMALE   | 7/16-20   | 3/8 NPT    |
| AR73-0502 | 1/2 SAE MALE - 1/8 NPT FEMALE    | 1/2-20    | 1/8 NPT    |
| AR73-0606 | 9/16 SAE MALE - 3/8 NPT FEMALE   | 9/16-18   | 3/8 NPT    |
| AR73-0604 | 9/16 SAE MALE - 1/4 NPT FEMALE   | 9/16-18   | 1/4 NPT    |
| AR73-0808 | 3/4 SAE MALE - 1/2 NPT FEMALE    | 3/4-16    | 1/2 NPT    |
| AR73-0804 | 3/4 SAE MALE - 1/4 NPT FEMALE    | 3/4-16    | 1/4 NPT    |
| AR73-0812 | 3/4 SAE MALE - 3/4 NPT FEMALE    | 3/4-16    | 3/4 NPT    |
| AR73-1006 | 7/8 SAE MALE - 3/8 NPT FEMALE    | 7/8-14    | 3/8 NPT    |
| AR73-1008 | 7/8 SAE MALE - 1/2 NPT FEMALE    | 7/8-14    | 1/2 NPT    |
| AR73-1212 | 1 1/16 SAE MALE - 3/4 NPT FEMALE | 1 1/16-12 | 3/4 NPT    |
| AR73-1208 | 1 1/16 SAE MALE - 1/2 NPT FEMALE | 1 1/16-12 | 1/2 NPT    |
| AR73-1216 | 1 1/16 SAE MALE - 1" NPT FEMALE  | 1 1/16-12 | 1" NPT     |
| AR73-1616 | 1 5/16 SAE MALE - 1" NPT FEMALE  | 1 5/16-12 | 1" NPT     |
| AR73-1608 | 1 5/16 SAE MALE - 1/2 NPT FEMALE | 1 5/16-12 | 1/2 NPT    |
| AR73-1612 | 1 5/16 SAE MALE - 3/4 NPT FEMALE | 1 5/16-12 | 3/4 NPT    |
| AR73-2016 | 1 5/8 SAE MALE - 1" NPT FEMALE   | 1 5/8-12  | 1" NPT     |



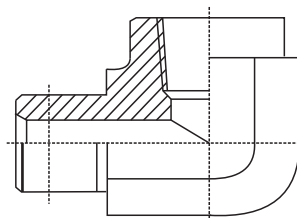
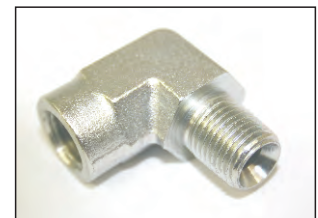
# BSPT MALE - BSPT FEMALE REDUCER

| ITEMS     | DESCRIPTION                         | BSPT MALE  | BSPT FEMALE |
|-----------|-------------------------------------|------------|-------------|
| AR74-0402 | 1/4 BSPT MALE - 1/8 BSPT FEMALE     | 1/4 BSPT   | 1/8 BSPT    |
| AR74-0602 | 3/8 BSPT MALE - 1/8 BSPT FEMALE     | 3/8 BSPT   | 1/8 BSPT    |
| AR74-0604 | 3/8 BSPT MALE - 1/4 BSPT FEMALE     | 3/8 BSPT   | 1/4 BSPT    |
| AR74-0804 | 1/2 BSPT MALE - 1/4 BSPT FEMALE     | 1/2 BSPT   | 1/4 BSPT    |
| AR74-0806 | 1/2 BSPT MALE - 3/8 BSPT FEMALE     | 1/2 BSPT   | 3/8 BSPT    |
| AR74-1204 | 3/4 BSPT MALE - 1/4 BSPT FEMALE     | 3/4 BSPT   | 1/4 BSPT    |
| AR74-1206 | 3/4 BSPT MALE - 3/8 BSPT FEMALE     | 3/4 BSPT   | 3/8 BSPT    |
| AR74-1208 | 3/4 BSPT MALE - 1/2 BSPT FEMALE     | 3/4 BSPT   | 1/2 BSPT    |
| AR74-1606 | 1" BSPT MALE - 3/8 BSPT FEMALE      | 1" BSPT    | 3/8 BSPT    |
| AR74-1608 | 1" BSPT MALE - 1/2 BSPT FEMALE      | 1" BSPT    | 1/2 BSPT    |
| AR74-1612 | 1" BSPT MALE - 3/4 BSPT FEMALE      | 1" BSPT    | 3/4 BSPT    |
| AR74-2008 | 1 1/4 BSPT MALE - 1/2 BSPT FEMALE   | 1 1/4 BSPT | 1/2 BSPT    |
| AR74-2012 | 1 1/4 BSPT MALE - 3/4 BSPT FEMALE   | 1 1/4 BSPT | 3/4 BSPT    |
| AR74-2016 | 1 1/4 BSPT MALE - 1" BSPT FEMALE    | 1 1/4 BSPT | 1" BSPT     |
| AR74-2412 | 1 1/2 BSPT MALE - 3/4 BSPT FEMALE   | 1 1/2 BSPT | 3/4 BSPT    |
| AR74-2416 | 1 1/2 BSPT MALE - 1" BSPT FEMALE    | 1 1/2 BSPT | 1" BSPT     |
| AR74-2420 | 1 1/2 BSPT MALE - 1 1/4 BSPT FEMALE | 1 1/2 BSPT | 1 1/4 BSPT  |
| AR74-3216 | 2" BSPT MALE - 1" BSPT FEMALE       | 2" BSPT    | 1" BSPT     |
| AR74-3220 | 2" BSPT MALE - 1 1/4 BSPT FEMALE    | 2" BSPT    | 1 1/4 BSPT  |



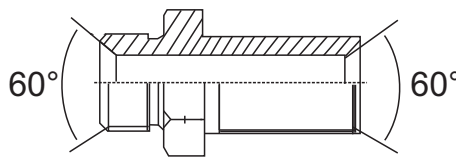
# BSPT MALE - BSPT FEMALE REDUCER 90°

| ITEMS       | DESCRIPTION                         | BSPT MALE | BSPT FEMALE |
|-------------|-------------------------------------|-----------|-------------|
| AR74-04-90° | 1/4 BSPT MALE - 1/4 BSPT FEMALE 90° | 1/4 BSPT  | 1/4 BSPT    |
| AR74-06-90° | 3/8 BSPT MALE - 3/8 BSPT FEMALE 90° | 3/8 BSPT  | 3/8 BSPT    |
| AR74-08-90° | 1/2 BSPT MALE - 1/2 BSPT FEMALE 90° | 1/2 BSPT  | 1/2 BSPT    |
| AR74-12-90° | 3/4 BSPT MALE - 3/4 BSPT FEMALE 90° | 3/4 BSPT  | 3/4 BSPT    |
| AR74-16-90° | 1" BSPT MALE - 1" BSPT FEMALE 90°   | 1" BSPT   | 1" BSPT     |



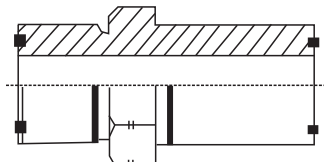
## BSP BULKHEAD WITH LOCKNUT

| ITEMS   | DESCRIPTION                             | BSP<br>THREAD |
|---------|---|---------------|
| AB75-04 | 1/4 - 1/4 BSP BULKHEAD WITH LOCKNUT     | 1/4 BSP       |
| AB75-06 | 3/8 - 3/8 BSP BULKHEAD WITH LOCKNUT     | 3/8 BSP       |
| AB75-08 | 1/2 - 1/2 BSP BULKHEAD WITH LOCKNUT     | 1/2 BSP       |
| AB75-10 | 5/8 - 5/8 BSP BULKHEAD WITH LOCKNUT     | 5/8 BSP       |
| AB75-12 | 3/4 - 3/4 BSP BULKHEAD WITH LOCKNUT     | 3/4 BSP       |
| AB75-16 | 1" - 1" BSP BULKHEAD WITH LOCKNUT       | 1" BSP        |
| AB75-20 | 1 1/4 - 1 1/4 BSP BULKHEAD WITH LOCKNUT | 1 1/4 BSP     |
| AB75-24 | 1 1/2 - 1 1/2 BSP BULKHEAD WITH LOCKNUT | 1 1/2 BSP     |



