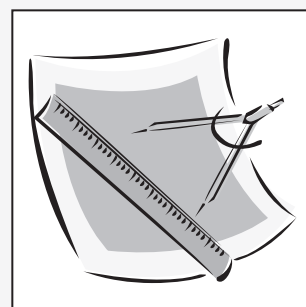


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How to Identify a Thread

Foreword

There are many different threads by which fluid connectors are attached to a system. These come under a variety of standards, some of which are set out below. It is obviously crucial to know what standard/style the thread or attachment is so the appropriate fluid connector components can be selected to complete or repair a circuit.

For easy identification there are four main points to look-for.

1. The general appearance of the fitting, or how it is laid out. Is the thread tapered or straight? Is the seat area concave or convex? Obviously the complementary or matching fitting will be an opposite of the other.
2. The pitch of the thread. Some thread styles look very similar to each other, only the thread pitch differs. This is an important check to make, as if the incorrect fitting is screwed in, damage to the other thread may occur, weakening it or causing irreparable damage.

3. The angle of the sealing area. As above, some styles will look

very much alike. Some even have the same thread dimension and pitch, but the seat angle is different. This is an important thing to check as the sealing of the connection is reliant on this area.

4. The thread diameter or size of the connection. The tables of sizes for the various styles will have a dimension as per the standard. Often threads will not match this dimension exactly as there are machining tolerances, but the correct size will be obvious.
5. Pressures indicated are relative to the appropriate standard for the thread indicated. There are two parts to any connection and the pressure can only be as good as the weaker one. Any hose, tube or other item in the circuit which is of a lower working pressure will dictate the maximum pressure of the circuit.

With these points in mind, and by following the steps, the correct style and standard will be easily determined. But be careful; by missing one you may get it wrong.

Torque and Threaded Connections

BSPT and NPT tapered thread assembly requirements usually dictate a number of wrench flats from hand tight, and the hand tight position is decreed in the relevant Standard. Hand tightness should be reached at the gauge length. The Table at right summarises the recommended parameters when tightening these fittings. Note that a thread sealing compound is generally used with both these fittings in order to achieve a seal, and so the use of a torque figure for assembly can play no meaningful role.

The tables in the following pages document the recommended tightening torques for JIC and UNO type fittings, since correct torque is essential to minimize leaks from them. Too little torque will preclude proper seat contact, whilst too much can cause O-Ring extrusion (in the case of UNO), splitting of the female JIC seat, damage to the nut, or at the very least damage through cold working of the metal in the contact area. Since thread sealants are not required with these fittings, torque can adopt a more meaningful role in the assembly process. However, in field installation work, suitable torque wrenches are rarely available, and it is usual to fall back to the use of a number of wrench flats from wrench resistance to achieve the desired result. For the case of UNF style fittings, the tabulation at right may assist in achieving the correct torque during assembly if a torque wrench is unavailable during installation. The procedure is:

1. Tighten the nut with the fingers until a distinct bottoming out on the seat can be felt.
2. Use a marking system (permanent marker or centre punch) to provide reference points on the opposing flats of the nut and connector.
3. Tighten the nut with a spanner to rotate it the tabulated number of hex flats, using the reference marks as a guide.

NOTE: The Torque values shown on the following pages are based on Carbon Steel Fittings.

Thread UNF	Tube Size	Torque Nm	No. of Hex Flats from Wrench Resistance
7/16-20	4	15-16	2
1/2-20	5	19-21	2
9/16-18	6	24-28	1.1/2
3/4-16	8	49-53	1.1/2
7/8-14	10	77-85	1.1/2
1.1/16-12	12	107-119	1.1/4
1.3/16-12	14	127-140	1.1/4
1.5/16-12	16	147-154	1
1.5/8-12	20	172-181	1
1.7/8-12	24	215-226	1
2.1/2-12	32	332-350	1

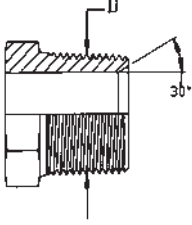
Note: Torque values given are for plated steel components without lubrication

Thread BSPT	Tube Size	Gauge Length Turns of Thread	Max. Turns of Thread incl. Fitting Allowance	Recommended Thread Engagement mm
1/4 - 19	4	4½	7¼	6.1
3/8 - 19	6	4¾	7½	8.6
1/2 - 14	8	4½	7¼	8.6
3/4 - 14	12	5¼	8	11.7
1 - 11	16	4½	7¼	11.7
1¼ - 11	20	5½	8¾	15
1½ - 11	24	5½	8¾	15
2 - 11	32	6¾	10⅞	15

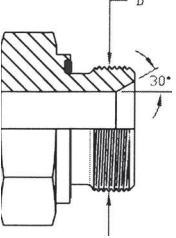
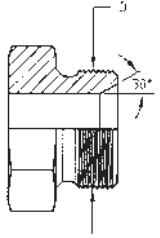
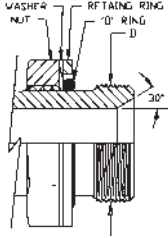
Recommended Thread Engagement lengths for NPT fittings are the same as for BSPT

Thread Identification

BRITISH STANDARD PIPE TAPER MALE - (BSPT)

 Applicable Standards Thread Form: AS 1722.1-1975, ISO 7	Pipe Size	Dash Size	Nominal Thread Size & Pitch	Max Work Press (Bar) Adaptors	Hose Fittings Max Work Press	Thread OD 'D' on Diagram	
					Bar	mm	in
	1/8"	2	1/8" - 28	690	350	9.73	0.383
	1/4"	4	1/4" - 19	650	350	13.16	0.518
	3/8"	6	3/8" - 19	550	275	16.67	0.656
	1/2"	8	1/2" - 14	410	275	20.96	0.825
	5/8" *	10	5/8" - 14	340	210	22.91	0.902
	3/4"	12	3/4" - 14	340	210	26.45	1.041
	1"	16	1" - 11	275	210	33.25	1.309
	1 1/4"	20	1 1/4" - 11	200	140	41.91	1.650
	1 1/2"	24	1 1/2" - 11	140	140	47.81	1.882
	2"	32	2" - 11	140	140	59.62	2.347

BRITISH STANDARD PIPE PARALLEL MALE - (BSPP)

 Applicable Standards Thread Form: AS 1722.2-1992, ISO 228 Seal: DIN 3852 Part 11 Form E	 Applicable Standards Thread Form: AS 1722.2-1992, ISO 228 Seal: DIN 3852 Part 2 Form B	 Applicable Standards Thread Form: AS 1722.2-1992, ISO 228 Seal: ISO 1179-3 Form G
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Pipe Size	Dash Size	Correct Torque (Nm)	Nominal Thread Size & Pitch	Max Work Press (Bar) Adaptors		Hose Fittings Max Work Press	Thread OD 'D' on Diagram	
				Fixed	Adj.		mm	ins
1/8"	2	20	1/8" - 28	600	350	-	9.73	0.383
1/4"	4	50	1/4" - 19	600	400	630	13.16	0.518
3/8"	6	80	3/8" - 19	600	400	550	16.67	0.656
1/2"	8	100	1/2" - 14	400	350	430	20.96	0.825
5/8" *	10	120	5/8" - 14	400	275	420	22.91	0.902
3/4"	12	200	3/4" - 14	400	315	420	26.45	1.041
1"	16	380	1" - 11	400	250	420	33.25	1.309
1 1/4"	20	500	1 1/4" - 11	380	200	350	41.91	1.650
1 1/2"	24	600	1 1/2" - 11	380	160	350	47.81	1.882
2"	32	750	2" - 11	250	125	350	59.62	2.347

* 5/8" Size is not subject to Standards

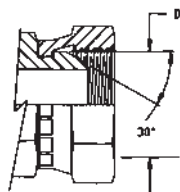
Note: The torque values given are for plated carbon steel components without lubrication.

Thread Identification

BRITISH STANDARD PIPE

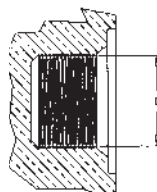
PARALLEL FEMALE - (BSPP)

TAPER FEMALE - (BSPT)



Applicable Standards

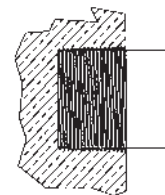
Thread Form: AS 1722.2-1992, ISO 228



Applicable Standards

Thread Form: AS 1722.2-1992, ISO 228

Sealing area: DIN 3852 Part 2 Form X



Applicable Standards

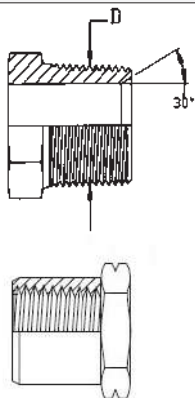
Thread Form: AS 1722.2-1992, ISO 228

Pipe Size	Dash Size	Correct Torque (Nm) BSPP	Nominal Thread Size & Pitch	Max Work Press (Bar) Adaptors		Hose Fittings Max Work Pressure Bar	Thread ID 'D' on Diagram	
				Fixed	Swivel		mm	ins
1/8"	2	20	1/8" - 28	550	550	350	8.59	0.338
1/4"	4	50	1/4" - 19	550	550	630	11.46	0.451
3/8"	6	80	3/8" - 19	520	520	550	14.96	0.589
1/2"	8	100	1/2" - 14	380	380	430	18.65	0.734
5/8" *	10	120	5/8" - 14	275	275	420	20.6	0.811
3/4"	12	200	3/4" - 14	275	275	350	24.13	0.95
1"	16	380	1" - 11	240	240	350	30.3	1.193
1 1/4"	20	500	1 1/4" - 11	200	200	250	38.97	1.534
1 1/2"	24	600	1 1/2" - 11	175	175	210	44.86	1.766

* 5/8" Size is not subject to Standards

Note: The torque values given are for plated carbon steel components without lubrication.

NATIONAL PIPE TAPER FUEL- (NPTF) MALE AND FEMALE FIXED



Applicable Standards

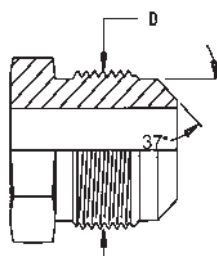
Thread Form: SAE J476

Pipe Size	Dash Size	Nominal Thread Size & Pitch	Max Work Press (Bar) Adaptors	Hose Fittings Max Work Pressure	Thread OD 'D' on Diagram	
				Bar	mm	in
1/8"	2	1/8" - 27	689	350	10.32	0.406
1/4"	4	1/4" - 18	655	350	13.89	0.546
3/8"	6	3/8" - 18	552	275	17.06	0.671
1/2"	8	1/2" - 14	420	275	21.43	0.843
3/4"	12	3/4" - 14	350	210	26.98	1.062
1"	16	1" - 11. 1/2	280	210	33.33	1.312
1 1/4"	20	1 1/4" - 11. 1/2	210	150	42.46	1.671
1 1/2"	24	1 1/2" - 11. 1/2	140	140	48.42	1.906
2"	32	2" - 11. 1/2	140	140	60.32	2.375

Thread Identification

JOINT INDUSTRY COUNCIL - (JIC) - MALE

Dash Size	Nominal Tube Size in	Correct Torque Nm	Nominal Thread Size & Pitch	Max Work Press Adaptors	Thread OD 'D' on Diagram	
					mm	in
05	1/8"	8-9	5/16" - 24	-	7.87	.310
06	3/16"	11-12	3/8" - 24	-	9.65	.380
07	1/4"	15-16	7/16" - 20	595	11.07	.436
08	5/16"	19-21	1/2" - 20	595	12.70	.500
09	3/8"	24-28	9/16" - 18	490	14.25	.561
12	1/2"	49-53	3/4" - 16	420	19.00	.748
14	5/8"	77-85	7/8" - 14	385	22.17	.873
17	3/4"	107-119	1 1/16" - 12	280	26.95	1.061
19	7/8"	127-140	1 3/16" - 12	280	30.10	1.188
21	1"	147-154	1 5/16" - 12	245	33.30	1.311
26	1 1/4"	172-181	1 5/8" - 12	245	41.22	1.623
30	1 1/2"	215-226	1 7/8" - 12	145	47.57	1.873
40	2"	332-350	2 1/2" - 12	120	63.45	2.498



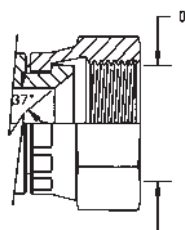
Applicable Standards

Thread Form: SAE J514

Note: The hex flats from finger tight method is recommended for 37° and 45° flare fittings. The torque values given are for plated carbon steel components without lubrication. See page 2

JOINT INDUSTRY COUNCIL - (JIC) - FEMALE

Dash Size	Nominal Tube Size in	Correct Torque Nm	Nominal Thread Size & Pitch	Max Work Press Adaptors	Thread ID 'D' on Diagram	
					mm	in
05	1/8"	8-9	5/16" - 24	-	6.85	.270
06	3/16"	11-12	3/8" - 24	-	8.63	.340
07	1/4"	15-16	7/16" - 20	480	10.00	.394
08	5/16"	19-21	1/2" - 20	480	11.60	.457
09	3/8"	24-28	9/16" - 18	345	13.00	.512
12	1/2"	49-53	3/4" - 16	310	17.60	.693
14	5/8"	77-85	7/8" - 14	260	20.50	.807
17	3/4"	107-119	1 1/16" - 12	240	25.00	.985
19	7/8"	127-140	1 3/16" - 12	230	28.09	1.106
21	1"	147-154	1 5/16" - 12	225	31.30	1.233
26	1 1/4"	172-181	1 5/8" - 12	170	39.20	1.544
30	1 1/2"	215-226	1 7/8" - 12	145	45.60	1.796
40	2"	332-350	2 1/2" - 12	120	61.50	2.422



Applicable Standards

Thread Form: SAE J514

Note: The hex flats from finger tight method is recommended for 37° and 45° flare fittings. The torque values given are for plated carbon steel components without lubrication. See page 2

JOINT INDUSTRY COUNCIL- (JIC) - PIRTEK TEST PRESSURES (HOSE FITTINGS)

Dash Size	Nominal Tube Size in	Correct Torque Nm	Nominal Thread Size & Pitch	Actual Max Work Press (Bar)	Min. Burst Press (Bar)	No. of Wrench Flats from Wrench Resistance
05	1/8"	8-9	5/16" - 24	N/A	N/A	
06	3/16"	11-12	3/8" - 24	N/A	N/A	
07	1/4"	15-16	7/16" - 20	420 *c	1680	2
08	5/16"	19-21	1/2" - 20	420 *c	1680	2
09	3/8"	24-28	9/16" - 18	420 *c	1680	1.1/2
12	1/2"	49-53	3/4" - 16	420 *c	1680	1.1/2
14	5/8"	77-85	7/8" - 14	420 *c	1680	1.1/2
17	3/4"	107-119	1 1/16" - 12	420 *c	1680	1.1/4
19	7/8"	127-140	1 3/16" - 12	420 *c	1680	1.1/4
21	1"	147-154	1 5/16" - 12	420 *w	1680	1
26	1 1/4"	172-181	1 5/8" - 12	350 *w	1400	1
30	1 1/2"	215-226	1 7/8" - 12	350 *w	1400	1
40	2"	332-350	2 1/2" - 12	250 *w	1000	1



IMPORTANT SAFETY NOTE: Whilst Pirtek's thread termination pressure ratings exceed those stipulated in the respective Standards, discretion must be used prior to selection for appropriate applications. These test pressures correlate to material S12L14

*c = Crimped Nut *w = Wire Nut

Note: The hex flats from finger tight method is recommended for 37° and 45° flare fittings. The torque values given are for plated carbon steel components without lubrication. See page 2



This page is part of a complete catalogue containing technical and safety data.
All data must be reviewed when selecting a product.
Pirtek reserve the right to change technical specifications without notice

Thread Identification

STAPLELOK

Staplelok has its origins in the German coal mining industry. It is often referred to as 'Stecko', the name given to the product by its inventor, and derived from the German verb 'stecken' meaning 'to pin', along with a truncation of 'O-Ring'.

Staplelok has become the predominant hydraulic hose fitting world wide in underground coal mining.

Sealing and Identification: The male spigot is equipped with an annular O-Ring with Teflon backup ring that together seal against the cylindrical machined wall of the female coupling. Retention is via a horseshoe shaped square section staple that is inserted through holes in the female socket. The holes align with an annular slot in the male fitting.

Advantages: Allows connections to be made in confined spaces and in difficult environments. No torsional load is applied in the fitting, and connection is easy, with no need of spanners. A combination hammer and lever tool is commonly used to facilitate insertion and removal of staples.

Variations: Available in the original form, and a more recent 'Super' form to cope with demands for higher working pressures. The 'Super' form employs the same design characteristics, but uses an extra wide staple (sometimes in the form of 2 standard staples laminated together) to increase the shear strength of the staple. No published Standard exists for the 'Super' form.

STAPLELOK MALE & FEMALE

Size	Nom. Tube Size		'W' or Hole Dia mm		'D' on Diagram mm		Max. Working Pressure (bar) (Based on Use of St. Steel 'D' Staples)
	in	mm	Male	Fem	Male	Female	
6	1/4"	4	5.1	6	9.9	15.1	500
10	3/8"	6	5.1	6	13.9	20.1	420
13	1/2"	8	5.1	6	17.9	24.1	420
20	3/4"	12	5.1	6	23.9	29.1	350
25	1"	16	7.1	8.5	30.9	39.1	280
32	1.1/4"	20	7.1	8.5	37.9	46.1	210
40	1.1/2"	24	7.2	9	46.9	55.2	185
50	2"	32	7.2	9	55.9	64.2	165
63	2.1/2"	40	7.2	9	60.8	80.9	70
70	3"	48	39.4	9	85.5	86.1	67

Applicable Standards

Thread Form: DIN 20 043 + SAE J1467

Pirtek Adaptors meet or exceed
DIN20043, BS6537, and NCB638
requirements

Stainless Steel staples of all types conform to 420S45 (1.4028) (X30Cr13) in BS EN10088-2:2005.

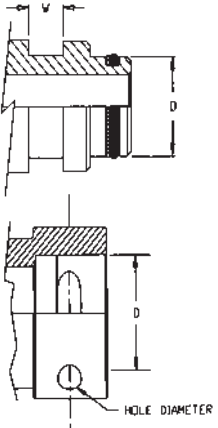
Thread Identification

STAPLELOK SAFETY

- The life expectancy of staples subjected to high pressures and impulses is potentially less than that of the hose and fittings combinations within the same circuit
- Failure of a staple can result in fracture of the staple, or a loss of spring tension leading to dislodgement as a result of system depressurisation followed by re-pressurisation
- **FOR THIS REASON, PIRTEK RECOMMENDS THAT STAPLES SHOULD ALWAYS BE REPLACED BY NEW STAPLES WHEN UNDERTAKING EQUIPMENT MAINTENANCE OR OVERHAULS**
- Pirtek offer a special cable tie retention strap (see page 135) to reduce the dangers associated with staple breakage



SUPER STAPLELOK MALE & FEMALE

Size	Nom. Tube Size		'W' or Hole Dia mm		'D' on Diagram mm		Max. Working Pressure (bar) (Based on Use of St. Steel 'D' Staples)
	in	mm	Male	Fem	Male	Female	
13	1/2"	8	9.1	9.1	15.9	24.3	520
20	3/4"	12	9.1	9.1	21.9	29.3	420
25	1"	16	13.1	13.6	30.9	39.6	420
32	1.1/4"	20	13.1	13.6	37.9	46.6	420
40	1.1/2"	24	13.1	13.6	43.9	55.6	420
50	2"	32	13.1	13.6	49.9	64.6	420
 Applicable Standards Not covered by Standard							

- Stainless Steel staples of all types material is 420S45 (1.4028) (X30Cr13) in BS EN10088-2:2005.

Thread Identification

SKV / SSKV

SSKV and its lower pressure derivative SKV, like Staplelok, have their origins in Germany. Developed specifically for applications requiring secure connections without the need for special tools, and without the drawbacks associated with the older Staplelok technology (bulky profile and easily dislodged or broken staples), it finds many applications both in mining and general industry. The acronym SSKV is derived from the German language meaning 'steckschalenklemmverbindung' or 'plug shell clamp connection'.

Sealing and Identification: Sealing resembles Staplelok in that the male spigot is equipped with an annular O-Ring with Teflon backup ring. These seal against the cylindrical machined wall of the female coupling. Retention is however much more sophisticated than Staplelok. A spring loaded shell not unlike a Victaulic clamp is retained by means of a threaded nut that is hand tightened into position to prevent dislodgement of the shell. An (optional) removeable red coloured clip behind the threaded nut in turn prevents unplanned loosening of the nut. Size identification is best done by way of the male collar OD or female body OD (they are designed to be equal). See dimensions D and E below.

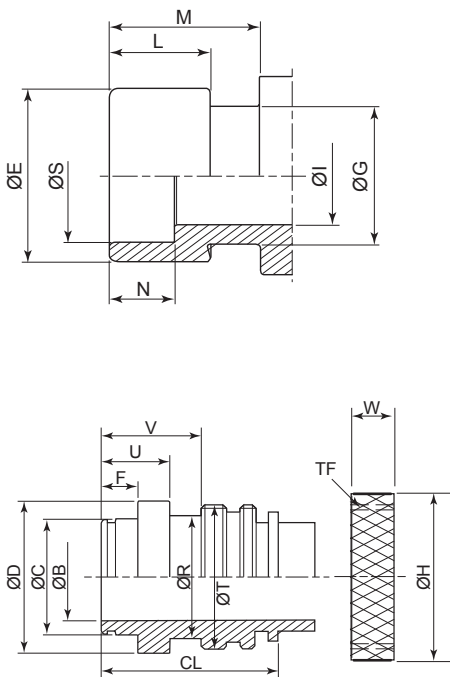
Advantages: Allows connections to be made in confined spaces and in difficult environments. No torsional load is applied in the fitting, and connection is easy, with no need of spanners. The slim external profile of the coupling does not protrude beyond the hose outside diameter in most cases, and overall connection length is short. There exist no projecting components to cause snagging or dislodgement.

The 2 forms of the fittings are dimensionally different to preclude accidental intermixing between different pressure circuits.

Variations: Available in the both medium and high pressure forms to fill the demands for a wide range of working pressures. The 'SSKV' form has been extensively tested within Australia to SAE J343 for both working pressure and impulse cycles, and has comfortably exceeded 500,000 impulses in all tests (continuing). No Standard exists for either form of the fitting at this point.

Both forms of the fitting are suited to applications where MDG 41 compliance is demanded.

SKV MALE & FEMALE



Nom. Tube	DN	6	10	13	20	25	32	40	50	63	76	100
	ins	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
	Dash	04	06	08	12	16	20	25	32	40	48	64
Pressure (bar)	Max. Working	-	-	-	-	280	210	185	165	70	70	64
	Min. Burst	-	-	-	-	1120	840	740	660	280	280	256
SKV Female (Hosetails and Adaptors)												
Dimensions (mm)	S	-	14	18	23	27	33	44	56	66	88	105
	E	-	20	22	28	33	39.8	53	65	75	99	118
	G	-	14	15.9	19.9	24.9	31.1	38.9	52.9	63.9	84.8	138
	I	-	7	9.8	15	19	24	32	44	55	67	85
	L	-	16	18	17	17	23.6	24.5	24.5	24.5	38	38
	M	-	24	26.5	27	28.5	37	37.5	38	38	54.5	60
	N	-	11.2	13.2	13.2	13.2	18.2	15.2	15.2	15.2	25.2	26
SKV Male (Hosetails)												
Dimensions (mm)	B	-	7	9.8	15	19	24	32	44	55	67	86
	C	-	14	18	23	27	33	44	56	66	88	105
	D	-	20	22	28	33	39.8	53	65	75	99.3	138
	R	-	14	15.9	19.9	24.9	31.1	38.9	52.9	63.9	84.8	101
	T	-	19	20	28	37	43	50	64	75	95	122
	F	-	11	13	13	13	18	15	15	15	25	25
	V	-	24	26.5	27	28.3	35	37.5	38	38	54.5	38
	H	-	25	28	36	42	50	62	75	85	110	138
	W	-	14	14.5	15	12.5	14	19	19.5	19.5	28	37.5
	TF	-	19	20	28	37	40/43	50	64	75	95	125
	SKV Male (Adaptors)											
	B	-	7	9.8	15	19	24	32	44	55	67	86
	C	-	14	18	23	27	33	44	56	66	88	105
	D	-	20	22	28	33	39.8	53	65	75	99.3	118
	R	-	14	15.9	19.9	24.9	31.1	38.9	52.9	63.9	84.8	101
	T	-	24	26	32	37	43	60	70	80	107	122
	F	-	11	13	13	13	18	15	15	15	25	25
	V	-	24	26.5	27	28.3	35	37.5	38	38	54.5	61
	H	-	29	33	36	42	50	70	80	90	125	138
	W	-	15	14.5	15	12.5	14	22	23	25.5	28	37.5
	TF	-	24	26	32	37	40/43	60	70	80	107	125

Thread Identification

SKV / SSKV ASSEMBLY PROCEDURE

Step 1:

Ensure you have the appropriate SKV / SSKV components

The SKV / SSKV connections comprise:

- Support Clip



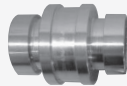
- Shell



- Male End w/- Retaining Nut



- Female End



Step 2:

Lubricate the O-Ring and internal body of the female fitting using Pirtek Protect Lanoline Grease. Insert the male spigot into the female until the shoulders touch as can be seen in the photograph at right.



Step 3:

Fit the spring supported Shell over the mating male and female connection and ensure that it is a snug fit into the grooves, equally ensuring that the two halves of the shell meet and align. Ensure that the split in the Shell is level, parallel and forms a complete closed diameter to ensure that it is properly engaged in the grooves as evident at right.

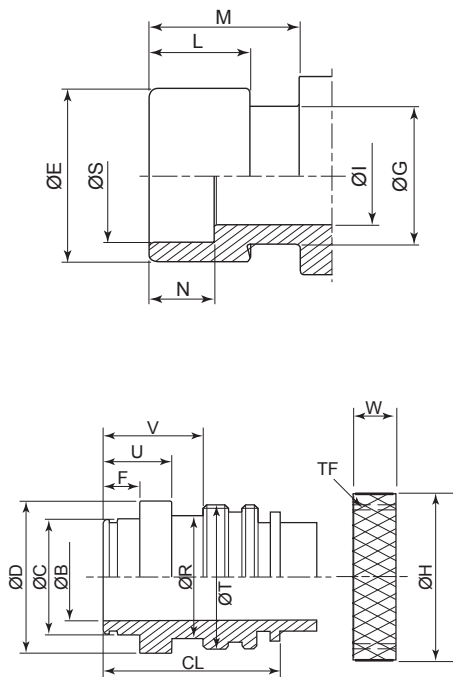


Step 4:

Lubricate the thread of the retaining nut with Pirtek Protect Lanoline Grease. Turn the retaining nut toward the shell by hand until it meets firmly against the shoulder of the shell. A "C" Spanner may be used, but is not essential. Clip the optional plastic safety clip into position firmly at the rear of the retaining nut ensuring that it is not loose, although some sideways movement is permitted in the housing groove.



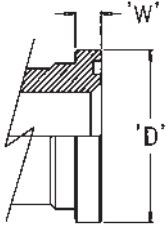
SSKV MALE & FEMALE



Nom. Tube	DN	6	10	13	20	25	32	40	50	63
	ins	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"
	Dash	04	06	08	12	16	20	25	32	40
Pressure (bar)	Max. Working	-	420	420	420	420	420	420	420	350
	Min. Burst	-	1680	1680	1680	1680	1680	1680	1400	1400
SSKV Female (Hosetails and Adaptors)										
Dimensions (mm)	S	-	14	18	23	28	33	42	54	65
	E	-	20	24	30	36	44	54	70	84
	G	-	14	18	23	28	33	39	56	69
	I	-	7	10	15	20	24	30	40	50
	L	-	16	18	18	21	26	29.5	31	41
	M	-	24	26.5	27	33	39	43.5	46	62.5
	N	-	11	13	13	15	18	20	20	25
SSKV Male (Hosetails)										
Dimensions (mm)	B	-	7	10	15	20	24	30	40	50
	C	-	14	18	23	28	33	42	54	65
	D	-	20	24	30	36	44	54	70	84
	R	-	14	18	23	28	33	39	56	69
	T	-	19	23	32	38	43	50/55	66	86
	F	-	11	13	13	15	18	20	20	25
	V	-	25	26.5	27	32	39	43	46	62.5
	H	-	25	30	38	45	52	64	78	98
	W	-	14	13.5	15	13.5	13.5	19	19.5	25
	TF	-	20	23	32	38	43	50/55	66	86
SSKV Male (Adaptors)										
Dimensions (mm)	B	-	7	10	15	20	24	30	40	50
	C	-	14	18	23	28	33	42	54	65
	D	-	20	24	30	36	44	54	70	84
	R	-	14	18	23	28	33	39	56	69
	T	-	24	28	34	41	50	60	76	95
	F	-	11	13	13	15	18	20	20	25
	V	-	24	26.5	27	32	39	43	46	62.5
	H	-	29	34	40	47	64	72	85	110
	W	-	15	13	15	14.5	19	22	23	28
	TF	-	21.5	28	34	41	50	60	70	90

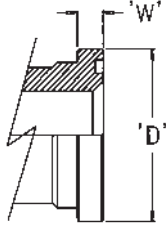
Thread Identification

SAE J518 CODE 61 FLANGE

 Applicable Standards Thread Form: SAE J518-1 ISO6162-1	Dash Size	Nominal Tube Size		'W' on Diagram		Max Work Press. Adaptors	Hose Fittings Max Work Press	Flange OD 'D' on Diagram	
		ins	mm	ins	mm	bar	Bar	ins	mm
	8	1/2"	12.7	0.265	6.73	350	350	1.188	30.18
	10 †	5/8"	16	0.265	6.73	350	350	1.340	34
	12	3/4"	19	0.265	6.73	350	350	1.500	38.1
	16	1"	25.4	0.315	8	320	350	1.750	44.45
	20	1.1/4"	32	0.315	8	280	280	2.000	50.8
	24	1.1/2"	38	0.315	8	210	210	2.375	60.33
	32	2"	51	0.375	9.53	210	210	2.812	71.42
	40	2.1/2"	63.5	0.375	9.53	175	175	3.312	84.12
	48	3"	76	0.375	9.53	160	160	3.999	101.60
	56	3.1/2"	89	0.444	11.3	35	35	4.499	114.30
	64	4"	102	0.444	11.3	35	35	4.999	127.00

† Komatsu produce flanges to the Japanese JIS Standard. They comply with Code 61 and Code 62 in all respects except O-Ring groove dimensions. Refer to Pirtek fittings catalogue Section C for details. Never use Imperial O-Rings (Y or OKS) in Komatsu® flanges - only KY series. Dash Size 10 is unique to the JIS Standard.

SAE J518 CODE 62 FLANGE

 Applicable Standards Thread Form: SAE J518-2 ISO6162-2	Dash Size	Nominal Tube Size		'W' on Diagram		Max WP. Adaptors & Hose Fittings	Flange OD 'D' on Diagram	
		ins	mm	ins	mm	bar	ins	mm
	8	1/2"	12.7	0.305	7.75	420	1.250	31.750
	12	3/4"	19	0.345	8.76	420	1.625	41.280
	16	1"	25.4	0.375	9.53	420	1.875	47.630
	20	1.1/4"	32	0.405	10.29	420	2.125	53.980
	24	1.1/2"	38	0.495	12.57	420	2.500	63.500
	32	2"	51	0.495	12.57	420	3.125	79.380

NOTE: Komatsu use flanges that comply with Code 61 and Code 62 in all respects except O-Ring groove dimensions. Refer to Pirtek fittings catalogue Section C for details. They comply to a JIS Standard, and include a Dash 10 size.

'SUPERCAT' FLANGE

NOTE: This term applies to flanges with a flange head thickness of 14.2 mm, but conform in all other respects to the dimensions of SAE Code 62 flanges. They are to be found on new generation Caterpillar® equipment.

Pirtek have available a range of fittings that conform to the dimensions of the new fittings. Please refer to Fittings Catalogue Section C for detail. Product Codes follow Code 62 guidelines, but have a suffix 'C' to differentiate them eg C621C

No SAE Standard has been published as yet for the flanges

Flange Size		Associated Bolt Details for Flange Clamps									
		Code 61				Code 62 and Supercat					
		UNC Bolts Grade 8		Metric Bolts Class 10.9		UNC Bolts Grade 8		Metric Bolts Class 10.9			
Dash	Size	Thread	Length	Thread	Length	Thread	Length Code 62	Length Supercat	Thread	Length Code 62	Length Supercat
08	1/2"	5/16"-18	1 1/4"	M8 x 1.25	25	5/16"-18	1 1/4"	-	M8 x 1.25	30	-
10 *	5/8"	5/16"-18	1 1/4"	M8 x 1.25	35	-	-	-	-	-	-
12	3/4"	3/8"-16	1 1/4"	M10 x 1.5	30	3/8"-16	1 1/2"	1 1/4"	M10 x 1.5	35	45
16	1"	3/8"-16	1 1/4"	M10 x 1.5	30	7/16"-14	1 3/4"	1 3/4"	M12 x 1.75	45	45
20	1.1/4"	7/16"-14	1 1/2"	M10 x 1.5	30	1/2"-13	1 3/4"	2"	M14 x 2*	45	50
24	1.1/2"	1/2"-13	1 1/2"	M12 x 1.75	35	5/8"-11	2 1/4"	2 1/2"	M16 x 2	55	60
32	2"	1/2"-13	1 1/2"	M12 x 1.75	35	3/4"-10	2 3/4"	-	M20 x 2.5	70	-
40	2.1/2"	1/2"-13	1 3/4"	M12 x 1.75	40	-	-	-	-	-	-
48	3"	5/8"-11	1 3/4"	M16 x 2	50	-	-	-	-	-	-
56	3.1/2"	5/8"-11	2"	M16 x 2	50	-	-	-	-	-	-
64	4"	5/8"-11	2"	M16 x 2	50	-	-	-	-	-	-

Supercat Flange Clamps (not available from Pirtek) use the same bolt spacings as Code 62 but the bolts are generally longer to accommodate the 14.2 mm flange thickness

*NOTE: For new designs thread is M12 x 1.75



This page is part of a complete catalogue containing technical and safety data.
All data must be reviewed when selecting a product.
Pirtek reserve the right to change technical specifications without notice

Recommended Practices for Hydraulic Hose Assemblies – SAE J1273 2002-12

Foreword

This SAE Recommended Practices is intended as a guide to consider when selecting, routing, fabricating, installing, replacing, maintaining, and storing hose for fluid-power systems. It is subject to change to keep pace with experience and technical advances. For those new to hose use in fluid power systems, this guide outlines practices to note during each phase of system design and use. Experienced designers and users skilled in achieving proper results, as well as the less experienced, can use this outline as a list of considerations to keep in mind.

