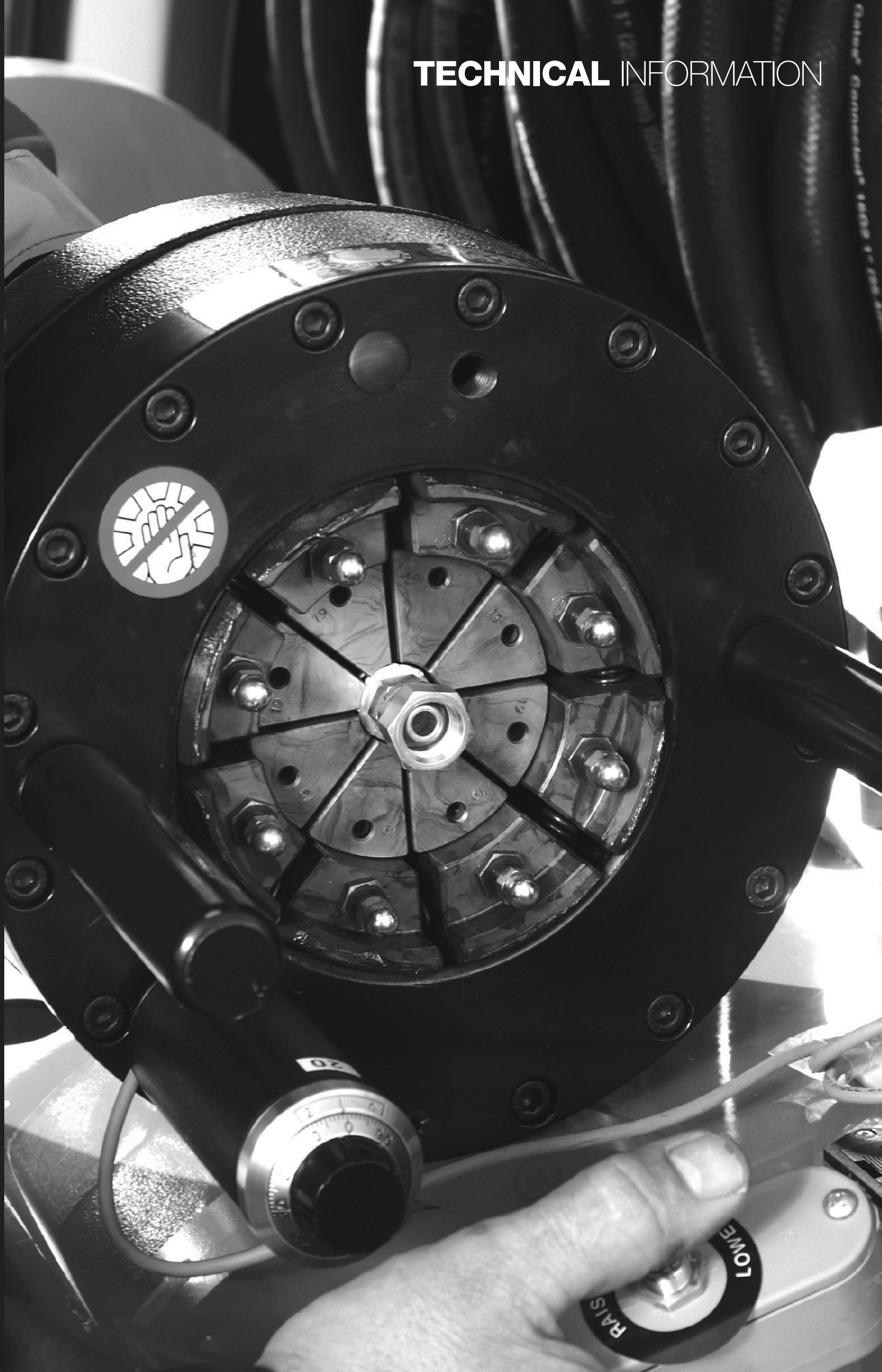
Quick Release Couplers

TECHNICAL INFORMATION



SECTION 1

Hydraulink Hose and Fittings

PRODUCT SELECTION

GENERAL INFORMATION

An essential step in ensuring that a hydraulic system is safe and delivers optimum performance and service life is selecting the correct fluid conveying components.

Although a lot of the work undertaken in this industry is the replacement of existing components with a duplicate it is still good practice to check the product against the application especially if the service life of the product to be replaced was not acceptable or when fault finding on an existing system.

In some cases a problem with a hose assembly or other fluid conveying products can point to an underlying problem with the system itself or possibly the products have been incorrectly specified originally.

INFORMATION - HOSE

HOSE SELECTION & SERVICE LIFE RECOMMENDATIONS

Hydraulic hose (and hose assemblies) have a finite life span that is dependent upon the actual operating conditions the assembly is subjected to. An effective way to remember hose selection criteria is to remember the word STAMPED. STAMPED is an acronym for the following:

S = Size
T = Temperature
A = Application
M = Medium or Media
P = Pressure
E = Ends
D = Delivery

1. Size - Hose Internal Diameter can be determined using the Nomographic Chart found in this section. The correct hose I.D. must be selected for the flow required. Too small an I.D. for a given volume will result in pressure drop, heat generation, fluid turbulence and possible internal tube damage. If in doubt, select the next size up.

2. Temperature. Hose selection is determined by two variables of temperature; the ambient (external) temperature and the fluid/material (internal) temperature. The hose should not be exposed to internal or external temperatures which exceed the manufacturer's stated maximum and minimum limits. Both continual and intermittent temperatures must be accommodated within the recommended limits. Extra care must be taken when specifying hoses that are routed near to (or terminate on) hot components such as engine manifolds.

3. Application. The determination of how the hydraulic hose or hose assembly will be used. Questions that may need to be answered to ensure correct hose selection could include: What is the suitable hose construction? What type of equipment is it used on? What are the end connections? Are there applicable Government or Industry standards to be satisfied? Questions that may need to be answered to ensure correct hose selection could include; What are the environmental conditions the hose will be used in? Does the hose require a special cover or armour? Are there unusual mechanical loads or excessive movement? What are the routing requirements? What are the required lengths and bend radius to satisfy those routing requirements? (Further data regarding Hose Installation Recommendation can be found in this section.)

4. Medium (or media, material) to be conveyed. Hose selection must ensure compatibility of the hose tube (liner) and outer cover with the oil, chemical or gas to be conveyed. A chemical resistance table to rubber compounds can be found in this section. Similar care to ensure compatibility should be taken when specifying end connections (hosetails and adaptors), especially those that contain o-rings.

5. Pressure. The pressure in a hydraulic system should not exceed the stated hose working pressure at any time. System pressure spikes and surges must be considered and accommodated within the stated working pressure limits. Minimum burst pressures are reference pressures, and are intended for destructive testing and design purposes only.

6. Ends. The thread portions of the hose assembly must of course, be compatible with what it is connecting to. Different thread types have different working pressures, always insure that the threaded ends selected meet or exceed the designed working pressure. Check the technical section of this catalogue for pressure ratings. Also the chemical compatibility of the end fittings must be checked as per the hose. Ensure that the ends chosen are of the type matched to the hose.

7. Delivery. When a product is actually needed is important. A decision of what product is used can need to be altered by what is available when needed. Always specify up, not down to meet a timeline. A simple change of adaptor may be all that is needed to meet a requirement.

Exposure of hose or hose assemblies to operating conditions which exceed recommended or stated limits will significantly reduce the expected service life. If in doubt, over-specify hose assemblies to ensure as much safety margin on the recommended limits as possible.

Notes;
The potential service life of products can be significantly reduced if they are constantly operating at maximum limits.
Some areas of the selection process are interrelated however the key to correct product selection is the understanding of the application and what is required of the product.

THREAD IDENTIFICATION

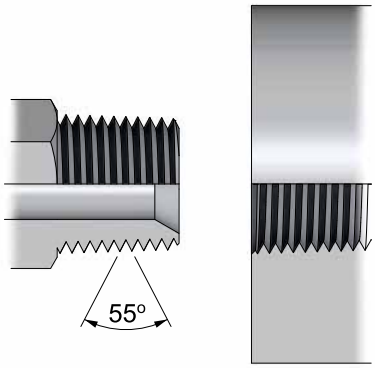
B.S.P.T. - BRITISH STANDARD PIPE TAPER

Taper: 1 in 16 by diameter

Thread Angle: 55°

The BSPT (British Standard Pipe Taper) male is intended to mate with the BSPT female only. Although the taper male will screw into BSP Parallel fixed female sockets, this is not recommended practice where avoidable as a reliable seal cannot be guaranteed.

While many BSPT males are coned 30° and will mate with BSP Parallel swivel nut females, this is not recommended practice as the taper form can deform the parallel thread and reduce the integrity of the seal.



Thread Size & TPI	Male Thread O.D. BSPT*	Female Thread I.D. BSPT
1/8-28	9.7	8.5
1/4-19	13.1	11.4
3/8-19	16.6	14.9
1/2-14	20.9	18.6
5/8-14	22.9	20.6
3/4-14	26.4	24.1
1-11	33.2	30.2
1.1/4-11	41.9	38.9
1.1/2-11	47.8	44.8
2-11	59.6	56.6

**Basic gauge plane diameter at basic gauge depth*

B.S.P.P. - BRITISH STANDARD PIPE PARALLEL

Thread Angle: 55°

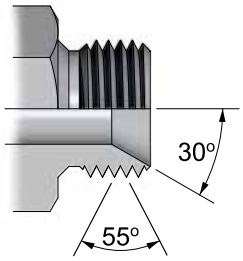
The British Standard Pipe Parallel (BSPP) male is typically coned 30° and will mate with either a BSPP swivel nut female or a BSPP female port.

BSPP female ports are normally spot faced, sealing is by either a soft metal washer, a bonded seal or a captive “O” ring.

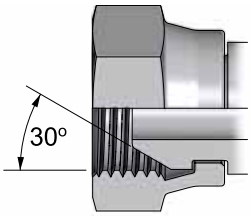
In some cases,the port is chamfered to accept an “O” ring seal. (Similar to the U.N.O. style).