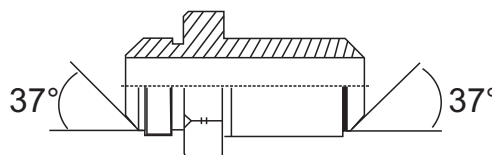
## ORFS BULKHEAD WITH LOCKNUT

| ITEMS   | DESCRIPTION                       | ORFS<br>THREAD |
|---------|-----------------------------------|----------------|
| AB76-04 | 9/16 ORFS BULKHEAD WITH LOCKNUT   | 9/16-18        |
| AB76-06 | 11/16 ORFS BULKHEAD WITH LOCKNUT  | 11/16-16       |
| AB76-08 | 13/16 ORFS BULKHEAD WITH LOCKNUT  | 13/16-16       |
| AB76-10 | 1" ORFS BULKHEAD WITH LOCKNUT     | 1-14           |
| AB76-12 | 1 3/16 ORFS BULKHEAD WITH LOCKNUT | 1 3/6-12       |
| AB76-16 | 1 7/16 ORFS BULKHEAD WITH LOCKNUT | 1 7/16-12      |



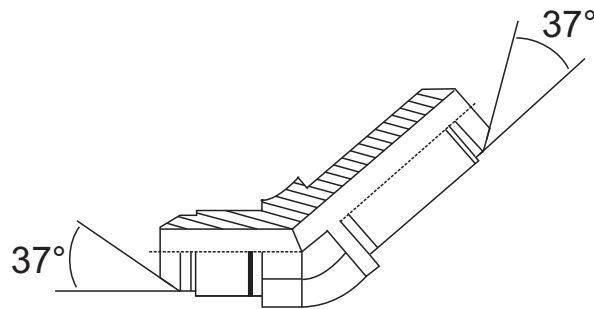
## JIC BULKHEAD WITH LOCKNUT

| ITEMS   | DESCRIPTION                      | JIC<br>THREAD |
|---------|----------------------------------|---------------|
| AB77-04 | 7/16 JIC BULKHEAD WITH LOCKNUT   | 7/16-20       |
| AB77-05 | 1/2 JIC BULKHEAD WITH LOCKNUT    | 1/2-20        |
| AB77-06 | 9/16 JIC BULKHEAD WITH LOCKNUT   | 9/16-18       |
| AB77-08 | 3/4 JIC BULKHEAD WITH LOCKNUT    | 3/4-16        |
| AB77-10 | 7/8 JIC BULKHEAD WITH LOCKNUT    | 7/8-14        |
| AB77-12 | 1 1/16 JIC BULKHEAD WITH LOCKNUT | 1 1/16-12     |
| AB77-16 | 1 5/16 JIC BULKHEAD WITH LOCKNUT | 1 5/16-12     |
| AB77-20 | 1 5/8 JIC BULKHEAD WITH LOCKNUT  | 1 5/8-12      |
| AB77-24 | 1 7/8 JIC BULKHEAD WITH LOCKNUT  | 1 7/8-12      |
| AB77-32 | 2 1/2 JIC BULKHEAD WITH LOCKNUT  | 2 1/2-12      |



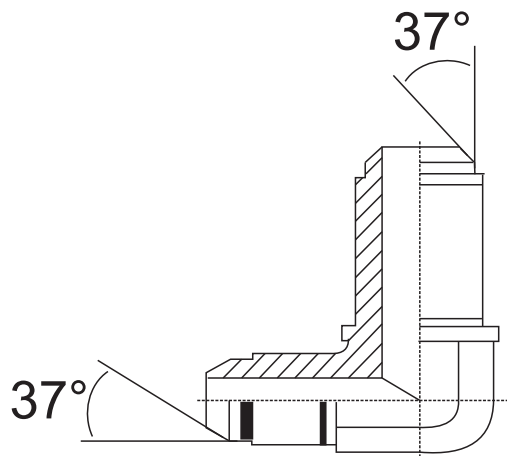
## JIC BULKHEAD WITH LOCKNUT 45°

| ITEMS   | DESCRIPTION                          | JIC THREAD |
|---------|--------------------------------------|------------|
| AB78-04 | 7/16 JIC BULKHEAD WITH LOCKNUT 45°   | 7/16-20    |
| AB78-06 | 9/16 JIC BULKHEAD WITH LOCKNUT 45°   | 9/16-18    |
| AB78-08 | 3/4 JIC BULKHEAD WITH LOCKNUT 45°    | 3/4-16     |
| AB78-10 | 7/8 JIC BULKHEAD WITH LOCKNUT 45°    | 7/8-14     |
| AB78-12 | 1 1/16 JIC BULKHEAD WITH LOCKNUT 45° | 1 1/16-12  |
| AB78-16 | 1 5/16 JIC BULKHEAD WITH LOCKNUT 45° | 1 5/16-12  |



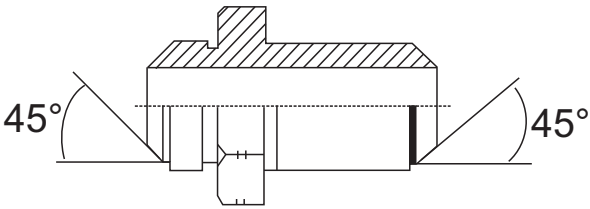
## JIC BULKHEAD WITH LOCKNUT 90°

| ITEMS   | DESCRIPTION                          | JIC THREAD |
|---------|--------------------------------------|------------|
| AB79-04 | 7/16 JIC BULKHEAD WITH LOCKNUT 90°   | 7/16-20    |
| AB79-05 | 1/2 JIC BULKHEAD WITH LOCKNUT 90°    | 1/2-20     |
| AB79-06 | 9/16 JIC BULKHEAD WITH LOCKNUT 90°   | 9/16-18    |
| AB79-08 | 3/4 JIC BULKHEAD WITH LOCKNUT 90°    | 3/4-16     |
| AB79-10 | 7/8 JIC BULKHEAD WITH LOCKNUT 90°    | 7/8-14     |
| AB79-12 | 1 1/16 JIC BULKHEAD WITH LOCKNUT 90° | 1 1/16-12  |
| AB79-16 | 1 5/16 JIC BULKHEAD WITH LOCKNUT 90° | 1 5/16-12  |
| AB79-20 | 1 5/8 JIC BULKHEAD WITH LOCKNUT 90°  | 1 5/8-12   |



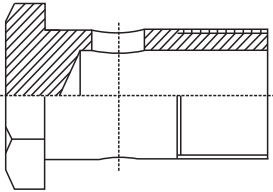
# SAE BULKHEAD WITH LOCKNUT

| ITEMS   | DESCRIPTION                   | SAE THREAD |
|---------|-------------------------------|------------|
| AB80-06 | 5/8 SAE BULKHEAD WITH LOCKNUT | 5/8-18     |