Fluid-power systems are complex and require extensive knowledge of both the system requirements and the various types of hose. Therefore, all inclusive, detailed, step by step instructions are not practical and are beyond the scope of this document. Less experienced designers and users who need more information can consult specialists such as hose suppliers and manufacturers. This guide can improve the communication process.

Safety Considerations

These recommended practices involve safety considerations; note these carefully during all phases of design and use of hose systems. Improper selection, fabrication, installation, or maintenance of hose and hose assemblies for fluid power systems may result in serious personal injury or property damage. These recommended practices can reduce the likelihood of component or system failure, thereby reducing the risk of injury or damage.

1. Scope – SAEJ1273 provides guidelines for selection, routing, fabrication, installation, replacement, maintenance, and storage of hose and hose assemblies for fluid-power systems. Many of these SAE Recommended Practices also may be suitable for other hoses and systems.
2. Reference
 - 2.1 Applicable publications –

The following publications form a part of this specification to the extent specified herein. Unless otherwise specified, the latest issue of SAE publications shall apply
 - 2.1.1 SAE publications – Available from

SAE, 400 Commonwealth Drive, Warrendale, PA 15096-000

SAEJ343 – Test and Procedures for SAE 100 R Series Hydraulic Hose and Hose Assemblies

SAEJ514 – Hydraulic Tube Fittings

SAEJ517 – Hydraulic Hose

SAEJ1927 – Cumulative Damage Analysis for Hydraulic Hose Assemblies
 - 2.1.2 ISO publications – Available from

ANSI, 11 West 42nd Street,
New York, NY 10036-8002

ISO 3457 – Earth moving machinery – Guards and shields – definitions and specifications.

3. Definitions

These explanations serve only to clarify this document and are not intended to stand alone. They are presented sequentially, with the former helping to explain the latter

3.1 Fluid-power

Energy transmitted and controlled using pressurised hydraulic fluids or compressed air.

3.2 Hose – flexible conductor

In this document, the term hose also may refer to a hose assembly with related accessories used in fluid power applications

3.3 Hose fitting or fitting – connector which can be attached to the end of a hose

3.4 Hose assembly – hose with hose fittings attached

3.5 Hose failure – occurrence in which a hose stops meeting system requirements

3.6 Hose service life – length of time a hose meets system requirements without needing replacement

4. Safety considerations –

listed in 4.1 to 4.7 are some potential conditions and situations that may lead to personal injury and/or property damage. This list is not necessarily all inclusive. Consider reasonable and feasible means, including those described in this section, to reduce the risk of injuries or property damage. Training, including the information in this document, for operators, maintenance personnel, and other individuals working with hoses under pressure is encouraged

4.1 Fluid injections – fine streams of escaping pressurised fluid can penetrate skin and enter a human body. These fluid injections may cause severe tissue damage and loss of limb

Consider various means to reduce the risk of fluid injections, particularly in areas normally occupied by operators. Consider careful routing, adjacent components, warnings, guards, shields, and training programs.

Relieve pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Avoid contact with escaping fluids. Treat all leaks as though pressurised and hot enough to burn skin. Never use any part of your body to check a hose for leaks.

If a fluid-injection accident occurs, see a doctor immediately. DO NOT DELAY OR TREAT AS A SIMPLE CUT! Any fluid injected into skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should consult a knowledgeable medical source

4.2 Whipping hose – if a pressurised hose assembly blows apart, the fittings can be thrown off at high speed, and the loose hose can flail or whip with great force. This is particularly true in compressible-fluid systems. When the risk exists, consider guards and restraints to protect against injury

4.3 Burns from conveyed fluids – fluid-power media may reach temperatures that can burn human skin. If there is risk of burns from escaping fluid, consider guards and shields to prevent injury, particularly in areas normally occupied by operators

4.4 Fire and explosions from conveyed fluids – most fluid-power media, including fire-resistant hydraulic fluids, will burn under certain conditions. Fluids which escape from pressurised systems may form a mist or fine spray which can flash or explode upon contact with an ignition source. Consider selecting, guarding, and routing hose to minimise the risk of combustion (see Section 5 and ISO 3457).

4.5 Fire and explosions from static-electric discharge – fluid passing through hose can generate static electricity, resulting in static-electric discharge. This may create sparks that can ignite system fluids or gases in the surrounding atmosphere

When this potential exists, select hose specifically designed to carry the static-electric charge to ground

(R) Test and Test Procedures for SAE 100R Series Hydraulic Hose and Hose Assemblies – SAE J343 July 2001

This document is technically equivalent to ISO 6605 except as noted in the foreword.

Foreword – this document has not changed other than to put it into the new SAE technical standards board format. SAE J343 has been revised to be technically equivalent to ISO 6605, except that additional tests in paragraphs 4.9 to 4.14 were included

- 1. Scope** – this SAE standard gives methods for testing and evaluation performance of the SAE 100R series of hydraulic hose and hose assemblies (hose and attached end fittings) used in hydraulic fluid power systems.

Specific tests and performance criteria for evaluating hose assemblies used in hydraulic service are in accordance with the requirements for hose in the respective specifications of SAE J517.

This document further establishes a uniform means of testing and evaluating performance of hydraulic hose assemblies

2. Reference

- 2.1 Applicable publications – The following publications form a part of the specification to the extent specified herein. Unless otherwise indicated the latest revision of SAE publications shall apply
- 2.1.1. SAE Publications – available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001
SAE J517 Hydraulic hose.
- 2.1.2. ASTM publications – available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.
ASTM D 380 – standard methods of testing rubber hose.
- 2.1.3 ISO publications – available from ANSI, 11 West 42nd Street, New York, NY 10036-8002.
ISO 3448 – industrial liquid lubricants-ISO viscosity classification
ISO 6605 – hydraulic fluid-power hose assemblies – method of test.

3. Test procedures

The test procedures described in the current issue of ASTM D 380 shall be followed. However, in cases of conflict between the ASTM specifications and hose described as follows, the latter shall take precedence. Unless otherwise specified in this document, or other SAE standards, tests shall be conducted at the prevailing ambient temperature of the testing facility.

- 4. Standard test warning** – water or another liquid suitable for the hose under test shall be used as the test medium. The use of air and other gaseous materials as testing media should be avoided because of the risk to operators. In special cases where such media are required for the tests, strict safety measures are imperative. Furthermore, it is stressed that when a liquid is used as the test medium, it is essential that all air is expelled from the test piece because of the risk of injury to the operator due to the sudden expansion of trapped air released when the hose bursts.

- 4.1. Dimensions check test – The hose shall be inspected for conformity to all dimensions tabulated in the applicable specification. Determine finished outside diameters and reinforcement diameters, where required, by calculation from measurement of the respective circumference. As an alternative, use a flexible tape graduated to read the diameter directly. Measure the inside diameter by means of a suitable expanding ball or telescoping gauge. Measure concentricity over both the reinforcement and the finished outside diameters using either a dial indicator gauge or a micrometer. Round the foot of the measuring instrument to conform to the inside diameter of the hose. Take reading at 90 degree intervals around the hose.

NOTE: Acceptability is based on the total variation between the high and low readings.

Take inside and outside diameter measurements at a minimum of 25mm from the hose ends and concentricity measurements at a minimum of 13 mm from the hose ends.

4.2 Proof test

Test the hose assemblies hydrostatically to the specified proof pressure for a period of not less than 30 s nor more than 60 s. There shall be no indication of failure or leakage

4.3 Change in length test

Conduct measurements for the determination of elongation or contraction on a previously untested, unaged hose assembly having at least 600 mm length of free hose between hose fittings.

Attach the hose assembly to the pressure source in an unrestricted straight position. If the hose is not straight due to its natural curvature, it may be fastened laterally to achieve a straight position. Pressurise to the specified operating pressure for a period of 30 s, then release the pressure.

Place accurate reference marks 500 mm apart on the outer cover of the hose, midway between fittings, after allowing the hose assembly to restabilise for a period of 30 s, following pressure release.

Repressurise the hose assembly to the specified operating pressure for a periods of 30 s.

Measure the final length while the hose is pressurised. The final length is the distance between reference marks while the hose is pressurised. Complete the determination of the change in length using Equation 1:

$$\Delta = \frac{l_1 - l_0}{l_0} \times 100 \quad (\text{Eq.1})$$

where:

l_0 is the distance between the reference marks when the hose was not pressurised following the initial pressurisation;

l_1 is the distance between the reference marks under pressure;

Δ is the percentage change in length, which will be positive (+) in the case of an increase in length and negative (–) in the case of a decrease in length

- 4.4 Burst test** – Subject unaged hose assemblies, on which the end fittings have been attached for not more than 30 days, to a hydrostatic pressure, increased at a constant rate so as to attain the specified minimum burst pressure within a period of not less than 15 s nor more than 60 s.

Reject hose assemblies showing leakage, hose burst or indication of failure below the specified minimum burst pressure.

NOTE: This is a destructive test. Assemblies which have been subjected to this test shall be destroyed.

- 4.5 Cold bend test** – subject hose assemblies to the specified temperature in a straight position for 24 h. Then, while still at the specified temperature, the samples shall be evenly and uniformly bent once over a mandrel having a diameter equal to twice the specified minimum bend radius. Bending shall be accomplished within a period of not less than 8 s nor more than 12 s.

In the case of hose sizes up to and including 22 mm nominal inside diameter, bend them through 180 degrees over the mandrel; in the case of hose sizes larger than 22 mm nominal inside diameter, bend them through 90 degrees over the mandrel.

After bending, allow the sample to warm to room temperature, visually examine it for cover cracks and subject it to the proof test. There shall be no cover cracks or leakage. (In lieu of the bending test, hoses larger than 22 mm nominal inside diameter may be considered acceptable if samples of tube and cover pass the Low Temperature Test on Tube and Cover of ASTM D 380).

Reject any samples with visible cracks or leakage.

NOTE: This is a destructive test. Assemblies which have been subjected to this test shall be destroyed.

4.6 Impulse test – test for unaged hose assemblies with end fittings which have been attached for not more than 30 days. Where the individual standard requires, also test aged hose assemblies. Apply a pulsating pressure internally to the hose assemblies at a rate between 0.5 and 1.34 Hz; record the frequency used. The pressure cycle shall fall within the shaded areas of Figure 1 of SAE J343 and conform as closely as possible to the curve shown. Select a test fluid which complies with the requirements of ISO VG 46± 4.6 at 40°C per ISO 3448, and circulate it at a rate sufficient to maintain a uniform fluid temperature within the hose assemblies. Other fluids may be used as agreed upon between the customer and the manufacturer.

Calculate the free (exposed) length of hose under test, shown on Figure 2, as follows:

- a. Hose sizes up to and including 22 mm nominal inside diameter (see Equation 3):

$$180 \text{ degrees bend free length} = \pi r + 2d \text{ (Eq.3)}$$

- b. Hose sizes larger than 22 mm nominal inside diameter (see Equation 4):

$$90 \text{ degrees bend free length} = r + 2d \text{ (Eq.3)}$$

where:

r = minimum bend radius

d = hose outside diameter

Connect the test pieces to the apparatus. The test pieces shall be installed according to Figure 2 of SAE J343. Test pieces of hose of nominal inside diameter up and including 22 mm shall be bent through 180 degrees and hoses of nominal inside diameter larger than 22 mm shall be bent through 90 degrees.

Test the hose at the impulse test pressure indicated in the individual specification. The test fluid shall be circulated through the assemblies at the specified temperature with a tolerance of 3°C. Cooling or heating of the test chamber shall not be permitted, except when individual standards require testing with synthetic base test fluids at a temperature higher than 150°C. When such higher temperatures are required, the impulse test fluid need not be circulated if both the fluid and the assemblies are externally heated in the test chamber, at the specified temperature with a tolerance of 5°C.

Determine the duration of the impulse test in total number of cycles by the individual standard for the hose assemblies. Where aged samples are required, refer to the individual standards. It is recommended the test fluid be changed frequently to prevent breakdown.

NOTE: This is a destructive test. Assemblies which have been subjected to this test shall be destroyed.

- 4.7 Leakage test** – Subject unaged hose assemblies, on which the end fitting have been attached for not more than 30 days, to a hydrostatic pressure of 70% of the specified minimum burst pressure for a period of between 5.0 to 5.5 min.

Reduce the fluid pressure to 0 MPa.

Re-apply the 70% of minimum burst hydrostatic pressure for another 5.0 to 5.5 min period.

Reject assemblies showing leakage or failure.

NOTE: This is a destructive test. Assemblies which have been subjected to this test shall be destroyed.

A mercury or salt water solution electrode shall be provided at the upper end as shown, by inserting a non-metallic plug with an O-ring seal to distance of 75 mm from the end of the tubing, thus providing an average test length of 255 mm.

Mercury or salt water solution shall then be added to a level 25 mm above the plug. Any suitable conductor to this electrode may be used, including a threaded end attached to the plug if so desired. Concentration of salt water, if used, shall be 450 g NaCl per litre of H₂O.

1000 V DC shall be applied between the upper electrode and the lower electrode (adaptor or male fitting hex). The current shall be measured with an instrument with a sensitivity of at least 1 µA (1 x 10⁻⁶ A).

- 4.13 Resistance to vacuum test** – The hose shall not blister nor show any other indication of failure when subjected to the specified vacuum for a period of 5 min. Where practicable, one end of the hose shall be equipped with a transparent cap and electric light to permit visual examination for failure. Where the length or size of the hose precludes visual examination, failure shall be determined by inability to pass through the hose a ball or cylinder 6.5 mm less in diameter than the bore or hoses of 12.5 mm nominal inside diameter and larger. For hoses under 12.5 mm nominal inside diameter, a ball or cylinder 3.0 mm smaller in diameter than the bore shall be used.

Hose and Fitting Compatibility

Pirtek strongly recommend that only Pirtek hose and fittings are used in an assembly. We do not condone the use of other brand hose used with our fittings, or other fittings used with our hose. Any fabrication of a hose assembly outside this is deemed to be at the fabricators risk and is not recommended.

The SAE specification for Hydraulic Hose, J517, paragraph 5 reads

Hose Assemblies—Hose assemblies may be fabricated by the manufacturer, an agent for, or customer of, the manufacturer, or by the user. Fabrication of permanently attached fittings to hydraulic hose requires specialised assembly equipment. Field attachable fittings (screw style and segment clamp style) can usually be assembled without specialised equipment although many manufacturers provide equipment to assist in this operation.

SAE J517 hose from one manufacturer is usually not compatible with SAE J516 fittings supplied by another manufacturer. It is the responsibility of the fabricator to consult the manufacturer's written assembly instructions of the manufacturers directly before intermixing hose and fittings from two manufacturers. Similarly, assembly equipment from one manufacturer is usually not interchangeable with that of another manufacturer. It is the responsibility of the fabricator to consult the manufacturer's written instructions or the manufacturer directly for proper assembly equipment. Always follow the manufacturer's instructions for proper preparation and fabrication of hose assemblies.

Selection of Hose

System type

The selection and installation of hoses must be in relation to pump pressure, operating cycle, inner diameters of pipes, type of fluid.

Operating pressure

Hose lines are rated for continuous operation at the maximum operating pressures specified for the hose.

Generally, the operating pressure is one fourth the hose minimum burst pressure, thus meeting the SAE recommended safety factor of 4 to 1.

Pressure surges

Almost all hydraulic systems develop pressure surges which may exceed relief valve settings and affect the service life of hose and system components. In systems where surges are severe, select a hose that will increase the safety factor.

Conversely, in systems where surges are slight or non-existent, a smaller safety factor may be used.

Operating temperatures

Operating temperatures specified refer to maximum temperature of the fluid or gases being conveyed (with peaks up to 120°C). Continuous operation at or near maximum rated temperatures will materially reduce the service life of the hose. Refer to Pirtek for advice on permissible operating temperatures for fluids other than general purpose mineral oils in hydraulic hoses.

Hose installation guide

Particular care must be taken to avoid certain conditions when installing hose assemblies. These conditions might arise from :

1. Changes in length
2. Proximity of high temperature sources
3. Twisting / torsion
4. Bends in tight locations
5. Rubbing / abrasion
6. Improper hose movement
7. Longitudinal pull on hose ends
(vertical drops or spring tensioned reels)

Some situations can result in violation of the hose technical specifications unless the operating conditions of the hose are fully appreciated.

A word about twist

Only 7° of angular twist in an assembly can reduce the expected hose life by up to 80%. Pay particular attention to factors that induce twist and learn to recognise them in the field. Take note also of the allowable tolerance for orientation of elbow fittings (page 17) when assembling hoses.

Take note of the examples given overleaf to avoid problems and premature hose failure.

Ambient temperatures

Very high or low ambient (outside of hose) temperatures will affect cover and reinforcement materials, thus influencing the life of the hose.

Bend radius

Recommended minimum bend radii are based on maximum operating pressures with no flexing of the hose.

Vibration and flexing

Hose lines are designed to withstand maximum vibration and flexing.

Volumetric expansion

Hose is normally manufactured with a neutral braid angle to reduce volumetric expansion.

Gaseous fluid systems

High pressure gaseous systems are very hazardous. Pressurised air expands when released to atmosphere by a factor equating to the original pressure in bar (air at 350 bar expands 350 times its initial volume), and releases energy in the process (see Table below). Hose lines should be adequately protected from external shock and mechanical or chemical damage, and should also be suitably protected to prevent whiplash action in the event of failure for any reasons.

It is recommended to increase the safety factor when dealing with gaseous fluid systems.

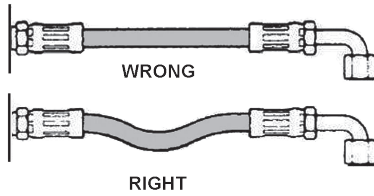
Initial restrained pressure	Energy release from 45 litres of compressed fluid (Nm)	
	air	oil
bar		
1	0	0
6	230	0
34	1505	1
68	3254	4
136	7050	15
204	10711	33
340	18981	87
680	37963 †	312

† By way of comparison, this figure corresponds to the energy released by detonation of a stick of dynamite

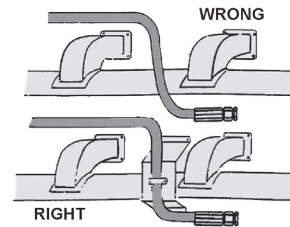
Braided or spiral hoses used to conduct compressed air above 17 bar (250 psi) should be pin pricked on the external cover unless the hose cover is specifically designed to be permeable. Additionally, the maximum permissible working temperature of the hose must be reduced for use with air (typically around 70°C.)

Hose Size

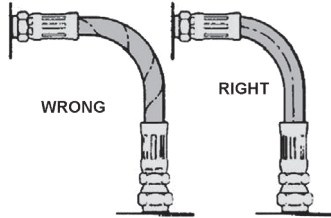
Please refer to the Table on page 17 for various hose size designations in common use



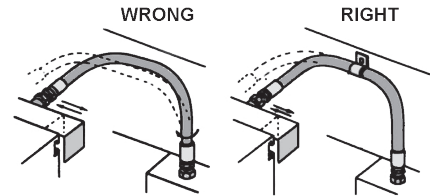
Length may vary +2% to -4% when pressure is applied
Allow enough slack to accommodate this movement



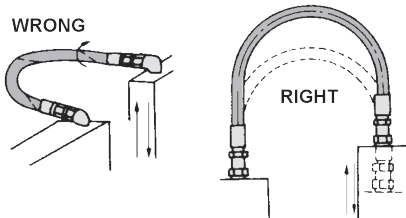
Avoid hot manifolds etc where possible, or isolate with fire sleeve or other protective means



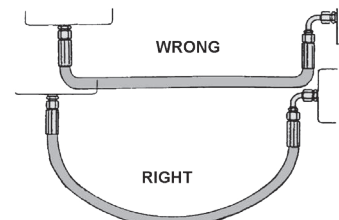
Use the layline to determine that no twist has been induced when tightening. Use 2 spanners to counteract twist



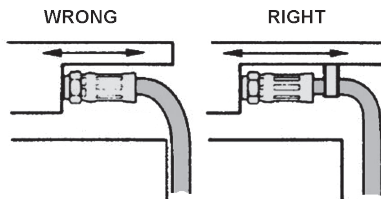
Hose movement in 2 planes can induce twist. A clamp at the nodal point will avoid the need for a swivel



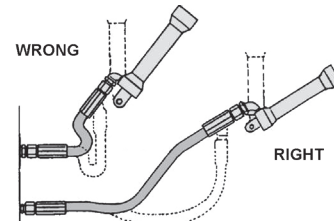
Ensure that bending of a hose occurs in the same plane as the movement of the attachment point to avoid induced twist



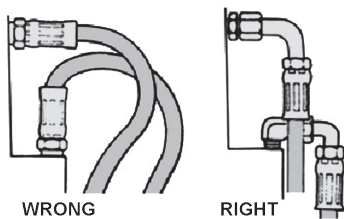
Using too small a bend radius will greatly reduce hose life, and may cause line collapse and flow restriction



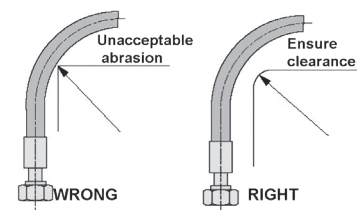
Use clamps to support long runs or keep hose away from moving parts. Clamps mustn't be allowed to move (abrasion)



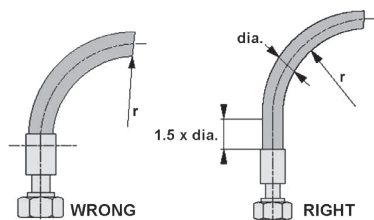
Remember that the metal hose fittings are not part of the flexible portion. Allow ample free length for flexing



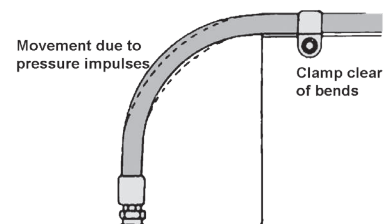
Use elbows and adaptors to relieve strain and allow neater installations for easier accessibility and maintenance



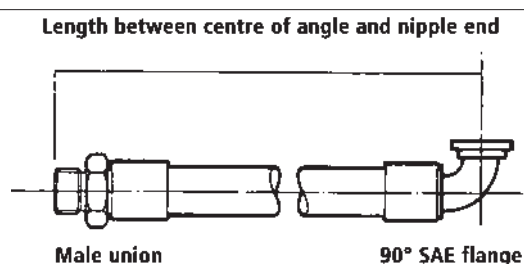
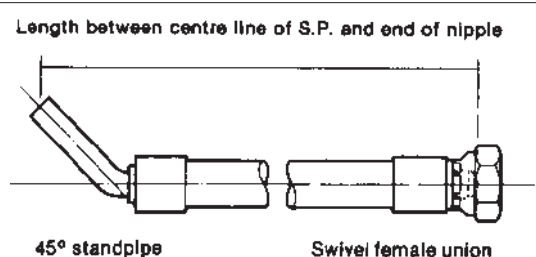
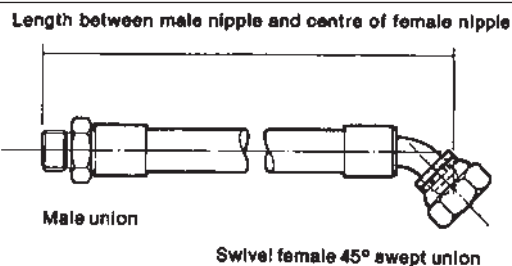
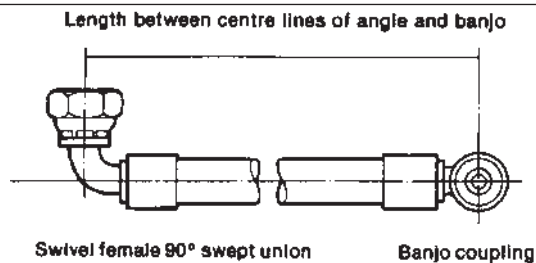
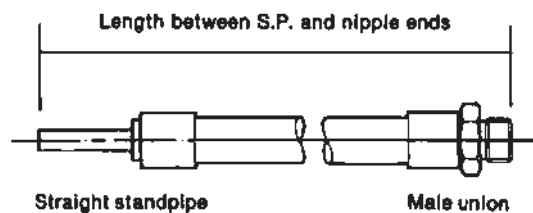
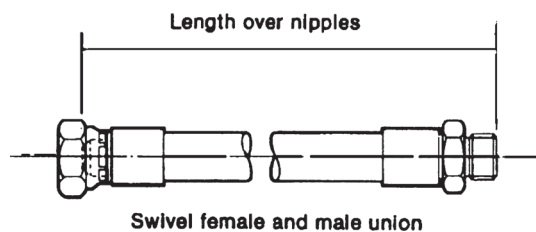
Avoid sharp corners



Have a straight section before bending commences. Use a Pirtek Hose Guard on large multi-spiral hoses to assist



Avoid restricting hose movement around bends. Clamping should occur away from the area of movement



Standard Tolerances

Assembly length

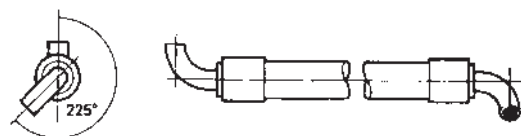
0mm – 305mm ± 3 mm

305mm – 457mm ± 4 mm

457mm – 914mm ± 6 mm

914mm upwards $\pm 1\%$

Elbow angle $\pm 3^\circ$



Angular Relationships

Hold the assembly so that you can look along the length of the hose and with the fitting furthest away from you in the vertical position. Measure the angle between the vertical fitting and the one nearest to you in a clockwise direction. Relationship can then be expressed from 0° to 360°.

If the angle is not given, the elbows are positioned at 0°.

HOSE SIZE TERMINOLOGY (HOSE SIZE REFERS TO THE INSIDE DIAMETER)

HOSE SIZE	DASH SIZE	MINE TERMINOLOGY	METRIC SIZE	DN SIZE
1/4"	-04	NO 4	6 MM	DN6
3/8"	-06	NO 6	10 MM	DN10
1/2"	-08	NO 8	13 MM	DN13
5/8"	-10	NO 10	16 MM	DN16
3/4"	-12	NO 12	20 MM	DN20
1"	-16	NO 16	25 MM	DN25
1 1/4"	-20	NO 20	32 MM	DN32
1 1/2"	-24	NO 24	40 MM	DN40
2"	-32	NO 32	50 MM	DN50
2 1/2"	-40	NO 40	63.5 MM	DN63
3"	-48	NO 48	75 MM	DN75

WARNING

SAFETY PRECAUTIONS FOR THE USE OF PIRTEK® HOSE ASSEMBLIES

Your Personal Safety may directly or indirectly be compromised if the hose assembly is abused.

By following the INSTRUCTIONS below, the more common abuses of hose and hose assemblies can be avoided.

INSPECT the hose assembly before each use.

REPLACE the hose assembly immediately if:

- A. The cover appears abnormal
- B. You believe it may be abnormal
- C. There is any fluid leakage
- D. The fittings are damaged
- E. The hose is damaged
- F. Reinforcement is visible through the cover

DO NOT EXCEED the maximum working pressure of the hose.

DO NOT KINK the hose assembly.

DO NOT BEND beyond the specified minimum bend radius of the hose.

DO NOT EXPOSE to temperatures beyond the published maximums for the hose or fluid being conveyed.

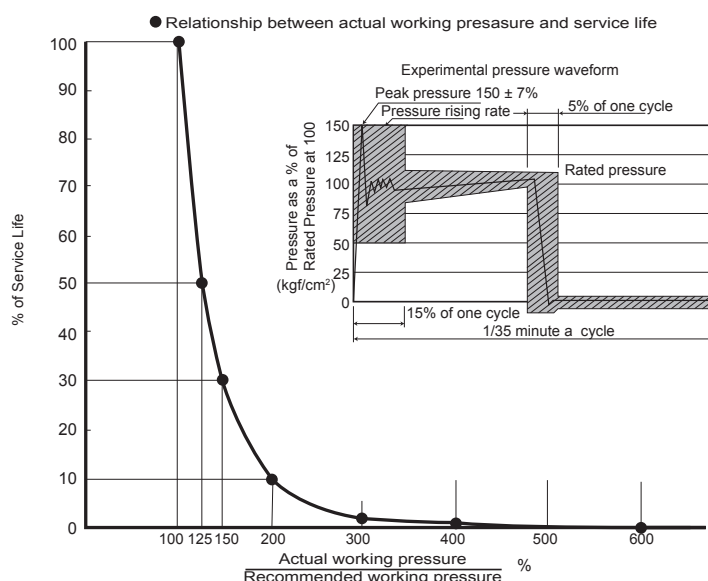
DO NOT USE AS A STRENGTH MEMBER for pulling or lifting equipment. Use support cables for vertical installations.

USE ONLY WITH COMPATIBLE FLUIDS as outlined in the Chemical Compatibility Charts or as specifically approved in writing by Pirtek Fluid Systems.

PIN PRICK THE COVER of hoses used for compressed air above 17 bar or 250 psi to allow the safe escape of air that permeates through the liner and reinforcement (except STH, R5HT and 3130). The maximum working pressure and temperature must also be reduced by 30%.

Use only Pirtek HOSE AND FITTINGS COMBINATIONS as designated in their current assembly guidelines. Use only Pirtek PROCEDURES and ASSEMBLY EQUIPMENT as published and maintained in their M.A.P.S. documentation.

- The use of conventional wire reinforced rubber hose often entails the pressure fluctuations of fluid.
- The factors concerned with such pressure fluctuations are generally classified into two: those stemming from the pump itself, and the others ascribable to external impacts imparted to the hose via the operating demands. The latter are considered to have the greater effect on the service life of the hose.
- External impulse pressure is estimated to be 150% of the set pressure (actual working pressure) of a relief valve, and sometimes exceeds 300%.