Thread Size & TPI	Male Thread O.D. BSPP	Female Thread I.D. BSPP	Torque Settings BSPP nuts
1/8-28	9.7	8.5	12 Nm
1/4-19	13.1	11.4	26 Nm
3/8-19	16.6	14.9	47 Nm
1/2-14	20.9	18.6	79 Nm
5/8-14	22.9	20.6	104 Nm
3/4-14	26.4	24.1	128 Nm
1-11	33.2	30.2	160 Nm
1.1/4-11	41.9	38.9	200 Nm
1.1/2-11	47.8	44.8	270 Nm
2-11	59.6	56.6	350 Nm

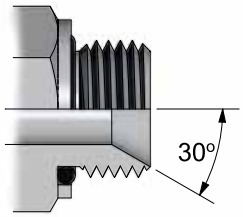
N.B. Torque values are nominal and supplied as a guide only.



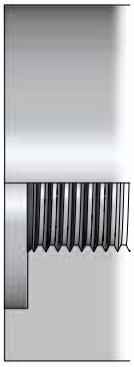
BSPP male



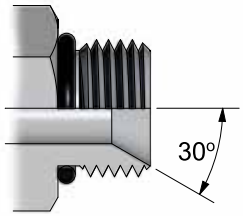
BSPP swivel nut female



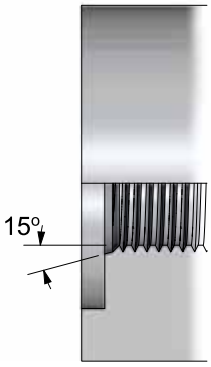
BSPP male with captive o-ring seal



BSPP female port (spot-faced)



BSPP male with o-ring seal



BSPP female port (chamfered)

N.P.T. - NATIONAL PIPE THREAD

N.P.T.F.; National Pipe Taper Fuel

N.P.S.M.; National Pipe Straight Mechanical

N.P.S.F.; National Pipe Straight Fuel

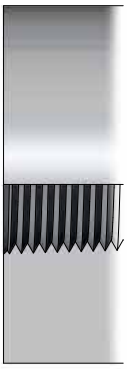
Taper: 1 in 16 by diameter.

Thread Angle: 60°

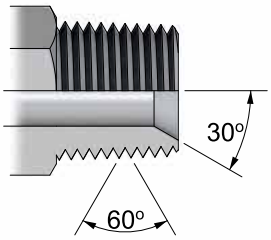
The National Pipe Taper Fuel (NPTF) male is coned 30° and will mate with the NPTF female port (taper), the National Pipe Straight Mechanical (NPSM) female (swivel nut female with 30° sealing cone), or the National Pipe Straight Fuel (NPSF) female port (parallel).

As NPTF is a “dryseal” thread, no sealing medium is required. However a sealing medium can be used to prevent thread galling.

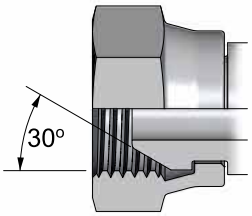
Thread Size & TPI	Male Thread O.D.	Female Thread I.D.	
	NPTF	NPTF	NPSF/SM
1/8-27	10.0	8.6	8.7
1/4-18	13.3	11.2	11.4
3/8-18	16.7	14.7	14.9
1/2-14	20.8	18.2	18.8
3/4-14	26.1	23.5	23.9
1-11.1/2	32.7	29.5	30.2
1.1/4-11.1/2	41.4	38.3	39.1
1.1/2-11.1/2	47.5	44.4	45
2-11.1/2	59.3	56.2	57



NPTF female port (taper)



NPTF male (taper)



NPSM swivel nut female

NPSF female port (parallel)

J.I.C / U.N. O-RING THREAD

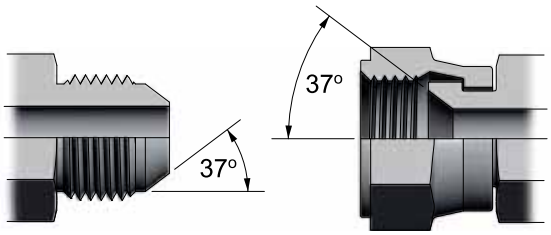
J.I.C. and U.N.“O”-Ring threads are both of the Unified National Form.

J.I.C. refers to the 37° flare type sealing face. The J.I.C. female is usually a swivel nut, but can also be a fixed socket (port) with a 37° sealing face in the base of the socket.

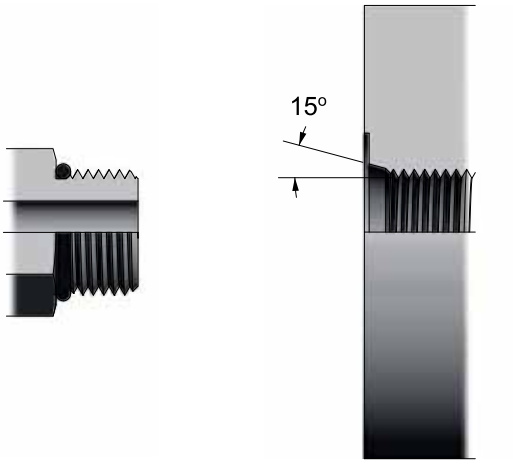
U.N.“O”-Ring refers to the thread type and “O”-Ring for sealing. The female U.N.O port has a chamfer to accept the o-ring.

Thread Size & TPI	Female Thread I.D.	Tube O.D.	Torque Settings JIC	Torque Settings UN"O"
7/16 x 20 UNF	9.8	1/4"	14 Nm	21 Nm
1/2 x 20 UNF	11.5	5/16"	19 Nm	25 Nm
9/16 x 18 UNF	13.0	3/8"	30 Nm	34 Nm
3/4 x 16 UNF	17.4	1/2"	50 Nm	72 Nm
7/8 x 14 UNF	20.3	5/8"	80 Nm	100 Nm
1 1/16 x 12 UN	24.8	3/4"	130 Nm	176 Nm
1 3/16 x 12 UN	28.2	7/8"	140 Nm	220 Nm
1 5/16 x 12 UN	31.2	1"	156 Nm	290 Nm
1 5/8 x 12 UN	39.2	1.1/4"	188 Nm	350 Nm
1 7/8 x 12 UN	45.5	1.1/2"	268 Nm	460 Nm
2 1/2 x 12 UN	61.5	2"	346 Nm	540 Nm

N.B. Torque values are nominal and supplied as a guide only.



JIC male **JIC swivel nut female**

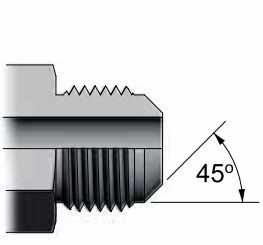


UNO male **UNO female port (chamfered)**

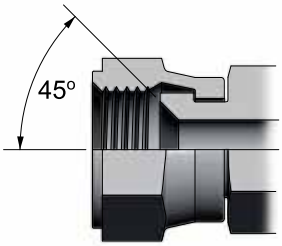
THREAD IDENTIFICATION

S.A.E. - SOCIETY OF AUTOMOTIVE ENGINEERS

This system utilises the U.N. thread series and a 45° flare sealing face. Primarily used in the automotive and refrigeration industries.



SAE male



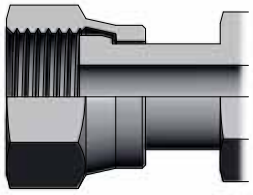
SAE swivel nut female

Thread Size & TPI	Tube O.D.	Female Thread I.D.
7/16-20	1/4"	9.8
1/2-20	5/16"	11.4
5/8-18	3/8"	14.3
11/16-16	7/16"	16
3/4-16	1/ 2"	17.5
7/8-14	5/8"	20.5
1.1/16-14	3/4"	24.8
1.1/4-12	7/8"	30.1
1.3/8-12	1"	33.2

O.R.F.S. - O-RING FACE SEAL

This system uses an “O”-Ring for sealing. The “O”-Ring is housed in the face of the male and is compressed by the face of the female on connection. Connecting threads are U.N. form.

ORFS male



ORFS swivel nut female

Thread Size & TPI	Female Thread I.D.	Tube O.D.	"O"-ring size	Torque Settings *
9/16-18 UNF	12.8	1/4"	5/16x1/16	14-16 Nm
11/16-16 UN	16.0	3/8"	3/8x1/16	24-27 Nm
13/16-16 UN	19.1	1/2"	1/2x1/16	43-47 Nm
1-14 UN	23.5	5/8"	5/8x1/16	60-69 Nm
1.3/16-12UN	26.1	3/4"	3/4x1/16	90-95 Nm
1.7/16-12 UN	34.2	1"	15/16x1/16	125-135 Nm
1.11/16-12 UN	40.6	1.1/4"	1.3/16x1/16	170-190 Nm
2-12 UN	48.0	1.1/2"	1.1/2x1/16	200-225 Nm

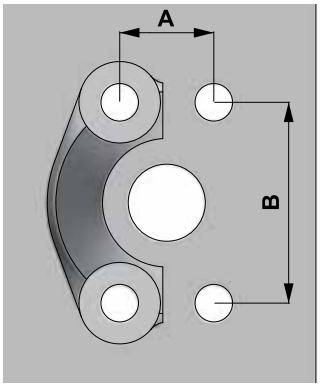
N.B. Torque values are nominal and supplied as a guide only.

S.A.E. O-RING FLANGES (SAE - J518)

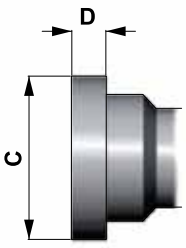
These connections utilise an “O”-Ring for sealing and are widely used for connecting to pump and motor parts as well as end terminations for pipe runs.

The “O”-Ring is housed in the flange head face and seals on a flat face female port, the flange is held in place by two clamp halves (or a one piece clamp) which are secured by four bolts.

SAE flanges are available in two pressure classes: **Standard Series, Code 61**, which goes to 5000 psi (dependent on size), and the **High Pressure Series, Code 62**, which is rated to 6000 psi for all sizes.