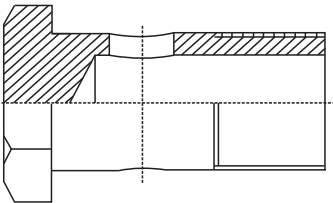
# METRIC BANJO BOLTS

| ITEMS   | DESCRIPTION       | METRIC THREAD |
|---------|-------------------|---------------|
| AB81-12 | 12X1.5 BANJO BOLT | 12X1.5        |
| AB81-14 | 14X1.5 BANJO BOLT | 14X1.5        |
| AB81-16 | 16X1.5 BANJO BOLT | 16X1.5        |
| AB81-18 | 18X1.5 BANJO BOLT | 18X1.5        |
| AB81-22 | 22X1.5 BANJO BOLT | 22X1.5        |



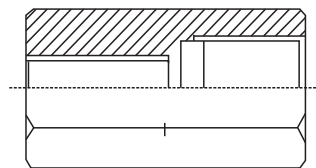
# BSP BANJO BOLTS

| ITEMS   | DESCRIPTION        | BSP THREAD |
|---------|--------------------|------------|
| AD82-04 | 1/4 BSP BANJO BOLT | 1/4 BSP    |
| AD82-06 | 3/8 BSP BANJO BOLT | 3/8 BSP    |
| AD82-08 | 1/2 BSP BANJO BOLT | 1/2 BSP    |
| AD82-10 | 5/8 BSP BANJO BOLT | 5/8 BSP    |
| AD82-12 | 3/4 BSP BANJO BOLT | 3/4 BSP    |



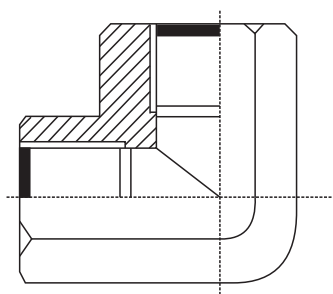
## BSP FEMALE SOCKET

| ITEMS   | DESCRIPTION             | BSP FEMALE |
|---------|-------------------------|------------|
| AS83-02 | 1/8 BSP FEMALE SOCKET   | 1/8 BSP    |
| AS83-04 | 1/4 BSP FEMALE SOCKET   | 1/4 BSP    |
| AS83-06 | 3/8 BSP FEMALE SOCKET   | 3/8 BSP    |
| AS83-08 | 1/2 BSP FEMALE SOCKET   | 1/2 BSP    |
| AS83-12 | 3/4 BSP BEMALE SOCKET   | 3/4 BSP    |
| AS83-16 | 1" BSP FEMALE SOCKET    | 1" BSP     |
| AS83-20 | 1 1/4 BSP FEMALE SOCKET | 1 1/4 BSP  |
| AS83-24 | 1 1/2 BSP FEMALE SOCKET | 1 1/2 BSP  |



## BSP FEMALE SOCKET 90°

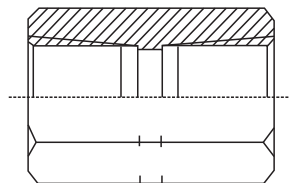
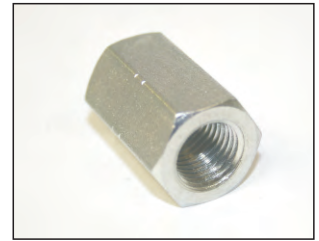
| ITEMS       | DESCRIPTION                 | BSP FEMALE |
|-------------|-----------------------------|------------|
| AS84-02-90° | 1/8 BSP FEMALE SOCKET 90°   | 1/8 BSP    |
| AS84-04-90° | 1/4 BSP FEMALE SOCKET 90°   | 1/4 BSP    |
| AS84-06-90° | 3/8 BSP FEMALE SOCKET 90°   | 3/8 BSP    |
| AS84-08-90° | 1/2 BSP FEMALE SOCKET 90°   | 1/2 BSP    |
| AS84-12-90° | 3/4 BSP FEMALE SOCKET 90°   | 3/4 BSP    |
| AS84-16-90° | 1" BSP FEMALE SOCKET 90°    | 1" BSP     |
| AS84-20-90° | 1 1/4 BSP FEMALE SOCKET 90° | 1 1/4 BSP  |
| AS84-24-90° | 1 1/2 BSP FEMALE SOCKET 90° | 1 1/2 BSP  |





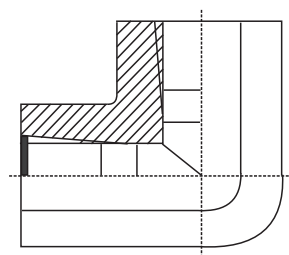
## NPT FEMALE SOCKET

| ITEMS     | DESCRIPTION                         | NPT FEMALE | NPT FEMALE |
|-----------|-------------------------------------|------------|------------|
| AS85-02   | 1/8 NPT - 1/8 NPT FEMALE SOCKET     | 1/8 NPT    | 1/8 NPT    |
| AS85-0204 | 1/8 NPT - 1/4 NPT FEMALE SOCKET     | 1/8 NPT    | 1/4 NPT    |
| AS85-04   | 1/4 NPT - 1/4 NPT FEMALE SOCKET     | 1/4 NPT    | 1/4 NPT    |
| AS85-0406 | 1/4 NPT - 3/8 NPT FEMALE SOCKET     | 1/4 NPT    | 3/8 NPT    |
| AS85-0408 | 1/4 NPT - 1/2 NPT FEMALE SOCKET     | 1/4 NPT    | 1/2 NPT    |
| AS85-06   | 3/8 NPT - 3/8 NPT FEMALE SOCKET     | 3/8 NPT    | 3/8 NPT    |
| AS85-0608 | 3/8 NPT - 1/2 NPT FEMALE SOCKET     | 3/8 NPT    | 1/2 NPT    |
| AS85-08   | 1/2 NPT - 1/2 NPT FEMALE SOCKET     | 1/2 NPT    | 1/2 NPT    |
| AS85-0812 | 1/2 NPT - 3/4 NPT FEMALE SOCKET     | 1/2 NPT    | 3/4 NPT    |
| AS85-12   | 3/4 NPT - 3/4 NPT FEMALE SOCKET     | 3/4 NPT    | 3/4 NPT    |
| AS85-1216 | 3/4 NPT - 1" NPT FEMALE SOCKET      | 3/4 NPT    | 1" NPT     |
| AS85-16   | 1" NPT - 1" NPT FEMALE SOCKET       | 1" NPT     | 1" NPT     |
| AS85-20   | 1 1/4 NPT - 1 1/4 NPT FEMALE SOCKET | 1 1/4 NPT  | 1 1/4 NPT  |
| AS85-24   | 1 1/2 NPT - 1 1/2 NPT FEMALE SOCKET | 1 1/2 NPT  | 1 1/2 NPT  |
| AS85-32   | 2" NPT - 2" NPT FEMALE SOCKET       | 2" NPT     | 2" NPT     |



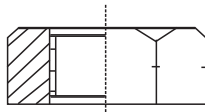
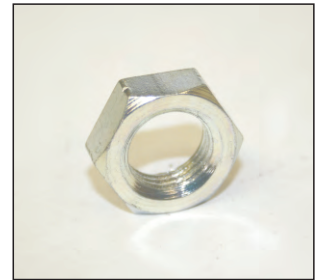
## NPT FEMALE SOCKET 90°

| ITEMS   | DESCRIPTION                             | NPT FEMALE | NPT FEMALE |
|---------|---|------------|------------|
| AS86-02 | 1/8 NPT - 1/8 NPT FEMALE SOCKET 90°     | 1/8 NPT    | 1/8 NPT    |
| AS86-04 | 1/4 NPT - 1/4 NPT FEMALE SOCKET 90°     | 1/4 NPT    | 1/4 NPT    |
| AS86-06 | 3/8 NPT - 3/8 NPT FEMALE SOCKET 90°     | 3/8 NPT    | 3/8 NPT    |
| AS86-08 | 1/2 NPT - 1/2 NPT FEMALE SOCKET 90°     | 1/2 NPT    | 1/2 NPT    |
| AS86-12 | 3/4 NPT - 3/4 NPT FEMALE SOCKET 90°     | 3/4 NPT    | 3/4 NPT    |
| AS86-16 | 1" NPT - 1" NPT FEMALE SOCKET 90°       | 1" NPT     | 1" NPT     |
| AS86-20 | 1 1/4 NPT - 1 1/4 NPT FEMALE SOCKET 90° | 1 1/4 NPT  | 1 1/4 NPT  |
| AS86-24 | 1 1/2 NPT - 1 1/2 NPT FEMALE SOCKET 90° | 1 1/2 NPT  | 1 1/2 NPT  |
| AS86-32 | 2" NPT - 2" NPT FEMALE SOCKET 90°       | 2" NPT     | 2" NPT     |