This page is part of a complete catalogue containing technical and safety data.
All data must be reviewed when selecting a product.
Pirtek reserve the right to change technical specifications without notice

Fast Find Table

Page	Group	Product Code	Construction	Normal Usage	Features & Benefits (See main Specifications page for details and Approvals)
20	HYDRAULIC	R4HT Hydraulic Suction / Del.		Hydraulic suction & delivery hose for fuels & mineral oils with aromatic content ≤ 40%	Synthetic smooth oil resistant inner tube. 2 braids of textile & a metal spiral. MSHA
21		R1AT One wire braid		Medium pressure hose for hydraulic fluids and aqueous emulsions and water	Synthetic rubber oil resistant liner and abrasion resistant cover. 1 steel braid
22		R1ATFS Fire suppression		As for R1AT but with red cover to confirm suitability for use in fire suppression systems	Synthetic rubber oil resistant liner and abrasion resistant red cover. 1 steel braid
23		HT1 High Temp. 1 wire braid		Medium pressure hose for hydraulic fluids and aqueous emulsions and water	Similar to R1AT but has increased flexibility, high temperature and also conveys air
24		R2AT/2SC Two wire braid		High pressure hose for hydraulic fluids and aqueous emulsions and water	Synthetic rubber oil resistant liner and abrasion resistant cover. 2 steel braids
25		R2ATHT High Temp. 2 wire braid		High pressure hose for hydraulic fluids and aqueous emulsions and water	As above but high temperature rubber formulation. Blue cover
26		HT2 High Temp. 2 wire braid		High pressure hose for hydraulic fluids and aqueous emulsions and water	Similar to R2AT but has increased flexibility, high temperature and also conveys air
27		LPHT Textile braid High Temp		Low pressure hydraulic fluids, aqueous emulsions, air transfer and water	Low pressure high temp. hose with oil resistant liner suited to push fit fittings
28		C21 Isobaric 210 bar		Isobaric (constant working pressure for all sizes) range of hoses exclusive to Pirtek. Simplifies hose selection in circuits of known working pressure 'PS' Suffix denotes extreme abrasion resistance of cover sheath material	Class 21 hoses suit 210 bar WP
29		C25 Isobaric 250 bar			Class 25 hoses suit 250 bar WP
30		C35 Isobaric 350 bar			Class 28 hoses suit 275 bar WP
31		C42 Isobaric 420 bar			Class 35 hoses suit 350 bar WP Class 42 hoses suit 420 bar WP
32		JBF Jumbo Ace Hose		2½" bore medium pressure hose for hydraulic fluids incl. aqueous emulsions	Spiral construction. Prolonged high temp. usage with water based fluids will corrode wire
33		PC25 Isobaric 250 bar		Isobaric (constant working pressure for all sizes) range of hoses exclusive to Pirtek for compliance to Komatsu® requirements. Simplifies hose selection in circuits of known working pressure	Class PC25 hoses suit 250 bar WP
34		PC28PS Isobaric 280 bar			Class 28PS hoses suit 280 bar WP
35		PC35 Isobaric 350 bar			Class PC35 hoses suit 350 bar WP
36		PC42 Isobaric 420 bar			Class PC42 hoses suit 420 bar WP
37		3VE0 High Pressure Jacking		Extreme pressure hose for high pressure jacks and rescue equipment	Orange cover signifies electrically non conductive hose
38	INDUSTRIAL RUBBER	IRFAW FRAS Air / Water		Softwall hose for arduous air/water applications in underground mining	Weather resistant black cover with orange spiral. Fire resistant / anti static rating
39		IRSAB FRAS Super Bull Hose		FRAS high pressure air hose designed for high temperature bull hose applications	Weather resistant blue cover with green spiral. Fire resistant / antistatic rating
40		IRFWS DH FRAS Suction		FRAS hardwall hose for suction or delivery of water and non corrosive fluids.	Weather resistant black cover with helix wire support. Antistatic and 20 bar WP
41		IROFSD Oil Fuel Suction		Tank truck suction & delivery hose for fuels & mineral oils with aromatic content ≤ 40%	Synthetic smooth oil resistant inner tube. 2 braids of textile & a metal spiral. Antistatic
40	PVC	IPAF Blue PVC Air-Flex		Light duty general purpose air and water hose	Ribbed blue cover indicates cold weather flexibility. Pressures to 40 bar
41		IPFF PVC FRAS-Flex		Light duty general purpose air and water hose	Ribbed safety yellow cover with black stripe. Pressures to 40 bar

Fast Find Table

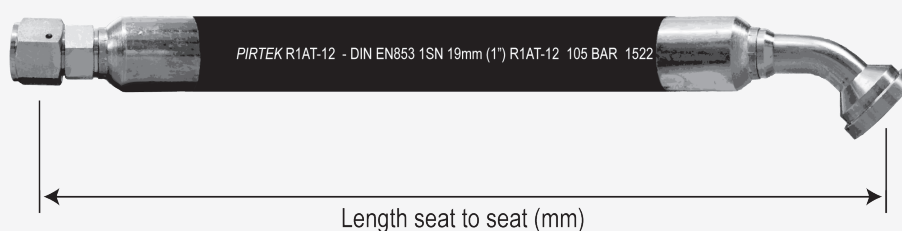
Product Code & Hose Type		dia.	Working Pressure (bar)																	Temp.	Pg.	
		ins	¼	5/16	3/8	½	5/8	¾	1	1¼	1 ½	1¾	2	2½	3	3½	4	5	6	8	°C	
		mm	-006	-008	-010	-013	-016	-019	-025	-032	-038	-045	-050	-063	-076	-090	-100	-125	-150	-200		
R4HT	Hydraulic Suction/Delivery							21	17	14	10		10	10	13	13	13				-40°/+135°	20
R1AT	1-Wire Hydraulic	225	215	180	160	130	105	88	63	50		40									-40°/+100°	21
R1ATFS	Fire Suppression	225		180	160		105														-40°/+100°	22
HT1	1-Wire High Temp						105	88													-40°/+135°	23
R2AT/2SC	2-Wire Hydraulic	400	350	330	275	250	215	165	125	90		80	70	70							-40°/+100°	24
R2ATHT	2-Wire High Temp.	400	350	330	275	250	215	165	125	90		80	69	45							-40°/+100°	25
HT2	2-Wire High Temp								125	90		80									-40°/+135°	26
LPHT	Low Pressure High Temp	21		21	21	21	21														-40°/+149°	27
C21	Isobaric 210 bar											210									-40°/+120°	28
C25	Isobaric 250 bar					250	250	250	250	250											-40°/+120°	29
C35	Isobaric 350 bar		380	350	350	350	350	350	350	350		350									-40°/+120°	30
C42	Isobaric 420 bar	420		420	420		420	420	420	420	420	420									-40°/+120°	31
JBF	Jumbo Ace												140								-40°/+100°	32
PC25	Isobaric 250 bar					250	250		250	250											-40°/+100°	33
PC28PS	Isobaric 280 bar				275		275	275													-40°/+120°	34
PC35	Isobaric 350 bar			350	350	350	350	350	350	350											-40°/+100°	35
PC42	Isobaric 420 bar	420																			-40°/+100°	36
3VEO	High Pressure Jacking	689		551																	-40°/+66°	37
IRFAW	FRAS Air / Water				20		20	20	20	20		20	20	20		20					-15°/+70°	38
IRSAB	Super Air Bull Hose											69									-30°/+135°	39
IRFWSDH	FRAS Suction							20				20	20	20		20		20			-15°/+70°	40
IROFSD	Oil Fuel Suction						10	10	10	10	10	10	10	10		10	10				-20°/+100°	41
IPAF	Blue PVC Air Flex	16		16	16		16	16													Rated 20°	40
IPFF	PVC Fras Flex				20		20	35													Rated 20°	41

ORDERING PIRTEK ASSEMBLIES

Should you wish to describe a Pirtek hose assembly in an abbreviated form, please use the following format. A forward slash is used to separate each field. Product Codes for fittings can be found in Pirtek Catalogue Section C (except Mining Fittings in this Section)

JF1-1712J

C614-1212J



Length seat to seat (mm)

In the above example, a 1200 mm long assembly would be designated:

R1AT-12 / JF1-1712J / C614-1212J / 1200

If spiral guard SSG-025 were fitted over the full length, the designation would change to:

R1AT-12 / JF1-1712J / C614-1212J / 1200 / SSG-025

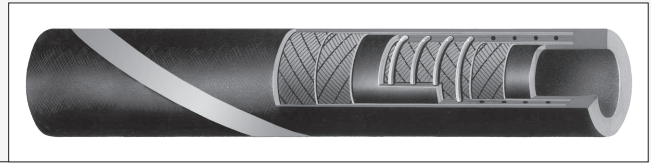
If both ends were fitted with the 45° flanged elbow set in alignment, the designation would appear:

R1AT-12 / C614-1212J / 1200 / 0

Generic Pattern : Hose / End A / End B / Length / Protection / Angle

R4HT

HIGH TEMP OIL SUCTION & DELIVERY



Construction

Inner Tube:

Black smooth NBR compound, oil resistant

Reinforcement:

High strength synthetic cord plus embedded steel helix wire

Applications

Hardwall hose for suction and delivery of oil at high temperatures in hydraulic systems. Extremely flexible.

Temperature Range:

-40°C up to +135°C mineral oil
-40°C up to +70°C water based fluids

Reference Specifications

Tested in accordance with performance specifications:

SAE100 R4

Approvals:

MSHA

Prolonged usage with water based fluids at temperatures above 70°C will allow wire corrosion as a result of diffusion through the inner liner.

Hose Tails:

Pirtek 'J' Series & SF Series

L Series, Cam & Groove, Combination Steel (all with clamps)

Cover:

Black, smooth (wrapped finish) Hypalon rubber compound flame retardant, resistant to abrasion, oils and weathering

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information

Lay line example: Embossed text on black background. Note Comment above

PIRTEK R4 HIGH TEMP R4HT-32 50.8mm (2") 10 BAR (145 PSI) MSHA

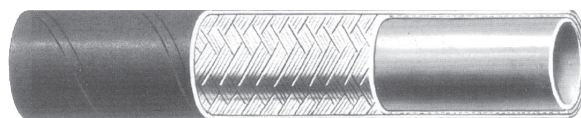
Product Code	Nominal ID		OD	Pressure bar			Min bend radius	Weight
	mm	ins		working	min burst	vacuum		
R4HT-12	20	3/4	30.5	21	83	0.9	60	0.66
R4HT-16	25	1	37	17	68	0.9	80	0.84
R4HT-20	32	1.1/4	44	14	56	0.9	100	1.02
R4HT-24	40	1.1/2	50	10	40	0.9	125	1.33
R4HT-32	50	2	63	10	40	0.9	150	1.71
R4HT-40†	63	2.1/2	77	10	40	0.9	200	2.71
R4HT-48†	76	3	90	13	52	0.9	240	3.28
R4HT-56†	90	3.1/2	105	13	52	0.9	280	4.29
R4HT-64†	100	4	116	13	52	0.9	320	4.80

† Non-stock product. Available to special order

R1AT

SINGLE WIRE BRAID

FRAS
All Sizes



Construction

Inner Tube:

Seamless synthetic rubber, resistant to oil.

Reinforcement:

One braid of high tensile steel wire

Cover:

Black synthetic rubber resistant to abrasion, oils, ozone and weathering

Applications

Medium pressure hose for hydraulic fluids such as mineral oils, aqueous emulsions, water, air and inert gases

Temperature Range:

-40°C up to +100°C mineral oil

-40°C up to +60°C water based fluids

0°C up to +60°C water

0°C up to +50°C air

-40°C up to +70°C ambient

Cover must be pin pricked if hose is to be used to convey air above 17 bar

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information.

Reference Specifications

Tested in accordance with performance specifications:

SAE100 R1AT S

EN 853 1SN

Approvals:

AS2660 test requirements – AS1180.10B & AS1180.13A (FRAS)

MSHA

Prolonged usage with water or water based fluids at temperatures above 70°C will allow wire corrosion as a result of diffusion through the inner liner

Hose Tails:

Pirtek 'K' Series to 5/8"

Pirtek 'J' Series 3/4" to 2"

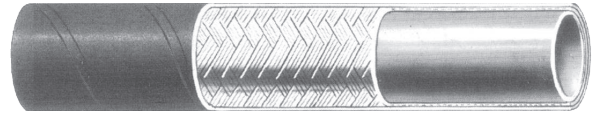
Lay line example: White text on black background. Note **Comment** above

PIRTEK SAE100 R1AT TYPE S R1AT-04 6.4mm (1/4") 225 BAR (3263 PSI) FRAS

Product Code	Nominal Diameter			Reinforcement	OD Cover (AVG)	Pressure bar		Min. bend radius	Weight
	DN	ins	mm			working	burst		
R1AT-03 †	5	3/16	4.9	1 braid	11.8	250	1000	90	0.18
R1AT-04	6	1/4	6.4	1 braid	13.3	225	900	100	0.23
R1AT-05 †	8	5/16	7.9	1 braid	15.0	215	850	115	0.27
R1AT-06	10	3/8	9.5	1 braid	17.3	180	720	125	0.37
R1AT-08	13	1/2	12.7	1 braid	20.3	160	640	180	0.45
R1AT-10	16	5/8	15.9	1 braid	23.5	130	520	201	0.50
R1AT-12	20	3/4	19.1	1 braid	27.5	105	420	240	0.62
R1AT-16	25	1	25.4	1 braid	35.6	88	352	300	0.93
R1AT-20	32	1¼	31.8	1 braid	43.2	63	252	420	1.36
R1AT-24	40	1½	38.1	1 braid	50.4	50	200	500	1.70
R1AT-32	50	2	50.8	1 braid	64.3	40	160	630	2.43

† Non-standard product. Available to special order

R1ATFS

SINGLE WIRE BRAID
FIRE SUPPRESSION APPROVALFRAS
All Sizes**Construction****Inner Tube:**

Seamless synthetic rubber, resistant. to oil.

Reinforcement:

One braid of high tensile steel wire.

Cover:

Red synthetic rubber resistant to abrasion, oils, ozone and weathering

Applications

Medium pressure hose for hydraulic fluids such as mineral and vegetable oils, aqueous emulsions and water.

Temperature Range:

-40°C up to +100°C (125°C intermittent)

-40°C up to +70°C water based fluids

0°C up to +70°C water

-40°C up to +70°C air

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information.

Reference Specifications

SAE J 517 (SAE 100R1AT)

EN 853 1SN

Former DIN 20022 1SN (part 3)

Meets hose requirements outlined in AS5062

Approvals:**MSHA 2G** in all sizes

Approved within Australia for use on fire suppression systems

Hose Tails:

Pirtek 'K' Series to 5/8"

Pirtek 'J' Series 3/4"

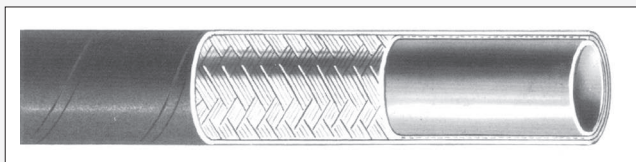
Lay line example: Yellow text on red background. Note **Comment** above**PIRTEK** FIRE SUPPRESSION - SAE 100R1AT - DIN EN 853 1SN 19.1 mm (3/4") R1ATFS-12 105 BAR (1,500 PSI) WORK. PRESS. MSHA 2GS

Product Code	Nominal Diameter			OD mm		Pressure bar		Min. bend radius	Weight
	DN	ins	mm	Wire	Cover	working	burst	mm	kg/m
R1ATFS-04	6	1/4	6.4	11.1	13.4	225	900	100	0.23
R1ATFS-06	10	3/8	9.5	15.1	17.4	180	720	130	0.33
R1ATFS-08	12	1/2	12.7	18.3	20.6	160	640	180	0.41
R1ATFS-12	19	3/4	19.0	25.4	27.7	105	420	240	0.61

HT1

SINGLE WIRE BRAID

HIGH TEMPERATURE



Construction

Inner Tube:

High temperature synthetic rubber, resistant. to oil.

Reinforcement:

One braid of high tensile steel wire.

Cover:

Blue synthetic rubber resistant to abrasion, oils, ozone and weathering

Applications

High temperature hose.

Hydraulic oils, both mineral and biological;
Polyglycol base oils, water-oil emulsions and water.

Temperature Range:

Hydraulic oils: -40°C up to +135°C occasional peaks up to +150°C
Polyglycol base oils, water-oil emulsions and water: up to +85°C
Air: (with Oil mist) up to 135°C
Not suitable with dry air.

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information.

Reference Specifications

Tested in accordance with performance specifications:
SAE100 R1AT
EN853 1SN

Approvals:

MSHA

Hose Tails:

Pirtek 'J' Series

Lay line example: Embossed text on blue background. Note **Comment** above

 INTERTRACO FlexIT HT1 DN25-1" - HIGH TEMP 135°C - 275°F EN853 1SN SAE100R1AT WP 88 -1250PSI MSHA

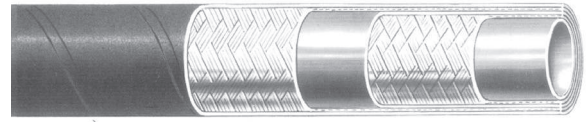
Product Code	Nominal Diameter			Reinforcement	OD mm	Pressure bar		Min. bend radius	Weight
	DN	inch	mm			working	burst		
HT1-04 †	6	1/4	6.4	1 braid	13.2	225	900	100	0.21
HT1-05 †	8	5/16	7.9	1 braid	14.5	215	860	115	0.24
HT1-06 †	10	3/8	9.5	1 braid	17.2	180	720	125	0.33
HT1-08 †	12	1/2	12.7	1 braid	20.4	160	640	180	0.41
HT1-10 †	16	5/8	15.9	1 braid	23.5	130	520	200	0.45
HT1-12	19	3/4	19.1	1 braid	27.5	105	420	240	0.58
HT1-16	25	1	25.4	1 braid	35.4	88	352	300	0.88
HT1-20 †	31	1.1/4	31.8	1 braid	43.5	63	252	420	1.23
HT1-24 †	38	1.1/2	38.1	1 braid	50.0	50	200	500	1.51
HT1-32 †	51	2	50.8	1 braid	63.6	40	160	630	1.97

† Non-standard product. Available upon request

R2AT/2SC

TWO WIRE BRAID

FRAS
All Sizes



Construction

Inner Tube:

Seamless synthetic rubber, oil resistant

Reinforcement:

Two braids of high tensile steel wire

Cover:

Black synthetic rubber resistant to abrasion, oils, ozone and weathering

Applications

Medium to high pressure hose for hydraulic fluids such as mineral oils, aqueous emulsions, water, air and inert gases

Temperature Range:

-40°C up to +100°C mineral oil

-40°C up to +60°C water based fluids

0°C up to +60°C water

0°C up to +50°C air

-40°C up to +70°C ambient

Cover must be pin pricked if hose is to be used to convey air above 17 bar

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information.

Reference Specifications

Tested in accordance with performance specifications:

SAE100 R2AT

EN853 2SN and former DIN 20022 2SN

Approvals:

AS2660 test requirements-

AS1180.10B and AS1180.13A (FRAS)

MSHA approved

Prolonged usage with water or water based fluids at temperatures above 70°C will allow wire corrosion as a result of diffusion through the inner liner

Hose Tails:

Pirtek 'K' Series to 5/8"

Pirtek 'J' Series 3/4" to 3"

954, 934 Series 2.1/2" to 3"

Lay line example: White text on black background. Note **Comment** above

PIRTEK SAE 100R2AT R2AT-1219.1 mm (3/4") 215 BAR (3118 PSI) FRAS

Product Code	Nominal Diameter			Reinforcement	OD mm (AVG)	Pressure bar		Min. bend radius	Weight
	DN	ins	mm		Cover	working	burst	mm	kg/m
R2AT-03 †	5	3/16	4.9	2 braids	13.4	415	1650	90	0.30
R2AT-04	6	1/4	6.4	2 braids	14.9	400	1600	100	0.37
R2AT-05 †	8	5/16	7.9	2 braids	16.6	350	1400	115	0.45
R2AT-06	10	3/8	9.5	2 braids	18.9	330	1320	125	0.50
R2AT-08	13	1/2	12.7	2 braids	21.9	275	1100	180	0.62
R2AT-10	16	5/8	15.9	2 braids	25.2	250	1000	205	0.68
R2AT-12	20	3/4	19.1	2 braids	29.2	215	860	240	0.89
R2AT-16	25	1	25.4	2 braids	37.9	165	660	300	1.45
R2AT-20	32	1 1/4	31.8	2 braids	48.0	125	500	420	2.25
R2AT-24	40	1 1/2	38.1	2 braids	54.4	90	360	500	2.61
R2AT-32	50	2	50.8	2 braids	67.0	80	320	630	3.31
R2AT-40	63	2 1/2	63.5	2 braids	78.0	69	276	762	3.80
2SC-40	63	2 1/2	63.5	2 braids	76.5	70	280	762	2.90
2SC-48 §	76	3	76.2	2 braids	90.5	70 §	280	900	3.98

† Non standard product. Available to special order

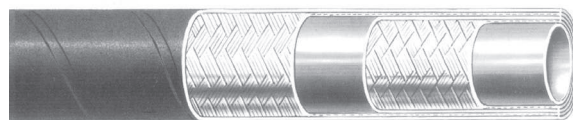
§ Safety factor only 3.4:1 when used in conjunction with 934 Series hose tails or SS2 ferrules

Note: 2SC-40 and 2SC-48 hoses are not included in Standard EN857-2SC

R2ATHT

TWO WIRE BRAID HIGH TEMP.

FRAS
All Sizes



Construction

Inner Tube:

High temp. elastomer rubber, resistant to oil

Reinforcement:

Two braids of high tensile steel wire

Cover:

Blue elastomer rubber resistant to abrasion, oils, ozone and weathering

Applications

Hydraulic system service with petroleum, fire resistant and water base fluids, fuel and lubricating systems

Temperature Range:

-40°C up to +150°C
except: air not to exceed 121°C
: water not to exceed 70°C

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information.

Reference Specifications

Exceeds SAE J 517 (SAE 100R2AT)
EN 853 2SN
Former DIN 20022 2SN (part 4)

Approvals:

MSHA
FRAS AS1180.10B &13A

Limitations:

Cover must be pin pricked if hose is to be used to conduct air above 17 bar pressure
Not suitable for steam applications

Hose Tails:

Pirtek 'K' Series to 5/8"
Pirtek 'J' Series 3/4" to 2"

Lay line example: White text on a dark blue layline. Note **Comment** above

PIRTEK SAE 100 R2 AT — DIN EN 853 2SN "HIGH TEMP" 25mm (1") R2ATHT-16 172 BAR (2494 PSI) WORK.PRESS: 150°C MAX MSHA FRAS

Product Code	Nominal Diameter			OD mm		Pressure bar		Min. bend radius	Weight
	DN	ins	mm	Wire	Cover	working	burst	mm	kg/m
R2ATHT-04	6	1/4	6.4	12.7	15.2	396	1584	102	0.40
R2ATHT-06	10	3/8	9.5	16.7	19.2	345	1380	127	0.58
R2ATHT-08	12	1/2	12.7	19.8	22.1	293	1172	178	0.69
R2ATHT-10	16	5/8	15.9	23.0	25.1	224	896	203	0.81
R2ATHT-12	19	3/4	19.0	27.0	29.5	207	828	241	1.00
R2ATHT-16	25	1	25.4	34.9	37.8	172	688	305	1.45
R2ATHT-20	31	1 1/4	31.8	44.5	48.8	155	620	419	2.39
R2ATHT-24	38	1 1/2	38.1	50.8	54.6	120	480	508	2.59
R2ATHT-32	51	2	50.8	63.5	67.8	103	412	635	3.38
R2ATHT-32P *	51	2	50.8	63.5	68.6	103	412	635	3.40

* Perforated cover for pneumatic applications

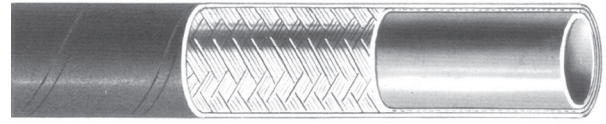


This page is part of a complete catalogue containing technical and safety data.
All data must be reviewed when selecting a product.
Pirtek reserve the right to change technical specifications without notice

HT2

TWO WIRE BRAID

HIGH TEMPERATURE



Construction

Inner Tube:

High temperature synthetic rubber, resistant to oil.

Reinforcement:

Two braids of high tensile steel wire.

Cover:

Blue synthetic rubber resistant to abrasion, oils, ozone and weathering

Applications

High temperature hose.

Hydraulic oils, both mineral and biological;
Polyglycol base oils, water-oil emulsions and water.

Temperature Range:

Hydraulic oils: -40°C up to +135°C occasional peaks up to +150°C
Polyglycol base oils, water-oil emulsions and water: up to +85°C
Air: (with Oil mist) up to 135°C
Not suitable with dry air.

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information.

Reference Specifications

Tested in accordance with performance specifications:
SAE100 R2AT
EN853 1SN

Approvals:

MSHA

Limitations:

Cover must be pin pricked if hose is to be used to conduct air above 17 bar pressure.
*-24 & -32 comes pin pricked

Hose Tails:

Pirtek 'J' Series

Lay line example: Embossed text on blue background. Note **Comment** above

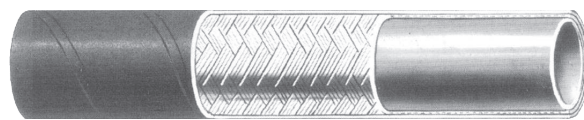
 INTERTRACO FlexIT HT2 DN32- 1.1/4" - HIGH TEMP 135°C - 275°F EN853 2SN SAE100R2AT WP 125 -1800PSI MSHA

Product Code	Nominal Diameter			Reinforcement	OD mm	Pressure bar		Min. bend radius	Weight
	DN	inch	mm			working	burst		
HT2-04 †	6	1/4	6.4	2 braid	15.0	400	1600	100	0.33
HT2-05 †	8	5/16	7.9	2 braid	16.4	350	1400	115	0.39
HT2-06 †	10	3/8	9.5	2 braid	18.8	330	1320	125	0.50
HT2-08 †	12	1/2	12.7	2 braid	22.2	275	1100	180	0.59
HT2-10 †	16	5/8	15.9	2 braid	25.2	250	1000	200	0.71
HT2-12 †	19	3/4	19.1	2 braid	29.3	215	860	240	0.86
HT2-16 †	25	1	25.4	2 braid	37.2	165	660	300	1.28
HT2-20	31	1.1/4	31.8	2 braid	47.3	125	500	420	2.02
HT2-24	38	1.1/2	38.1	2 braid	53.7	90	360	500	2.23
HT2-32	51	2	50.8	2 braid	66.7	80	320	630	2.85

† Non-standard product. Available upon request

LPHT

LOW PRESSURE HIGH TEMP. HOSE



Construction

Inner Tube: Seamless CPE based rubber, oil resistant

Reinforcement:

One braid of polyester

Applications

Low pressure textile braid hose for petroleum based hydraulic oil, lubricating fluids, diesel, aqueous emulsions, water and air. Not recommended for impulse applications.

Temperature Range:

-40°C up to +149°C hydraulic & transmission oils (petroleum based)
 -40°C up to +100°C Diesel & B20 (biodiesel)
 0°C up to +82°C water, water based fluid & glycol (anti-freeze)
 0°C up to +121°C air
 -40°C up to +121°C ambient

Reference Specifications

Approvals

MSHA 2G

Cover:

Blue CPE rubber, resistant to oils, ozone, flame and weathering

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information

Hose Tails:

Pirtek 'P' Series, Hose Clamps not required and could possibly damage hose.
 Pirtek 'T' Series

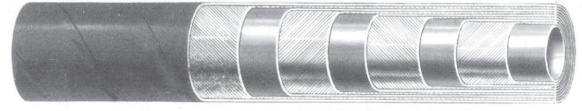
Lay line example: Black text on blue background. Note Comment above

PIRTEK LOW PRESSURE HIGH TEMP LPHT-04 6.4mm (1/4") 21 bar (304 PSI) W.P MSHA

Product Code	Nominal ID		OD	Pressure bar			Min bend radius	Weight
	mm	in		working	min burst	Vacuum		
LPHT-04	6.4	1/4	12.4	21	84	0.9	76.2	0.12
LPHT-06	9.5	3/8	16.0	21	84	0.9	76.2	0.18
LPHT-08	12.7	1/2	19.0	21	84	0.9	127.0	0.22
LPHT-10	15.9	5/8	23.1	21	84	0.6	152.4	0.31
LPHT-12	19.1	3/4	26.4	21	84	0.6	177.8	0.37

C21

ISOBARIC CLASS HOSE



Construction

Inner Tube: Seamless synthetic rubber, resistant to oil

Reinforcement: 4 spirals of high tensile steel wire

Cover: Abrasion resistant black synthetic rubber resistant to oils, ozone and weathering.

Applications

Isobaric (constant 210 bar working pressure across all sizes) hose for hydraulic fluids such as mineral and vegetable oils, aqueous emulsions, water and inert gases
Prolonged usage with water or water based fluids at temperatures above 70°C will allow wire corrosion as a result of diffusion through the inner liner

Reference Specifications

JIS K6349-3

SAE100R12

Approvals:

MSHA

FRAS AS1180.10B & 13A

Hose Tails:

Pirtek 'J' or 'X' Series

Cover loss by abrasion when tested in accordance with ISO 6945 is less than 1.0 gram after 2000 cycles.

Temperature Range:

-40°C up to +120°C mineral oil
-40°C up to +70°C water based fluids
0°C up to +70°C water
-40°C up to +70°C ambient

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information.

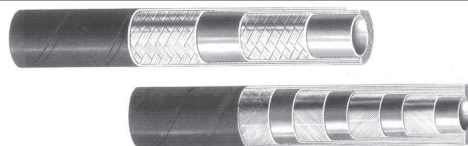
Lay line example: White text on black hose. Note **Comment** above.

PIRTEK C21 50 mm (2") C21-32 210 BAR (3,000 PSI) MSHA IC-104/1 ABRASION RESISTANT

Product Code	Nominal Diameter			OD mm		Pressure bar		Min. bend radius	Weight
	DN	ins	mm	Wire	Cover	working	burst	mm	kg/m
C21-32	51	2"	50.8	63.6	66.7	210	840	500	4.20

C25

ISOBARIC CLASS HOSE



Construction

Inner Tube: Seamless synthetic rubber, resistant to oil

Reinforcement: Two braids of high tensile steel wire, or 4 spirals of high tensile steel wire

Cover: Abrasion resistant black synthetic PVC nitrile rubber resistant to oils, ozone and weathering

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information.

Applications

Isobaric (constant 250 bar working pressure across all sizes) hose for hydraulic fluids such as mineral and vegetable oils, aqueous emulsions, water and inert gases
Prolonged usage with water or water based fluids at temperatures above 70°C will allow wire corrosion as a result of diffusion through the inner liner

Temperature Range:

Spiral hoses:

-40°C up to +120°C mineral oil
-40°C up to +70°C water based fluids
0°C up to +70°C water
-40°C up to 70°C air

Braided Hoses:

-40°C up to +100°C mineral oil
-40°C up to +60°C water based fluids
0°C up to +60°C water
-40°C up to 70°C ambient

Reference Specifications

Meets or exceeds SAE J 517 (100 R16)
Meets or exceeds EN 857 2SC
Tested in accordance with SAE J517, EN856, AS3791

Approvals:

MSHA
FRAS AS1180.10B & 13A

Impulse Testing:

Braided hoses as per SAE 100 R16
Spiral hoses as per SAE 100 R12

Hose Tails:

Pirtek 'K' Series to 5/8"
Pirtek 'J' Series 3/4", 1"
Pirtek 'J' or 'X' Series 1 1/4", 1 1/2"

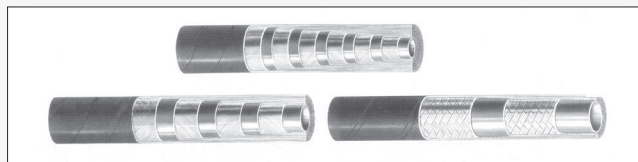
Lay line example: White text on black hose. Note **Comment** above

PIRTEK C25 SERIES III 25mm (1") C25-16 250 BAR (3,500 PSI) W.P. MSHA IC-104/1 ABRASION RESISTANT

Product Code	Nominal Diameter			Type	OD mm		Pressure bar		Min. bend radius	Weight
	DN	inch	mm		Wire	Cover	working	burst		
C25-10	16	5/8	15.9	2 braid	23.0	25.2	280	1120	170	0.80
C25-12	19	3/4	19.0	2 braid	26.2	29.1	250	1000	200	1.00
C25-16	25	1	25.4	2 braid	32.9	35.6	250	1000	250	1.30
C25-20	31	1 1/4	32.2	4 spiral	43.9	47.0	250	1000	350	2.70
C25-24	38	1/2	38.5	4 spiral	48.8	53.5	250	1000	450	3.20

C35

ISOBARIC CLASS HOSE



Construction

Inner Tube: Seamless synthetic rubber, resistant to oil

Reinforcement: Two braids of high tensile steel wire, or 4-6 spirals of high tensile steel wire

Cover: Abrasion resistant black synthetic rubber resistant to oils, ozone and weathering. (PVC Nitrile rubber on braided hoses)

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information.

Applications

Isobaric (constant 350 bar working pressure across all sizes) hose for hydraulic fluids such as mineral and vegetable oils, aqueous emulsions, water and inert gases
Prolonged usage with water or water based fluids at temperatures above 70°C will allow wire corrosion as a result of diffusion through the inner liner

Temperature Range:

Spiral hoses:

-40°C up to +120°C mineral oil
-40°C up to +70°C water based fluids
0°C up to +70°C water
-40°C up to 70°C air

Braided hoses:

-40°C up to +100°C mineral oil
-40°C up to +60°C water based fluids
0°C up to +60°C water
-40°C up to 70°C ambient

Reference Specifications

Meets or exceeds SAE J 517 (100 R12, R13 or R16)

Meets or exceeds EN 857 2SC

Tested in accordance with SAE J 517, EN856, AS3791

Approvals:

MSHA

FRAS AS1180.10B & 13A

Hose Tails:

Pirtek 'K' Series to 5/8"

Pirtek 'J' Series 3/4", 1"

Pirtek 'X' Series 1", 1 1/4", 1 1/2", 2"

Interlock option 3/4" and above

Lay line example: White text on braided hoses. Red text on spiral hoses. Note **Comment** above

PIRTEK CLASS 35 9.5mm (3/8") C35-06 350 BAR (5000 PSI) MSHA IC-104/1 ABRASION RESISTANT

Product Code	Nominal Diameter			Type	OD mm		Pressure bar		Min. bend radius	Weight
	DN	inch	mm		Wire	Cover	working	burst		
C35-05	8	5/16	7.9	2 braid	13.0	14.7	380	1520	85	0.34
C35-06	10	3/8	9.5	2 braid	15.3	17.2	350	1400	90	0.42
C35-08	12	1/2	12.7	2 braid	20.1	22.2	350	1400	130	0.62
C35-10 †	16	5/8	16.1	4 spiral	23.7	27.4	350	1400	200	1.00
C35-12	19	3/4	19.2	4 spiral	28.1	30.7	350	1400	220	1.50
C35-16	25	1	25.6	4 spiral	35.6	38.7	350	1400	280	2.20
C35-20	31	1 1/4	32.2	6 spiral	45.6	48.7	350	1400	380	3.70
C35-24	38	1 1/2	38.5	6 spiral	52.5	55.6	350	1400	480	4.40
C35-32	51	2	51.2	6 spiral	68.1	71.1	350	1400	600	6.90

† Meets or exceeds SAE100 R12 except for reinforcement OD

C42

ISOBARIC CLASS HOSE



Construction

Inner Tube: Seamless synthetic rubber, resistant to oil

Reinforcement: Two braids of high tensile steel wire (C42-04), or 4-6 spirals of high tensile steel wire

Cover: Abrasion resistant black synthetic rubber resistant to oils, ozone and weathering (PVC nitrile rubber on braided hoses)

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information.