SAE flange clamp / port bolt spacing



SAE flange head dimensions

Nominal Flange Size	A (mm)		B (mm)		C (mm)		D (mm)	
	Code 61	Code 62	Code 61	Code 62	Code 61	Code 62	Code 61	Code 62
1/2	17.48	18.24	38.1	40.49	30.18	31.75	6.75	7.75
***5/8**	19.8	-	42.90	–	34.0	–	6.73	–
3/4	22.23	23.80	47.63	50.80	38.10	41.28	6.73	8.76
1	26.19	27.76	52.37	57.15	44.45	47.63	8.0	9.53
1.1/4	30.18	31.75	58.72	66.68	50.80	53.98	8.0	10.29
1.1/2	35.71	36.50	69.85	79.38	60.33	63.50	8.0	12.57
2	42.88	44.45	77.77	96.82	71.42	79.38	9.53	12.57

Nominal Flange Size	Pressure Rating		"O"-ring size		UNC Bolt size		Bolt torque	
	Code 61	Code 62	Code 61 and 62	AS568A number	Code 61	Code 62	Code 61	Code 62
1/2	5000 psi	6000 psi	3/4x1/8	210	5/16x1.1/4	5/16x1.1/4	20-25 Nm	20-25 Nm
3/4	5000 psi	6000 psi	1x1/8	214	3/8x1.1/4	3/8x1.1/2	28-40 Nm	34-45 Nm
1	5000 psi	6000 psi	1.5/16x1/8	219	3/8x1.1/4	7/16x1.3/4	37-48 Nm	56-68 Nm
1.1/4	4000 psi	6000 psi	1.1/2x1/8	222	7/16x1.1/2	1/2x1.3/4	48-62 Nm	85-102 Nm
1.1/2	3000 psi	6000 psi	1.7/8x1/8	225	1/2x1.1/2	5/8x2.1/4	62-79 Nm	158-181 Nm
2	3000 psi	6000 psi	2.1/4x1/8	228	1/2x1.1/2	3/4x2.3/4	73-90 Nm	271-294 Nm

**The 5/8* size flange is not part of the SAE`standard. It is included in the J.I.S. standards and is used by Komatsu and other O.E.M's.*

N.B. Torque values are nominal and supplied as a guide only

Caterpillar flanges used on XT3 hose are the same as the SAE Code 61, XT5 flanges have the same diameter as the SAE Code 62 but are thicker in the flange head.

French Gaz (Poclain) flanges are completely different to, and will not interchange with the SAE flanges.

J.I.S. - JAPANESE INDUSTRIAL STANDARDS

Japanese Industrial Standards (J.I.S.) incorporate B.S.P. and metric threads as well as flanges in their connection standards.

Taper Threads:

Type R; BSPT Male *(Identical to BSP standard)*

Parallel Threads:

Type G; BSPP Male *(Identical to BSP standard)*

Type C; BSPP Swivel Nut Female *(Identical to BSP standard - for thread data please refer to BSPP section)*

Type F; BSPP Swivel Nut Female, 30° Flare Seat

Type M; Metric, Male, 30° Cone

Type MF; Metric, Swivel Nut Female, 30° Flare Seat

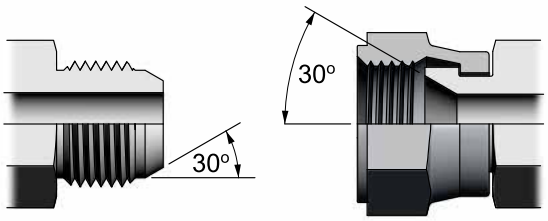
"O"-Ring Flanges:

Type I; Equivalent to Code 61 *(Identical to SAE standard)*

Type II; Equivalent to Code 62 *(Identical to SAE standard)*

THREAD SPECIFICATIONS			
Metric Threads (J.I.S)		Komatsu Threads (Metric)	
14-1.5*	12.5	**14-1.5***	12.5
18-1.5*	16.5	**18-1.5***	16.5
22-1.5*	20.5	**22-1.5***	20.5
27-2.0	25	**24-1.5**	22.5
33-2.0	31	**30-1.5**	28.5
42-2.0	40	**33-1.5**	31.5
50-2.0	48	**36-1.5**	34.5
60-2.0	58	**42-1.5**	40.5

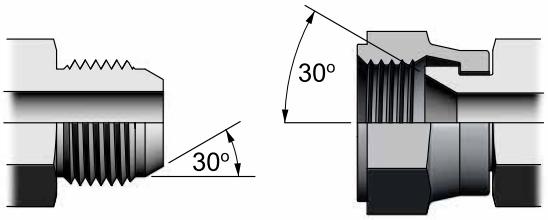
** denotes interchange sizes between JIS and Komatsu.*



Type F JIS male

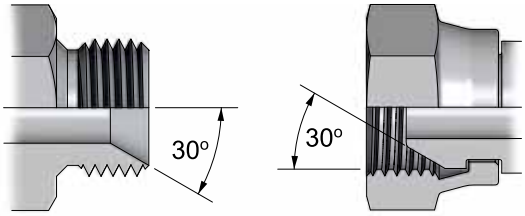
For thread data please refer to BSPP section

Type F JIS swivel nut female



Type MF JIS male

Type MF JIS swivel nut female



Type M JIS male

Type M JIS swivel nut female

D.I.N. METRICS 24° CONE SYSTEM

The D.I.N. System allows for the connection of hose assembies and tube in three main pressure series:

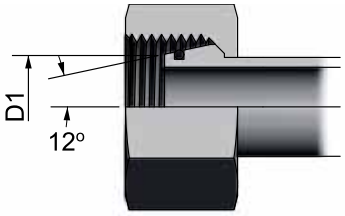
Series LL;	Extra Light, up to 100 bar
Series L;	Light up to 250 bar
Series S;	Heavy up to 640 bar

The pressure ranges are determined by the tube O.D. and the thread size e.g. a 12mm light coupling has an 18mm thread O.D. whereas a 12mm heavy coupling has a 20mm O.D. thread.

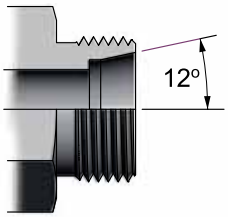
N.B: Rated coupling pressures are subject to the design pressures of the tube or hose being used.

Tubing is connected to the D.I.N. Male by the use of a cutting ring and nut. Hose assemblies can be connected by swivel nut females having either a spherical seal, 24° cone seal (can be fitted with “O”-Ring), or a standpipe with cuttting ring and nut. Hose can also be connected directly to tube by use of a hose tail with the D.I.N. Male form

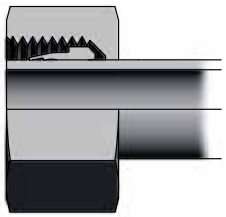
The male form will accept all three female styles shown (right).



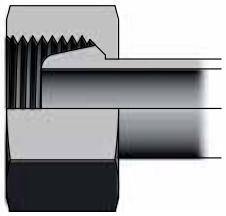
DIN 24° cone female with o-ring



DIN 24° cone male



DIN cutting ring and nut on tube



DIN female swivel nut with spherical seat

THREAD SPECIFICATIONS LIGHT (L) SERIES			
Thread O.D. & Pitch	Female Thread I.D.	Diameter D1 (mm)	Tube O.D.(mm)
M12-1.5	10.5	7.2	6
M14-1.5	12.5	9.2	8
M16-1.5	14.5	11.6	10
M18-1.5	16.5	13.8	12
M22-1.5	20.5	16.8	15
M26-1.5	24.5	19.8	18
M30-2.0	28	23.8	22
M36-2.0	34	29.8	28
M45-2.0	43	37.2	35
M52-2.0	50	44.2	42

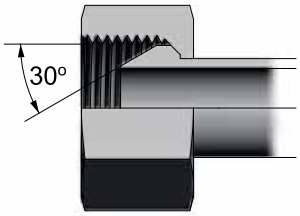
THREAD SPECIFICATIONS HEAVY (S) SERIES			
Thread O.D. & Pitch	Female Thread I.D.	Diameter D1 (mm)	Tube O.D.(mm)
M14-1.5	12.5	7.2	6
M16-1.5	14.5	9.2	8
M18-1.5	16.5	11.6	10
M20-1.5	18.5	13.8	12
M22-1.5	20.5	15.8	14
M24-1.5	22.5	17.8	16
M30-2.0	28	22	20
M36-2.0	34	27	25
M42-2.0	40	32	30
M52-2.0	50	40	38

** N.B. Diameter D1 is nominal and may vary between manufacturers.*

D.I.N. METRICS 60° CONE SYSTEM

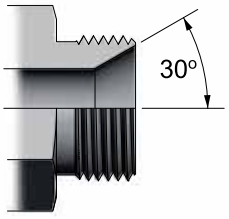
This series utilises a 60° cone seating angle and is used for the connection of hose assemblies and tube. It differs from the 24° series in that the threads are predominately 1.5mm pitch and there is no light or heavy pressure ranges.

The D.I.N. 60° male will accept the universal (spherical seat) female, a 60° coned female and tube fitted with a cutting ring and nut.

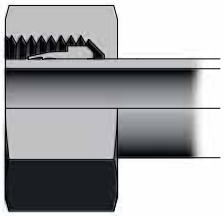


DIN 60° cone female

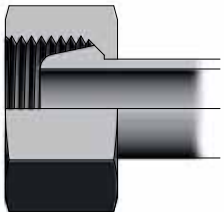
THREAD SPECIFICATIONS		
Thread O.D. & Pitch	Female Thread I.D.	Tube O.D.(mm)
M10-1.0	9.0	5
M12-1.5	10.5	6
M14-1.5	12.5	8
M16-1.5	14.5	10
M18-1.5	16.5	12
M22-1.5	20.5	15
M26-1.5	24.5	18
M30-1.5	28.5	22
M38-1.5	36.5	28
M45-1.5	43.5	35
M52-2.0	56.5	42



DIN 60° cone male



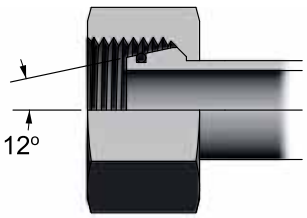
DIN cutiing ring and nut on tube



DIN female swivel nut with spherical seat

I.S.O. METRICS (INTERNATIONAL STANDARDS ORGANISATION)

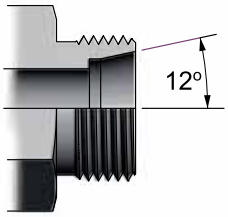
The I.S.O. series of couplings is similar to the D.I.N. light and heavy in function. The male has a 24° included angle sealing cone and a recessed counter bore for locating the tube when used in conjunction with a cutting ring and nut. The male will also accept a swivel nut female with either a cone or a spherical seal.