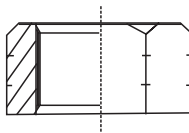
## BSP LOCKNUTS

| ITEMS   | DESCRIPTION       | BSP<br>THREAD |
|---------|-------------------|---------------|
| AL87-02 | 1/8 BSP LOCKNUT   | 1/8 BSP       |
| AL87-04 | 1/4 BSP LOCKNUT   | 1/4 BSP       |
| AL87-06 | 3/8 BSP LOCKNUT   | 3/8 BSP       |
| AL87-08 | 1/2 BSP LOCKNUT   | 1/2 BSP       |
| AL87-10 | 5/8 BSP LOCKNUT   | 5/8 BSP       |
| AL87-12 | 3/4 BSP LOCKNUT   | 3/4 BSP       |
| AL87-16 | 1" BSP LOCKNUT    | 1" BSP        |
| AL87-20 | 1 1/4 BSP LOCKNUT | 1 1/4 BSP     |
| AL87-24 | 1 1/2 BSP LOCKNUT | 1 1/2 BSP     |



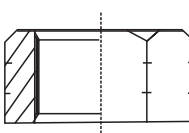
## ORFS LOCKNUTS

| ITEMS   | DESCRIPTION          | ORFS<br>THREAD |
|---------|----------------------|----------------|
| AL88-04 | 9/16 ORFS LOCKNUT    | 9/16-18        |
| AL88-06 | 11/16 ORFS LOCKNUT   | 11/16-16       |
| AL88-08 | 13/16 ORFS LOCKNUT   | 13/16-16       |
| AL88-10 | 1" ORFS LOCKNUT      | 1-14           |
| AL88-12 | 1 3/16 ORFS LOCKNUT  | 1 3/16-12      |
| AL88-16 | 1 7/16 ORFS LOCKNUT  | 1 7/16-12      |
| AL88-20 | 1 11/16 ORFS LOCKNUT | 1 11/16-12     |



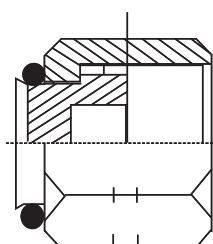
## JIC LOCKNUTS

| ITEMS   | DESCRIPTION        | JIC<br>THREAD |
|---------|--------------------|---------------|
| AL89-04 | 7/16 JIC LOCKNUT   | 7/16-20       |
| AL89-05 | 1/2 JIC LOCKNUT    | 1/2-20        |
| AL89-06 | 9/16 JIC LOCKNUT   | 9/16-18       |
| AL89-08 | 3/4 JIC LOCKNUT    | 3/4-16        |
| AL89-10 | 7/8 JIC LOCKNUT    | 7/8-14        |
| AL89-12 | 1 1/16 JIC LOCKNUT | 1 1/16-12     |
| AL89-16 | 1 5/16 JIC LOCKNUT | 1 5/16-12     |
| AL89-20 | 1 5/8 JIC LOCKNUT  | 1 5/8-12      |
| AL89-24 | 1 7/8 JIC LOCKNUT  | 1 7/8-12      |



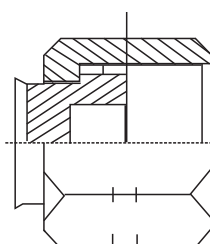
## BSP FEMALE SWIVEL CAP

| ITEMS   | DESCRIPTION                 | BSP FEMALE |
|---------|-----------------------------|------------|
| AC90-02 | 1/8 BSP FEMALE SWIVEL CAP   | 1/8 BSP    |
| AC90-04 | 1/4 BSP FEMALE SWIVEL CAP   | 1/4 BSP    |
| AC90-06 | 3/8 BSP FEMALE SWIVEL CAP   | 3/8 BSP    |
| AC90-08 | 1/2 BSP FEMALE SWIVEL CAP   | 1/2 BSP    |
| AC90-12 | 3/4 BSP FEMALE SWIVEL CAP   | 3/4 BSP    |
| AC90-16 | 1" BSP FEMALE SWIVEL CAP    | 1" BSP     |
| AC90-20 | 1 1/4 BSP FEMALE SWIVEL CAP | 1 1/4 BSP  |



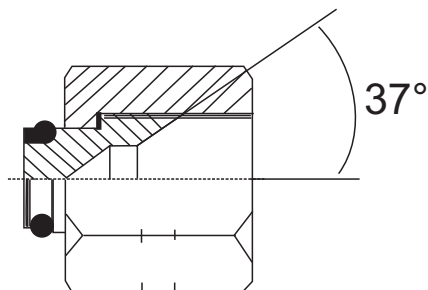
## ORFS FEMALE SWIVEL CAP

| ITEMS   | DESCRIPTION                    | ORFS THREAD |
|---------|--------------------------------|-------------|
| AC91-04 | 9/16 ORFS FEMALE SWIVEL CAP    | 9/16-18     |
| AC91-06 | 11/16 ORFS FEMALE SWIVEL CAP   | 11/16-16    |
| AC91-08 | 13/16 ORFS FEMALE SWIVEL CAP   | 13/16-16    |
| AC91-10 | 1" ORFS FEMALE SWIVEL CAP      | 1-14        |
| AC91-12 | 1 3/16 ORFS FEMALE SWIVEL CAP  | 1 3/16-12   |
| AC91-16 | 1 7/16 ORFS FEMALE SWIVEL CAP  | 1 7/16-12   |
| AC91-20 | 1 11/16 ORFS FEMALE SWIVEL CAP | 1 11/16-12  |
| AC91-24 | 2" ORFS FEMALE SWIVEL CAP      | 2-12        |



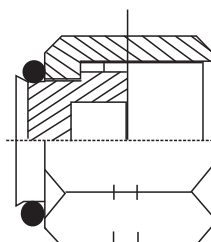
## JIC FEMALE SWIVEL CAP

| ITEMS   | DESCRIPTION                  | JIC<br>THREAD |
|---------|------------------------------|---------------|
| AC92-04 | 7/16 JIC FEMALE SWIVEL CAP   | 7/16-20       |
| AC92-05 | 1/2 JIC FEMALE SWIVEL CAP    | 1/2-20        |
| AC92-06 | 9/16 JIC FEMALE SWIVEL CAP   | 9/16-18       |
| AC92-08 | 3/4 JIC FEMALE SWIVEL CAP    | 3/4-16        |
| AC92-10 | 7/8 JIC FEMALE SWIVEL CAP    | 7/8-14        |
| AC92-12 | 1 1/16 JIC FEMALE SWIVEL CAP | 1 1/16-12     |
| AC92-14 | 1 3/16 JIC FEMALE SWIVEL CAP | 1 3/16-12     |
| AC92-16 | 1 5/16 JIC FEMALE SWIVEL CAP | 1 5/16-12     |
| AC92-20 | 1 5/8 JIC FEMALE SWIVEL CAP  | 1 5/8-12      |
| AC92-24 | 1 7/8 JIC FEMALE SWIVEL CAP  | 1 7/8-12      |
| AC92-32 | 2 1/2 JIC FEMALE SWIVEL CAP  | 2 1/2-12      |