Applications

Isobaric (constant 420 bar working pressure across all sizes) hose for hydraulic fluids such as mineral and vegetable oils, aqueous emulsions, water and inert gases
Prolonged usage with water or water based fluids at temperatures above 70°C will allow wire corrosion as a result of diffusion through the inner liner

Temperature Range:

Spiral hoses:

-40°C up to +120°C mineral oil
-40°C up to +70°C water based fluids
0°C up to +70°C water
-40°C up to 70°C air

Braided hoses:

-40°C up to +100°C mineral oil
-40°C up to +60°C water based fluids
0°C up to +60°C water
-40°C up to 70°C ambient

Reference Specifications

Tested in accordance with SAE J517, EN856, AS3791

Approvals:

MSHA
FRAS AS1180.10B & 13A

Impulse Testing:

Braided hoses as per SAE 100 R16
Spiral hoses as per SAE 100 R12, R15
C42EH 2 Million Cycles applicable only in conjunction with EH Series interlock tails

Hose Tails:

Pirtek 'K' Series to 1/2"
Pirtek 'J' Series 3/8" and 1/2"
Pirtek 'H' Series 3/4"
Pirtek 'X' Series 3/4", 1"
Interlock 1" to 1.1/2"
Special Interlock for C42EH-32

Lay line example: White text on braided hoses. Yellow text on spiral hoses. Note **Comment** above

PIRTEK CLASS 42 19 mm (3/4") C42-12 420 BAR (6,000 PSI) WORK.PRESS. MSHA IC-104/1 ABRASION RESISTANT

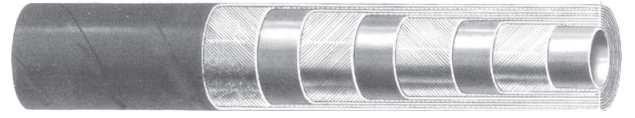
PIRTEK CLASS 42 SERIES EH 50MM (2") C42EH-32 420 BAR (6,000 PSI) EN856 MSHA IC-8/13 1Q09

Product Code	Nominal Diameter			Type	OD mm		Pressure bar		Min. bend radius	Weight
	DN	inch	mm		Wire	Cover	working	burst	mm	kg/m
C42-04	6	1/4	6.4	2 braid	12.7	14.9	420	1680	75	0.40
C42-06	10	3/8	9.7	4 spiral	17.2	20.2	420	1680	125	0.70
C42-08	12	1/2	12.9	4 spiral	20.7	23.8	420	1680	180	0.90
C42-10	16	5/8"	16.0	4 spiral	24.4	26.4	420	1680	140	1.00
C42-12	19	3/4	19.2	4 spiral	28.1	32.0	420	1680	280	1.50
C42-16	25	1	25.7	4 spiral	35.1	38.2	420	1680	300	2.20
C42-20	31	1 1/4	32.2	6 spiral	46.8	49.8	420	1680	400	3.90
C42-24	38	1 1/2	38.5	6 spiral	54.0	57.2	420	1680	500	4.70
C42-32	51	2	51.2	6 spiral	70.6	75.0	420	1680	600	7.92
C42EH-20	31	1 1/4	32.2	6 spiral	46.8	49.4	420	1680	420	3.48
C42EH-24	38	1 1/2	38.5	6 spiral	53.4	57.3	420	1680	500	4.63
C42EH-32	51	2	51.2	6 spiral	67.3	71.6	420	1680	630	6.70

JBF

JUMBO ACE 2½" HOSE

FRAS
All Sizes



Construction

Inner Tube: Seamless synthetic rubber, resistant to oil

Reinforcement: Four spirals of high tensile steel wire.

Cover: Abrasion resistant black synthetic rubber resistant to oils, ozone and weathering

Applications

Medium pressure hose for hydraulic fluids such as mineral and vegetable oils, aqueous emulsions and water

Prolonged usage with water or water based fluids at temperatures above 70°C will allow wire corrosion as a result of diffusion through the inner liner

Temperature Range:
-40°C up to +100°C mineral oil
-40°C up to +70°C water based fluids
0°C up to +70°C water
-40°C up to 70°C air / ambient

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information.

Reference Specifications

SAE J517 except for reinforcement OD

Approvals:

MSHA
FRAS AS1180.10B & 13A

Hose Tails:

Pirtek 'BSMS' & J Series

Lay line example: Light yellow text on black hose. Note **Comment** above

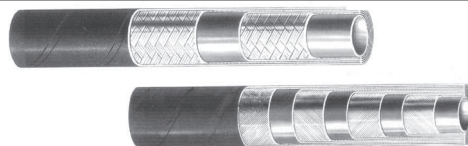
PIRTEK JUMBO ACE 63mm (2 1/2") JBF-40 140 BAR (2030 PSI) WP MSHA IC/104/1 FRAS ABRASION RESISTANT

Product Code	Nominal Diameter			Type	OD mm		Pressure bar		Min. bend radius	Weight
	DN	inch	mm		Wire	Cover	working	burst	mm	kg/m
JBF-40	63	2.1/2	63.5	4 spiral	76.8	82.4	140	560	660	5.5

PC25

PIRTEK CLASS HOSE

FRAS
All Sizes



MINING PRODUCTS

MINING HOSES

Construction

Inner Tube:

Seamless synthetic rubber, oil resistant

Reinforcement:

Two braids, or 4 spirals of high tensile steel wire

Cover:

High abrasion resistance black synthetic rubber resistant to oils, ozone and weathering

Applications

Isobaric (constant 250 bar working pressure across all sizes) hose for hydraulic fluids such as mineral oils, aqueous emulsions, water, air and inert gases

Excellent compact bend radius

Temperature Range:

Spiral hoses:

-40°C up to +120°C mineral oil
-40°C up to +70°C water based fluids
0°C up to +70°C water
-40°C up to 70°C air

Braided Hoses:

-40°C up to +100°C mineral oil
-40°C up to +60°C water based fluids
0°C up to +60°C water
-40°C up to 70°C ambient

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information.

Reference Specifications

Tested in accordance with performance specifications:

SAE 100R16 (braided hose)

SAE 100R12 (spiral hose)

Approvals:

AS2660 test requirements-

AS1180.10B and AS1180.13A (FRAS)

MSHA

Prolonged usage with water or water based fluids at temperatures above 70°C will allow wire corrosion as a result of diffusion through the inner liner

Hose Tails:

Pirtek 'K' Series to 5/8"

Pirtek 'J' Series 3/4", 1"

Pirtek 'J' or 'X' Series 1 1/4", 1 1/2"

Lay line example: White text on black background. Note **Comment** above

PIRTEK PC25-12 19.1MM (3/4") 250 BAR (3625 PSI) W.P. FRAS ABRASION RESISTANT

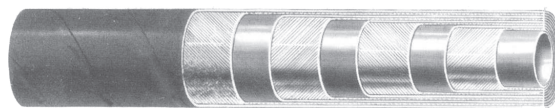
Product Code	Nominal Diameter			Reinforcement	OD (mm)	Pressure bar		Min. bend radius	Weight
	DN	ins	mm			W.P.	Min. Burst		
PC25-10	16	5/8	15.9	2 braid	26.0	250	1000	140	0.84
PC25-12	20	3/4	19.1	2 braid	29.1	250	1000	170	0.96
PC25-20	32	1 1/4	31.8	4 spiral	44.9	250	1000	280	2.36
PC25-24	40	1/2	38.1	4 spiral	52.4	250	1000	330	3.06



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Pirtek reserve the right to change technical specifications without notice

PC28PS

ISOBARIC CLASS HOSE



Construction

Inner Tube: Seamless synthetic rubber, resistant to oil

Reinforcement: 4 spirals of high tensile steel wire

Cover: Utmost abrasion resistant UHMWPE over black synthetic rubber, resistant to oils, ozone and weathering

Cover loss by abrasion when tested in accordance with ISO 6945 is 0.0 gram after 2,000 cycles

Applications

Isobaric (constant 275 bar working pressure across all sizes) hose for hydraulic fluids such as mineral and vegetable oils, aqueous emulsions, water and inert gases
Prolonged usage with water or water based fluids at temperatures above 70°C will allow wire corrosion as a result of diffusion through the inner liner

Improved bending radius for underground drilling machines

Temperature Range:

-40°C up to +100°C mineral oil
-40°C up to +70°C water based fluids
0°C up to +70°C water
-40°C up to 70°C air

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information.

Reference Specifications

Meets or exceeds SAE J 517 (100 R12) for impulse requirements

Meets or exceeds JIS K6349

Tested in accordance with SAE J517, EN856, AS3791

Approvals:

MSHA Approval

AS2660 test requirements

FRAS AS1180.10B & 13A

Hose Tails:

Pirtek 'J' Series 1/2", 3/4", 1"

(Refer Pirtek for current Fitting Series)

Lay line example: White text on black hose. Note **Comment** above

PIRTEK PC28PS 25mm (1") PC28PS-16 280 BAR (4,060 PSI) W.P. MSHA FRAS ULTRA HIGH ABRASION RESISTANT

Product Code	Nominal Diameter			Type	OD mm		Pressure bar		Min. bend radius	Weight
	DN	ins	mm		Wire	Cover	working	burst		
PC28PS-08	13	1/2	12.7	4 spiral	20.0	23.0	280	1120	110	0.78
PC28PS-12	19	3/4	19.0	4 spiral	27.0	29.9	280	1120	170	1.13
PC28PS-16	25	1	25.4	4 spiral	33.9	36.8	280	1120	220	1.86

PC35

PIRTEK CLASS HOSE

FRAS
All Sizes



MINING PRODUCTS

MINING HOSES

Construction

Inner Tube:

Seamless synthetic rubber, oil resistant

Reinforcement:

Two braids, 4spirals or 6 spirals of high tensile steel wire

Cover:

High abrasion resistant black synthetic rubber resistant to oils, ozone and weathering

Applications

Isobaric (constant 350 bar working pressure across all sizes) hose for hydraulic fluids such as mineral oils, aqueous emulsions, water, air and inert gases

Excellent compact bend radius

Temperature Range:

Spiral hoses:

-40°C up to +120°C mineral oil
-40°C up to +70°C water based fluids
0°C up to +70°C water
-40°C up to +70°C ambient

Braided hoses:

-40°C up to +100°C mineral oil
-40°C up to +60°C water based fluids
0°C up to +60°C water
-40°C up to 70°C ambient

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information.

Reference Specifications

Tested in accordance with performance specifications:

SAE R16 (braided hose)

SAE 100 R12 (spiral hose)

SAE 100 R13 / R15 (spiral hose)

Approvals:

AS2660 test requirements-

AS1180.10B and AS1180.13A (FRAS)

MSHA

Prolonged usage with water or water based fluids at temperatures above 70°C will allow wire corrosion as a result of diffusion through the inner liner

Hose Tails:

Pirtek 'K' Series to 5/8"

Pirtek 'J' Series 3/8" to 1"

Pirtek 'X' Series 1" to 2"

Pirtek Interlock Series 3/4" to 1.1/2"

Lay line example: White text on black background. Note **Comment** above

PIRTEK CLASS PC35-12 19.1MM (3/4") 350 BAR (5076 PSI) FRAS ABRASION RESISTANT

Product Code	Nominal Diameter			Reinforcement	O.D. mm	Pressure bar		Min. bend radius mm	Weight Kg/m
	DN	ins	mm			W.P.	Min. Burst		
PC35-06	10	3/8	9.5	2 braids	18.9	350	1400	90	0.55
PC35-08	13	1/2	12.7	4 spirals	22.2	350	1400	110	0.80
PC35-10	16	5/8	15.9	4 spirals	26.4	350	1400	140	1.00
PC35-16	25	1	25.4	4 spirals	36.6	350	1400	220	2.00
PC35-20	32	1 1/4	31.8	6 spirals	48.7	350	1400	280	3.80
PC35-24	40	1 1/2	38.1	6 spirals	55.6	350	1400	330	4.60



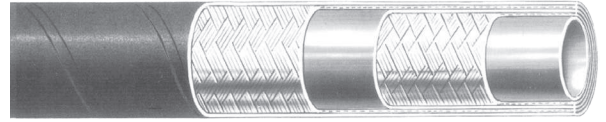
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35
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PC42

PIRTEK CLASS HOSE

FRAS
All Sizes



Construction

Inner Tube:

Seamless synthetic rubber, oil resistant

Reinforcement:

Two braids of high tensile steel wire

Cover:

High abrasion resistance black synthetic rubber resistant to oils, ozone and weathering

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information.

Applications

Isobaric (constant 420 bar working pressure across all sizes) hose for hydraulic fluids such as mineral oils, aqueous emulsions, water, air and inert gases

Excellent compact bend radius

Temperature Range:

Spiral hoses:

-40°C up to +120°C mineral oil
-40°C up to +70°C water based fluids
0°C up to +70°C water
-40°C up to 70°C ambient

Braided hoses:

-40°C up to +100°C mineral oil
-40°C up to +60°C water based fluids
0°C up to +60°C water
-40°C up to 70°C ambient

Reference Specifications

Tested in accordance with performance specifications:

SAE 100 R16 (braided hose)

SAE 100 R15 (spiral hose)

Approvals:

AS2660 test requirements-

AS1180.10B and AS1180.13A (FRAS)

MSHA

Prolonged usage with water or water based fluids at temperatures above 70°C will allow wire corrosion as a result of diffusion through the inner liner.

Hose Tails:

Pirtek 'K' Series

Pirtek 'H', 'X', Interlock

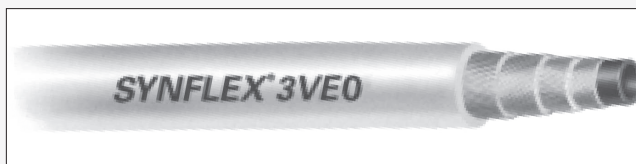
Lay line example: White text on black background. Note **Comment** above

PIRTEK CLASS PC42-04 6.4 MM (1/4") 420 BAR (6091 PSI) FRAS ABRASION RESISTANT

Product Code	Nominal Diameter			Reinforcement	OD (mm)	Pressure (bar)		Min. bend radius	Weight
	DN	inch	mm			W.P.	Min. Burst		
PC42-04	6	1/4	6.4	2 braids	14.9	420	1680	70	0.39
PC42-24	40	1.1/2	38.1	6 spirals	55.6	420	1680	330	4.60

3VEO

NON-CONDUCTIVE JACKING HOSE



Construction

Inner Tube:

smooth seamless nylon

Reinforcement:

spiralled high tensile aramid fibre (Kevlar)

Cover:

Orange non stick non-perforated polyurethane. (See note)

Applications

General hydraulic systems that may contact high voltage sources.
Aerial equipment.
Mobile hydraulics.
Rescue apparatus and tools.

Temperature Range:

-40°C up to +66°C

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information

Reference Specifications

Exceeds SAE 100 R8

SAE J517 Non-Conductive Hose Construction

Features:

High WP 8000—10000 psi (551–689 bar)
Compact size with low elongation
Less than 50 microamperes leakage when subjected to 246000 volts/metre for 5 minutes.

Hose Tails:

Pirtek 'SV' Series
Special procedures apply. Assemblies only to be made by trained personnel listed on the Qualified Personnel Register
Guards and warning tags are required on the completed assembly

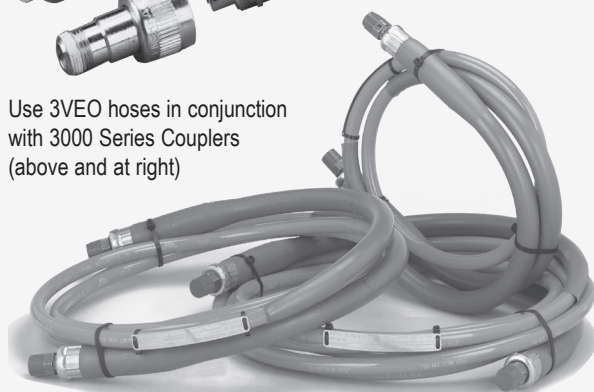
Lay line example: White text on orange hose. Note **Comment** above

SYNFLEX® 3VEO-04 SAE 1/4" I.D. W.P 10,000 P.S.I. (690 BAR) (NON CONDUCTIVE) PAT. NO. 4343333

Product Code	Nominal ID			OD	Pressure bar		Min bend radius	Weight
	DN	mm	in		working	min burst		
3VEO-04	6	6.3	1/4	14.0	689	2758	64	0.158
3VEO-06	10	9.5	3/8	17.4	551	2205	76	0.244



Use 3VEO hoses in conjunction with 3000 Series Couplers (above and at right)



3VEO hose assemblies are available only as completed assemblies from accredited assemblers. Each assembly comprises :

3VEO hose
Pirtek SV Series couplings
Hose guard
Identity Tag

3000 SERIES HIGH PRESSURE JACKING COUPLINGS					
Size (NPT)	Product Codes				
	Male Probe	Female Body	Cap	Plug	Seal Kit
1/4"	3001-04	3002-04	3003-04	3004-04	3009-04
3/8"	3001-06	3002-06	3003-06	3004-06	3009-06

3VEO-04 assemblies complete with 3/8" NPT male ends are available in 3 standard configurations. Other configurations upon request

3VEO04-06-2	2 meters long
3VEO04-06-4	4 meters long
3VEO04-06-6	6 meters long

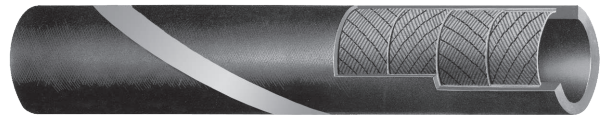


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IRFAW

FRAS AIR / WATER / STONEDUST

FRAS
All Sizes



Construction

Inner Tube:

Black smooth electrically conductive NBR oil resistant rubber compound

Reinforcement:

2 or 4 spiral plies of high strength synthetic cord

Cover:

Black smooth (wrapped finish) electrically conductive CR rubber compound with orange spiral stripe. Fire, oil and weather resistant

Applications

Softwall hose designed for arduous air / water applications in underground coal mining, where fire resistant anti static properties are required

Temperature Range:

-15°C up to +70°C

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information

Approvals:

Meets or exceeds AS2660-91B, incorporating AS1180.13A and AS1180.10B FRAS

Hose Tails:

Industrial fittings / FFI Ferrules
High pressure 2 or 4 bolt clamps
J Series

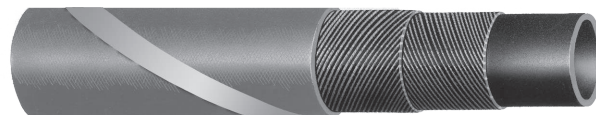
Lay line example: Black text on orange background. Note **Comment** above

PIRTEK AIR / WATER / STONEDUST FRAS IRFAW 20 BAR (290 psi) WORK. PRESS. MEETS & EXCEEDS AS 2660 "CLASS B"

Product Code	Nominal ID		Reinforcement	OD	Pressure bar		Weight
	mm	in			working	min burst	
IRFAW-013	13	1/2	2 spiral plies	23	20	80	0.36
IRFAW-019	19	3/4	2 spiral plies	29	20	80	0.47
IRFAW-025	25	1	2 spiral plies	37	20	80	0.70
IRFAW-032	32	1.1/4	2 spiral plies	46	20	80	1.02
IRFAW-038	38	1.1/2	2 spiral plies	52.5	20	80	1.21
IRFAW-051	51	2	2 spiral plies	66	20	80	1.60
IRFAW-063	63.5	2.1/2	4 spiral plies	81	20	80	2.27
IRFAW-076	76	3	4 spiral plies	93	20	80	2.53
IRFAW-102	102	4	4 spiral plies	120	20	70	3.60

IRSAB

SUPER AIR BULL HOSE



Construction

Inner Tube:

Black smooth synthetic rubber compound oil resistant

Reinforcement:

2 plies of steel wire cord

Cover:

Blue smooth (wrapped finish) synthetic rubber MSHA flame retardant and abrasion and oil resistant. Cover pin-pricked.

Applications

Hose with steel wire plies for compressed air e in severe working conditions such as quarries, mining and heavy duty industrial applications. Heavier construction and higher temperature capability to suit bull hose applications

Temperature Range:

-30°C up to +135°C (peaks to 150°C)

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information. Pressure rating as per table

Reference Specifications

Complies to MSHA IC-100/3

Hose Tails:

Industrial fittings
High pressure 4 bolt air clamps
'J' Series for some sizes

Lay line example: Blue text on blue background. Note comment above

PIRTEK SUPER AIR BULL IRSAB 69 BAR (1000 psi) W.P. MSHA

Product Code	Nominal ID		OD	Pressure bar		Min.Bend Radius	Weight
	mm	in		working	min burst		
IRSAB-025 †	25	1	38	69	280	175	1.13
IRSAB-032 †	32	1.1/4	45	69	280	224	1.38
IRSAB-038	38	1.1/2	58	69	280	266	2.57
IRSAB-051	51	2	69.5	69	280	357	3.29
IRSAB-063	63.5	2.1/2	84.5	69	280	445	4.67
IRSAB-076	76	3	98	69	280	532	5.75
IRSAB-102 †	102	4	129	69	280	714	9.83

† Available to order

IRFWSDH

FRAS AIR / WATER

SUCTION & DELIVERY

FRAS
All Sizes



Construction

Inner Tube:

Black, smooth, electrically conductive NBR rubber compound

Reinforcement:

High strength synthetic cord plus helix wire

Cover:

Black smooth (wrapped finish) electrically conductive CR rubber compound, fire, oil weathering and UV resistant

Applications

Hardwall hose designed for arduous air / water applications in underground coal mining, where fire resistant, anti static properties are required

Temperature Range:

-15°C up to +70°C

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information

Reference Specifications

Approvals:

Meets or exceeds
AS2660, incorporating AS1180.13A and AS1180.10B

Hose Tails:

Industrial fittings
High pressure 2 or 4 bolt clamps
Pirtek "J" series

Lay line example: White text on orange background. Note Comment above

PIRTEK FRAS WATER SUCTION & DELIVERY IRFWSDH 20BAR (290PSI) W.P MEETS & EXCEEDS AS2660 CLASS B

Product Code	Nominal ID			OD mm	Pressure bar			Min bend radius mm	Weight kg/m
	DN	mm	ins		working	min burst	vacuum		
IRFWSDH-025†	25	1	25.4	42.5	20	80	0.9	125	1.34
IRFWSDH-051	50	2	50.8	71	20	80	0.9	255	2.58
IRFWSDH-063	63	2½	63.5	84	20	80	0.9	320	3.27
IRFWSDH-076	75	3	76	97	20	80	0.9	375	3.96
IRFWSDH-102	100	4	102	124	20	80	0.9	610	5.71
IRFWSDH-152†	150	6	152	178	20	80	0.9	1000	11.46

† Subject to availability

IROFSD

OIL / FUEL SUCTION & DELIVERY



Construction

Inner Tube:

Black smooth NBR compound

Reinforcement:

High strength synthetic cord plus embedded steel helix wire and anti-static copper wire

Cover:

Black, smooth (wrapped finish) SBR weather resistant rubber compound

Applications

Light weight hardwall suction and delivery hose for fuels having an aromatic content up to 30%, and mineral oils. Suitable in hydraulic systems and for loading and unloading of tank trucks, refineries and maintenance shops

Temperature Range:

-20°C up to +100°C for mineral oils
-20°C up to +70°C for fuels

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information

Reference Specifications

Limitations:

Not suitable for ester oils

Hose Tails:

Pirtek J, T, 932, 934, 954 Series crimp fittings
L Series, Cam & Groove, Combination Steel (all with clamps)

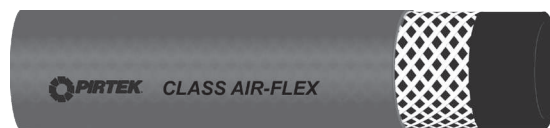
Lay line example: Black text on yellow background. Note **Comment** above

PIRTEK OIL FUEL S/D IROFSD 10 BAR (150psi) WORK.PRESS.

Product Code	Nominal ID		OD	Pressure bar			Min bend radius	Weight
	mm	ins		working	min burst	vacuum		
IROFSD-019	19	3/4	30	10	30	0.9	80	0.67
IROFSD-025	25	1	35	10	30	0.9	105	0.80
IROFSD-032	32	1.1/4	42	10	30	0.9	135	0.98
IROFSD-038	38	1.1/2	49.5	10	30	0.9	165	1.34
IROFSD-045	45	1.3/4	57	10	30	0.9	180	1.60
IROFSD-051	51	2	63	10	30	0.9	230	1.84
IROFSD-063	63	2.1/2	78	10	30	0.9	300	2.79
IROFSD-076	76	3	89	10	30	0.9	360	2.94
IROFSD-102	102	4	118	10	30	0.9	500	4.94
IROFSD-125	125	5	145	10	30	0.9	620	7.50

IPAF

PVC CLASS AIR-FLEX



Construction

Inner Tube:

Black smooth non toxic PVC compound

Reinforcement:

High strength synthetic cord

Cover:

Blue, smooth UV resistant PVC compound

Applications

General purpose air, water and fluid transfer
hose ideal for air tools

Temperature Range:

-15°C up to +60°C

(See Table next page)

Comment:

Lay line example may not be a true indication
of current status. Refer Pirtek for current
information

Approvals:

Exceeds AS/NZ2554 Class B

Limitations:

Pressure rating reduces as temperature
increases. Tabulated pressures apply at 20°C

Hose Tails:

Industrial fittings

See Catalogue Sections J, K

Lay line example: Black text on blue background. Note **Comment** above

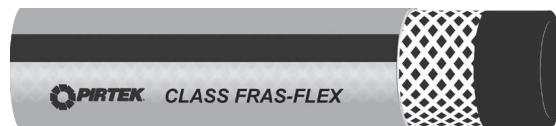
PIRTEK CLASS AIR-FLEX 10mm ID IPAF-10 16 BAR (230 psi) WP AS 2554 CLASS B 2005

Product Code	Nominal ID		OD	Pressure bar †		Weight
	mm	ins		working	min burst	
IPAF-06	6	1/4	13	16	64	0.11
IPAF-08	8	5/16	15	16	64	0.15
IPAF-10	10	3/8	16.5	16	64	0.18
IPAF-13	13	1/2	21.5	16	64	0.21
IPAF-19	19	3/4	27.5	16	64	0.51

† See Table on the next page regarding pressure limitations

IPFF

PVC CLASS FRAS-FLEX



Construction

Inner Tube:

Black smooth PVC compound

Reinforcement:

High strength synthetic cord

Cover:

Yellow ribbed weather resistant PVC compound with black carbon impregnated stripe

Applications

General purpose air, water and fluid transfer hose with cold weather formulation to maintain excellent flexibility in cold conditions
Underground air and water mining hose.

Temperature Range:

-15°C up to +60°C
(see Table below)

Comment:

Lay line example may not be a true indication of current status. Refer Pirtek for current information

Approvals:

Meets AS/NZ2554 Class A
AS2660 Class A

FRAS - Fire Resistance, Anti-Static

Limitations:

Pressure rating reduces as temperature increases. Tabulated pressures apply at 20°C

Hose Tails:

Industrial fittings
See Catalogue Sections J, K

Lay line example: Black text on yellow background. Note **Comment** above

PIRTEK CLASS FRAS-FLEX 13mm ID IPAF-13 21 BAR (300 psi) WP AS 2554 CLASS A

Product Code	Nominal ID		OD	Pressure bar †		Weight
	mm	ins	mm	working	min burst	Kg/m
IPFF-13 †	13	1/2	21.5	21	84	0.25
IPFF-19 †	19	3/4	27.5	21	84	0.26
IPFF-25 †	25	1	34.5	21	84	0.58

† PRESSURE LIMITATIONS OF PVC HOSES

Be aware that rated hose temperatures do not imply that a hose can handle all materials within the listed temperature range and concentration. Chemicals listed in Pirtek Chemical Compatability Charts are rated at 20°C unless otherwise stated.

The Table below is indicative of the effect of temperatures other than 20°C on the rated working pressure of the PVC Industrial hoses in the pages following. The Table should not be adopted as the only arbiter of suitability for a particular situation. Consult Pirtek for specific solutions to specific situations.

Temperature		Allowable % of the Specified Working Pressure	
° C	° F	2 Spiral	4 Spiral
20	68	100	100
25	77	86	90
30	86	75	81
35	95	65	73
40	104	56	66
45	113	47	59
50	120	40	53
55	131	33	47
60	140	27	43
65	149	23	40
70	158	20	38
75	167	17	37
80	176	15	35



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FITTINGS AND ADAPTORS

Configuration

Appearance

Standard Stapelok

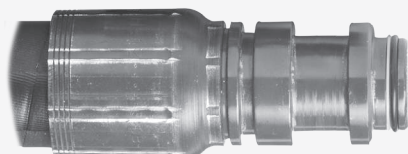


HOSE TAILS PAGES 43, 44



ADAPTORS INDEX PAGE 47

Super Stapelok

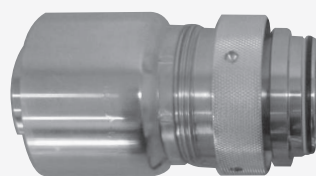


HOSE TAILS PAGE 44

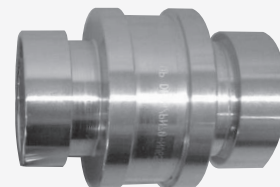
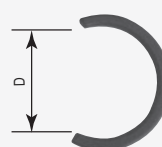


ADAPTORS INDEX PAGE 63

SSV / SSKV

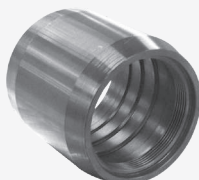


HOSE TAILS PAGE 45, 46

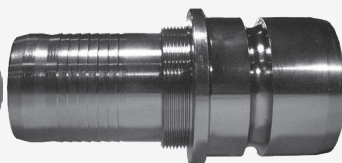


ADAPTORS INDEXES PAGES 75, 83

Clipline (Large Bore)

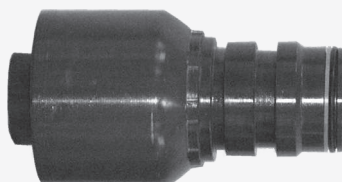


HOSE TAILS PAGE 95

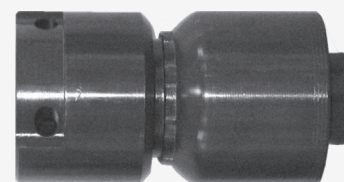


ADAPTORS PAGES 96 - 99

Flushfit

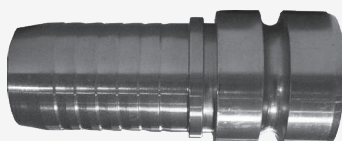


HOSE TAILS PAGES 100, 108

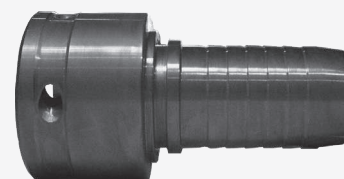


ADAPTORS PAGES 101 - 112

Slimline



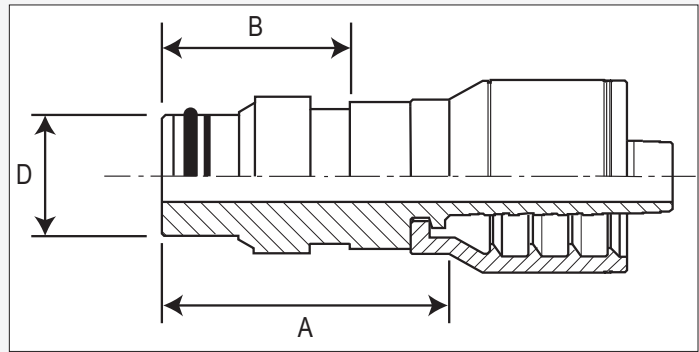
HOSE TAILS PAGES 114 - 116



ADAPTORS PAGES 116 - 120

STM1

STANDARD STAPLELOK STRAIGHT WITH STAINLESS STEEL OPTION

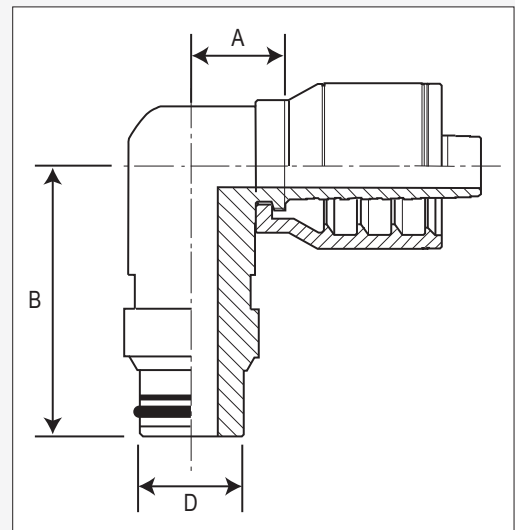


Product Code					Nominal Bore Staple			Nominal Bore Hose			Dimensions mm		
K / J Series	X Series	H Series	T Series	Large Bore	Dash	Inch	DN	Dash	Inch	DN	A	B	D
STM1-0604K			STM1-0604T		4	1/4"	6	4	1/4"	6	36	21	9.9
STM1-1004K					6	3/8"	10	4	1/4"	6	32	21	13.9
STM1-1006J					6	3/8"	10	6	3/8"	10	35	20	13.9
STM1-1308J					8	1/2"	12	8	1/2"	12	35	22	17.9
STM1-1610K					10	5/8"	16	10	5/8"	16	36	22	20.9
STM1-2012J		STM1-2012H			12	3/4"	20	12	3/4"	20	35	22	23.9
STM1-2516J	STM1-2516X				16	1"	25	16	1"	24	43	24	30.9
STM1-3220J	STM1-3220X				20	1.1/4"	32	20	1.1/4"	25	45	25	37.9
STM1-4024J					24	1.1/2"	40	24	1.1/2"	28	49	28	46.9
STM1-5032J					32	2"	50	32	2"	28	51	28	55.9
STM1-6340J				STM1BS-6340 †	40	2.1/2"	63	40	2.1/2"	63	98	56/69	78.9
STM1-7548J					48	3"	75	48	3"	75			
STAINLESS STEEL FITTINGS													
STM1SS-0604K					4	1/4"	6	4	1/4"	6	36	21	9.9
STM1SS-1004K					6	3/8"	10	4	1/4"	6	32	21	13.9
STM1SS-1006J					6	3/8"	10	6	3/8"	10	35	20	13.9
STM1SS-1308J					8	1/2"	12	8	1/2"	12	35	21	17.9
STM1SS-2012J					12	3/4"	20	12	3/4"	20	35	22	23.9
STM1SS-3220J					20	1.1/4"	32	20	1.1/4"	32	45	25	37.9
STM1SS-4024J					24	1.1/2"	40	24	1.1/2"	28	49	28	46.9
STM1SS-5032J					32	2"	50	32	2"	28	51	28	55.9