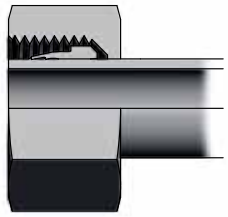
ISO (24° cone) female with o-ring

THREAD SPECIFICATIONS		
Thread O.D. & Pitch	Female Thread I.D.	Tube O.D.(mm)
M12-1.0	11.0	6
M14-1.5*	12.5	8
M16-1.5*	14.5	10
M18-1.5*	16.5	12
M20-1.5	18.5	14
M22-1.5*	20.5	15
M24-1.5**	22.5	16
M27-1.5	25.5	18
M30-1.5	28.5	22
M33-1.5	31.5	25
M36-1.5	34.5	28
M39-1.5	37.5	30
M42-1.5	40.5	32
M45-1.5	43.5	35
M48-1.5	46.5	38
M52-1.5	50.5	40

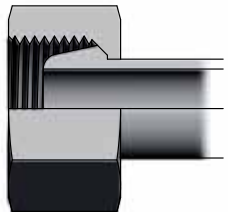
** Interchange with D.I.N. Light*
*** Interchange with D.I.N. Heavy*



ISO (24° cone) male



ISO cutting ring and nut on tube



ISO female swivel nut with spherical seat

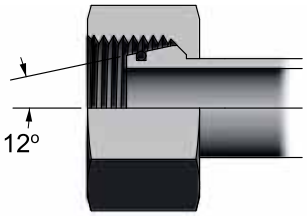
FRENCH METRICS (GAZ & MILLIMETRIQUE SERIES)

The series are similar to the D.I.N. 24° type where the male has a 24° included angle sealing cone and a recessed counterbore for locating the tube.

The male will accept a cutting ring and nut for use with tube or a swivel nut female with either a cone or spherical seal.

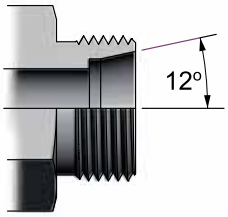
The Gaz and Millimetrique series are identical in all respects except for the O.D. of the tube:

- Gaz series uses fractional number O.D. metric tubing.
- Millimetrique series uses whole number O.D. metric tubing.

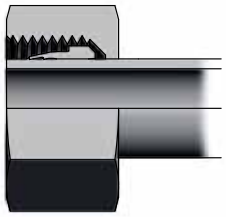


French 24° cone female with o-ring

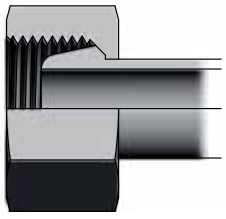
THREAD SPECIFICATIONS LIGHT (L) SERIES			
Thread O.D. & Pitch	Female Thread I.D.	Diameter GAZ	Diameter Millimetrique
M12-1.0	11.0	-	6
M14-1.5	12.5	-	8
M16-1.5	14.5	-	10
M18-1.5	16.5	-	12
M20-1.5	18.5	13.25	14
M22-1.5	20.5	-	15
M24-1.5	22.5	16.75	16
M27-1.5	25.5	-	18
M30-1.5	28.5	21.25	22
M33-1.5	31.5	-	25
M36-1.5	34.5	26.75	28
M39-1.5	37.5	-	30
M42-1.5	40.5	-	32
M45-1.5	43.5	33.5	35
M48-1.5	46.5	-	38
M52-1.5	50.5	42.25	40
M54-2.0	52.0	-	45
M58-2.0	56.0	48.25	-



French 24° cone male



Cutting ring and nut on tube

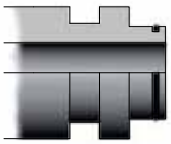


French female swivel nut with spherical seat

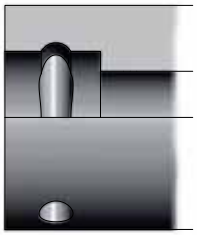
STAPLE-LOK COUPLINGS

Originally designed in Germany for underground mining equipment, the Staple-lok requires no spanners for connection or disconnection. The male and female are pushed together and held with a retaining staple or “U” clip.

Sealing is achieved by the captive “O”-Ring located on the male spigot. The female can either be fixed or swivel type. The coupling is not designed to swivel under pressure.

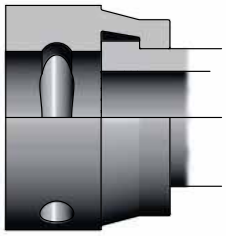


Staple-lok male



Staple-lok fixed female

THREAD SPECIFICATIONS					
Coupling Dash Size	Imperial Size	Male O.D. inch	Male O.D. mm	Female I.D. inch	Female I.D. mm
-4	1/4	0.58	14.8	.59	15.0
-6	3/8	0.78	19.8	.79	20.0
-8	1/2	0.94	23.9	.95	24.1
-12	3/4	1.13	28.8	1.14	29.0
-16	1	1.53	38.9	1.54	39.1
-20	1.1/4	1.80	45.7	1.81	46.0
-24	1.1/2	2.16	54.9	2.17	55.1
-32	2	2.52	64.0	2.53	64.3



Staple-lok swivel female

Staple-lok staple

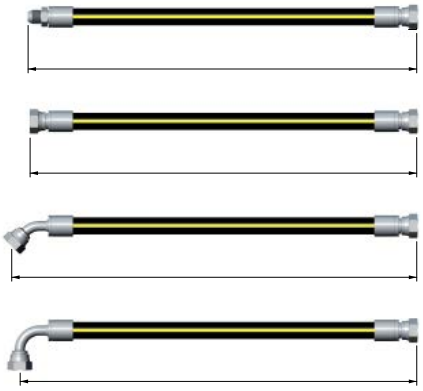
Hydraulink
Hose and Fittings

HOSE ASSEMBLY MEASUREMENT

STRAIGHT HOSE ASSEMBLY LENGTH

Overall hose assembly lengths are determined by measuring the centreline length between the coupling end faces for straight couplings, or through the sealing face centreline for angled couplings (examples to right).

Sufficient length allowance should be made to compensate for hose contraction and expansion under operating procedures.



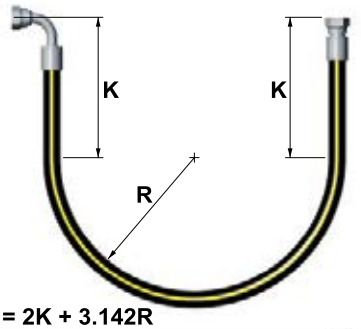
BENT HOSE ASSEMBLY LENGTH

For installations that require a 180° bend in the hose assembly, the overall length can be calculated as follows:

Static Installations

To avoid localised concentration of bending strain on the hose couplings, a free distance (K) of hose should be designed into the length of each assembly. Distance “K” includes length of coupling and adaptor (if used). Dimension “R” should not be less than the manufacturer’s recommended bend radius for the hose used. Refer to chart below for “K” dimensions of hoses with I.D. from 3/16” to 2”.

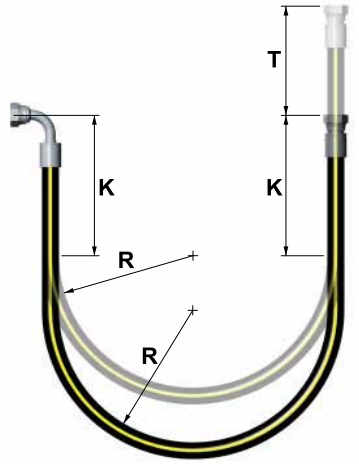
Hose I.D.	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1	1.1/4	1.1/2	2
K (mm)	110	130	130	160	180	210	210	260	260	260	310



Length = 2K + 3.142R

Dynamic Installations

When a hose assembly is subjected to relative motion between the two end couplings, additional hose length is required to accomodate the travel distance. In the diagram (right) “T” represents the amount of travel.



Length = 2K + 3.142R + T

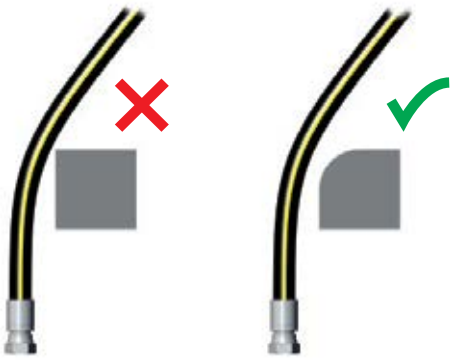
Off-Set Angle Measurement

Place hose assembly in line of sight position with coupling furthest away facing upwards. Determine off-set angle by comparing relative position of closest coupling to the far coupling in a clockwise direction.

HOSE INSTALLATION RECOMMENDATIONS

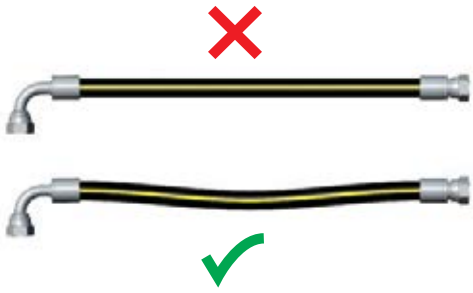
1. Hose Protection
Protect the hose cover from damage such as abrasion, erosion, snagging, and cutting. Where possible, route hose to reduce abrasion from hose rubbing other hose or objects that may abrade it (Fig. 1). Special abrasion-resistant hoses and hose guards are available for additional protection. Special consideration may also need to be given to hose assemblies near heat sources.