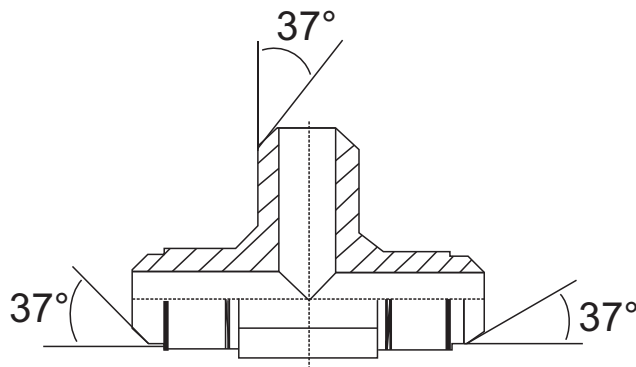
## METRIC FEMALE SWIVEL CAP

| ITEMS   | DESCRIPTION              | METRIC<br>THREAD |
|---------|--------------------------|------------------|
| AC93-12 | 12X1.5 METRIC FEMALE CAP | 12X1.5           |
| AC93-14 | 14X1.5 METRIC FEMALE CAP | 14X1.5           |
| AC93-16 | 16X1.5 METRIC FEMALE CAP | 16X1.5           |
| AC93-18 | 18X1.5 METRIC FEMALE CAP | 18X1.5           |



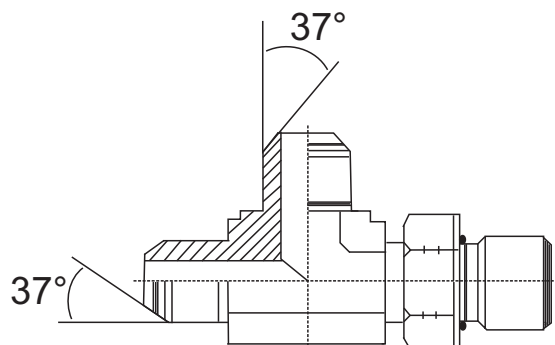
## JIC MALE TEES

| ITEMS   | DESCRIPTION         | JIC MALE  |
|---------|---------------------|-----------|
| AT94-04 | 7/16 JIC MALE TEE   | 7/16-20   |
| AT94-05 | 1/2 JIC MALE TEE    | 1/2-20    |
| AT94-06 | 9/16 JIC MALE TEE   | 9/16-18   |
| AT94-08 | 3/4 JIC MALE TEE    | 3/4-16    |
| AT94-10 | 7/8 JIC MALE TEE    | 7/8-14    |
| AT94-12 | 1 1/16 JIC MALE TEE | 1 1/16-12 |
| AT94-16 | 1 5/16 JIC MALE TEE | 1 5/16-12 |
| AT94-20 | 1 5/8 JIC MALE TEE  | 1 5/8-12  |
| AT94-24 | 1 7/8 JIC MALE TEE  | 1 7/8-12  |



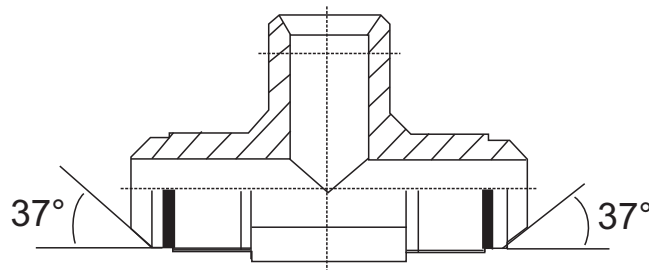
## JIC MALE - SAE MALE RUN TEE

| ITEMS       | DESCRIPTION                              | JIC MALE  | SAE MALE ON RUN |
|-------------|--|-----------|-----------------|
| AT95-040404 | 7/16 JIC MALE - 7/16 SAE MALE ON RUN     | 7/16-20   | 7/16-20         |
| AT95-050505 | 1/2 JIC MALE - 1/2 SAE MALE ON RUN       | 1/2-20    | 1/2-20          |
| AT95-060606 | 9/16 JIC MALE - 9/16 SAE MALE ON RUN     | 9/16-18   | 9/16-18         |
| AT95-080808 | 3/4 JIC MALE - 3/4 SAE MALE ON RUN       | 3/4-16    | 3/4-16          |
| AT95-101010 | 7/8 JIC MALE - 7/8 SAE MALE ON RUN       | 7/8-14    | 7/8-14          |
| AT95-121212 | 1 1/16 JIC MALE - 1 1/16 SAE MALE ON RUN | 1 1/16-12 | 1 1/16-12       |
| AT95-161616 | 1 5/16 JIC MALE - 1 5/16 SAE MALE ON RUN | 1 5/16-12 | 1 5/16-12       |
| AT95-202020 | 1 5/8 JIC MALE - 1 5/8 SAE MALE ON RUN   | 1 5/8-12  | 1 5/8-12        |



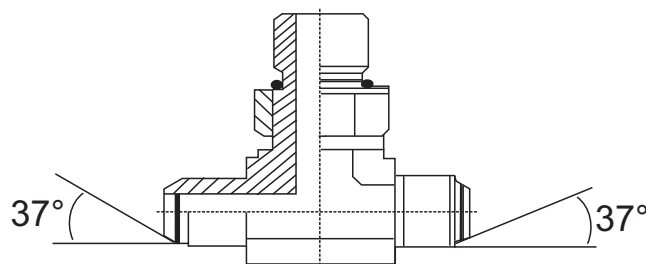
## JIC MALE - NPT MALE ON BRANCH

| ITEMS       | DESCRIPTION                               | JIC MALE  | NPT MALE ON BRANCH |
|-------------|---|-----------|--------------------|
| AT96-040404 | 7/16 JIC MALE - 1/4 NPT MALE ON BRANCH    | 7/16-20   | 1/4 NPT            |
| AT96-060606 | 9/16 JIC MALE - 3/8 NPT MALE ON BRANCH    | 9/16-18   | 3/8 NPT            |
| AT96-060406 | 9/16 JIC MALE - 1/4 NPT MALE ON BRANCH    | 9/16-18   | 1/4 NPT            |
| AT96-080608 | 3/4 JIC MALE - 3/8 NPT MALE ON BRANCH     | 3/4-16    | 3/8 NPT            |
| AT96-080808 | 3/4 JIC MALE - 1/2 NPT MALE ON BRANCH     | 3/4-16    | 1/2 NPT            |
| AT96-100810 | 7/8 JIC MALE - 1/2 NPT MALE ON BRANCH     | 7/8-14    | 1/2 NPT            |
| AT96-121212 | 1 1/16 JIC MALE - 3/4 NPT MALE ON BRANCH  | 1 1/16-12 | 3/4 NPT            |
| AT96-161616 | 1 5/16 JIC MALE - 1" NPT MALE ON BRANCH   | 1 5/16-12 | 1" NPT             |
| AT96-202020 | 1 5/8 JIC MALE - 1 1/4 NPT MALE ON BRANCH | 1 5/8-12  | 1 1/4 NPT          |
| AT96-242424 | 1 7/8 JIC MALE - 1 1/2 NPT MALE ON BRANCH | 1 7/8-12  | 1 1/2 NPT          |