† Tail design uses a threaded latchment as seen on page 77

STMC9

STANDARD STAPLELOK COMPACT ELBOW



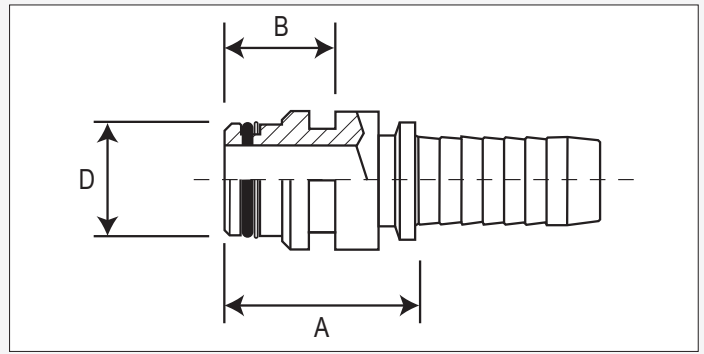
Product Code					Nominal Bore Staple			Nominal Bore Hose			Dimensions mm		
K / J Series	X Series	H Series	T Series	Large Bore	Dash	Inch	DN	Dash	Inch	DN	A	B	D
STMC9-1004K					6	3/8"	10	4	1/4"	6			
STMC9-1006J					6	3/8"	10	6	3/8"	10			



This page is part of a complete catalogue containing technical and safety data.
All data must be reviewed when selecting a product.
Pirtek reserve the right to change technical specifications without notice

ISTM1

STANDARD STAPLELOK STRAIGHT FOR INDUSTRIAL & HYDRAULIC HOSE



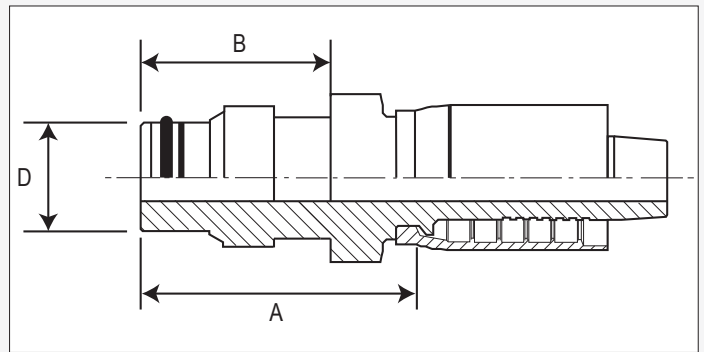
Product Code	Ferrule / Hose Combination		Nominal Bore Staple			Nominal Bore Hose			Dimensions mm		
	R2AT/2SC	IRFAW	Dash	Inch	DN	Dash	Inch	DN	A	B	D
ISTM1-5032 †	SS2-32	FFI-50	32	2"	50	32	2"	50	55	28	55.9
ISTM1-6340 †	SS2-40	FFI-63	40	2.1/2"	63	40	2.1/2"	63	90	69	78.9
ISTM1-7548	SS2-48	FFI-75 *	48	3"	75	48	3"	75	132	111	86

† Limited stock available

* Suits IFRAS-075 Hose

SSTM1

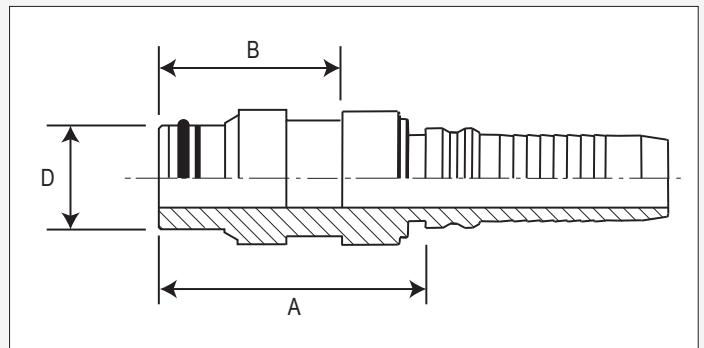
SUPER STAPLE STRAIGHT ONE PIECE TAIL



Product Codes		Ferrule / Hose Combination		Nominal Bore Staple			Nominal Bore Hose			Dimensions mm		
Steel	Stainless Steel	C35	C42	Dash	Inch	DN	Dash	Inch	DN	A	B	D
SSTM1-2012H	SSTM1SS-2012H	•	•	12	3/4"	20	12	3/4"	20	55	27	21.9
SSTM1-2516X		•	•	16	1"	25	16	1"	25	72	40	31.3
SSTM1-3220X		•	•	20	1.1/4"	32	20	1.1/4"	32	77	38	37.9
SSTM1-4024X	SSTM1SS-4024X	•	•	24	1.1/2"	40	24	1.1/2"	40	78	41	44.3
SSTM1-5032X		•		32	2"	50	32	2"	50	90	43	49.9

SSTM1

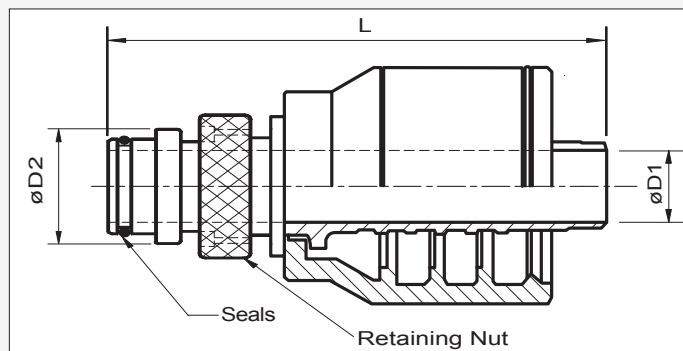
SUPER STAPLE STRAIGHT INTERLOCK TAIL



Product Code	Ferrule / Hose Combination		Nominal Bore Staple			Nominal Bore Hose			Dimensions mm		
	C35	C42	Dash	Inch	DN	Dash	Inch	DN	A	B	D
SSTM1-4024I	IF13-24	IF13-24	24	1.1/2"	40	24	1.1/2"	40	68	42	43.8

SKVM1

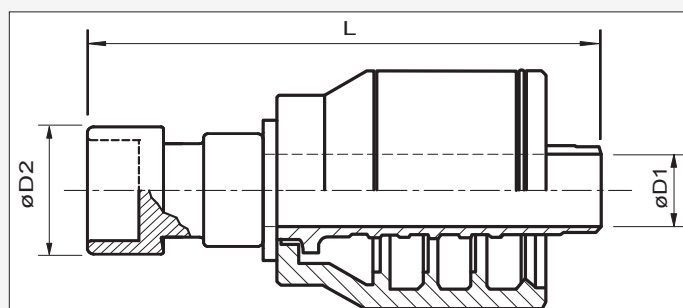
STANDARD PRANGE MALE



Product Code	Nominal Bore SKV			Nominal Bore Hose			Dimensions mm		
	Dash	Inch	DN	Dash	Inch	DN	D1	D2	L
SKVM1-4024J	24	1.1/2"	40	24	1.1/2"	40	32	53	
SKVM1-5032J	32	2"	50	32	2"	50	44	65	
SKVM1-6340J	40	2.1/2"	63	40	2.1/2"	63	55	75	
SKVM1-10064B/U-64	64	4"	100	64	4"	100			

SKVF1

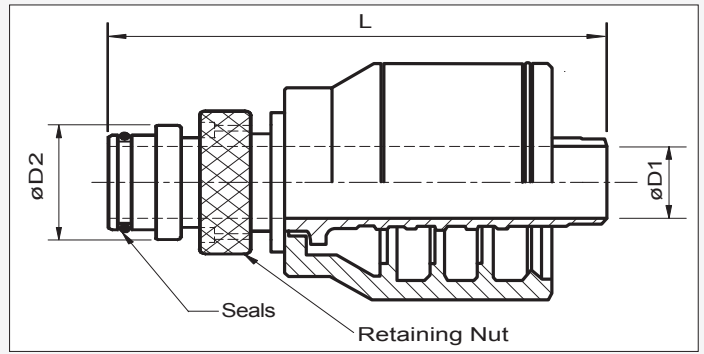
STANDARD PRANGE FEMALE



Product Code	Nominal Bore SKV			Nominal Bore Hose			Dimensions mm		
	Dash	Inch	DN	Dash	Inch	DN	D1	D2	L
SKVF1-5032J	50	2"	50	32	2"	50	44	65	
SKVF1-6340J	63	2.1/2"	63	40	2.1/2"	63	55	75	

SSKVM1

HIGH PRESSURE PRANGE MALE

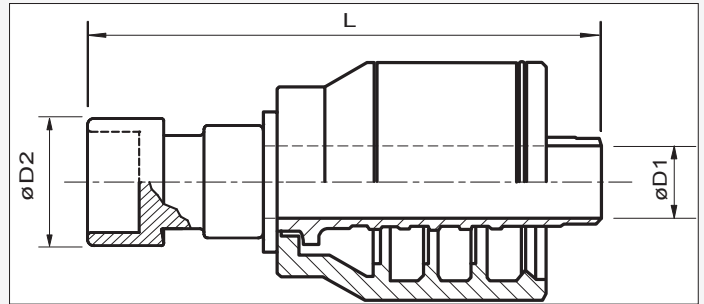


Product Code	Nominal Bore SSKV			Nominal Bore Hose			Dimensions mm		
	Dash	Inch	DN	Dash	Inch	DN	D1	D2	L
SSKVM1-1006J	10	3/8"	10	06	3/8"	10			
SSKVM1-1308J	13	1/2"	13	08	1/2"	13	10	24	
SSKVM1-2012H	20	3/4"	20	12	3/4"	20	15	30	
SSKVM1-2516X	25	1"	25	16	1"	25	20	36	
SSKVM1-4024X	40	1.1/2"	40	24	1.1/2"	40	30	54	
SSKVM1-5032X	50	2"	50	32	2"	50	40	70	
SSKVM1-6340 †	63	2.1/2"	63	40	2.1/2"	63	50	84	

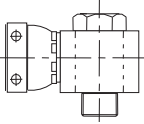
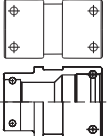
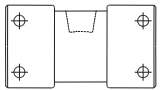
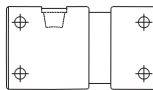
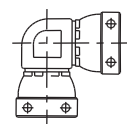
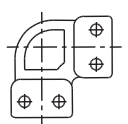
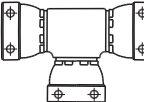
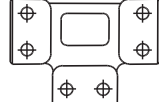
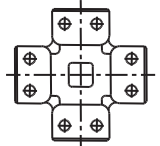
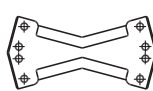
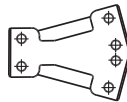
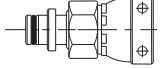
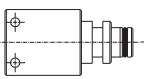
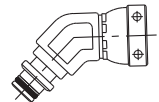
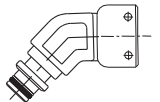
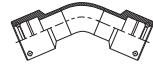
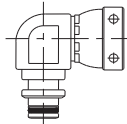
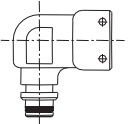
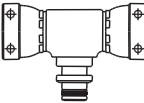
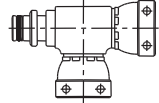
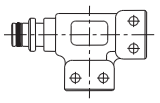
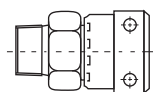
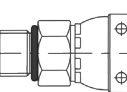
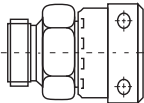
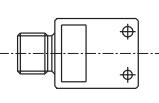
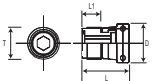
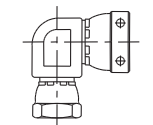
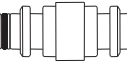
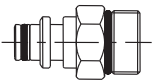
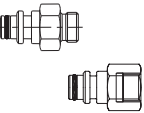
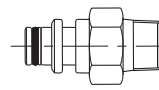
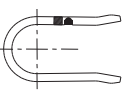
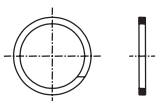
† Tail design uses a threaded latchment as seen on the Cipline fitting page 40.

SSKVF1

HIGH PRESSURE PRANGE FEMALE

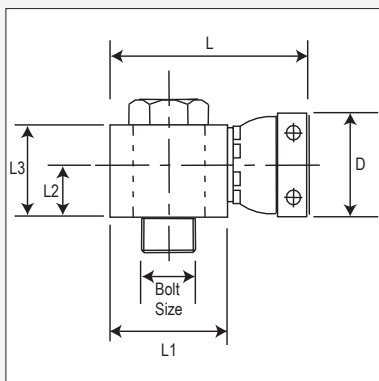


Product Code	Nominal Bore SSKV			Nominal Bore Hose			Dimensions mm		
	Dash	Inch	DN	Dash	Inch	DN	D1	D2	L
SSKVF1-5032X	50	2"	50	32	2"	50	40	70	

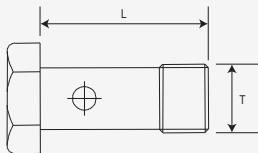
Banjo Body & Bolt  PS27 48	Staple Coupling Fixed Female  PS30 48 PS30 Reducing 48	Staple Coupling Fixed Fem. w/ Port  PSE30 48	Grooved Coupling Fixed Fem. w/ Port  PSE30G 49	Staple Elbow 90° Female Swivel  PS40 49	Staple Elbow 90° Female Fixed  PS45 49
Swivel Tee Equal or Unequal  PS50 50	Fixed Tee Equal or Unequal  PS55 50	4-way Cross Piece +  PS60 51	4-way Cross Piece X  PS65 51	Y-Piece  PS70 51	Staple Male-Female Adaptor Swivel  PS72 52 PS72-CL 52
Staple Male-Female Adaptor Fixed  PS72F 52	Swivel Elbow 45° Male Female  PS74 53	Fixed Elbow 45° Male Female  PS74F 53	Manifold 45° Swept Fem - Fem  PSM135 53	Swivel Elbow 90° Male Female  PS76 54	Fixed Elbow 90° Male Female  PS76F 54
Tee Swivel Fem - Fem - Male  PS77 54	L-Socket Swivel  PS78 55	L-Socket Fixed  PS78F 55	Staple Female Swivel to NPT Male  PS80 56	Staple Fem Swivel to UN-O Male  PS100 56	
Staple Female Swivel to BSPP Male  PS115 57	Staple Female Fixed to BSPP Male  PS115F 57	Staple Female Swivel to BSPP Male  PS115H 57 (Internal Hex)	Elbow 90° Staple to BSPP Fem - Fem  PS118 58	Unequal Staple Nipple  PS120 58	Male Staple to Male UN-O Nipple  PS140 58
Male Staple to BSPP Male or Female  PS155 (Male) 59 PS157 (Female) 59	Male Staple to Male BSPT Nipple  PS155T 59	Staple Blanking Cap  PS160 60	Staple Blanking Plug  PS165 60	Std. Staple Square / Dee Section  PS170 60 PS175 / PS175D 61	Staple O-Ring Seal & Back-up Washer  PS180 62 PS195 62

PS27

BANJO BODY C/W BOLT



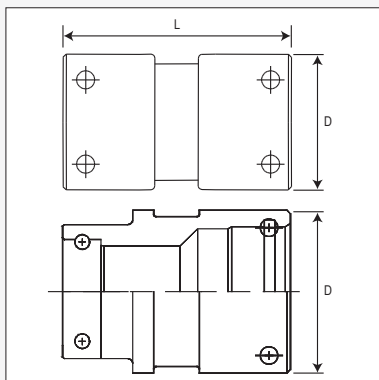
Product Code	Bolt Size	Nominal Bore			Dimensions mm				
	BSPP	Dash	Inch	DN	L	L1	L2	L3	D
PS27-06-04	1/4"	4	1/4"	6	37	26	14	22	25
PS27-10-06	3/8"	6	3/8"	10	45	34	16.5	29	32
PS27-10-08	1/2"	6	3/8"	10	47	38	16.5	32	32
PS27-13-06	3/8"	8	1/2"	12	45	33	17.5	29	35
PS27-13-08	1/2"	8	1/2"	12	51	40	17.5	32	35
PS27-20-12	3/4"	12	3/4"	20	52	51	24	44.5	45



Product Code	Sealing Washer	Bolt Size T	Dimensions mm	
		BSPP	L	AF
PS29-04	Z-04	1/4"	36	18
PS29-06	Z-06	3/8"	40	23.5

Note that Bonded Washers are required for top and bottom sealing (supplied separately - see page 139)

PS30

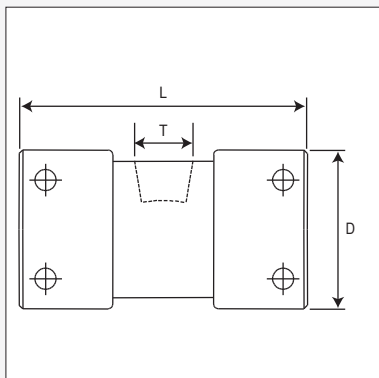
STAPLE COUPLING
STRAIGHT / REDUCING

Product Code	Nominal ID			Dimensions mm		
	Dash	Inch	DN	L	D	Retaining Groove
PS30-06	4	1/4"	6	58	25	†
PS30-10	6	3/8"	10	58	32	†
PS30-13	8	1/2"	12	59	35	†
PS30-20	12	3/4"	20	59	45	†
PS30-25	16	1"	25	67	55	†
PS30-32	20	1.1/4"	32	67	60	†
PS30-40	24	1.1/2"	40	75	76	†
PS30-50	32	2"	50	75	85	†
PS30-63G	40	2.1/2"	65	136	100	†

Product Code	End A			End B			Dimensions mm		
	Dash	Inch	DN	Dash	Inch	DN	Lgth	Dia	Retaining Groove
PS30-10-13	6	3/8"	10	8	1/2"	12	58	35	†
PS30-63-50	40	2 1/2"	63	32	2"	50	140	100	†

† The retaining groove around the coupling circumference allows fast installation / removal of the adaptor using a bolted key arrangement. These fittings form part of a total bulkhead design package, and are made to order. Please contact Pirtek for details

PSE30

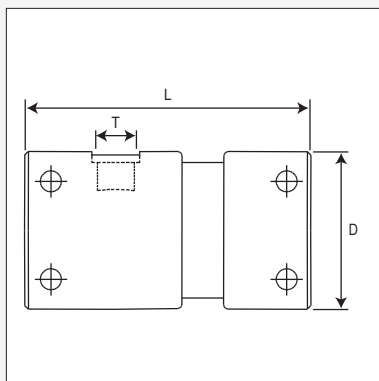
STAPLE COUPLING FEMALE FIXED
TAPPED 1" BSP PORT

Product Code	Nominal ID			Thread T	Dimensions mm	
	Dash	Inch	DN	BSP †	L	D
PSE30-40-16T	24	1.1/2"	40	R-1"	129	76
PSE30-50-16P	32	2"	50	G-1"	129	88
PSE30-50-16T	32	2"	50	R-1"	129	88
PSE30-63-16P	40	2.1/2"	65	G-1"	185	101
PSE30-63-16T	40	2.1/2"	65	R-1"	185	101
PSE30-63-40T-16T	40	2.1/2"	65	R-1"		

† 'R' denotes tapered thread 'G' denotes parallel thread

PSE30G

STAPLE COUPLING EXTENDED TAPPED BSP PORT

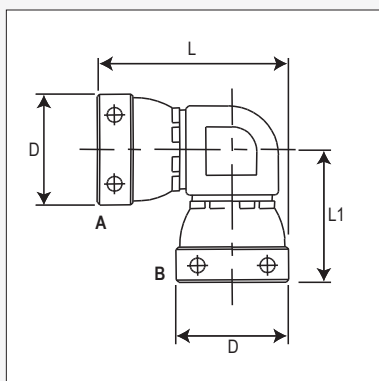


Product Code	Nominal ID			Thread T	Dimensions mm		
	Dash	Inch	DN	BSPP	L	D	Retaining Groove
PSE30G-50-08P	32	2"	50	G-1/2"	75	85	†
PSE30G-50-16P	32	2"	50	G-1"	75	85	†
PSE30G-63-08P	40	2.1/2"	65	G-1/2"	136	100	†
PSE30G-63-16P	40	2.1/2"	65	G-1"	136	100	†

† The retaining groove around the coupling circumference allows fast installation / removal of the adaptor using a bolted key arrangement. These fittings form part of a total bulkhead design package, and are made to order. Please contact Pirtek for details

PS40

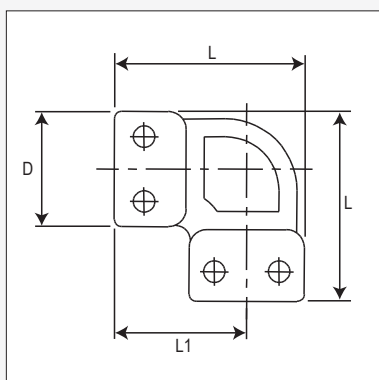
STAPLE 90° ELBOW COUPLING SWIVEL FEMALE



Product Code	Nominal ID						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	L1	D
PS40-06	4	1/4"	6	4	1/4"	6	57	44	25
PS40-10	6	3/8"	10	6	3/8"	10	60	44	32
PS40-13	8	1/2"	12	8	1/2"	12	72	48	35
PS40-20	12	3/4"	20	12	3/4"	20	79	57	45
PS40-25	16	1"	25	16	1"	25	97	68	60
PS40-32	20	1.1/4"	32	20	1.1/4"	32	97	68	60

PS45

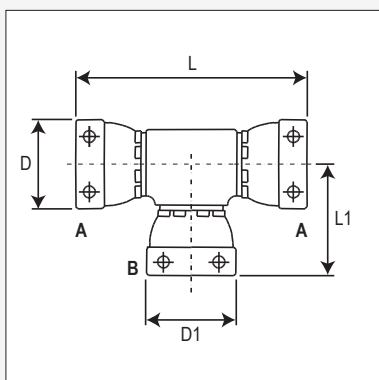
STAPLE 90° ELBOW COUPLING FIXED FEMALE



Product Code	Nominal ID			Dimensions mm		
	Dash	Inch	DN	L	L1	D
PS45-06	4	1/4"	6	53	38	32
PS45-10	6	3/8"	10	53	38	32
PS45-13	8	1/2"	12	59	41	39
PS45-20	12	3/4"	20	63	43	42
PS45-25	16	1"	25	78	51	55
PS45-32	20	1.1/4"	32	84	54	62
PS45-40	24	1.1/2"	40	102	68	70
PS45-50	32	2"	50	111	71	82

PS50

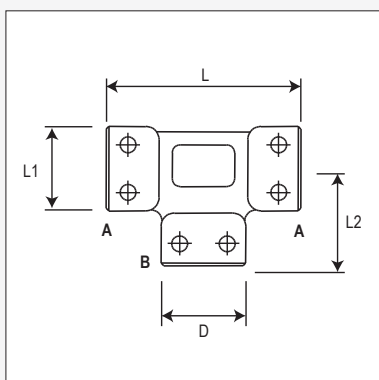
SWIVEL TEE



Product Code	Nominal ID						Dimensions mm			
	Side A			Side B			L	L1	D	D1
	Dash	Inch	DN	Dash	inch	DN				
PS50-06	4	1/4"	6	4	1/4"	6	88	44	25	25
PS50-10	6	3/8"	10	6	3/8"	10	88	44	32	32
PS50-13	8	1/2"	12	8	1/2"	12	96	48	35	35
PS50-13-13-10	8	1/2"	12	6	3/8"	10	96	47	35	32
PS50-20	12	3/4"	20	12	3/4"	20	114	57	45	45
PS50-20-20-10	12	3/4"	20	6	3/8"	10	114	57	56	32
PS50-20-20-13	12	3/4"	20	8	1/2"	12	114	57	57	35
PS50-25	16	1"	25	16	1"	25	134	68	60	60
PS50-25-25-13	16	1"	25	8	1/2"	12	134	60	60	35
PS50-25-25-20	16	1"	25	12	3/4"	20	136	64	60	45
PS50-32	20	1.1/4"	32	20	1.1/4"	32	136	68	60	60
PS50-32-32-13	20	1.1/4"	32	8	1/2"	12	134	68	60	35
PS50-32-32-25	20	1.1/4"	32	16	1"	25	134	72	60	60

PS55

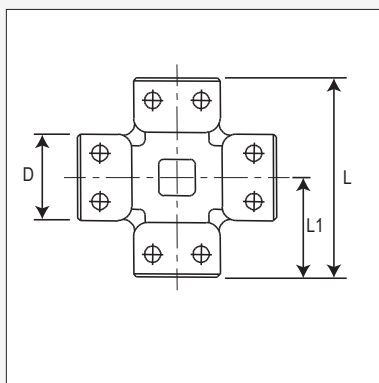
FIXED TEE



Product Code	Nominal ID						Dimensions mm			
	Side A			Side B			L	L1	L2	D
	Dash	Inch	DN	Dash	inch	DN				
PS55-06	4	1/4"	6	4	1/4"	6	75	53	38	32
PS55-10	6	3/8"	10	6	3/8"	10	72	52	36	32
PS55-10-10-06	6	3/8"	10	4	1/4"	6	-	-	-	-
PS55-13	8	1/2"	12	8	1/2"	12	78	57	39	35
PS55-13-13-10	8	1/2"	12	6	3/8"	10	78	59	40	32
PS55-20	12	3/4"	20	12	3/4"	20	83	61	42	45
PS55-20-20-10	12	3/4"	20	6	3/8"	10	84	63	42	32
PS55-20-20-13	12	3/4"	20	8	1/2"	12	84	63	42	35
PS55-25	16	1"	25	16	1"	25	98	77	49	55
PS55-25-25-13	16	1"	25	8	1/2"	12	100	78	50	35
PS55-25-25-20	16	1"	25	12	3/4"	20	100	78	50	45
PS55-32	20	1.1/4"	32	20	1.1/4"	32	106	85	53	60
PS55-32-32-25	20	1.1/4"	32	16	1"	25	107	84	53	55
PS55-40	24	1.1/2"	40	24	1.1/2"	40	133	102	68	70
PS55-50	32	2"	50	32	2"	50	140	111	70	82
PS55-50-50-32	32	2"	50	20	1.1/4"	32	146	111	70	60
PS55F-63	40	2.1/2"	65	40	2.1/2"	65	320	210	160	100

PS60

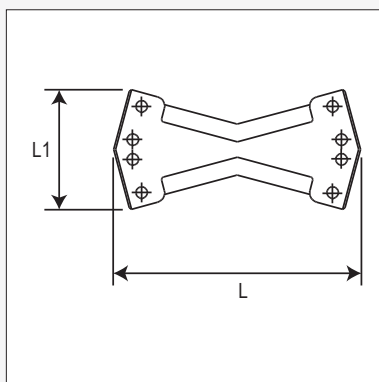
4-WAY CROSS



Product Code	Nominal ID			Dimensions mm		
	Dash	Inch	DN	L	L1	D
PS60-06	4	1/4"	6	68	34	25
PS60-10	6	3/8"	10	72	36	32
PS60-13	8	1/2"	12	78	39	35
PS60-20	12	3/4"	20	84	42	45

PS65

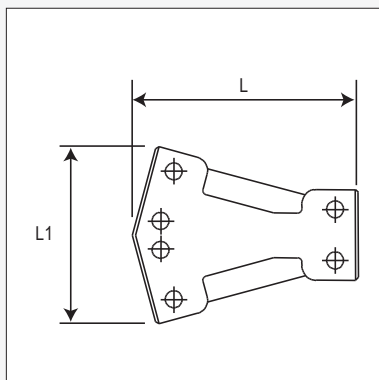
X-SHAPED CROSS



Product Code	Nominal ID			Dimensions mm		
	Dash	Inch	DN	L	L1	
PS65-10	6	3/8"	10	128	63	

PS70

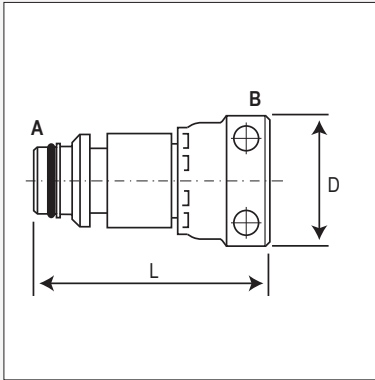
Y-PIECE FIXED COUPLING



Product Code	Nominal ID			Dimensions mm		
	Dash	Inch	DN	L	L1	
PS70-10	6	3/8"	10	128	63	
PS70-13	8	1/2"	12	96	70	
PS70-20	12	3/4"	20			

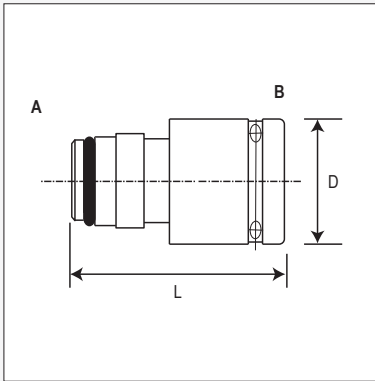
PS72

STAPLE MALE-FEMALE COUPLING



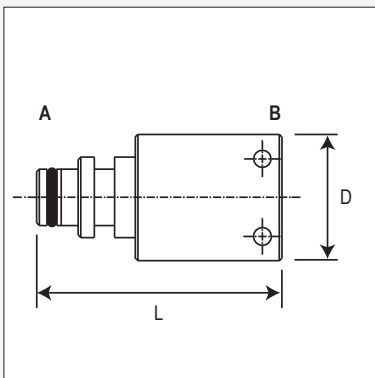
Product Code	Nominal ID						Dimensions mm	
	Side A			Side B				
	Dash	Inch	DN	Dash	inch	DN	L	D
PS72-06-10	4	1/4"	6	6	3/8"	10	69	32
PS72-06-13	4	1/4"	6	8	1/2"	12	69	35
PS72-10-06	6	3/8"	10	4	1/4"	6	69	25
PS72-10-10	6	3/8"	10	6	3/8"	10	69	32
PS72-10-13	6	3/8"	10	8	1/2"	12	69	35
PS72-13-10	8	1/2"	12	6	3/8"	10	63	32
PS72-20-13	12	3/4"	20	8	1/2"	12	69	36
PS72-20-25	12	3/4"	20	16	1"	25	81	60
PS72-25-20	16	1"	25	12	3/4"	20	76	45
PS72-50-25	32	2"	50	16	1"	25	89	60

PS72 - CL

STAPLE MALE-
CLIPLINE FEMALE

Product Code	Nominal ID						Dimensions mm	
	Side A			Side B				
	Dash	Inch	DN	Dash	inch	DN	L	D
PS72-63-63-CL	40	2.1/2"	65	40	2.1/2"	65	154	109

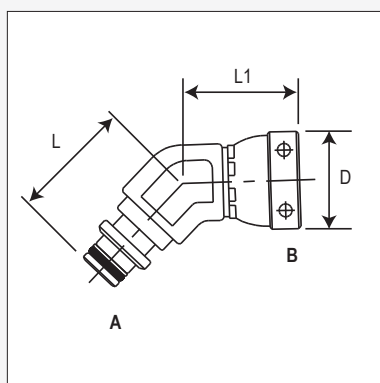
PS72F

STAPLE MALE-FEMALE
FIXED COUPLING

Product Code	Nominal ID						Dimensions mm	
	Side A			Side B				
	Dash	Inch	DN	Dash	inch	DN	L	D
PS72F-10-10	6	3/8"	10	6	3/8"	10	69	32
PS72F-10-13	6	3/8"	10	8	1/2"	12	69	35
PS72F-13-10	8	1/2"	12	6	3/8"	10	63	32
PS72F-13-20	8	1/2"	12	12	3/4"	20	-	45
PS72F-20-13	12	3/4"	20	8	1/2"	12	69	36
PS72F-20-25	12	3/4"	20	16	1"	25	81	60
PS72F-25-20	16	1"	25	12	3/4"	20	76	45
PS72F-63-50	40	2 1/2"	63	32	2"	50	-	-

PS74

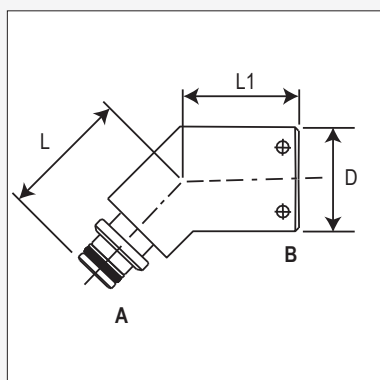
STAPLE 45° ELBOW M-F



Product Code	Nominal ID						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	L1	D
PS74-06	4	1/4"	6	4	1/4"	6	40	39	25
PS74-10	6	3/8"	10	6	3/8"	10	40	39	32
PS74-13	8	1/2"	12	8	1/2"	12	40	40	35
PS74-20	12	3/4"	20	12	3/4"	20	43	47	45
PS74-25	16	1"	25	16	1"	25	52	54	60
PS74-32	20	1.1/4"	32	20	1.1/4"	32	52	54	60