Fig. 1



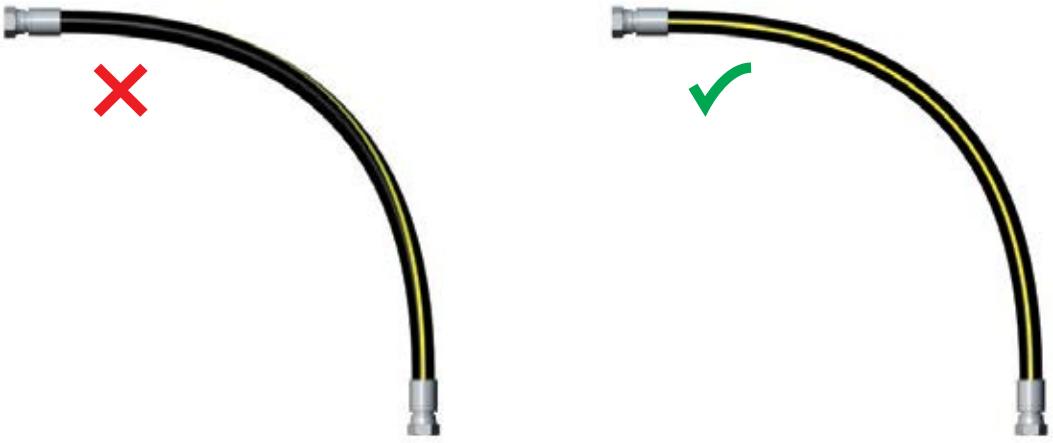
2. Hose And Machine Tolerances
Avoid tension on hose assemblies and adaptors. Design hose to allow for changes in length due to machine motion and tolerances (Fig. 2). Failure to do so may result in seal or assembly failure.

Fig. 2



3. Torsional Twist
Do not transfer torque to hose while installing. This transfer of torque can result in torsional twist, which may result in premature hose assembly failure. Use swivel type couplings or adaptors for ease of alignment as needed to prevent twisting during installation. Use the brand lay-line as a guide to ensure the hose is not pre-loaded with torsional twist when installed (Fig. 3).

Fig. 3



4. Minimum Bend Radius
The minimum bend radius for hose supplied by Hydraulink is detailed in this catalogue. Routing at less than minimum bend radius is not recommended and may reduce hose life.

Prevent sharp bending at the hose/fitting juncture (Fig. 4a). Unnecessary stress at this point may result in leaking, hose rupturing, or the hose assembly blowing apart.

Stress at this point can be minimised by ensuring adequate hose length (Fig. 4b), or by use of angled adaptors and couplings (Fig 4c).

Fig. 4a

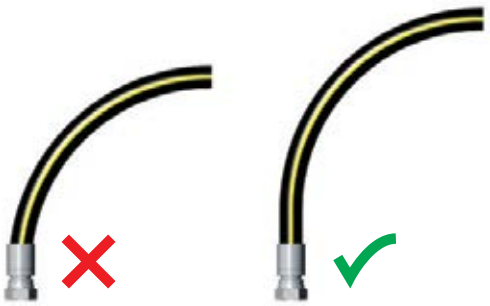


Fig. 4b

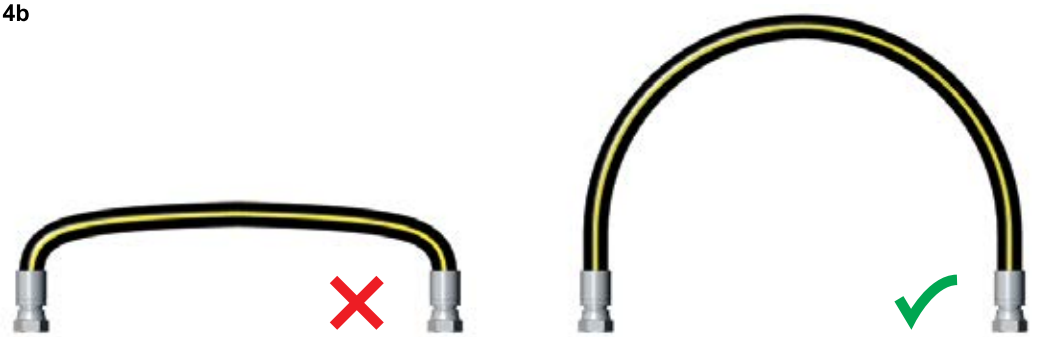


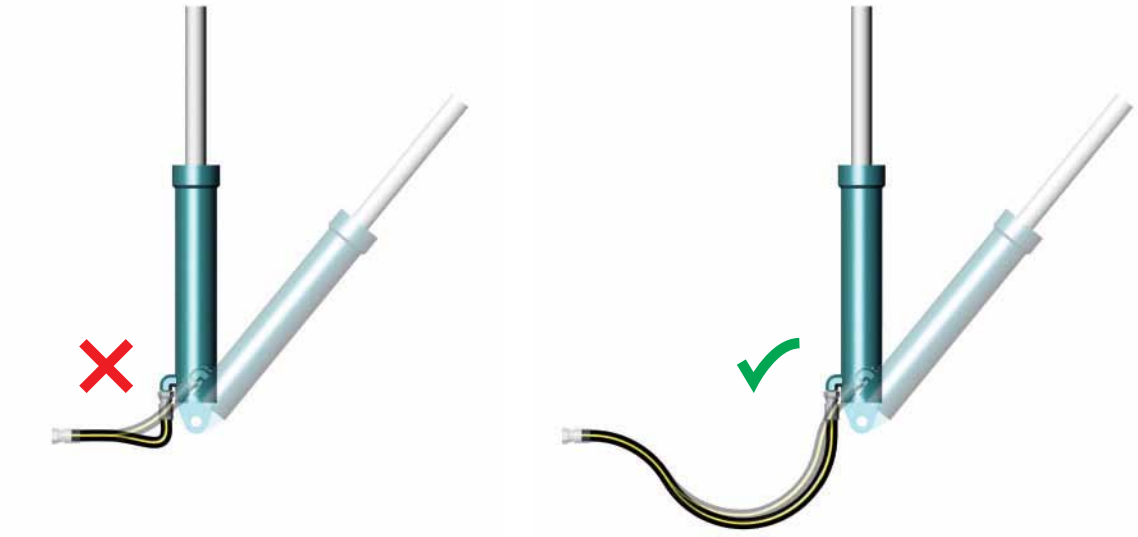
Fig. 4c

5. Hose Length Change
Hydraulic hose can expand longitudinally when pressurised, and this hose length change must be considered when specifying or installing hose assemblies (Fig. 5) When clamping hose lengths, always place clamps to avoid stressing the fitting end.

Fig. 5

6. Relative Movement
When specifying or installing hoses that have movement relative to each other, provide adequate hose length to absorb the required movement and prevent bends occuring that are smaller than the minimum bend radius (Fig. 6a).

Fig. 6a



QUICK RELEASE COUPLINGS

SECTION 15

INFORMATION - QUICK RELEASE COUPLINGS

GENERAL INFORMATION

Quick release couplings are primarily designed to allow quick and easy connection and disconnection of fluid transfer lines. The installation of quick release couplings in fluid power systems can eliminate the need to close valves, recharge and bleed the system as well as minimising fluid loss when a component or attachment is removed or fitted to the system, saving time and resources.

Although the ability for some quick release couplings to rotate and “self-align” reducing mechanical stress on adjoining parts of the system can be a benefit, it must be noted that quick release couplings are not designed for use as constant rotation unions or live swivels. The use of a coupling for such a purpose is not recommended and will void any warranty, or subsequent warranty claim.

Hydraulink supply a wide range of quick release couplings for many applications, and in many configurations of end type. To fulfill the requirements of the application the quick release coupling is being selected for, several questions will need to be considered which may include;

- What functions are required of the coupling?
- What is the fluid flow rate required?
- What is the system working pressure?
- What are the variations in system pressure; how high are the spikes?
- What is the allowable pressure drop at required flow rate?
- Does the coupling need to be connected or disconnected under pressure?
- What fluid or media is being used?
- Is minimum fluid loss or air inclusion critical?
- Does the coupling need to interchange with existing units?

Quick release couplings are typically manufactured in steel and finished with a silver trivalent chromium plating and clear sealant to further increase protection against corrosion, but some series are also available in AISI 316 stainless steel or brass. Please contact Hydraulink for further details of available materials and variants of internal seals.

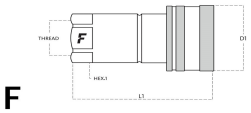
Hydraulink thread forms and sealing methods are manufactured to the relevant international standards where applicable. All dimensions shown are nominal, and subject to change due to ongoing product development. For critical applications, please contact Hydraulink to confirm dimensions.

Hydraulink Fluid Connectors Ltd. reserves the right to discontinue, or to alter the design and specification of any product listed in this catalogue.

STANDARD SERIES

QNV

POPPET SEAL COUPLINGS
INTERCHANGE WITH ISO 7241-1 PART A IN 08 SIZE



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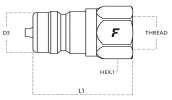
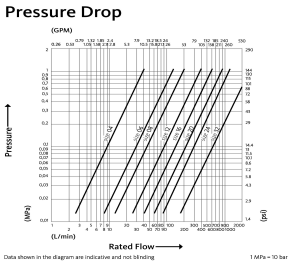


M

- Please enquire for other thread forms and sizes.
- Overall length when connected is calculated based on both couplings having the same thread form and size.
- Recommended for: Agriculture, industrial, construction, earthmoving.
- Connection: Connect without pressure - pull back female sleeve and push couplings to connect. Disconnect under pressure not allowed - pull back female sleeve to disconnect.
- Latching: Balls latching.
- Shut-off system: Poppet valve. Guidevalve with mechanical backstop.
- Temperature range: -25°C to +125°C
- Standards: 08 (1/2) size only; Interchangeability according to ISO 7241-1 part A
- All other sizes; Faster proprietary standard.
- Interchangeability with all QNS series couplings to 16 (1)