## JIC MALE - SAE MALE ON BRANCH TEE

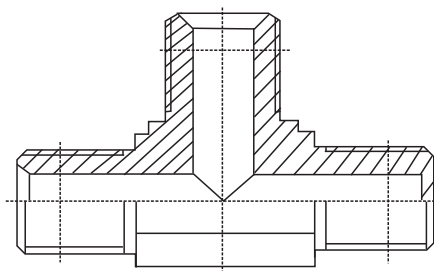
| ITEMS       | DESCRIPTION                                 | JIC MALE  | SAE MALE ON BRANCH |
|-------------|---|-----------|--------------------|
| AT97-040404 | 7/16 JIC MALE - 7/16 SAE MALE ON BRANCH     | 7/16-20   | 7/16-20            |
| AT97-050505 | 1/2 JIC MALE - 1/2 SAE MALE ON BRANCH       | 1/2-20    | 1/2-20             |
| AT97-060606 | 9/16 JIC MALE - 9/16 SAE MALE ON BRANCH     | 9/16-18   | 9/16-18            |
| AT97-080808 | 3/4 JIC MALE - 3/4 SAE MALE ON BRANCH       | 3/4-16    | 3/4-16             |
| AT97-101010 | 7/8 JIC MALE - 7/8 SAE MALE ON BRANCH       | 7/8-14    | 7/8-14             |
| AT97-121212 | 1 1/16 JIC MALE - 1 1/16 SAE MALE ON BRANCH | 1 1/16-12 | 1 1/16-12          |
| AT97-161616 | 1 5/16 JIC MALE - 1 5/16 SAE MALE ON BRANCH | 1 5/16-12 | 1 5/16-12          |
| AT97-202020 | 1 5/8 JIC MALE - 1 5/8 SAE MALE ON BRANCH   | 1 5/8-12  | 1 5/8-12           |





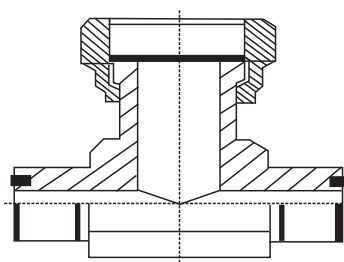
## BSPT MALE TEES

| ITEMS   | DESCRIPTION       | BSP<br>THREAD |
|---------|-------------------|---------------|
| AT98-02 | 1/8 BSPT MALE TEE | 1/8 BSPT      |
| AT98-04 | 1/4 BSPT MALE TEE | 1/4 BSPT      |
| AT98-06 | 3/8 BSPT MALE TEE | 3/8 BSPT      |
| AT98-08 | 1/2 BSPT MALE TEE | 1/2 BSPT      |
| AT98-12 | 3/4 BSPT MALE TEE | 3/4 BSPT      |
| AT98-16 | 1" BSPT MALE TEE  | 1" BSPT       |



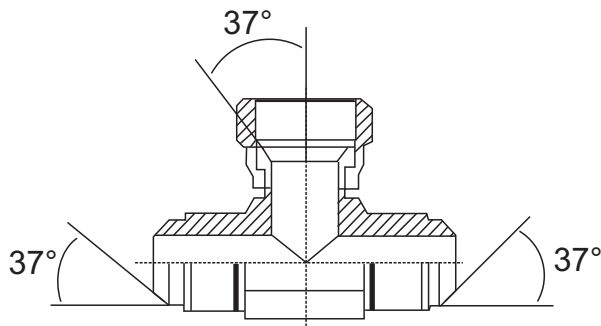
## ORFS MALE - ORFS FEMALE BRANCH TEE

| ITEMS   | DESCRIPTION                                     | ORFS<br>MALE | ORFS FEMALE<br>ON BRANCH |
|---------|---|--------------|--------------------------|
| AT99-04 | 9/16 ORFS MALE - 9/16 ORFS FEMALE ON BRANCH     | 9/16-18      | 9/16-18                  |
| AT99-06 | 11/16 ORFS MALE - 11/16 ORFS FEMALE ON BRANCH   | 11/16-16     | 11/16-16                 |
| AT99-08 | 13/16 ORFS MALE - 13/16 ORFS FEMALE ON BRANCH   | 13/16-16     | 13/16-16                 |
| AT99-10 | 1" ORFS MALE - 1" ORFS FEMALE ON BRANCH         | 1-14         | 1-14                     |
| AT99-12 | 1 3/16 ORFS MALE - 1 3/16 ORFS FEMALE ON BRANCH | 1 3/16-12    | 1 3/16-12                |
| AT99-16 | 1 7/16 ORFS MALE - 1 7/16 ORFS FEMALE ON BRANCH | 1 7/16-12    | 1 7/16-12                |



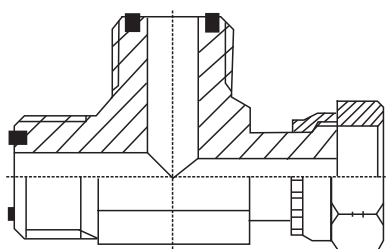
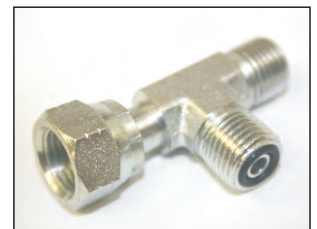
# JIC MALE - JIC FEMALE ON BRANCH TEE

| ITEMS    | DESCRIPTION                                   | JIC MALE  | JIC FEMALE ON BRANCH |
|----------|---|-----------|----------------------|
| AT100-04 | 7/16 JIC MALE - 7/16 JIC FEMALE ON BRANCH     | 7/16-20   | 7/16-20              |
| AT100-05 | 1/2 JIC MALE - 1/2 JIC FEMALE ON BRANCH       | 1/2-20    | 1/2-20               |
| AT100-06 | 9/16 JIC MALE - 9/16 JIC FEMALE ON BRANCH     | 9/16-18   | 9/16-18              |
| AT100-08 | 3/4 JIC MALE - 3/4 JIC FEMALE ON BRANCH       | 3/4-16    | 3/4-16               |
| AT100-10 | 7/8 JIC MALE - 7/8 JIC FEMALE ON BRANCH       | 7/8-14    | 7/8-14               |
| AT100-12 | 1 1/16 JIC MALE - 1 1/16 JIC FEMALE ON BRANCH | 1 1/16-12 | 1 1/16-12            |
| AT100-16 | 1 5/16 JIC MALE - 1 5/16 JIC FEMALE ON BRANCH | 1 5/16-12 | 1 5/16-12            |
| AT100-20 | 1 5/8 JIC MALE - 1 5/8 JIC FEMALE ON BRANCH   | 1 5/8-12  | 1 5/8-12             |
| AT100-24 | 1 7/8 JIC MALE - 1 7/8 JIC FEMALE ON BRANCH   | 1 7/8-12  | 1 7/8-12             |



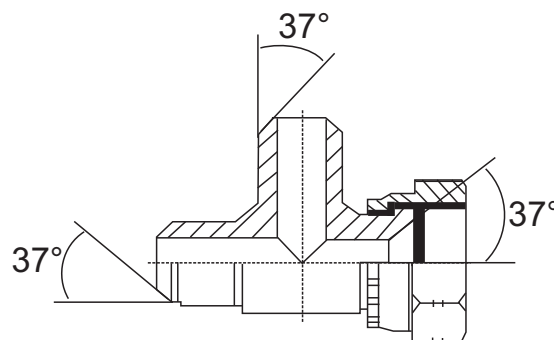
# ORFS MALE - ORFS FEMALE ON RUN TEE

| ITEMS    | DESCRIPTION                                    | ORFS MALE  | ORFS FEMALE ON RUN |
|----------|--|------------|--------------------|
| AT101-04 | 9/16 ORFS MALE - 9/16 ORFS FEMALE ON RUN       | 9/16-18    | 9/16-18            |
| AT101-06 | 11/16 ORFS MALE - 11/16 ORFS FEMALE ON RUN     | 11/16-16   | 11/16-16           |
| AT101-08 | 13/16 ORFS MALE - 13/16 ORFS FEMALE ON RUN     | 13/16-16   | 13/16-16           |
| AT101-10 | 1" ORFS MALE - 1" ORFS FEMALE ON RUN           | 1-14       | 1-14               |
| AT101-12 | 1 3/16 ORFS MALE - 1 3/16 ORFS FEMALE ON RUN   | 1 3/16-12  | 1 3/16-12          |
| AT101-16 | 1 7/16 ORFS MALE - 1 7/16 ORFS FEMALE ON RUN   | 1 7/16-12  | 1 7/16-12          |
| AT101-20 | 1 11/16 ORFS MALE - 1 11/16 ORFS FEMALE ON RUN | 1 11/16-12 | 1 11/16-12         |