PS74F

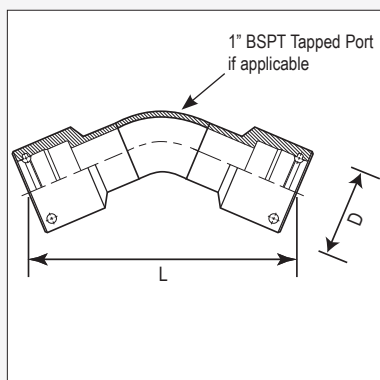
STAPLE 45° ELBOW M-F FIXED



Product Code	Nominal ID						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	L1	D
PS74F-10	6	3/8"	10	6	3/8"	10	40	39	25
PS74F-13	8	1/2"	12	8	1/2"	12	40	39	32
PS74F-20	12	3/4"	20	12	3/4"	20	40	40	35
PS74F-50	32	2"	50	32	2"	50	80	63	83

PSM135

SWEPT 45° ELBOW F-F

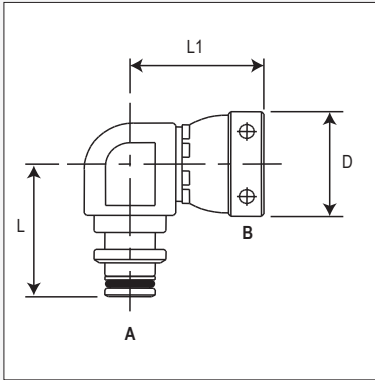


Product Code	Nominal ID						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	D	Port
PSM135-50	32	2"	50	32	2"	50	314	82.5	
PSM135-50-16T	32	2"	50	32	2"	50	314	82.5	R-1" †
PSM135-63	40	2.1/2"	63	40	2.1/2"	63	314	106	

† 'R' denotes tapered BSP thread

PS76

STAPLE 90° ELBOW M-F



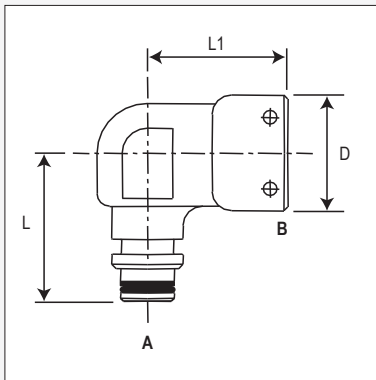
Product Code	Nominal ID						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	L1	D
PS76-06	4	1/4"	6	4	1/4"	6	46	44	25
PS76-10	6	3/8"	10	6	3/8"	10	46	44	32
PS76-10-13	6	3/8"	10	8	1/2"	12	51	48	35
PS76-13	8	1/2"	12	8	1/2"	12	51	48	35
PS76-13-10	8	1/2"	12	6	3/8"	10	51	48	32
PS76-20	12	3/4"	20	12	3/4"	20	56	56	45
PS76-25	16	1"	25	16	1"	25	66	66	60
PS76-25-20	16	1"	25	12	3/4"	20	68	56	45
PS76-32	20	1.1/4"	32	20	1.1/4"	32	68	66	60

PS76F & PS76FSS

STAPLE 90° ELBOW M/F

FIXED & STAINLESS STEEL

STAPLE 90° ELBOW M/F FIXED



Product Code	Nominal ID						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	L1	D
PS76F-10	6	3/8"	10	6	3/8"	10	47	32	30
PS76F-13 †	8	1/2"	13	8	1/2"	13			
PS76F-20 †	12	3/4"	20	12	3/4"	20			
PS76F-25 †	16	1"	25	16	1"	25			
PS76F-32 †	20	2"	32	20	2"	32			
PS76F-40	24	1.1/2"	40	24	1.1/2"	40	85	85	80
PS76F-50	32	2"	50	32	2"	50	95	95	80

† These sizes available to order

NEW

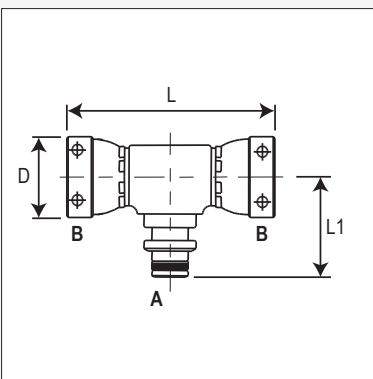
NEW

Product Code	Nominal ID						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	L1	D
PS76FSS-20 *	12	3/4"	20	12	3/4"	20			

* NOTE : This item is the same as the PS76F-20 except it is made of Stainless Steel & is machined

PS77

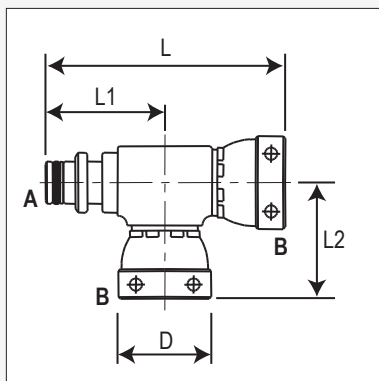
SWIVEL TEE F-F-M



Product Code	Nominal ID						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	L1	D
PS77-06	4	1/4"	6	4	1/4"	6	88	46	25
PS77-10	6	3/8"	10	6	3/8"	10	88	46	32
PS77-13	8	1/2"	12	8	1/2"	12	96	52	35

PS78

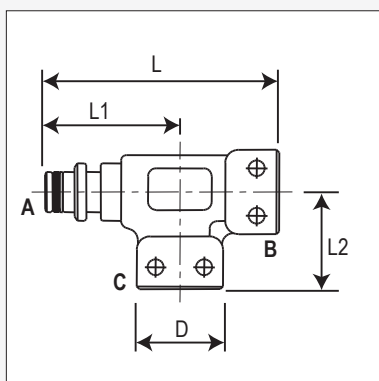
STAPLE TEE 'L' SWIVEL SOCKET



Product Code	Nominal ID						Dimensions mm			
	Side A			Side B						
	Dash	Inch	DN	Dash	inch	DN	L	L1	L2	D
PS78-06	4	1/4"	6	4	1/4"	6	90	46	45	25
PS78-10	6	3/8"	10	6	3/8"	10	90	46	45	32
PS78-13	8	1/2"	12	8	1/2"	12	102	52	50	35
PS78-20	12	3/4"	20	12	3/4"	20	110	55	55	45

PS78F

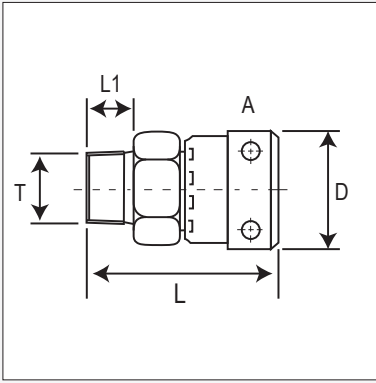
STAPLE TEE 'L' FIXED SOCKET



Product Code	Nominal ID									Dimensions mm			
	Side A			Side B			Side C						
	Dash	Inch	DN	Dash	inch	DN	Dash	inch	DN	L	L1	L2	D
PS78F-06	4	1/4"	6	4	1/4"	6	4	1/4"	6	90	47	47	32
PS78F-10	6	3/8"	10	6	3/8"	10	6	3/8"	10	84	47	36	32
PS78F-13-13-10	8	1/2"	12	8	1/2"	12	6	3/8"	10	90	50	38	38
PS78F-20	12	3/4"	20	12	3/4"	20	12	3/4"	20	110	57	53	45
PS78F-20-20-10	12	3/4"	20	12	3/4"	20	6	3/8"	10	98	55	42	44
PS78F-25	16	1"	25	16	1"	25	16	1"	25	138	71	67	60
PS78F-25-25-10	16	1"	25	16	1"	25	6	3/8"	10	120	71	50	32

PS80 & PS80F^(Fixed)

STAPLE SWIVEL FEMALE - NPT

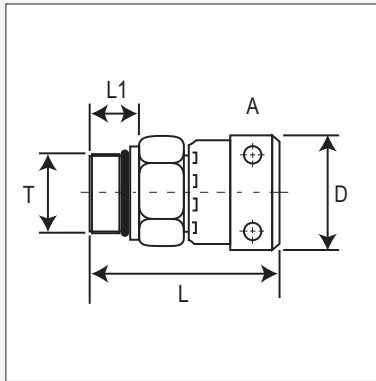


Product Code	Nominal ID			NPT Thread	Dimensions mm			
	Side A				L	L1	D	AF
	Dash	Inch	DN	T				
PS80-06-02	4	1/4"	06	1/8"	50	10	25	19
PS80-06-04	4	1/4"	06	1/4"	51	15	25	19
PS80-10-04	6	3/8"	10	1/4"	54	15	32	22
PS80-10-06	6	3/8"	10	3/8"	54	15	32	22
PS80-13-06	8	1/2"	12	3/8"	55	15	35	27
PS80-13-08	8	1/2"	12	1/2"	60	19	35	27
PS80-13-12	8	1/2"	12	3/4"	60	19	35	30
PS80-20-08	12	3/4"	20	1/2"	61	19	45	36
PS80-20-12	12	3/4"	20	3/4"	62	19	45	36
PS80-20-16	12	3/4"	20	1"	67	24	45	36
PS80-25-16	16	1"	25	1"	80	24	60	46
PS80-32-20	20	1.1/4"	32	1.1/4"	81	25	60	50
PS80F-40-24*	24	1.1/2"	40	1.1/2"	80	26	80	70
PS80F-50-32*	32	2"	50	2"	80	29	85	75

* Female Staple is fixed

PS100

STAPLE SWIVEL FEMALE - UNO

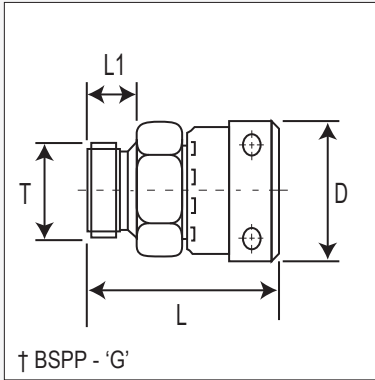


Product Code	Nominal ID			UNO Thread	Dimensions mm			
	Side A				L	L1	D	AF
	Dash	Inch	DN	T				
PS100-10-12 †	6	3/8"	10	3/4"-16				
PS100-13-12 †	8	1/2"	12	3/4"-16				
PS100-13-14	8	1/2"	12	7/8"-14	57	12	35	27
PS100-13-17	8	1/2"	12	1.1/16"-12	59	18	45	36
PS100-20-17	12	3/4"	20	1.1/16"-12	57	15	45	36

† These sizes available to order

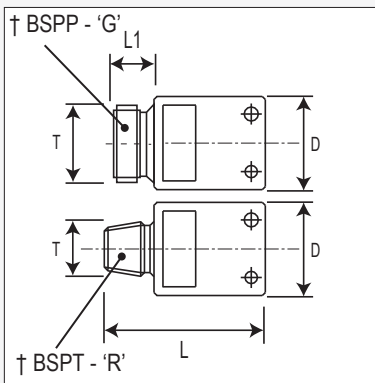
PS115

STAPLE SWIVEL FEMALE - BSPP



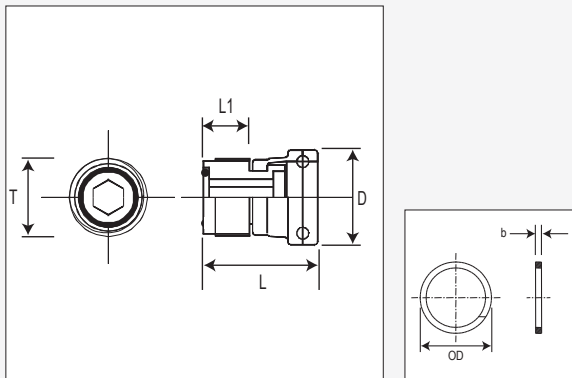
PS115F

STAPLE FIXED FEMALE - BSPT/G



PS115H

STAPLE SWIVEL FEMALE - BSPP INTERNAL HEX



Product Code	Nominal ID			BSPP Thread ↑	Dimensions mm			
	Staple Female				L	L1	D	AF
	Dash	Inch	DN					
PS115-06-04	4	1/4"	6	G-1/4"	47	10	32	22
PS115-06-06	4	1/4"	6	G-3/8"	47	9	25	22
PS115-10-04	6	3/8"	10	G-1/4"	47	10	32	22
PS115-10-06	6	3/8"	10	G-3/8"	48	10	32	22
PS115-10-08	6	3/8"	10	G-1/2"	54	13	32	27
PS115-13-06	8	1/2"	12	G-3/8"	53	10	35	27
PS115-13-08	8	1/2"	12	G-1/2"	56	13	35	27
PS115-16-10	10	5/8"	16	G-5/8"				
PS115-20-08	12	3/4"	20	G-1/2"	59	13	45	36
PS115-20-12	12	3/4"	20	G-3/4"	59	14	45	36
PS115-20-16	12	3/4"	20	G-1"	62	17	45	46
PS115-25-12	16	1"	25	G-3/4"	63	14	60	46
PS115-25-16	16	1"	25	G-1"	73	17	60	46
PS115-25-20	16	1"	25	G-1.1/4"	77	19	60	50
PS115-32-16	20	1.1/4"	32	G-1"	80	17	60	50
PS115-32-20	20	1.1/4"	32	G-1.1/4"	63	20	60	50
PS115-32-24	20	1.1/4"	32	G-1.1/2"	72	20	60	55

STAPLE FIXED FEMALE WITH BSPP OR BSPT THREAD

PS115F-06-04T •	4	1/4"	6	R-1/4"	47	10	32	22
PS115F-10-06T •	6	3/8"	10	R-3/8"	48	10	32	22
PS115F-13-08T •	8	1/2"	12	R-1/2"	56	13	35	27
PS115F-20-12T •	12	3/4"	20	R-3/4"	59	14	45	36
PS115F-20-16T •	12	3/4"	20	R-1"	62	17	45	46
PS115F-25-16T •	16	1"	25	R-1"	73	17	60	46
PS115F-32-20T	20	1.1/4"	32	R-1.1/4"	76	18.4	61	50
PS115F-40-24T	24	1.1/2"	40	R-1.1/2"	76	21.4	75	70
PS115F-40-24	24	1.1/2"	40	G-1.1/2"	76	21.4	75	70
PS115F-50-32T	32	2"	50	R-2"	76	23	85	75
PS115F-50-32	32	2"	50	G-2"	76	23	85	75
PS115F-63-40T •	40	2.1/2"	63	R-2.1/2"	122	24	100	88
PS115F-63-40 •	40	2.1/2"	63	G-2.1/2"	122	24	100	88
PS115F-75-48T •	48	3"	75	R-3"				

† 'R' denotes tapered thread 'G' denotes parallel thread

• These sizes available to order

Product Code	Nominal ID			BSPP Thread	Dimensions mm			
	Staple Female				L	L1	D	Hex
	Dash	Inch	DN	T				
PS115H-10-12	6	3/8"	10	3/4"				
PS115H-13-12	8	1/2"	12	3/4"	42	16	35	12.6
PS115H-20-12	12	3/4"	20	3/4"	57	24	44	12.6

Note: The primary use of this adaptor is to facilitate the installation of a female staplelok fitting into a threaded BSPP port where access would otherwise be difficult. Sealing is via the Delrin seal in the face of the thread. The internal hex is reached via the female staple end.

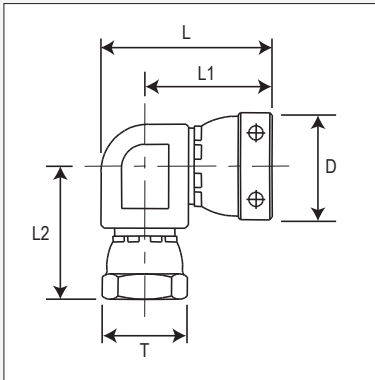
Should Seal replacement be required, please use PS115H-SEAL-12
Shown below

Product Code	Nominal Size			Dimensions mm			
	BSPP Thread			OD	b		
	Dash	Inch	DN				
PS115H-SEAL-12	12	3/4"	20	20.3	2.3	-	-

PS118

90° ELBOW

STAPLE FEMALE - BSP FEMALE

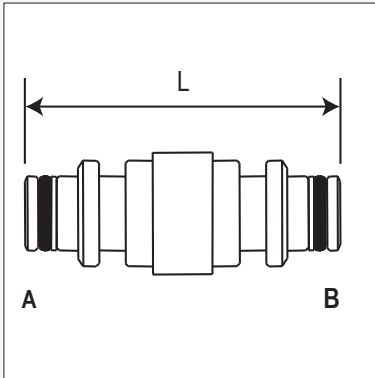


Product Code	Nominal ID			BSPP Thread	Dimensions mm			
	Side A							
	Dash	Inch	DN		T	L	L1	L2
PS118-06-04	4	1/4"	6	1/4"	53	43	34	25.1
PS118-10-06	6	3/8"	10	3/8"	53	42	37	32.1
PS118-13-08	8	1/2"	12	1/2"	60	45	41	35

PS120

STAPLE NIPPLE

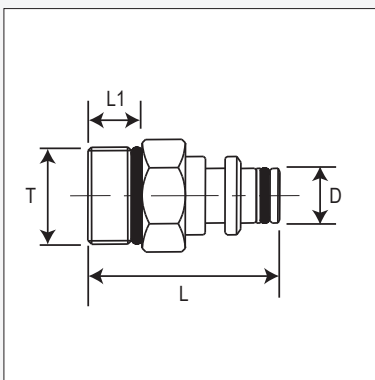
EQUAL OR UNEQUAL



Product Code	Nominal ID			BSP Thread			Dimensions mm	
	Side A			Side B				
	Dash	Inch	DN	Dash	Inch	DN	L	
PS120-06	4	1/4"	6	4	1/4"	6	58	
PS120-10	6	3/8"	10	6	3/8"	10	58	
PS120-10-06	6	3/8"	10	4	1/4"	6	56	
PS120-13	8	1/2"	12	8	1/2"	12	58	
PS120-13-06	8	1/2"	12	4	1/4"	6	56	
PS120-13-10	8	1/2"	12	6	3/8"	10	58	
PS120-20	12	3/4"	20	12	3/4"	20	58	
PS120-20-10	12	3/4"	20	6	3/8"	10	58	
PS120-20-13	12	3/4"	20	8	1/2"	12	58	
PS120-25	16	1"	25	16	1"	25	67	
PS120-25-13	16	1"	25	8	1/2"	12	64	
PS120-25-20	16	1"	25	12	3/4"	20	64	
PS120-32	20	1.1/4"	32	20	1.1/4"	32	67	
PS120-32-25	20	1.1/4"	32	16	1"	25	67	
PS120-40	24	1.1/2"	40	24	1.1/2"	40	80	
PS120-50	32	2"	50	32	2"	50	80	
PS120-63	40	2.1/2"	65	40	2.1/2"	65	140	

PS140

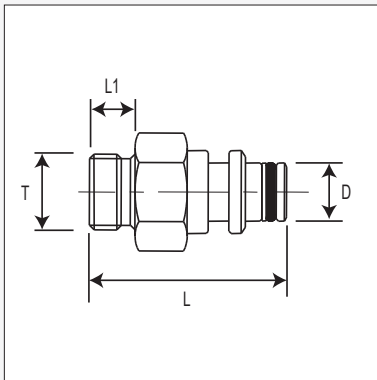
STAPLE MALE - UNO



Product Code	Nominal ID			UNO Thread	Dimensions mm			
	Side A							
	Dash	Inch	DN		T	L	L1	D
PS140-20-14	12	3/4"	20	7/8"-14	55	17	23.9	

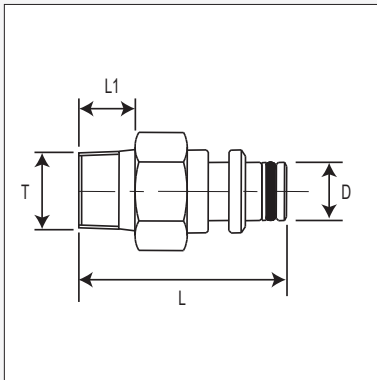
PS155

STAPLE MALE - BSPP MALE



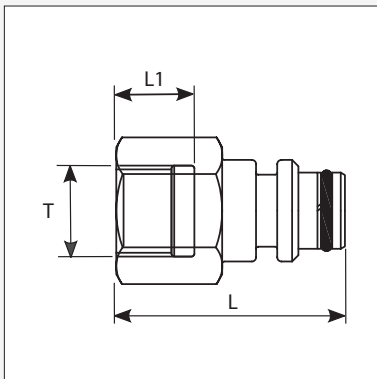
PS155 (T)

STAPLE MALE - BSPT MALE



PS157

STAPLE MALE - BSPP FEMALE



Product Code	Nominal ID			BSPP Thread	Dimensions mm			
	Side A				L	L1	D	AF
	Dash	Inch	DN					
PS155-06-04	4	1/4"	6	G-1/4"	51	9	9.9	19
PS155-06-06	4	1/4"	6	G-3/8"	50	10	9.9	22
PS155-10-04	6	3/8"	10	G-1/4"	51	8.6	13.9	22.2
PS155-10-06	6	3/8"	10	G-3/8"	51	10	13.9	22
PS155-10-08	6	3/8"	10	G-1/2"	50	13	13.9	27
PS155-13-06	8	1/2"	12	G-3/8"	50	10	17.9	27
PS155-13-08	8	1/2"	12	G-1/2"	55	13	17.9	27
PS155-13-12	8	1/2"	12	G-3/4"	58	14	17.9	36
PS155-20-12	12	3/4"	20	G-3/4"	58	14	23.9	32
PS155-20-16	12	3/4"	20	G-1"	62	17	23.9	41
PS155-25-16	16	1"	25	G-1"	72	17	30.9	46
PS155-32-20	20	1.1/4"	32	G-1.1/4"	79	18	37.9	50
PS155-40-24	24	1.1/2"	40	G-1.1/2"	82	23	46.9	65
PS155-50-32	32	2"	50	G-2"	82	23	55.9	70
PS155-63-40	40	2.1/2"	65	G-2.1/2"	124	30	79	86
STAPLE MALE - BSP TAPER								
PS155-06-04T •	4	1/4"	6	R-1/4"	51	9	9.9	19
PS155-10-06T •	6	3/8"	10	R-3/8"	51	10	13.9	22
PS155-13-08T •	8	1/2"	12	R-1/2"	55	13	17.9	27
PS155-20-12T •	12	3/4"	20	R-3/4"	58	14	23.9	32
PS155-20-16T •	12	3/4"	20	R-1"	62	17	23.9	41
PS155-25-16T •	16	1"	25	R-1"	72	17	30.9	46
PS155-50-32T	32	2"	50	R-2"	98	24	55.8	66
PS155-63-40T	40	2.1/2"	65	R-2.1/2"	130	29	79	80

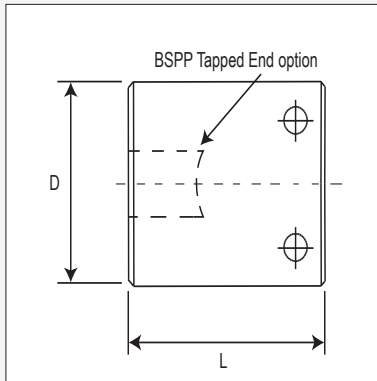
† 'R' denotes tapered thread 'G' denotes parallel thread

• These sizes available to order

Product Code	Nominal ID			BSPP Thread	Dimensions mm			
	Side A				L	L1	AF	
	Dash	Inch	DN					
PS157-13-08	13	1/2"	13	1/2"-14	54	17	30	

PS160

STAPLE BLANKING CAP

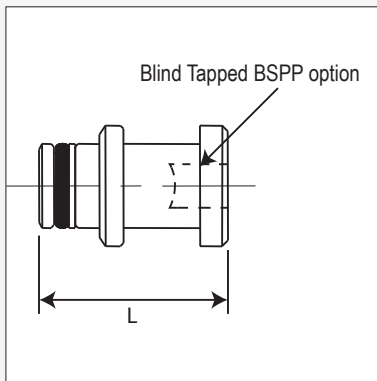


Product Code	Nominal Size			Dimensions mm			
	Staplelok			L	D		
	Dash	Inch	DN				
PS160-06	4	1/4"	6	39	25		
PS160-10	6	3/8"	10	40	32		
PS160-13	8	1/2"	12	43	35		
PS160-20	12	3/4"	20	44	45		
PS160-25	16	1"	25	52	55		
PS160-32	20	1.1/4"	32	55	60		
PS160-40	24	1.1/2"	40	80	80		
PS160-50	32	2"	50	70	85		
PS160-63	40	2.1/2"	65	118	100		

BSPP Tapped Port available for all sizes upon request. Please specify when ordering

PS165

STAPLE BLANKING PLUG

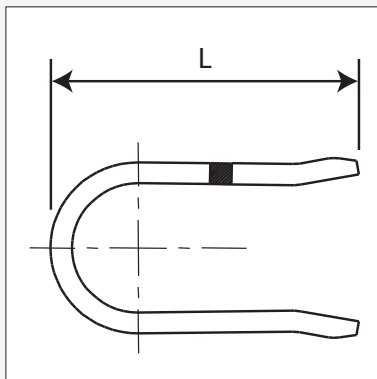


Product Code	Nominal Size			Dimensions mm			
	Staplelok			L			
	Dash	Inch	DN				
PS165-06	4	1/4"	6	34			
PS165-10	6	3/8"	10	34			
PS165B-10	6	3/8"	10	34	Staple Breather PLug		
PS165-13	8	1/2"	12	34			
PS165-20	12	3/4"	20	34			
PS165-25	16	1"	25	41			
PS165-32	20	1.1/4"	32	41			
PS165-40	24	1.1/2"	40	47			
PS165-50	32	2"	50	47			
PS165-63	40	2.1/2"	65	80			

Blind Tapped BSPP Port available for all sizes upon request. Please specify when ordering

PS170

STANDARD STAPLE SQUARE SECTION



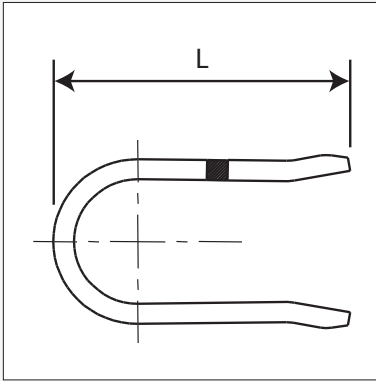
Product Code	Nominal Size			Dimensions mm			
	Staplelok			L			
	Dash	Inch	DN				
PS170-06	4	1/4"	6	40			
PS170-10 *	6	3/8"	10	47			
PS170-13	8	1/2"	12	48			
PS170-20	12	3/4"	20	56			
PS170-25	16	1"	25	75			
PS170-32	20	1.1/4"	32	83			
PS170-40	24	1.1/2"	40	87			
PS170-50	32	2"	50	97			

* DN10 Spring Steel Staples are rated to 400 Bar working pressure with 4:1 safety factor. When tested in accordance with DIN 20043, they exceed the 50 000 cycle impulse test requirement

PS175

STANDARD STAPLE

SQUARE SECTION S'LESS STEEL

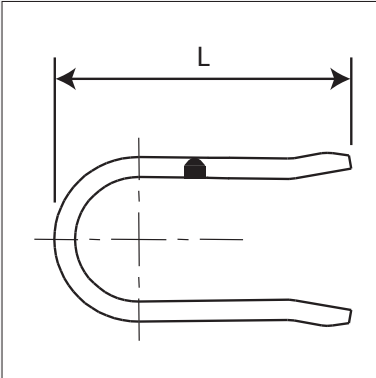


Product Code	Nominal Size			Dimensions mm			
	Staplelok			L	Staple Width		
	Dash	Inch	DN				
PS175-06L	4	1/4"	6	72	4.55		
PS175-20L	12	3/4"	20	68	4.55		
PS175-50L	32	2"	50	120	6.55		
PS175-75	48	3"	75	111	6.55		

PS175D

STANDARD STAPLE

'D' SECTION S'LESS STEEL



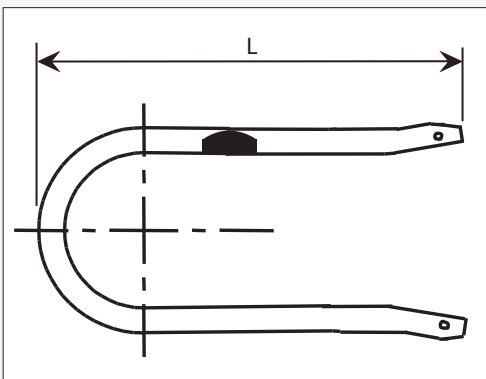
Product Code	Nominal Size			Dimensions mm			
	Staplelok			L	Staple Width		
	Dash	Inch	DN				
PS175D-06	4	1/4"	6	40	4.55		
PS175D-06L-72	4	1/4"	6	72	4.55		
PS175D-10 *	6	3/8"	10	47	4.55		
PS175D-10L-100	6	3/8"	10	100	4.55		
PS175D-10L-50	6	3/8"	10	50	4.55		
PS175D-10L-78	6	3/8"	10	78	4.55		
PS175D-13	8	1/2"	12	53	4.55		
PS175D-20	12	3/4"	20	56	4.55		
PS175D-20L-100	12	3/4"	20	100	4.55		
PS175D-25	16	1"	25	75	6.55		
PS175D-32	20	1.1/4"	32	83	6.55		
PS175D-40	24	1.1/2"	40	87	6.55		
PS175D-50	32	2"	50	97	6.55		
PS175D-50L-123	32	2"	50	123	6.55		
PS175D-63	40	2.1/2"	65	113	6.55		
PS175D-75	48	3"	75	111	6.55		

* DN10 Stainless Steel Staples are rated to 420 Bar working pressure with 4:1 safety factor. When tested in accordance with DIN 20043, they exceed the 50 000 cycle impulse test requirement

PS176D

STANDARD STAPLE - STAINLESS STEEL

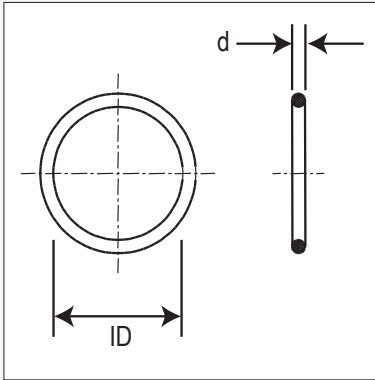
'D' SECTION EXTENDED & DRILLED



Product Code	Nominal Size			Dimensions mm			
	Staplekok			L	Staple Width		
	Dash	Inch	DN				
PS176D-10L-44	6	3/8"	20	44	4.55		
PS176D-10L-78	6	3/8"	25	78	4.55		
PS176D-10L-100	6	3/8"	50	100	4.55		
PS176D-13L-52	8	1/2"	50	52	4.55		
PS176D-20L-63	12	3/4"	20	63	4.55		
PS176D-25L-81	16	1"	25	81	6.55		
PS176D-32L-90	20	1.1/4"	32	90	6.55		
PS176D-50L-106	32	2"	50	106	6.55		
PS176D-50L-123	32	2"	50	123	6.55		
PS176D-63L-115	40	2.1/2"	63	115	6.55		

PS180

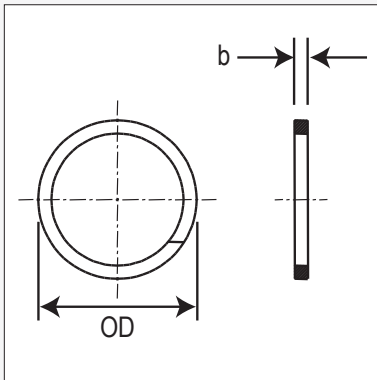
STAPLE O-RING SEAL



Product Code	Nominal Size			Dimensions mm			
	Staplelok			ID	d		
	Dash	Inch	DN				
PS180-06	4	1/4"	6	6	2		
PS180-10	6	3/8"	10	10	2		
PS180-13	8	1/2"	12	13	2.5		
PS180-16	10	5/8"	16	17	2.5		
PS180-20	12	3/4"	20	19	2.5		
PS180-25	16	1"	25	25	2.5		
PS180-32	20	1.1/4"	32	33	2.5		
PS180-40	24	1.1/2"	40	40	3		
PS180-50	32	2"	50	49	3		
PS180-63	40	2.1/2"	65	72	3		
PS180-75	48	3"	75	80	3		

PS195

STAPLE BACK-UP WASHER

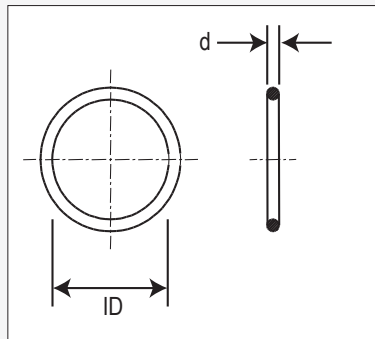


Product Code	Nominal Size			Dimensions mm			
	Staplelok			OD	b		
	Dash	Inch	DN				
PS195-06	4	1/4"	6	10	0.8		
PS195-10	6	3/8"	10	14	0.8		
PS195-13	8	1/2"	12	18	0.8		
PS195-16	10	5/8"	16	22	0.8		
PS195-20	12	3/4"	20	24	0.8		
PS195-25	16	1"	25	31	0.8		
PS195-32	20	1.1/4"	32	38	0.8		
PS195-40	24	1.1/2"	40	47	1.5		
PS195-50	32	2"	50	56	1.5		