QNV - TECHNICAL DATA

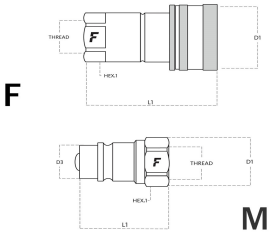
POPPET SEAL COUPLINGS
INTERCHANGE WITH ISO 7241-1 PART A IN 08 SIZE



Part Number	Rated Flow (l/min)	Force to connect - N	Force to connect - lb	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
QNV-F04	15	55	12.1	350	5000	20000	20000	0.8
QNV-F06	50	85	18.7	300	4500	20000	17400	1.3
QNV-F08	75	80	17.9	300	4500	17400	17400	1.8
QNV-F0812Q	75	80	17.9	300	4500	17400	17400	1.8
QNV-F0814Q	75	80	17.9	300	4500	17400	17400	1.8
QNV-F12	150	150	33.7	300	4500	17400	17400	8
QNV-F16	220	130	28.6	250	3625	14500	14500	13
QNV-F20	340	145	31.9	220	3300	13500	13500	30
QNV-F24	450	265	58.4	200	3000	12000	12000	34
QNV-F32	1000	250	56.2	150	2250	9000	9000	100
QNV-M04	15	55	12.1	350	5000	20000	20000	0.8
QNV-M06	50	85	18.7	300	4500	17400	17400	1.3
QNV-M08	75	80	17.9	300	4500	17400	17400	1.8
QNV-M0812Q	75	80	17.9	300	4500	17400	17400	1.8
QNV-M0814Q	75	80	17.9	300	4500	17400	17400	1.8
QNV-M12	150	150	33.7	300	4500	17400	17400	8
QNV-M16	220	130	28.6	250	3625	14500	14500	13
QNV-M20	340	145	31.9	220	3300	13500	13500	30
QNV-M24	450	265	58.4	200	3000	12000	12000	34
QNV-M32	1000	250	56.2	150	2250	9000	9000	100

QNS

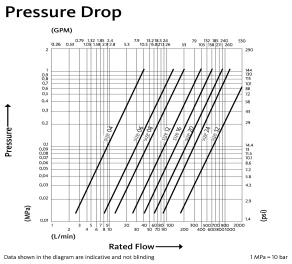
BALL SEAL COUPLINGS
INTERCHANGE WITH ISO 7241-1 PART A IN 08 SIZE



- Please enquire for other thread forms and sizes. For sizes larger than 16 (1) refer to QNV series.
- NOTE: Only size 08 (1/2) is interchangeable with ISO 7241-1 part A.
- Recommended for: Agriculture, industrial, construction, earthmoving.
- Connection: Connect without pressure - pull back female sleeve and push couplings to connect. Disconnect under pressure not allowed - pull back female sleeve to disconnect.
- Latching: Balls latching.
- Shut-off system: Ball valve.
- Temperature range: -25°C to +125°C
- Standards: 08 (1/2) size only; Interchangeability according to ISO 7241-1 part A
- All other sizes; Interchangeability according to Faster internal standard. Interchangeability with all QNV series couplings (all sizes).

QNS - TECHNICAL DATA

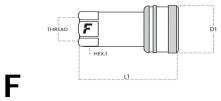
BALL SEAL COUPLINGS
INTERCHANGE WITH ISO 7241-1 PART A IN 08 SIZE



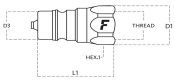
Part Number	Rated Flow (l/min)	Force to connect - N	Force to connect - lb	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
QNS-F04	15	55	12.1	250	3625	14500	20300	0.7
QNS-F06	30	83	18.3	250	3625	14500	20300	1
QNS-F08	50	89	19.6	200	2900	11600	17400	1.5
QNS-F12	80	170	37.4	170	2465	13775	21750	7
QNS-F16	140	140	30.8	220	3190	17400	23200	11
QNS-M04	15	55	12.1	250	3625	14500	20300	0.7
QNS-M06	30	83	18.3	250	3625	14500	20300	1
QNS-M08	50	89	19.6	200	2900	12325	17400	1.5
QNS-M12	80	170	37.4	170	2465	9860	21750	7
QNS-M16	140	140	30.8	220	3190	13050	23200	11

QANV

POPPET SEAL COUPLINGS
INTERCHANGE ACCORDING TO ISO 7241-1 PART A



F

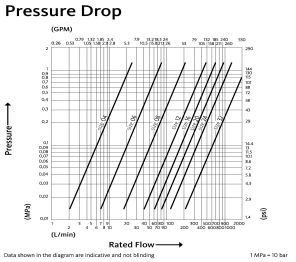


M

- Please enquire for other combinations of base size and thread form.
- Overall length when connected is calculated based on both couplings having the same thread form and size.
- Recommended for: Agricultural applications.
- Connection: Connect without pressure - pull back female sleeve and push couplings to connect. Disconnect under pressure not allowed - pull back female sleeve to disconnect.
- Latching: Balls latching.
- Shut-off system: Poppet valve. Guidevalve with mechanical backstop.
- Temperature range: -25°C to +125°C
- Standards: Interchangeability according to ISO 7241-1 part A

QANV - TECHNICAL DAT

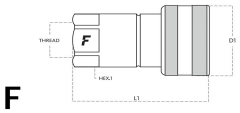
POPPET SEAL COUPLINGS
INTERCHANGE ACCORDING TO ISO 7241-1 PART A



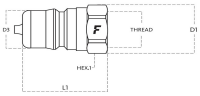
Part Number	Rated Flow (l/min)	Force to connect - N	Force to connect - lb	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
QANV-F04	9	45	10	500	7500	30000	30000	0.5
QANV-F06	30	80	17.6	300	4500	18000	21000	1.1
QANV-F12	180	150	34	300	4500	18000	18000	8
QANV-F16	270	180	40	250	3625	14500	14500	13
QANV-M04	9	45	10	500	7500	30000	30000	0.5
QANV-M06	30	80	17.6	300	4500	24000	21000	1.1
QANV-M12	180	150	34	300	4500	18000	18000	8
QANV-M16	270	180	40	250	3625	14500	14500	13

QHNV

POPPET SEAL COUPLINGS
INTERCHANGE ACCORDING TO ISO 7241-1 PART B



F

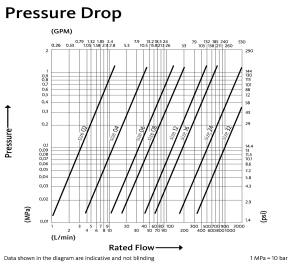


M

- Please enquire for other combinations of base size and thread form.
- Overall length when connected is calculated based on both couplings having the same thread form and size.
- Recommended for: Industrial applications.
- Connection: Connect without pressure - pull back female sleeve and push couplings to connect. Disconnect under pressure not allowed - pull back female sleeve to disconnect.
- Latching: Balls latching.
- Shut-off system: Poppet valve. Guide valve with mechanical backstop.
- Temperature range: -25°C to +125°C
- Standards: Interchangeability according to ISO 7241-1 part B
- Interchangeability with all QBHNV and SQHNV series couplings.

QHNV - TECHNICAL DAT

POPPET SEAL COUPLINGS
INTERCHANGE ACCORDING TO ISO 7241-1 PART B

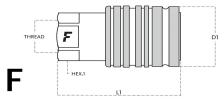


Part Number	Rated Flow (l/min)	Force to connect - N	Force to connect - lb	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
QHNV-F04	17	65	14.3	450	6750	27000	30000	1
QHNV-F06	50	80	17.6	300	4500	19500	18000	1.5
QHNV-F08	75	92	20.3	350	5250	21000	21000	2.8
QHNV-F12	190	120	26.4	250	3625	16500	14500	10
QHNV-F16	270	180	39.6	300	4500	18000	18000	13
QHNV-M04	17	65	14.3	450	6750	27000	30000	1
QHNV-M06	50	80	17.6	300	4500	27000	18000	1.5
QHNV-M08	75	92	20.3	350	5250	22500	21000	2.8
QHNV-M12	190	120	26.4	250	3625	14500	14500	10
QHNV-M16	270	180	39.6	300	4500	18000	18000	13

AGRICULTURAL SERIES

QPV

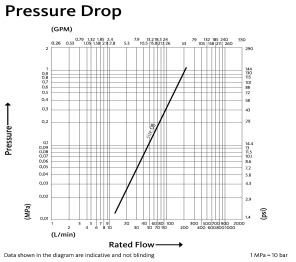
PUSH/PULL POPPET SEAL
INTERCHANGE ACCORDING TO ISO 7241-1 PART A



- QPV are only available in 08 (1/2) base size.
- Please enquire for thread forms and sizes.
- NOTE: Male coupling is base size 08 (1/2) QNV series. QPV series is only female couplings.
- Recommended for: Agricultural equipment.
- Connection: Connect without pressure - push male coupling to connect. Disconnect under pressure not allowed - pull male coupling to disconnect.
- Latching: Balls latching.
- Shut-off system: Poppet valve.
- Temperature range: -25°C to +125°C
- Standards: Interchangeability according to ISO 7241-1 part A standard.

QPV - TECHNICAL DATA

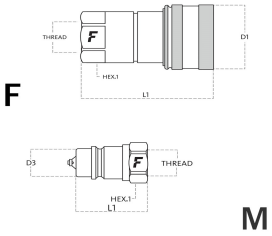
PUSH/PULL POPPET SEAL
INTERCHANGE ACCORDING TO ISO 7241-1 PART A



Part Number	Rated Flow (l/min)	Force to connect - N	Force to connect - lb	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
QPV-F08	75	160	35	260	3770	15950	21460	2

Q4

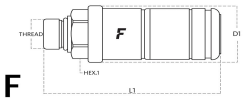
POPPET SEAL WITH DECOMPRESSION POPPET
INTERCHANGE ACCORDING TO ISO 7241-1 PART A



Part Number	Base Size	Threadform	Thread size	Coupling Length (L1)	Coupling O.D (D1)	Hex Size A/F (Hex 1)	Inner Coupling O.D - D3
Q4NV-M08	08	BSPPF socket	1/2-14	44.0	30	27	20.5

Q3CFHF

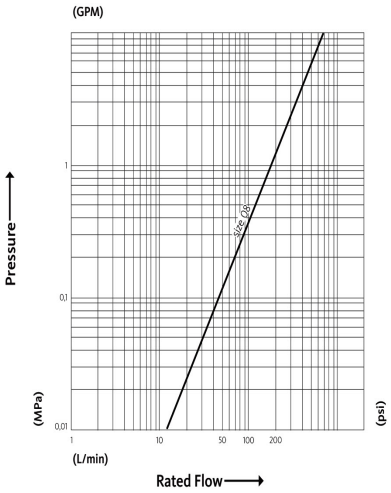
AGRICULTURAL BREAKAWAY - HIGH FLOW RATE
INTERCHANGE ACCORDING TO ISO 7241-1 PART A



- Q3CFHF are only available in 08 (1/2) base size.
- Please enquire for optional thread forms and sizes.
- NOTE: Male coupling is base size 08 (1/2) QNV series.
- Recommended for: Agricultural equipment.
- Connection: Connect without pressure, or with only male coupling under pressure.
- Disconnect under pressure in emergency only.
- Latching: Ball lock latching.
- Shut-off system: Poppet valve.
- Temperature range: -25°C to +125°C.