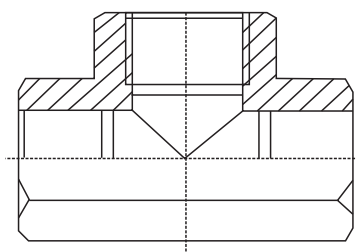
# JIC MALE - JIC FEMALE ON RUN TEE

| ITEMS    | DESCRIPTION                                | JIC MALE  | JIC FEMALE ON RUN |
|----------|--|-----------|-------------------|
| AT102-04 | 7/16 JIC MALE - 7/16 JIC FEMALE ON RUN     | 7/16-20   | 7/16-20           |
| AT102-05 | 1/2 JIC MALE - 1/2 JIC FEMALE ON RUN       | 1/2-20    | 1/2-20            |
| AT102-06 | 9/16 JIC MALE - 9/16 JIC FEMALE ON RUN     | 9/16-18   | 9/16-18           |
| AT102-08 | 3/4 JIC MALE - 3/4 JIC FEMALE ON RUN       | 3/4-16    | 3/4-16            |
| AT102-10 | 7/8 JIC MALE - 7/8 JIC FEMALE ON RUN       | 7/8-14    | 7/8-14            |
| AT102-12 | 1 1/16 JIC MALE - 1 1/16 JIC FEMALE ON RUN | 1 1/16-12 | 1 1/16-12         |
| AT102-16 | 1 5/16 JIC MALE - 1 5/16 JIC FEMALE ON RUN | 1 5/16-12 | 1 5/16-12         |
| AT102-20 | 1 5/8 JIC MALE - 1 5/8 JIC FEMALE ON RUN   | 1 5/8-12  | 1 5/8-12          |
| AT102-24 | 1 7/8 JIC MALE - 1 7/8 JIC FEMALE ON RUN   | 1 7/8-12  | 1 7/8-12          |



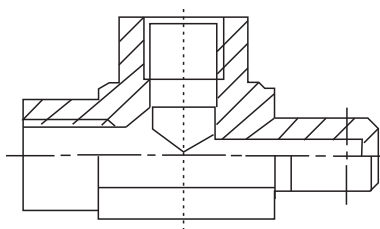
# BSP FEMALE TEE

| ITEMS    | DESCRIPTION          | BSP FEMALE |
|----------|----------------------|------------|
| AT103-02 | 1/8 BSP FEMALE TEE   | 1/8 BSP    |
| AT103-04 | 1/4 BSP FEMALE TEE   | 1/4 BSP    |
| AT103-06 | 3/8 BSP FEMALE TEE   | 3/8 BSP    |
| AT103-08 | 1/2 BSP FEMALE TEE   | 1/2 BSP    |
| AT103-12 | 3/4 BSP FEMALE TEE   | 3/4 BSP    |
| AT103-16 | 1" BSP FEMALE TEE    | 1" BSP     |
| AT103-20 | 1 1/4 BSP FEMALE TEE | 1 1/4 BSP  |
| AT103-24 | 1 1/2 BSP FEMALE TEE | 1 1/2 BSP  |



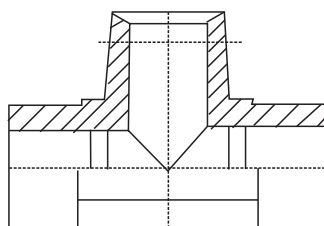
## NPT FEMALE - NPT MALE ON RUN TEE

| ITEMS    | DESCRIPTION                              | NPT FEMALE | NPT MALE  |
|----------|--|------------|-----------|
| AT106-02 | 1/8 NPT FEMALE - 1/8 NPT MALE ON RUN     | 1/8 NPT    | 1/8 NPT   |
| AT106-04 | 1/4 NPT FEMALE - 1/4 NPT MALE ON RUN     | 1/4 NPT    | 1/4 NPT   |
| AT106-06 | 3/8 NPT FEMALE - 3/8 NPT MALE ON RUN     | 3/8 NPT    | 3/8 NPT   |
| AT106-08 | 1/2 NPT FEMALE - 1/2 NPT MALE ON RUN     | 1/2 NPT    | 1/2 NPT   |
| AT106-12 | 3/4 NPT FEMALE - 3/4 NPT MALE ON RUN     | 3/4 NPT    | 3/4 NPT   |
| AT106-16 | 1" NPT FEMALE - 1" NPT MALE ON RUN       | 1" NPT     | 1" NPT    |
| AT106-20 | 1 1/4 NPT FEMALE - 1 1/4 NPT MALE ON RUN | 1 1/4 NPT  | 1 1/4 NPT |



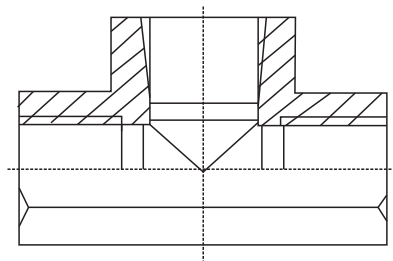
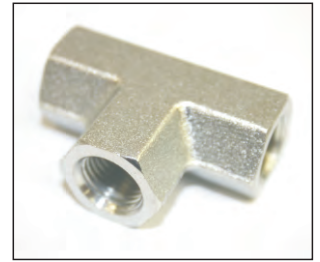
## NPT FEMALE - NPT MALE ON BRANCH TEE

| ITEMS    | DESCRIPTION                             | NPT FEMALE | NPT MALE |
|----------|---|------------|----------|
| AT107-02 | 1/8 NPT FEMALE - 1/8 NPT MALE ON BRANCH | 1/8 NPT    | 1/8 NPT  |
| AT107-04 | 1/4 NPT FEMALE - 1/4 NPT MALE ON BRANCH | 1/4 NPT    | 1/4 NPT  |
| AT107-06 | 3/8 NPT FEMALE - 3/8 NPT MALE ON BRANCH | 3/8 NPT    | 3/8 NPT  |
| AT107-08 | 1/2 NPT FEMALE - 1/2 NPT MALE ON BRANCH | 1/2 NPT    | 1/2 NPT  |
| AT107-12 | 3/4 NPT FEMALE - 3/4 NPT MALE ON BRANCH | 3/4 NPT    | 3/4 NPT  |
| AT107-16 | 1" NPT FEMALE - 1" NPT MALE ON BRANCH   | 1" NPT     | 1" NPT   |



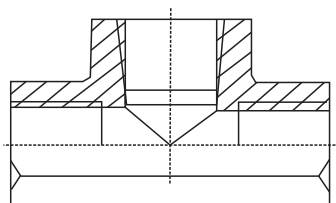
## NPT FEMALE TEE

| ITEMS    | DESCRIPTION          | NPT FEMALE |
|----------|----------------------|------------|
| AT104-02 | 1/8 NPT FEMALE TEE   | 1/8 NPT    |
| AT104-04 | 1/4 NPT FEMALE TEE   | 1/4 NPT    |
| AT104-06 | 3/8 NPT FEMALE TEE   | 3/8 NPT    |
| AT104-08 | 1/2 NPT FEMALE TEE   | 1/2 NPT    |
| AT104-12 | 3/4 NPT FEMALE TEE   | 3/4 NPT    |
| AT104-16 | 1" NPT FEMALE TEE    | 1" NPT     |
| AT104-20 | 1 1/4 NPT FEMALE TEE | 1 1/4 NPT  |
| AT104-24 | 1 1/2 NPT FEMALE TEE | 1 1/2 NPT  |
| AT104-32 | 2" NPT FEMALE TEE    | 2" NPT     |