PS200

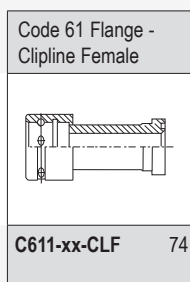
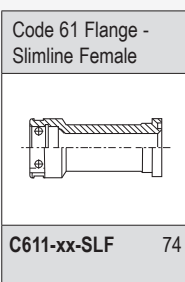
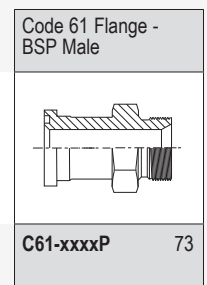
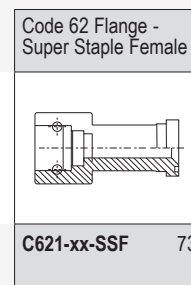
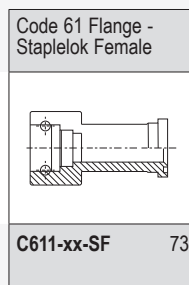
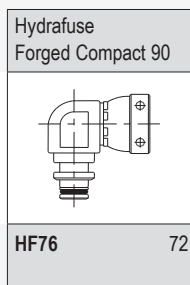
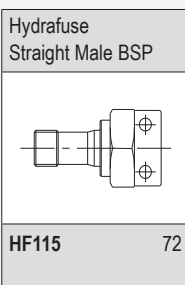
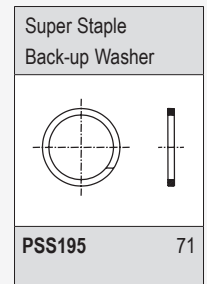
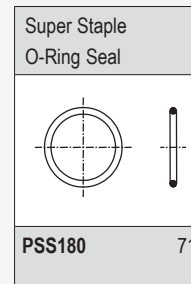
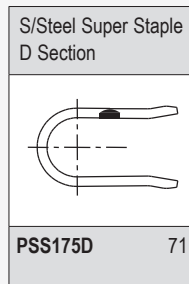
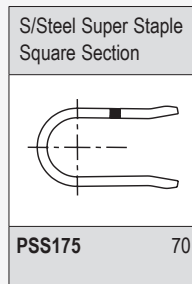
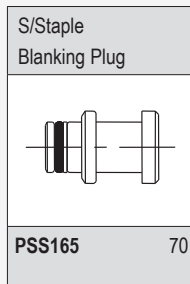
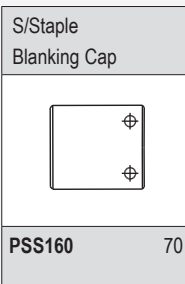
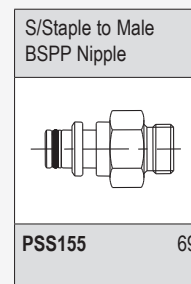
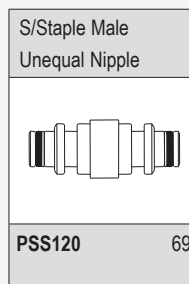
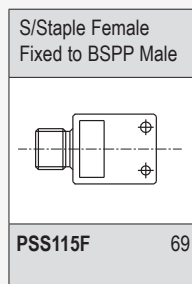
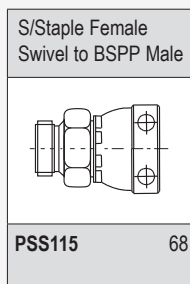
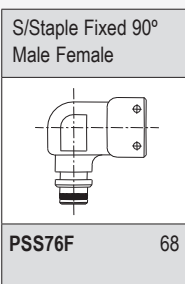
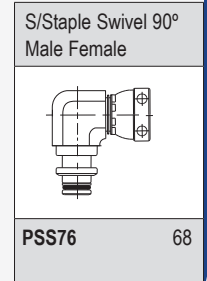
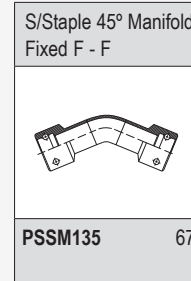
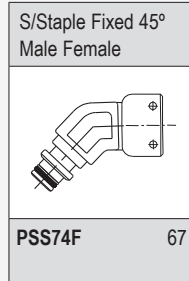
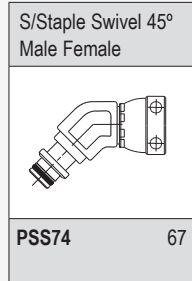
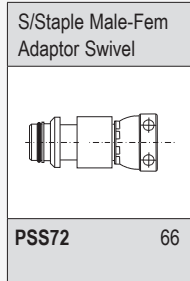
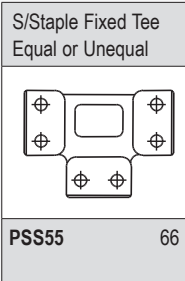
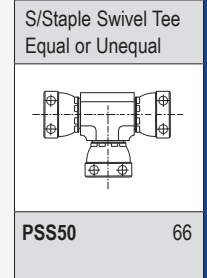
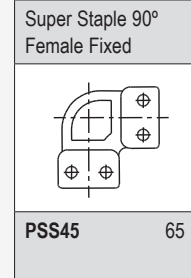
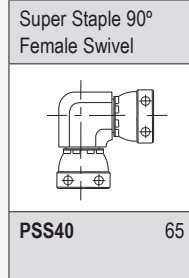
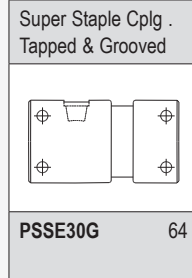
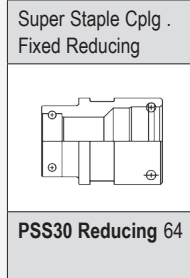
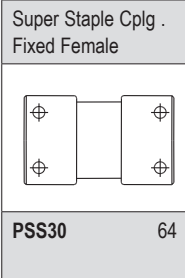
SUPER STAPLE SEAL ONE PIECE - YELLOW

(Replaces 2 Piece O-Ring & Backup Seal)



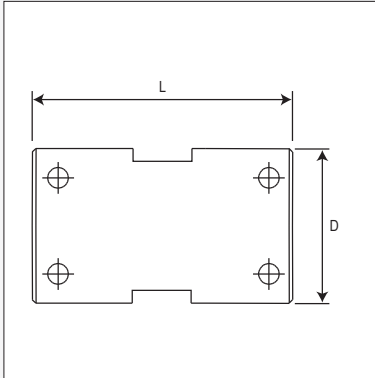
Product Code	Nominal ID			Dimensions mm			
	Side A			ID	d		
	Dash	Inch	DN				
PS200-25	16	1"	25	26.5	2.9		
PS200-32	20	1.1/4"	32	33.5	2.9		
PS200-40	24	1.1/2"	40	41.5	4.2		
PS200-50	32	2"	50	50.5	4.2		

Material: Thermoplastic Polyurethane **Temperature:** -25° C to +110° C
Colour: Yellow **Impulse Cycles:** 1,000,000 minimum



PSS30 & PSS30- XXG

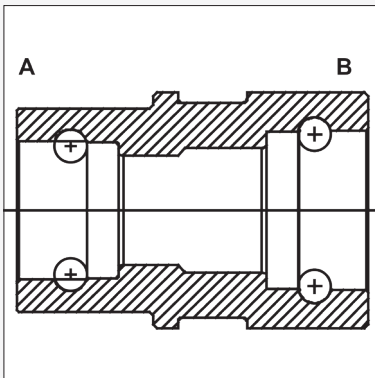
SUPER STAPLE STRAIGHT FEMALE FIXED COUPLING



Product Code	Nominal Size			Dimensions mm	
	Dash	Inch	DN	L	D
PSS30-13	8	1/2"	12	69	38
PSS30-20	12	3/4"	20	74	45
PSS30-25	16	1"	25	104	60
PSS30-32	20	1.1/4"	32	117	70
PSS30-40	24	1.1/2"	40	117	80
PSS30-50	32	2"	50	117	90
PSS30-50G	32	2"	50	140	95

PSS30

SUPER STAPLE STRAIGHT REDUCING COUPLING

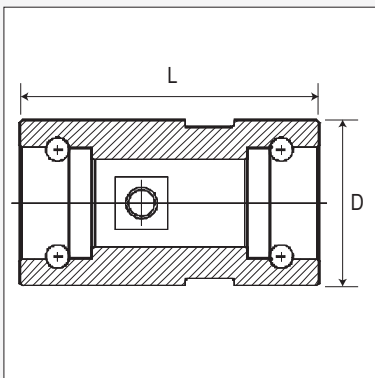


Product Code	End A			End B			Dimensions mm		
	Dash	Inch	DN	Dash	Inch	DN	Lgth	Dia	Retaining Groove
PSS30-40-25	24	1.1/2"	40	16	1"	25	117	80	†
PSS30-50-25	32	2"	50	16	1"	25	117	90	†
PSS30-50-40	32	2"	50	24	1.1/2"	40	117	90	†

† The retaining groove around the coupling circumference allows fast installation / removal of the adaptor using a bolted key arrangement. These fittings form part of a total bulkhead design package, and are made to order. Please contact Pirtek for details

PSSE30G(P)

SUPER STAPLE STRAIGHT BSPP TAPPED COUPLING

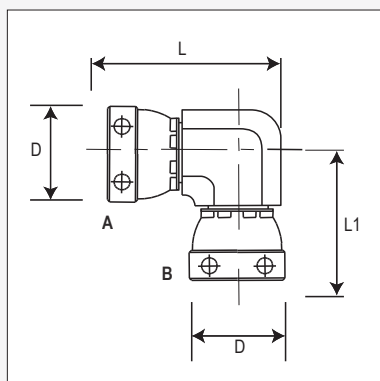


Product Code	Nominal Size			Threaded Port	Dimensions mm	
	Dash	Inch	DN	BSPP	L	D
PSSE30G-25-06P	16	1"	25	G3/8 - 19		60
PSSE30G-32-06P	20	1.1/4"	32	G3/8 - 19		70
PSSE30G-40-06P	24	1.1/2"	40	G3/8 - 19		80
PSSE30G-50-06P	32	2"	50	G3/8 - 19		90
PSSE30G-50-12P	32	2"	50	G3/4 - 14		90

The retaining groove around the coupling circumference allows fast installation / removal of the adaptor using a bolted key arrangement. These fittings form part of a total bulkhead design package, and are made to order. Please contact Pirtek for details

PSS40

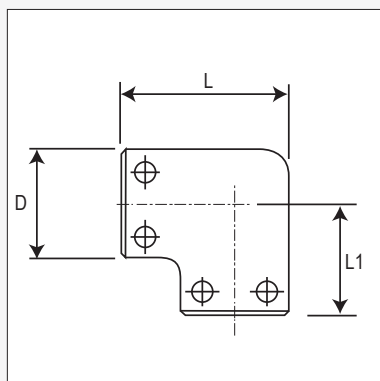
SUPER STAPLE 90° ELBOW SWIVEL FEMALE COUPLING



Product Code	Nominal Size						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	L1	D
PSS40-20	12	3/4"	20	12	3/4"	20	100	60	45

PSS45

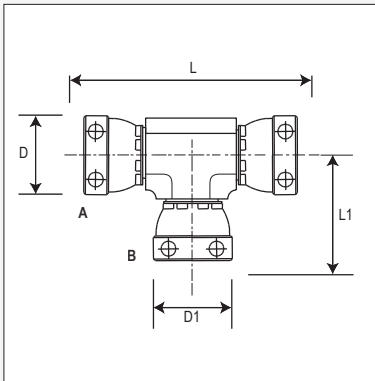
SUPER STAPLE 90° ELBOW FIXED FEMALE COUPLING



Product Code	Nominal Size			Dimensions mm		
	Dash	Inch	DN	L	L1	D
PSS45-25	16	1"	25	110	60	45
PSS45-32	20	1.1/4"	32	136	88	90
PSS45-40	24	1.1/2"	40	125	81	88
PSS45-50	32	2"	50	136	90	97

PSS50

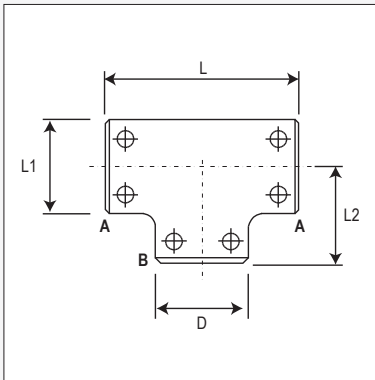
SUPER STAPLE SWIVEL TEE



Product Code	Nominal Size						Dimensions mm			
	Side A			Side B						
	Dash	Inch	DN	Dash	inch	DN	L	L1	D	D1
PSS50-13	8	1/2"	12	8	1/2"	12	120	55	38	38
PSS50-20	12	3/4"	20	12	3/4"	20	130	60	45	45

PSS55

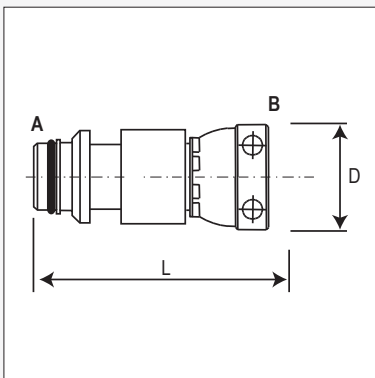
SUPER STAPLE FIXED TEE



Product Code	Nominal Size						Dimensions mm			
	Side A			Side B						
	Dash	Inch	DN	Dash	inch	DN	L	L1	L2	D
PSS55-32	20	1.1/4"	32	20	1.1/4"	32	155	70	78	70
PSS55-40	24	1.1/2"	40	24	1.1/2"	40	165	80	78	80
PSS55-50	32	2"	50	32	2"	50	175	90	88	90

PSS72F

SUPER STAPLE - FIXED MALE-FEMALE COUPLING

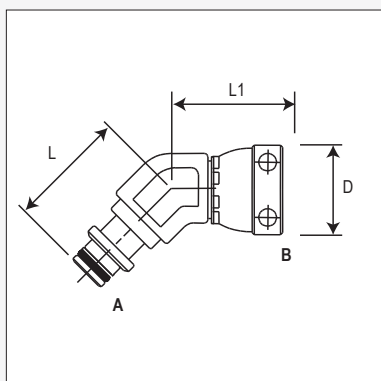


Product Code	Nominal Size						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	D	
PSS72F-40-25	24	1.1/2"	40	16	1"	25	120	60	

PSS74

SUPER STAPLE

45° ELBOW M-F

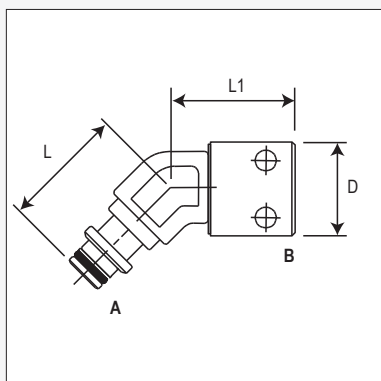


Product Code	Nominal Size						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	L1	D
PSS74-20	12	3/4"	20	12	3/4"	20	52	53	45

PSS74F

SUPER STAPLE

45° ELBOW M-F FIXED

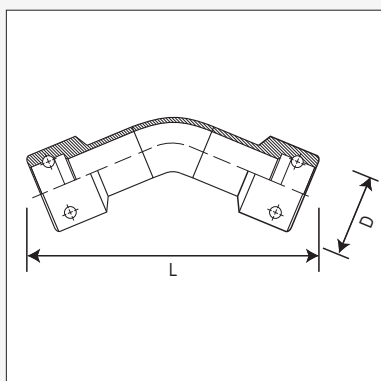


Product Code	Nominal Size						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	L1	D
PSS74F-40	24	1.1/2"	40	24	1.1/2"	40			

PSSM135

SUPER STAPLE

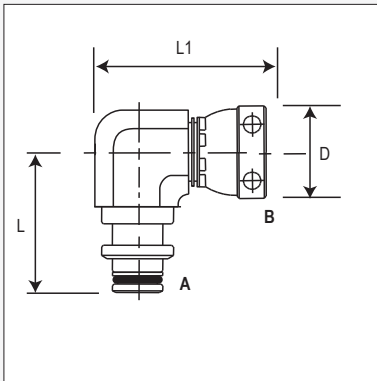
45° ELBOW F-F



Product Code	Nominal Size						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	D	
PSSM135-25	16	1"	25	16	1"	25	314	60	
PSSM135-32	20	1.1/4"	32	20	1.1/4"	32	314	70	
PSSM135-50	32	2"	50	32	2"	50	314	90	

PSS76

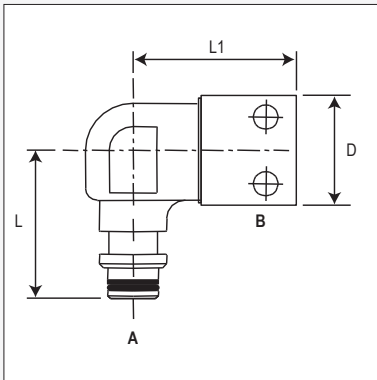
SUPER STAPLE 90° ELBOW M-F



Product Code	Nominal Size						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	L1	D
PSS76-13	8	1/2"	12	8	1/2"	12			
PSS76-20	12	3/4"	20	12	3/4"	20	85	65	45
PSS76-25	16	1"	25	16	1"	25	83	108	60

PSS76F

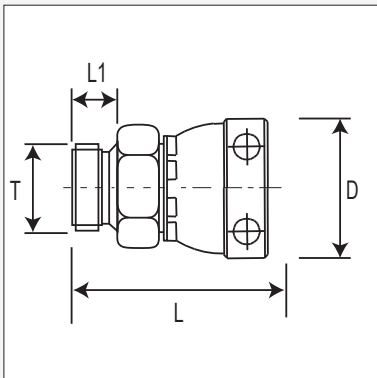
SUPER STAPLE 90° ELBOW M-F FIXED



Product Code	Nominal Size						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	L1	D
PSS76F-25	16	1"	25	16	1"	25	85	72	60
PSS76F-32	20	1.1/4"	32	20	1.1/4"	32	101	81	77
PSS76F-40	24	1.1/2"	40	24	1.1/2"	40	107	82	86
PSS76F-50	32	2"	50	32	2"	50			95

PSS115

SUPER STAPLE SWIVEL FEMALE - BSPP



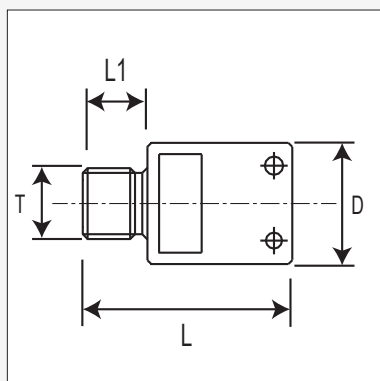
Product Code	Seal Required	Nominal Size			BSPP Thread	Dimensions mm			
		Staple Female							
		Dash	Inch	DN	T	L	L1	D	AF
PSS115-20	Z-20	12	3/4"	20	3/4"	59	14	45	36
PSS115-25	Z-25	16	1"	25	1"	73	17	60	46

These fittings require a bonded seal that needs to be ordered separately (Pirtek 'Z' Series)

PSS115F

SUPER STAPLE

FIXED FEMALE - BSPP

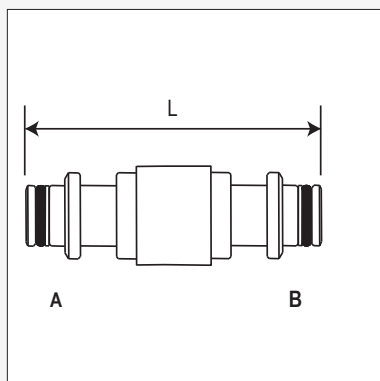


Product Code	Seal Required	Nominal Size			BSPP Thread	Dimensions mm			
		Staple Female				L	L1	D	AF
		Dash	Inch	DN					
PSS115F-32	Z-20	20	1.1/4"	32	1.1/4"	91	19	70	60
PSS115F-40	Z-24	24	1.1/2"	40	1.1/2"	100	19	83	70
PSS115F-50	Z-32	32	2"	50	2"	112	19	95	85

PSS120

SUPER STAPLE NIPPLE

EQUAL OR UNEQUAL

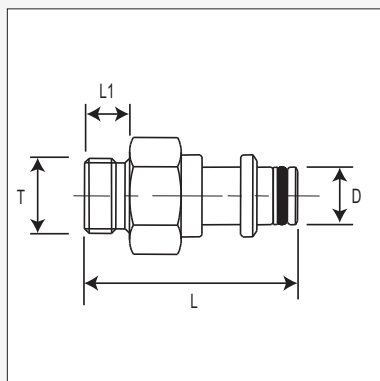


Product Code	Nominal Size						Dimensions mm	
	Side A			Side B			L	
	Dash	Inch	DN	Dash	Inch	DN		
PSS120-13	8	1/2"	12	8	1/2"	12	70	
PSS120-20	12	3/4"	20	12	3/4"	20	81	
PSS120-20-10	12	3/4"	20	6	3/8"	10		
PSS120-25	16	1"	25	16	1"	25	109	
PSS120-32	20	1.1/4"	32	20	1.1/4"	32	110	
PSS120-40	24	1.1/2"	40	24	1.1/2"	40	122	
PSS120-40-32	24	1.1/2"	40	20	1.1/4"	32	120	
PSS120-50	32	2"	50	32	2"	50	124	

PSS155

SUPER STAPLE

MALE - BSPP



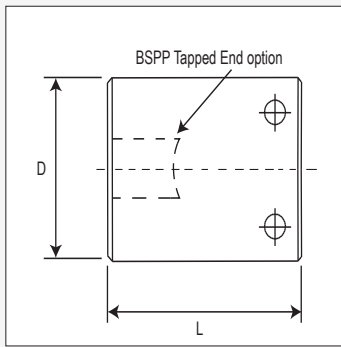
Product Code	Seal Required	Nominal Size			BSPP Thread	Dimensions mm			
		Staplelok				L	L1	D	AF
		Dash	Inch	DN					
PSS155-20-12	Z-12	12	3/4"	20	3/4"	68	14	21.9	32
PSS155-25-16	Z-16	16	1"	25	1"	87	17	27	46
PSS155-32-20	Z-20	20	1.1/4"	32	1.1/4"	90	19	37.8	50
PSS155-40-24	Z-24	24	1.1/2"	40	1.1/2"	98	20	43.9	60
PSS155-50-32	Z-32	32	2"	50	2"	105	23	49.9	70

These fittings require a bonded seal that needs to be ordered separately (Pirtek 'Z' Series)

PSS160

SUPER STAPLE

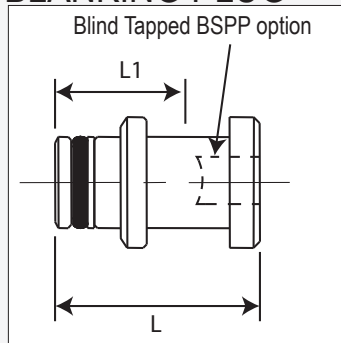
BLANKING CAP



PSS165

SUPER STAPLE

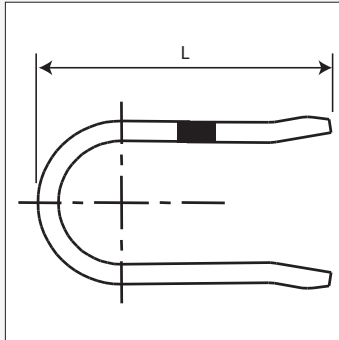
BLANKING PLUG



PSS175

SUPER STAPLE - STAINLESS STEEL

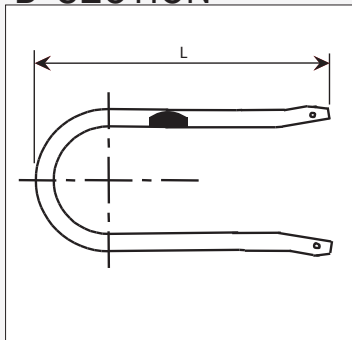
SQUARE SECTION



PSS175D

SUPER STAPLE - STAINLESS STEEL

'D' SECTION



Product Code	Nominal ID			Dimensions mm			
	Staplelok			L	D		
	Dash	Inch	DN				
PSS160-13	8	1/2"	12	70	38		
PSS160-20	12	3/4"	20	75	45		
PSS160-25	16	1"	25	90	60		
PSS160-32	20	1.1/4"	32	90	70		
PSS160-40	24	1.1/2"	40	100	80		
PSS160-50	32	2"	50	112	90		

BSPP Tapped Port available for all sizes upon request. Please specify when ordering

Product Code	Nominal ID			Dimensions mm			
	Staplelok			L	L1	D	
	Dash	Inch	DN				
PSS165-13	8	1/2"	12	40	32	15.9	
PSS165-20	12	3/4"	20	45	36	21.9	
PSS165-25	16	1"	25	62	51	27	
PSS165-32	20	1.1/4"	32	64	51	37.8	
PSS165-40	24	1.1/2"	40	70	57	43.9	
PSS165-50	32	2"	50	74	62	49.9	

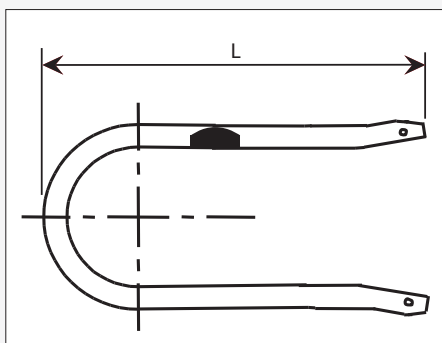
BSPP Tapped Port available for all sizes upon request. Please specify when ordering

Product Code	Nominal ID			Dimensions mm			
	Staplelok			L	Staple Width		
	Dash	Inch	DN				
PSS175-13	8	1/2"	12	54	8		
PSS175-20	12	3/4"	20	56	8		

Product Code	Nominal ID			Dimensions mm			
	Staplelok			L	Staple Width		
	Dash	Inch	DN				
PSS175D-13	08	1/2"	12	54	8		
PSS175D-20	12	3/4"	20	56	8		
PSS175D-25	16	1"	25	75	12		
PSS175D-32	20	1.1/4"	32	78	12		
PSS175D-40	24	1.1/2"	40	87	12		
PSS175D-50	32	2"	50	97	12		

PSS176D

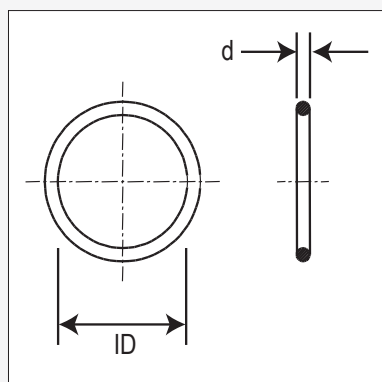
SUPER STAPLE - STAINLESS STEEL
'D' SECTION EXTENDED & DRILLED



Product Code	Nominal ID			Dimensions mm			
	Side A						
	Dash	Inch	DN	L	Staple Width		
PSS176D-20L-61	12	3/4"	20	61	8		
PSS176D-25L-90	16	1"	25	90	8		
PSS176D-25L-115	16	1"	25	115	8		
PSS176D-50L-115	32	2"	50	115	12		
PSS176D-50L-130	32	2"	50	130	12		

PSS180

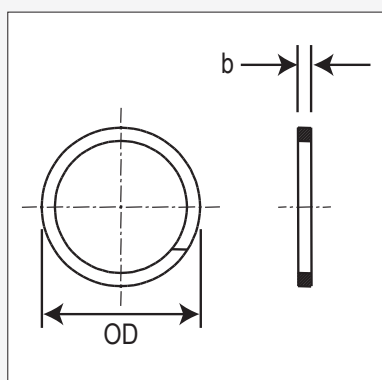
SUPER STAPLE O-RING SEAL



Product Code	Nominal Size			Dimensions mm			
	Staplelok						
	Dash	Inch	DN	ID	d		
PSS180-13	8	1/2"	12	12	2.5		
PSS180-20	12	3/4"	20	18	2.5		
PSS180-25	16	1"	25	25	2.5		
PSS180-32	20	1.1/4"	32	33	2.5		
PSS180-40	24	1.1/2"	40	38	3		
PSS180-50	32	2"	50	44	3		

PSS195

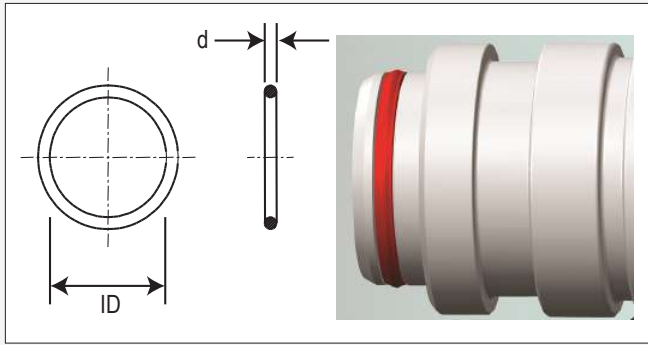
SUPER STAPLE BACK-UP WASHER



Product Code	Nominal Size			Dimensions mm			
	Staplelok						
	Dash	Inch	DN	OD	b		
PSS195-13	8	1/2"	12	16	0.8		
PSS195-20	12	3/4"	20	22	0.8		
PSS195-25	16	1"	25	31	0.8		
PSS195-32	20	1.1/4"	32	38	0.8		
PSS195-40	24	1.1/2"	40	44	1.5		
PSS195-50	32	2"	50	50	1.5		

PSS200

SUPER STAPLE SEAL ONE PIECE - RED
(Replaces 2 Piece O-Ring & Backup Seal)

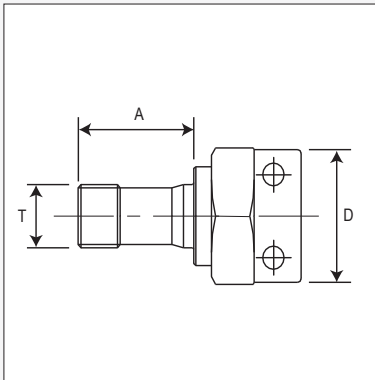


Product Code	Nominal ID			Dimensions mm			
	Side A						
	Dash	Inch	DN	ID	d		
PSS200-13	08	1/2"	12	11.5	2.9		
PSS200-20	12	3/4"	20	17.5	2.9		
PSS200-25	16	1"	25	26.5	2.9		
PSS200-32	20	1.1/4"	32	33.5	2.9		
PSS200-40	24	1.1/2"	40	38.5	4.2		
PSS200-50	32	2"	50	44.5	4.2		

Material: Thermoplastic Polyurethane **Temperature:** -25° C to 110° C
Colour: Red **Impulse Cycles:** 1,000,000 minimum

HF115

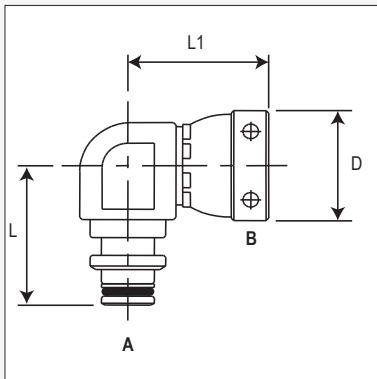
HYDRAFUSE ADAPTOR
STRAIGHT MALE BSPP



Product Code	Nominal Size			Thread T	Dimensions mm		
	Hydrafuse			BSPP			
	Dash	Inch	DN	Inch	A	D	
HF115-10-06-L	6	3/8"	10	3/8"-19	33	32	
HF115-10-06-M	6	3/8"	10	3/8"-19	23	32	
HF115-10-06-S	6	3/8"	10	3/8"-19	12	32	

HF76

HYDRAFUSE ADAPTOR
FORGED COMPACT ELBOW M - F



Product Code	Nominal Size						Dimensions mm		
	Hydrafuse Female			Hydrafuse Male					
	Dash	Inch	DN	Dash	Inch	DN	L	L1	D
HF76-10	6	3/8"	10	6	3/8"	10	36	48	33

DIFFUSER

SAFETY DEVICE FOR PRESSURE BLEED

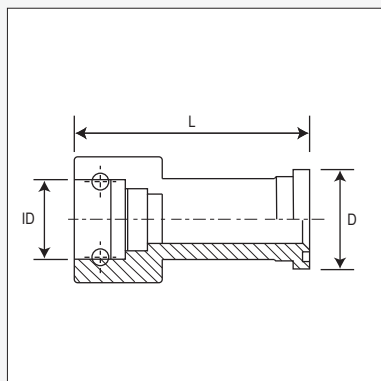


Product Code	Nominal Size							
	Staplelok Female							
	Dash	Inch	DN					
DIFFUSER-10	6	3/8"	10					

C611-xx-SF

FLANGE - STAPLE ADAPTOR

CODE 61 - STANDARD FEMALE



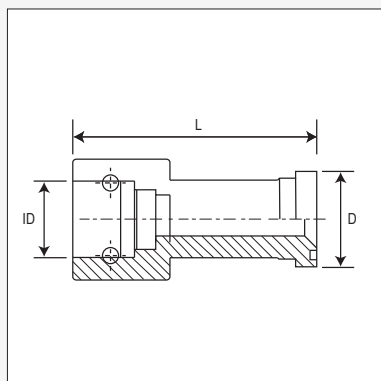
Product Code	Nominal Size						Dimensions mm		
	Code 61 Flange			Staple Female					
	Dash	Inch	DN	Dash	Inch	DN	L	ID	D
C611-32-SF	32	2"	50	32	2"	50		64	71.4
C611-40-SF	40	2.1/2"	62	40	2.1/2"	62			84.1