Q3CFHF - TECHNICAL D

AGRICULTURAL BREAKAWAY - HIGH FLOW RATE
INTERCHANGE ACCORDING TO ISO 7241-1 PART A



Part Number	Rated Flow (l/min)	Force to connect - N	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
Q3CFHF-F08	70	250	250	3625	14500	15250	2
Q3CFHF-F0822M	70	250	250	3625	14500	15250	2

QSD

DOUBLE BRACKET
MOUNTING BRACKET FOR PUSH/PULL COUPLINGS

Part Number	Suits coupling base size
QSD-08	08

TRANSPORT SERIES

QNZV

POPPET SEAL COUPLINGS
PBR INTERCHANGE

QNZV - TECHNICAL DAT

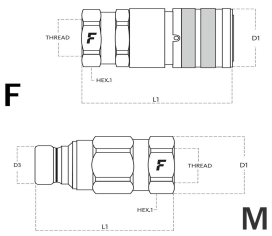
POPPET SEAL COUPLINGS
COUPLINGS SPECIFICALLY DESIGNED FOR
AUST/NZ TRANSPORT MARKET

Part Number	Rated Flow (l/min)	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi
QNZV-F16	160	230	3335	13340	17200
QNZV-M16	160	230	3335	13340	17200

FLAT FACE SERIES

QFFH

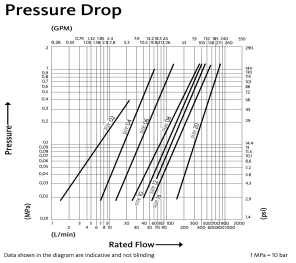
FLAT FACE COUPLINGS
INTERCHANGE ACCORDING TO ISO 16028



- Sizes above 16 are available on request, but are to a proprietary standard not ISO 16028.
- Please enquire for other combinations of base size and thread form.
- Overall length when connected is calculated based on both couplings having the same thread form and size.
- Recommended for: Agriculture, industrial, construction, earthmoving.
- Connection: Connect without pressure - push couplings to connect. Disconnect under pressure not allowed - pull back female sleeve to disconnect.
- Latching: Balls latching.
- Shut-off system: Flat valve (male coupling with double valve).
- Temperature range: -25°C to +100°C
- Standards: Interchangeability according to ISO 16028.

QFFH - TECHNICAL DAT

FLAT FACE COUPLINGS
INTERCHANGE ACCORDING TO ISO 16028

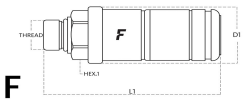


Part Number	ISO Size	Rated Flow (l/min)	Force to connect - N	Force to connect - lb	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
QFFH-F04	6.3	25	110	24.7	350	5000	24200	25700	0.006
QFFH-F06	10	50	150	33.7	350	5000	24200	24200	.008
QFFH-F0608	12.5	50	150	33.7	350	5000	24200	24200	.008
QFFH-F0612Q	12.5	50	150	33.7	350	5000	24200	24200	.008
QFFH-F08	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-F0812	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-F0814GK	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-F0814Q	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-F0816RK	12.5	110	210	47.2	350	5000	20000	24200	0.01

QFFH-F0817Q	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-F1012	16	125	205	46.1	350	5000	20000	20000	0.01
QFFH-F1017Q	16	125	205	46.1	350	5000	20000	20000	0.01
QFFH-F12	19	160	215	48.3	350	5000	20000	20000	0.01
QFFH-F1216	19	160	215	48.3	350	5000	20000	20000	0.01
QFFH-F1217Q	19	160	215	48.3	350	5000	20000	20000	0.01
QFFH-F16	25	230	280	62.9	350	5000	20000	24200	0.01
QFFH-M04	6.3	25	110	24.7	350	5000	20000	25700	0.006
QFFH-M06	10	50	150	33.7	350	5000	20000	24200	.008
QFFH-M0608	12.5	50	150	33.7	350	5000	20000	24200	.008
QFFH-M0612Q	12.5	50	150	33.7	350	5000	20000	24200	.008
QFFH-M08	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-M0812	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-M0814GK	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-M0814Q	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-M0816RK	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-M0817Q	12.5	110	210	47.2	350	5000	20000	24200	0.01
QFFH-M1012	16	125	205	46.1	350	5000	20000	20000	0.01
QFFH-M1017Q	16	125	205	46.1	350	5000	20000	20000	0.01
QFFH-M12	19	160	215	48.3	350	5000	20000	20000	0.01
QFFH-M1216	19	160	215	48.3	350	5000	20000	20000	0.01
QFFH-M1217Q	19	160	215	48.3	350	5000	20000	20000	0.01
QFFH-M16	25	230	280	62.9	350	5000	20000	24200	0.01

Q3FFH

FLAT FACE COUPLINGS
INTERCHANGE ACCORDING TO ISO 16028



F

Part Number	Base Size	Threadform	Thread Size	Coupling Length - L1	Coupling O.D - D1	Hex Size A/F (Hex 1)	Inner Coupling O.D - D3
Q3FFH-F06	06	BSPPF socket	3/8-19	75	30	27	
Q3FFH-F08	08	BSPPF socket	1/2-14	81.3	38	34	
Q3FFH-F12	12	BSPPF socket	3/4-14	100	48	42	
Q3FFH-M06	06	BSPPF socket	3/8-19	100	30	32	19.7
Q3FFH-M08	08	BSPPF socket	1/2-14	115.7	37	34	24.5
Q3FFH-M12	12	BSPPF socket	3/4-14	128.4	46	42	30

QFHV

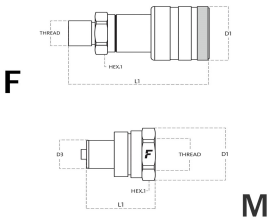
FLAT FACE COUPLINGS
SCREW TO CONNECT FLAT FACE COUPLING

Part Number	Base Size	Threadform	Thread Size	Coupling Length - L1	Coupling O.D - D1	Hex Size A/F (Hex 1)
QFHV-F08	08	BSPPF socket	1/2-14	109.7	55	41
QFHV-F12	12	BSPPF socket	3/4-14	129.5	64	46
QFHV-F16	16	BSPPF socket	1-11	138	74	55
QFHV-F20	20	BSPPF socket	1.1/4-11	146.7	74	60
QFHV-M08	08	BSPPF socket	1/2-14	109.5	44.5	36
QFHV-M12	12	BSPPF socket	3/4-14	122.5	54.5	46
QFHV-M16	16	BSPPF socket	1-11	143.8	64	55
QFHV-M20	20	BSPPF socket	1.1/4-11	165.8	68	55

SCREW LOCK SERIES

QPVV

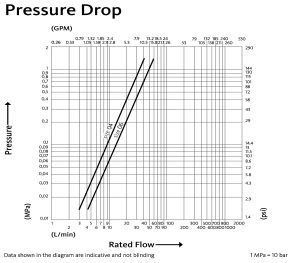
HYDRAULIC TOOL COUPLINGS
INTERCHANGE WITH EUROPE AND US MARKETS



- QPVV series are only available in base sizes 04 and 06 (1/4 and 3/8).
- Please enquire for further thread forms and sizes.
- Connection: Connect with pressure - screw couplings together to connect.
- Disconnect with pressure - unscrew couplings to disconnect.
- NOTE: Can be connected with pressure in either or both couplings.
- Latching: Threaded with safety lock.
- Shut-off system: Poppet valve. Interchanges with ball-type hydraulic tool couplings.
- Temperature range: -25°C to +125°C
- Standards: Faster proprietary standard; interchange with US and European hydraulic tool couplings.

QPVV - TECHNICAL DAT

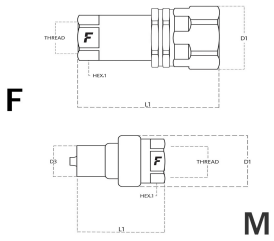
HYDRAULIC TOOL COUPLINGS
INTERCHANGE WITH EUROPE AND US MARKETS



Part Number	Rated Flow (l/min)	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi
QPVV-F04L	15	1030	14935	47850	47850
QPVV-F06L	20	1000	14500	43500	43500
QPVV-M04AC	15	1030	14935	44950	47850
QPVV-M06AC	20	1000	14500	47850	43500

QVV

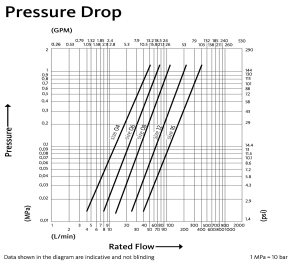
DUAL LOCK
FASTER PROPRIETARY STANDARD
(INTERCHANGES WITH QVV AND QNV MALES)



- For sizes above 16 please refer to QVVS series.
- Please enquire for other combinations of base size and thread form.
- Overall length when connected is calculated based on both couplings having the same thread form and size.
- Recommended for: Agriculture, industrial, construction, earthmoving.
- Connection: For QVV male couplings (A); connect or disconnect under pressure.
- Latching: Threaded.
- Shut-off system: Poppet valve. Guidevalve with mechanical backstop.
- Connection: For QNV male couplings (B); connect without pressure - pull back female sleeve and push couplings to connect. Disconnect under pressure not allowed - pull back female sleeve to disconnect.
- Latching: Balls latching.
- Shut-off system: Poppet valve. Reinforced guidevalve with mechanical backstop.
- Temperature range: -25°C to +125°C
- Standards: 08 (1/2) size female only; Interchangeability according to ISO 7241-1 part A. All other sizes; Faster proprietary standard.