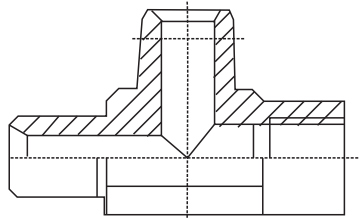
## BSPT FEMALE TEE

| ITEMS    | DESCRIPTION         | BSPT FEMALE | PRICE  |
|----------|---------------------|-------------|--------|
| AT105-02 | 1/8 BSPT FEMALE TEE | 1/8 BSPT    | 64.40  |
| AT105-04 | 1/4 BSPT FEMALE TEE | 1/4 BSPT    | 72.25  |
| AT105-06 | 3/8 BSPT FEMALE TEE | 3/8 BSPT    | 100.30 |
| AT105-08 | 1/2 BSPT FEMALE TEE | 1/2 BSPT    | 118.50 |
| AT105-12 | 3/4 BSPT FEMALE TEE | 3/4 BSPT    | 170.50 |
| AT105-16 | 1" BSPT FEMALE TEE  | 1" BSPT     | 246.90 |



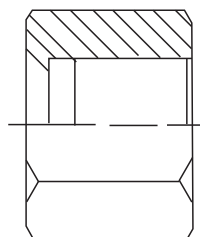
# NPT MALE - NPT FEMALE ON RUN TEE

| ITEMS    | DESCRIPTION                          | NPT MALE | NPT FEMALE |
|----------|--------------------------------------|----------|------------|
| AT108-06 | 3/8 NPT MALE - 3/8 NPT FEMALE ON RUN | 3/8 NPT  | 3/8 NPT    |
| AT108-08 | 1/2 NPT MALE - 1/2 NPT FEMALE ON RUN | 1/2 NPT  | 1/2 NPT    |
| AT108-12 | 3/4 NPT MALE - 3/4 NPT FEMALE ON RUN | 3/4 NPT  | 3/4 NPT    |



# JIC TUBE NUTS

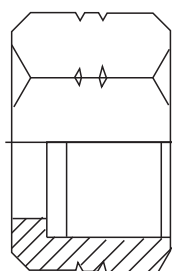
| ITEMS     | DESCRIPTION         | JIC THREAD | TUBE OD |
|-----------|---------------------|------------|---------|
| AN109-04  | 7/16 JIC TUBE NUT   | 7/16-20    | 06MM    |
| AN109-05  | 1/2 JIC TUBE NUT    | 1/2-20     | 08MM    |
| AN109-06  | 9/16 JIC TUBE NUT   | 9/16-18    | 10MM    |
| AN109-08  | 3/4 JIC TUBE NUT    | 3/4-16     | 12MM    |
| AN109-10  | 7/8 JIC TUBE NUT    | 7/8-14     | 16MM    |
| AN109-12  | 1 1/16 JIC TUBE NUT | 1 1/16-12  | 18MM    |
| AN109-12A | 1 1/16 JIC TUBE NUT | 1 1/16-12  | 20MM    |
| AN109-16  | 1 5/16 JIC TUBE NUT | 1 5/16-12  | 25MM    |
| AN109-20  | 1 5/8 JIC TUBE NUT  | 1 5/8-12   | 32MM    |
| AN109-24  | 1 7/8 JIC TUBE NUT  | 1 7/8-12   | 38MM    |
| AN109-32  | 2 1/2 JIC TUBE NUT  | 2 1/2-12   | 50MM    |





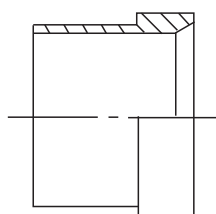
## ORFS TUBE NUTS

| ITEMS    | DESCRIPTION           | ORFS<br>THREAD | TUBE<br>OD |
|----------|-----------------------|----------------|------------|
| AN110-04 | 9/16 ORFS TUBE NUT    | 9/16-18        | 06MM       |
| AN110-06 | 11/16 ORFS TUBE NUT   | 11/16-16       | 10MM       |
| AN110-08 | 13/16 ORFS TUBE NUT   | 13/16-16       | 12MM       |
| AN110-10 | 1" ORFS TUBE NUT      | 1-14           | 16MM       |
| AN110-12 | 1 3/16 ORFS TUBE NUT  | 1 3/16-12      | 20MM       |
| AN110-16 | 1 7/16 ORFS TUBE NUT  | 1 7/16-12      | 25MM       |
| AN110-20 | 1 11/16 ORFS TUBE NUT | 1 11/16-12     | 30MM       |



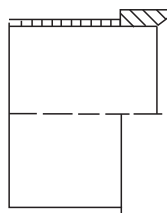
## IMPERIAL SLEEVES

| ITEMS     | DESCRIPTION  | TUBE OD |
|-----------|--------------|---------|
| ASL111-04 | 1/4 SLEEVE   | 1/4     |
| ASL111-05 | 5/16 SLEEVE  | 5/16    |
| ASL111-06 | 3/8 SLEEVE   | 3/8     |
| ASL111-08 | 1/2 SLEEVE   | 1/2     |
| ASL111-10 | 5/8 SLEEVE   | 5/8     |
| ASL111-12 | 3/4 SLEEVE   | 3/4     |
| ASL111-16 | 1" SLEEVE    | 1"      |
| ASL111-20 | 1 1/4 SLEEVE | 1 1/4   |



## METRIC SLEEVES

| ITEMS      | DESCRIPTION | TUBE OD | AN109 NUT TO SUIT |
|------------|-------------|---------|-------------------|
| ASL112-06  | 06MM SLEEVE | 06MM    | -04               |
| ASL112-08  | 08MM SLEEVE | 08MM    | -05               |
| ASL112-10  | 10MM SLEEVE | 10MM    | -06               |
| ASL112-12  | 12MM SLEEVE | 12MM    | -08               |
| ASL112-14  | 14MM SLEEVE | 14MM    |                   |
| ASL112-15  | 15MM SLEEVE | 15MM    |                   |
| ASL112-16  | 16MM SLEEVE | 16MM    | -10               |
| ASL112-18  | 18MM SLEEVE | 18MM    | -12               |
| ASL112-20  | 20MM SLEEVE | 20MM    |                   |
| ASL112-20A | 20MM SLEEVE | 20MM    | -12A              |
| ASL112-22  | 22MM SLEEVE | 22MM    |                   |
| ASL112-25  | 25MM SLEEVE | 25MM    | -16               |
| ASL112-28  | 28MM SLEEVE | 28MM    |                   |
| ASL112-30  | 30MM SLEEVE | 30MM    |                   |
| ASL112-32  | 32MM SLEEVE | 32MM    |                   |
| ASL112-38  | 38MM SLEEVE | 38MM    |                   |



## ORFS SLEEVES

| ITEMS     | DESCRIPTION       | TUBE OD | AN110 NUT TO SUIT |
|-----------|-------------------|---------|-------------------|
| ASL113-06 | 06MM ORFS SLEEVE  | 06MM    | -04               |
| ASL113-10 | 10MM ORFS SLEEVE  | 10MM    | -06               |
| ASL113-12 | 12MM ORFS SLEEVE  | 12MM    | -08               |
| ASL113-16 | 16 MM ORFS SLEEVE | 16MM    | -10               |
| ASL113-20 | 20MM ORFS SLEEVE  | 20MM    | -12               |
| ASL113-25 | 25MM ORFS SLEEVE  | 25MM    | -16               |
| ASL113-30 | 30MM ORFS SLEEVE  | 30MM    | -20               |