QVV - TECHNICAL DATA

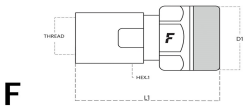
DUAL LOCK
FASTER PROPRIETARY STANDARD



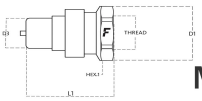
Part Number	Rated Flow (l/min)	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
QVV-F04	18	350	5075	24650	21750	1.5
QVV-F06	30	300	4350	17400	21750	2
QVV-F08	45	300	4350	18850	23200	3
QVV-F12	90	250	3625	14500	17400	10
QVV-F16	140	230	3625	14210	17400	15
QVV-M04	18	350	5075	20300	21750	1.5
QVV-M06	30	300	4350	17400	21750	2
QVV-M08	45	300	4350	17400	23200	3
QVV-M12	90	250	3625	14500	17400	10
QVV-M16	140	230	3625	13500	17400	15

QVVS

DUAL LOCK
FASTER PROPRIETARY STANDARD



F



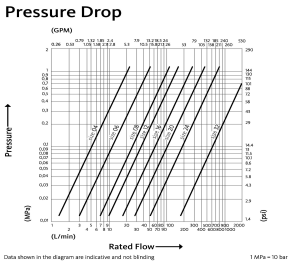
M

- Sizes above 20 (1.1/4) are available on request.
- Please enquire for other combinations of base size and thread form.
- Overall length when connected is calculated based on both couplings having the same thread form and size.
- Recommended for: Construction, earthmoving, hydraulic tools.
- Connection: Connect with pressure - screw couplings together to connect. Disconnect with pressure - unscrew couplings to disconnect.
- NOTE: Can be connected with pressure in either or both couplings.
- Latching: Threaded.
- Shut-off system: Poppet valve. Reinforced guidevalve with mechanical backstop.
- Temperature range: -25°C to +125°C
- Standards: Faster proprietary standard. Interchangeability with all QVV series couplings to size 16 (1).

QVVS - TECHNICAL DAT

DUAL LOCK

FASTER PROPRIETARY STANDARD

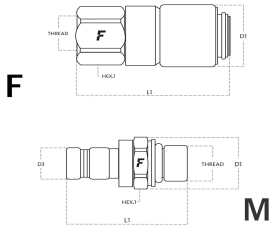


Part Number	Rated Flow (l/min)	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Fluid Spill - ml max
QVVS-F04	8	800	11600	34800	36250	1
QVVS-F06	18	760	11020	36250	33350	1.5
QVVS-F08	30	730	10585	31900	31900	2
QVVS-F12	45	700	10150	33350	31030	3
QVVS-F16	90	530	7685	32480	28130	10
QVVS-F20	140	600	8700	26100	29000	15
QVVS-M04	8	800	11600	34800	36250	1
QVVS-M06	18	760	11020	42050	33350	1.5
QVVS-M08	30	730	10585	34510	31900	2
QVVS-M12	45	700	10150	30740	31030	3
QVVS-M16	90	530	7685	23200	28130	10
QVVS-M20	140	600	8700	26100	29000	15

DIAGNOSTIC SERIES

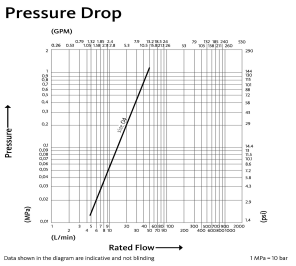
QDF

FLAT FACE DIAGNOSTIC COUPLINGS
INTERCHANGE ACCORDING TO ISO 15171-1



QDF - TECHNICAL DATA

FLAT FACE DIAGNOSTIC COUPLINGS
INTERCHANGE ACCORDING TO ISO 15171-1



Part Number	Rated Flow (l/min)	Maximum WP Connected - bar	Maximum WP Connected - psi	Minimum BP Disconnected - psi	Minimum BP Connected - psi	Spillage (ml)
QDF-F04AC	2	470	6815	21750	26100	0.01
QDF-F0409Q	2	470	6815	21750	26100	0.01
QDF-M04AC	2	470	6815	27550	26100	0.01
QDF-M0409JF	2	470	6815	27550	26100	0.01
QDF-M0409Q	2	470	6815	27550	26100	0.01

TEMA

TEMA

TEMA QUICK RELEASE COUPLINGS
POPPET STYLE QUICK RELEASE COUPLING

Part Number	Base Size	Threadform	Thread Size - A	Coupling Length - B	Coupling O.D - D	Hex A/F (CHF)
TEMA-10010	16	BSPPF socket	1-11	92	62	48
TEMA-10020	16	BSPPF socket	1-11	92	62	45
TEMA-2510	04	BSPPF socket	1/4-19	60	26	21
TEMA-2520	04	BSPPF socket	1/4-19	60	26	21
TEMA-3810	06	BSPPF socket	3/8-19	62	35	24
TEMA-3820	06	BSPPF socket	3/8-19	62	35	24
TEMA-5010	08	BSPPF socket	1/2-14	68	41	33
TEMA-5020	08	BSPPF socket	1/2-14	68	41	30
TEMA-7510	12	BSPPF socket	3/4-14	77	52	38
TEMA-7520	12	BSPPF socket	3/4-14	77	52	38

COUPLING REPAIR KITS

QRK-4BD / 4FI

FLAT FACE MANIFOLD COUPLINGS
COUPLINGS FOR FLAT FACE MANIFOLD (BOBCAT)

Part Number	Coupling size - in	Base Size	Standard
Q4BD4FH08	1/2	08	ISO 16028
Q4BD4FH12	3/4	12	ISO 16028
QRK-4BD-FFHF08	1/2	08	ISO 16028
QRK-4BD-FFHF12	3/4	12	ISO 16028
QRK-4BD-FFHM06	3/8	06	ISO 16028
QRK-4BD-FFHM08	1/2	08	ISO 16028
QRK-4BD-FFHM12	3/4	12	ISO 16028
QRK-4BD-FFNM06	3/8	06	ISO 16028
QRK-4FIF08	1/2	08	ISO 16028
QRK-4FIM08	1/2	08	ISO 16028

QSK

SEAL KIT FOR FASTER QUICK RELEASE COUPLINGS

Part Number	Coupling size - in	Suits coupling with base size	Compatible with
QSK-F04N	1/4	04	NV-VV-VVS
QSK-F06N	3/8	06	NV-VV-VVS
QSK-F08N	1/2	08	NV-VV-VVS
QSK-F12N	3/4	12	NV-VV-VVS
QSK-F16N	1	16	NV-VV-VVS
QSK-F20N	1 1/4	20	NV-VV-VVS
QSK-F24N	1 1/2	24	NV-VV-VVS
QSK-F06PVV	3/8	06	QPVV-F06
QSK-M08FH	1/2	08	QFFH-M08
QSK-M12FH	3/4	12	QFFH-M12

COUPLING PROTECTION

QT

QNV DUST COVERS
PVC COVERS FOR QNV-QNS SERIES COUPLINGS

Part Number	QNV Male Size	QNV Female Size	Colour
QT-F04B	04		Blue
QT-F06B	06		Blue
QT-F08B	08		Blue
QT-F08BLK	08		Black
QT-F08G	08		Green
QT-F08O	08		Orange
QT-F08R	08		Red
QT-F08Y	08		Yellow
QT-F12B	12		Blue
QT-F16B	16		Blue
QT-M04B		04	Blue
QT-M06B		06	Blue
QT-M08B		08	Blue
QT-M08BLK		08	Black
QT-M08G		08	Green
QT-M08O		08	Orange
QT-M08R		08	Red
QT-M08Y		08	Yellow
QT-M12B		12	Blue
QT-M16B		16	Blue

QT-S

QNV DUST COVERS
ALUMINIUM COVERS FOR QNV SERIES COUPLINGS

Part Number	QNV Male Size	QNV Female Size
QT-F20S	20	
QT-F24S	24	
QT-F32S	32	
QT-M20S		20
QT-M24S		24
QT-M32S		32

QTF

FLAT FACE DUST COVERS
ALUMINIUM COVERS FOR FLAT FACE COUPLINGS

Part Number	QFFH/Q3FFH Male	QFFH/Q3FFH Female
QTFI-F04S	04	
QTFI-F08S	08	
QTFI-F12S	12	
QTFI-M04S		04
QTFI-M08S		08
QTFI-M12S		12

QTFFH

FLAT FACE DUST COVERS
PVC COVERS FOR FLAT FACE COUPLINGS

Part Number	QFFH/Q3FFH Male	QFFH/Q3FFH Female
QTFFH-F04	04	
QTFFH-F06	06	
QTFFH-F08	08	
QTFFH-F12	12	
QTFFH-F16	16	
QTFFH-M04		04
QTFFH-M06		06
QTFFH-M08		08
QTFFH-M12		12
QTFFH-M16		16

QTP

QPVV DUST COVERS
ALUMINIUM COVERS FOR HYDRAULIC TOOL COUPLINGS

- Only available in 04 and 06 (1/4 and 3/8) size.
- QTP series covers protect QPVV series couplings from contamination, atmospheric agents and damage to sealing faces and connection threads when disconnected and not in use.

Part Number	QPVV Male	QPVV Female
QTP-F04S	04	
QTP-F06S	06	
QTP-M04S		04
QTP-M06S		06

QTFDF

QDF DUST COVERS
PVC COVERS FOR QDF SERIES COUPLINGS

Part Number	QDF Male	QDF Female
QTFDF-F04	04	
QTFDF-M04		04

QTH

QHNV DUST COVERS
PVC COVERS FOR QHNV SERIES COUPLINGS

Part Number	QHNV Male Size	QHNV Female Size
QTH-F04	04	
QTH-F06	06	
QTH-F08	08	
QTH-F12	12	
QTH-F16	16	
QTH-M04		04
QTH-M06		06
QTH-M08		08
QTH-M12		12
QTH-M16		16

QTVV

QVV / QVVS DUST COVERS
ALUMINIUM COVERS FOR SCREW-LOCK COUPLINGS

- Please enquire for QTVV aluminium covers larger than size 20 (1.1/4).
- QTVV series covers protect QVV and QVVS series couplings from contamination, atmospheric agents and damage to sealing faces and connection threads when disconnected and not in use.

Part Number	QVV/QVVS Male	QVV/QVVS Female
QTVV-F04S	04	
QTVV-F06S	06	
QTVV-F08S	08	
QTVV-F12S	12	
QTVV-F16S	16	
QTVV-M04S		04
QTVV-M06S		06
QTVV-M08S		08
QTVV-M12S		12
QTVV-M16S		16