Step sizes available on request

C621-xx-SSF

FLANGE - SUPER STAPLE ADAPTOR

CODE 62 - SUPER STAPLE FEMALE

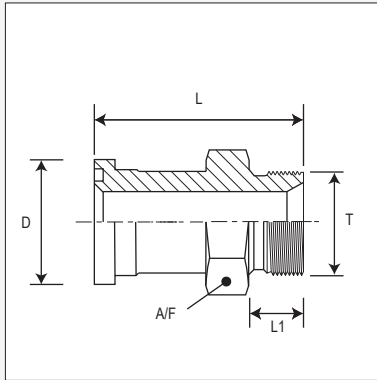


Product Code	Nominal Size						Dimensions mm		
	Code 62 Flange			Staple Female					
	Dash	Inch	DN	Dash	Inch	DN	L	ID	D
C621-20-SSF	20	1 1/4"	32	20	1 1/4"	32			
C621-24-SSF	24	1 1/2"	38	24	1 1/2"	40			
C621-32-SSF	32	2"	50	32	2"	50		65.4	32

Step sizes available on request

C61-xxxxP

FLANGE - BSPP ADAPTOR
CODE 61 - STRAIGHT MALE

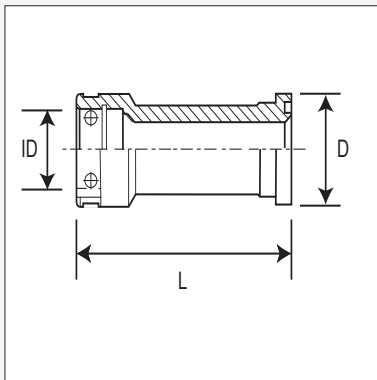


Product Code	Nominal Size			Thread T	Dimensions mm			
	Flange			BSPP				
	Dash	Inch	DN	Inch	L	D	A/F	L1
C61-5032P	32	2"	50	2"-11		71.4		
C61-6340P	40	2.1/2"	63	2.1/2"-11	126	84.1	97.2	30

'Z' Series Bonded Seal required to seal the BSPP fitting (available separately)

C611-xx-SLF

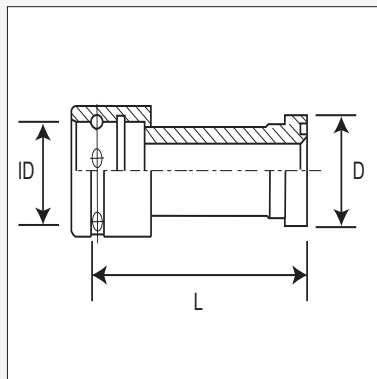
FLANGE - SLIMLINE® ADAPTOR
CODE 61 - SLIMLINE® FEMALE



Product Code	Nominal OD						Dimensions mm		
	Code 61 Flange			Slimline Female					
	Dash	Inch	DN	Dash	Inch	DN	L	ID	D
C611-32-SLF	32	2"	50	32	2"	50			
C611-40-SLF	40	2.1/2"	62	40	2.1/2"	62			

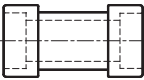
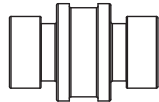
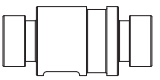
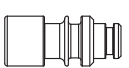
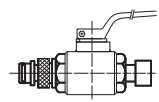
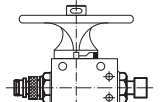
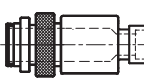
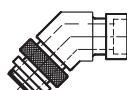
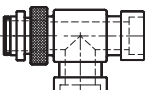
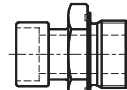
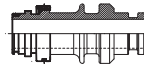
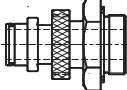
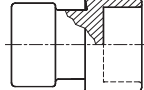
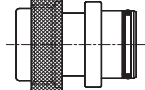
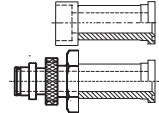
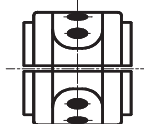
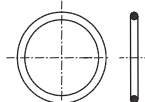
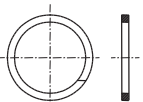
C611-xx-CLF

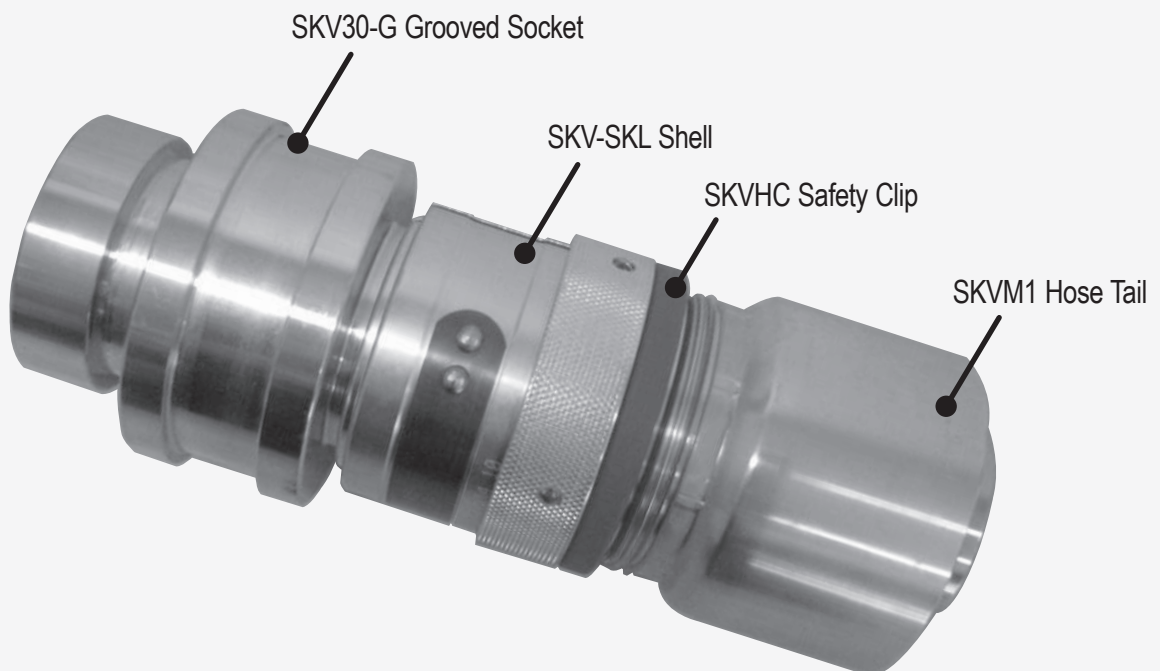
FLANGE - CLIPLINE® ADAPTOR
CODE 61 - CLIPLINE® FEMALE



Product Code	Nominal OD						Dimensions mm		
	Code 61 Flange			Clipline Female					
	Dash	Inch	DN	Dash	Inch	DN	L	ID	D
C611-40-CLF	40	2.1/2"	62	40	2.1/2"	62			

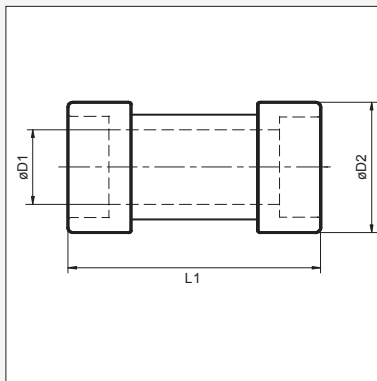
PRANGE SKV ADAPTORS

SKV Fem Socket  SKV30 76 SKVE30 76	SKV Grooved Socket  SKV30-G 76	SKV Grooved Socket Tapped BSPP  SKVE30G-16P 77 SKVE30G-16T 76	SKV Socket to Staplelok Male  SKV30-SM 77	SKV M-F Ball Valve Padlock Type  SKV31-PL 77	SKV M-F Ball Valve Red Handle Type  SKV31-6RD 77
SKV Straight Coupling Male - Fixed Female  SKV72F 78	SKV 45° Elbow Male - Fixed Female  SKV74F 78	SKV 90° Elbow Male - Fixed Female  SKV76F 78	SKV Tee Male - Fem. - Fem.  SKV78F 79	SKV Fem x BSPP M  SKV115 79	SKV Joining Nipple  SKV120 79
SKV Male x Staple M Nipple  SKV120SM 80	SKV Male x BSPP M Nipple  SKV155 80	SKV Blanking Cap  SKV160 80	SKV Blanking Plug  SKV165 81	SKV to SAE Flange Female - Code Flange  SKVF 81 SKVM 81	SKV Manifold 135° Swept F-F or M-M  SKVM135 81 SKVM-M 81
SKV Shell  SKV-SHL 82	SKV Adaptor Clip  SKVAC 82	SKV Hose Tail Clip  SKVHC 82	SKV O-Ring  SKV180 82	SKV Back-Up Washer  SKV195 82	



SKV30

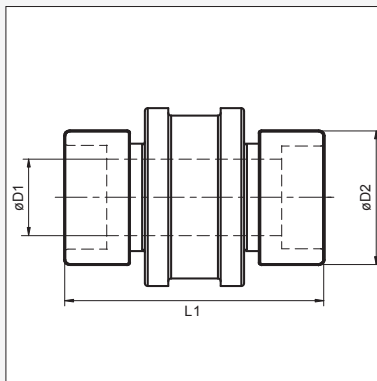
PRANGE SKV FEMALE SOCKET



Product Code	Nominal Size						Dimensions mm		
	SKV D1			SKV D2					
	Dash	Inch	DN	Dash	Inch	DN	D1	D2	L1
SKV30-25	25	1"	25	25	1"	25	19	33	
SKV30-32	32	1.1/4"	32	32	1.1/4"	32	24	39.8	
SKV30-40	40	1.1/2"	40	40	1.1/2"	40	32	53	80
SKV30-50	50	2"	50	50	2"	50	44	65	
SKV30-63	63	2.1/2"	63	63	2.1/2"	63	55	75	

SKV30-G

PRANGE SKV FEMALE SOCKET GROOVED

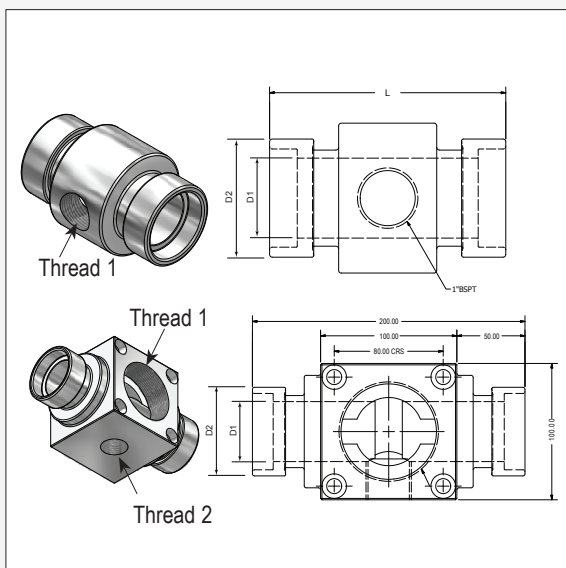


Product Code	Nominal Size						Dimensions mm		
	SKV D1			SKV D2					
	Dash	Inch	DN	Dash	Inch	DN	D1	D2	L1
SKV30-25G	25	1"	25	25	1"	25	19	33	110
SKV30-32G	32	1.1/4"	32	32	1.1/4"	32	24	39.8	
SKV30-40G	40	1.1/2"	40	40	1.1/2"	40	32	53	128
SKV30-50-40G	50	2"	50	40	1.1/2"	40	44/32	65/53	128
SKV30-50G	50	2"	50	50	2"	50	44	65	130
SKV30-63G	63	2.1/2"	63	63	2.1/2"	63	55	75	135

This arrangement is designed for manifold mounting in conjunction with a special keyed arrangement

SKVE30

PRANGE SKV EXTENDED FEMALE SOCKET

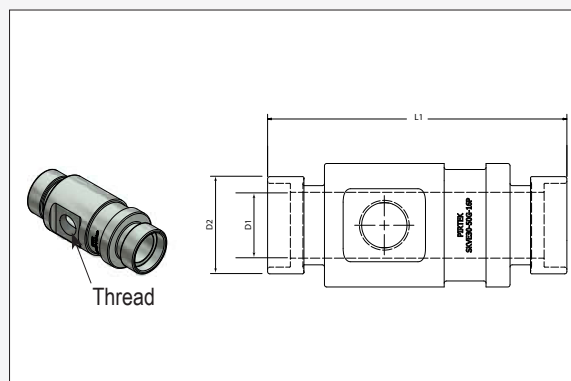


Product Code	Nominal Size						Dimensions mm			BSPT Threads	
	SKV D1			SKV D2							
	Dash	Inch	DN	Dash	Inch	DN	D1	D2	L	1	2
SKVE30-50-16T	50	2"	50	50	2"	50	44	65	130	1"-11	-
SKVE30-63-16T	63	2½"	63	63	2½"	63	55	75		1"-11	-
SKVE30-63-40T-16T	63	2½"	63	63	2½"	63	55	75	200	2½"-11	1"-11
SQUARE BLOCK STYLE FOR MONORAIL MOUNTING											
SKVE30-50-40T-16T	50	2"	50	50	2"	50	44	65	200	2½"-11	1"-11

The square block design with 4 mounting holes finds application on monorails. Mounting holes are 11mm dia at 80 mm square centres

SKVE30-G

PRANGE SKV FEMALE SOCKET
GROOVED AND TAPPED

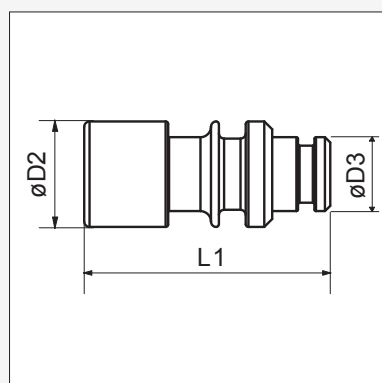


Product Code	Nominal Size						Dimensions mm		
	SKV D1			SKV D2					
	Dash	Inch	DN	Dash	Inch	DN	Thread	D1 / D2	L1
SKVE30-50G-16P	50	2"	50	50	2"	50	1" BSPP	44/65	200
SKVE30-50G-20P	50	2"	50	50	2"	50	1¼" BSPP	44/65	200
SKVE30-63G-16P	63	2.1/2"	63	63	2.1/2"	63	1" BSPP	55/75	210

This arrangement is designed for manifold mounting in conjunction with a special keyed arrangement

SKV30-SM

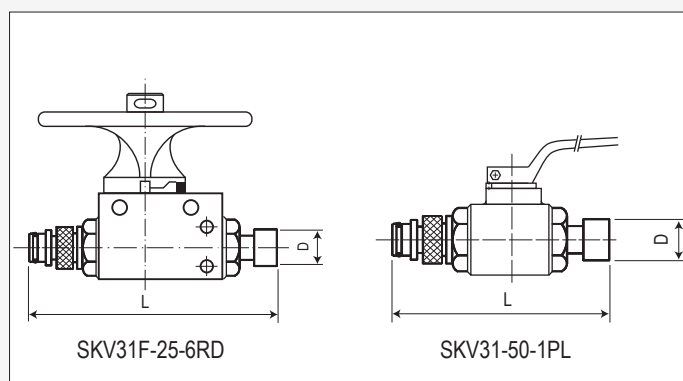
PRANGE SKV SOCKET TO STAPLELOK MALE
ADAPTOR



Product Code	Nominal Size						Dimensions mm		
	SKV			Staplelok					
	Dash	Inch	DN	Dash	Inch	DN	D2	D3	L1
SKV30-25-SM-25	25	1"	25	25	1"	25	33	31	65

SKV31

HIGH PRESSURE ISOLATION VALVE
MALE - FEMALE LOCKABLE



Product Code	Nominal Bore			Pressure Rating bar		Dimensions mm	
	Dash	Inch	DN	Working	Burst	L	D
SKV31F-25-6RD	25	1"	25	400	1000	151	33
SKV31-50-1PL	50	2"	50	200	400	241	65

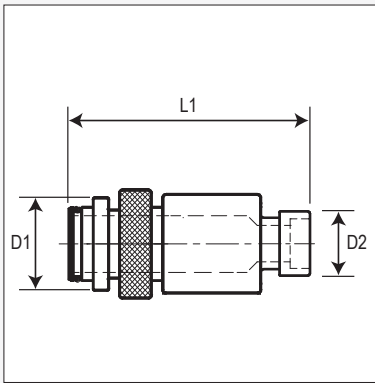


This page is part of a complete catalogue containing technical and safety data.
All data must be reviewed when selecting a product.
Pirtek reserve the right to change technical specifications without notice

SKV72F

PRANGE SKV

MALE - FEMALE STRAIGHT ADAPTOR

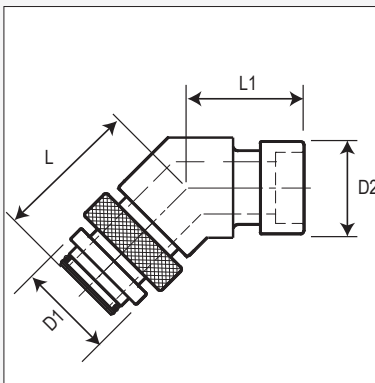


Product Code	Nominal Size						Dimensions mm		
	SKV Male			SKV Female					
	Dash	Inch	DN	Dash	Inch	DN	L1	D1	D2
SKV72F-25-20	25	1"	25	20	3/4"	20	72	33	33
SKV72F-50-40	50	2"	50	40	1.1/2"	40	104	65	65
SKV72F-63-50	63	2.1/2"	63	50	2"	50	105	75	75

SKV74F

PRANGE SKV

MALE - FEMALE 45° ELBOW

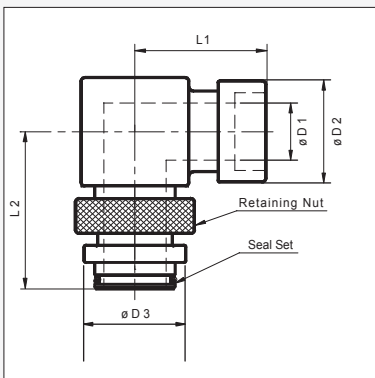


Product Code	Nominal Size						Dimensions mm		
	SKV End A (Male)			SKV End B (Female)					
	Dash	Inch	DN	Dash	Inch	DN	L	L1	D1/D2
SKV74F-25	25	1"	25	25	1"	25	63	50	33
SKV74F-32	32	1.1/4"	32	32	1.1/4"	32	77	65	39.8
SKV74F-40	40	1.1/2"	40	40	1.1/2"	40	83	68	53
SKV74F-50	50	2"	50	50	2"	50	78	71	65
SKV74F-63	63	2.1/2"	63	63	2.1/2"	63			75

SKV76F

PRANGE SKV

MALE - FEMALE 90° ELBOW

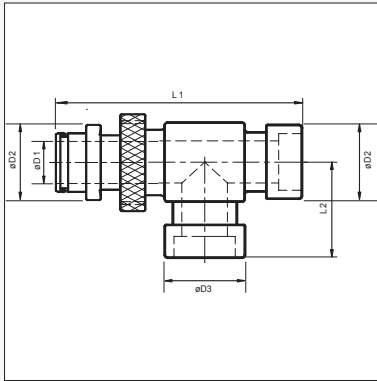


Product Code	Nominal Size						Dimensions mm				
	SKV Male			SKV Female							
	Dash	Inch	DN	Dash	Inch	DN	L1	L2	D1	D2	D3
SKV76F-25	25	1"	25	25	1"	25	50	63	19	33	33
SKV76F-32	32	1.1/4"	32	32	1.1/4"	32	63	75	24	39.8	39.8
SKV76F-40	40	1.1/2"	40	40	1.1/2"	40	75	95	32	53	53
SKV76F-50	50	2"	50	50	2"	50	82	100	44	65	65
SKV76F-63	63	2.1/2"	63	63	2.1/2"	63	84	101	55	75	75

SKV78F

PRANGE SKV TEE

MALE - FEMALE- FEMALE

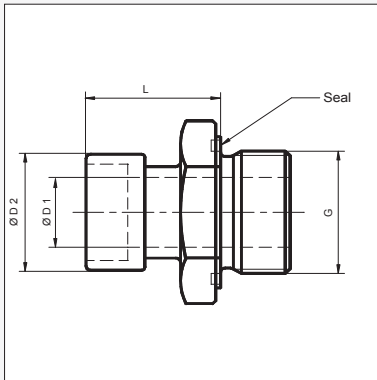


Product Code	Nominal Size										
	SKV Male / Female (Run)			SKV Female (Branch)			Dimensions mm				
	Dash	Inch	DN	Dash	Inch	DN	D1	D2	D3	L1	L2
SKV78F-25	25	1"	25	25	1"	25	19	33	33	115	51
SKV78F-25-25-10	25	1"	25	10	3/8"	10	19	36	20	103	44

SKV115

PRANGE SKV STRAIGHT ADAPTOR

SKV FEMALE x BSPP MALE

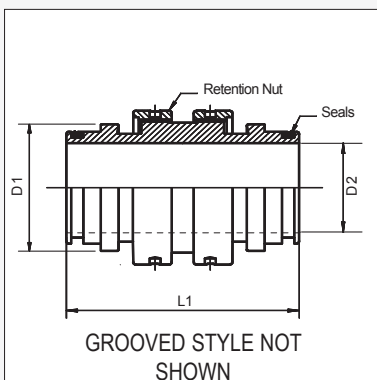


Product Code	Nominal ID			Thread G	Dimensions mm		
	SKV			BSPP			
	Dash	Inch	DN	Inch	D1	D2	L
SKV115-25-16	25	1"	25	1" - 11	19	33	44
SKV115-32-16	32	1.1/4"	32	1" - 11	24	39.8	51
SKV115-40-24	40	1.1/2"	40	1.1/2" - 11	32	53	48
SKV115-50-32	50	2"	50	2" - 11	44	65	54
SKV115-63-40	63	2.1/2"	63	2.1/2" - 11	55	75	59

SKV120 / SKV120G

PRANGE SKV JOINING NIPPLE

INCLUDING GROOVED STYLE

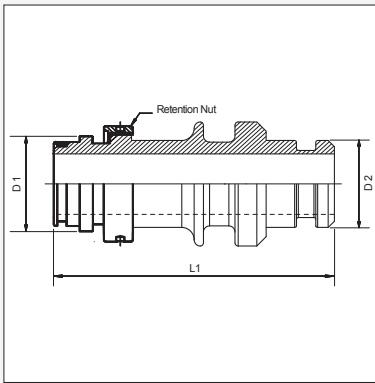


Product Code	Nominal Size						Dimensions mm		
	SKV			SKV					
	Dash	Inch	DN	Dash	Inch	DN	D1	D2	L1
SKV120-25	25	1"	25	25	1"	25	19	33	
SKV120-32	32	1.1/4"	32	32	1.1/4"	32	24	39.8	
SKV120-40	40	1.1/2"	40	40	1.1/2"	40	32	53	
SKV120-50	50	2"	50	50	2"	50	44	65	122
SKV120-63	63	2.1/2"	63	63	2.1/2"	63	55	75	128
SKV120-63G †	63	2.1/2"	63	63	2.1/2"	63	55	75	200

† Grooved Style

SKV120 - SM

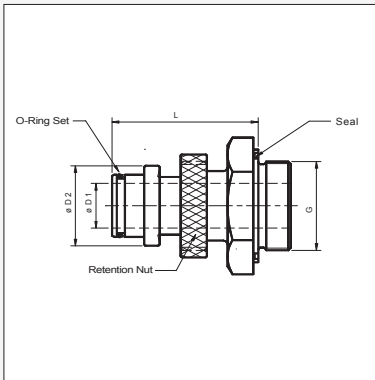
PRANGE SKV MALE TO STAPLELOK MALE
STRAIGHT ADAPTOR



Product Code	Nominal Size						Dimensions mm		
	SKV			Staplelok			D1	D2	L1
	Dash	Inch	DN	Dash	Inch	DN			
SKV120-50-SM-50	50	2"	50	50	2"	50	65	55.9	109

SKV155

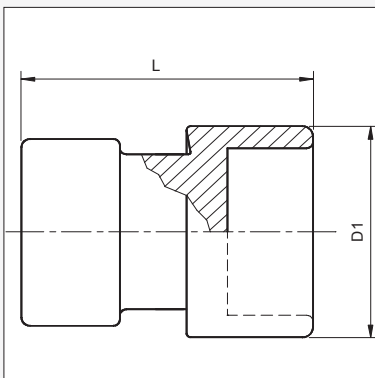
PRANGE SKV STRAIGHT ADAPTOR
SKV MALE x BSPP MALE



Product Code	Nominal ID			Thread G	Dimensions mm		
	SKV			BSPP	D1	D2	L
	Dash	Inch	DN	Inch			
SKV155-25-16	25	1"	25	1" - 11	19	33	57
SKV155-32-20	32	1.1/4"	32	1.1/4" - 11	24	39.8	
SKV155-40-24	40	1.1/2"	40	1.1/2" - 11	32	53	77
SKV155-50-32	50	2"	50	2" - 11	44	65	76
SKV155-63-40	63	2.1/2"	63	2.1/2" - 11	55	75	60

SKV160

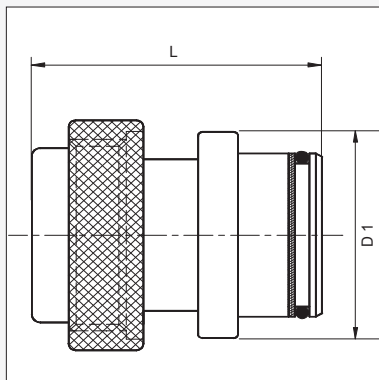
PRANGE SKV BLANKING CAP



Product Code	Nominal Size			Dimensions mm		
	SKV			D1	L	
	Dash	Inch	DN			
SKV160-25	25	1"	25	33	44	
SKV160-32	32	1.1/4"	32	39.8		
SKV160-40	40	1.1/2"	40	53	50	
SKV160-50	50	2"	50	65	50	
SKV160-63	63	2.1/2"	63	75	58	

SKV165

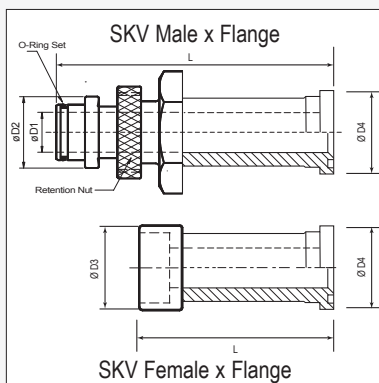
PRANGE SKV BLANKING PLUG



Product Code	Nominal Size			Dimensions mm		
	SKV			D1	L	
	Dash	Inch	DN			
SKV165-25	25	1"	25	33	47	
SKV165-32	32	1.1/4"	32	39.8	54	
SKV165-40	40	1.1/2"	40	53	75	
SKV165-50	50	2"	50	65	72	
SKV165-63	63	2.1/2"	63	75	75	

SKVF / SKVM

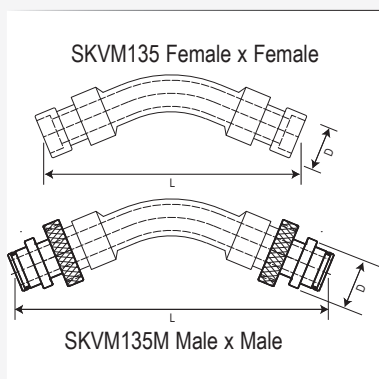
PRANGE SKV FEMALE / MALE x SAE CODE FLANGE



Product Code	Nominal Size						Dimensions mm				
	SKV Female			Code 61 Flange			D1	D2	D3	D4	L
	Dash	Inch	DN	Dash	Inch	DN					
SKVF-25-C611-16	25	1"	25	16	1"	25	20	33	33	44.5	100
SKVF-32-C611-20	63	2.1/2"	63	20	1.1/4"	32	24	39.8	39.8	50.8	120
SKVF-40-C611-24	63	2.1/2"	63	24	1.1/2"	40	30	53	53	60.3	120
SKVF-50-C611-32	50	2"	50	32	2"	50	40	65	65	71.4	120
SKVF-63-C611-40	63	2.1/2"	63	40	2.1/2"	63	50	75	75	84.1	120
	SKV Male			Code 61 Flange							
SKVM-63-C611-40	63	2.1/2"	63	40	2.1/2"	63	55	75		84.1	125

SKVM135 / SKVM135M

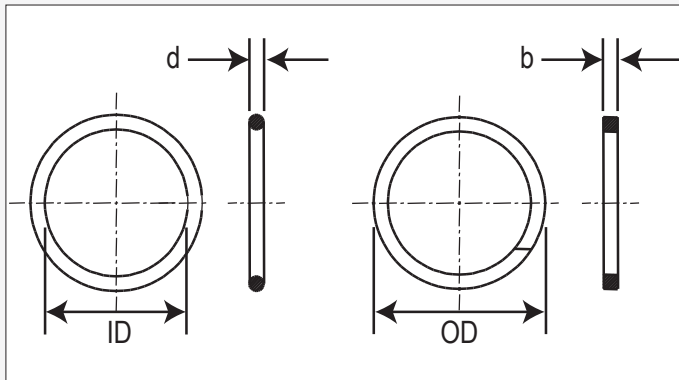
PRANGE SKV MANIFOLDS SKV FEMALE OR SKV MALE



Product Code	Configuration	Nominal ID			Tapped Side Thread	Dimensions mm	
		SKV			BSPT	D	L
		Dash	Inch	DN			
SKVM135-40	F-F	40	1.1/2"	40	-	53	
SKVM135-50	F-F	50	2"	50	-	65	
SKVM135-50-16T	F-F	50	2"	50	1"-11	65	
SKVM135-63	F-F	63	2.1/2"	63	-	75	
SKVM135-63-16T	F-F	63	2.1/2"	63	1"-11	75	
SKVM135M-63	M-M	63	2.1/2"	63	-	75	348

SKV180 / SKV195

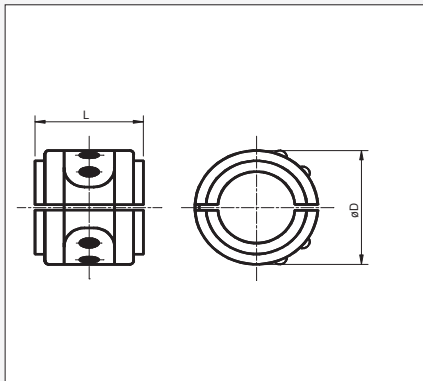
SKV O-RING AND BACK-UP WASHER



Product Code	Nominal ID			Dimensions mm			
	O-Ring Seal			ID	d		
	Dash	Inch	DN				
SKV180-25	25	1"	25	22	2.5		
SKV180-32	32	1.1/4"	32	28	2.5		
SKV180-40	40	1.1/2"	40	38	3		
SKV180-50	50	2"	50	50	3		
SKV180-63	63	2.1/2"	63	60	3		
	Back-Up Washer			OD	b		
	Dash	Inch	DN				
SKV195-25	25	1"	25	27	1.0		
SKV195-32	32	1.1/4"	32	33	1.0		
SKV195-40	40	1.1/2"	40	44	1.5		
SKV195-50	50	2"	50	56	1.5		
SKV195-63	63	2.1/2"	63	66	1.5		

SKV-SHL

PRANGE SKV SHELL

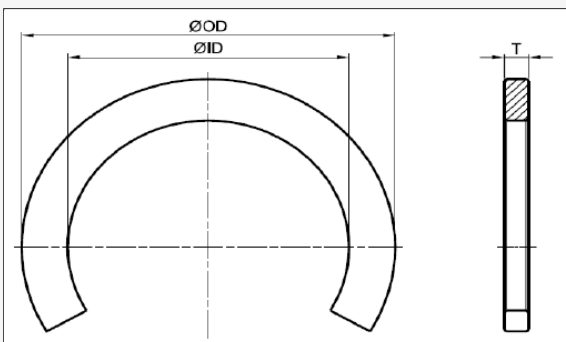


Product Code	Nominal Size			Dimensions mm	
	SKV			L	D
	Dash	Inch	DN		
SKV-SHL-25	25	1"	25	39	40.5
SKV-SHL-32	32	1.1/4"	32	49	48
SKV-SHL-40	40	1.1/2"	40	58	60
SKV-SHL-50	50	2"	50	58	72.5
SKV-SHL-63	63	2.1/2"	63	56	82.5
SKV-SHL-100	100	4"	100	90	137

SKVHC / SKVAC / SSKVC

SKVHC - HOSETAIL CLIPS SKVAC - ADAPTOR CLIPS SSKVC - UNIVERSAL CLIPS

PRANGE SKV HOSETAIL AND ADAPTOR CLIPS - Including UNIVERSAL CLIPS

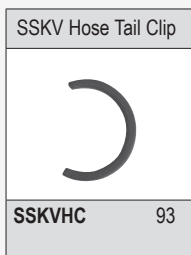
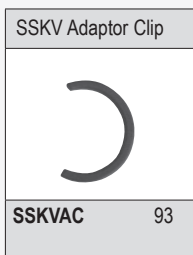
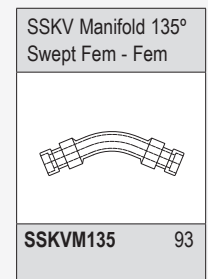
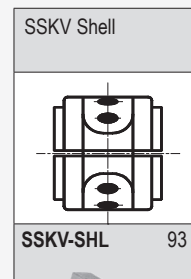
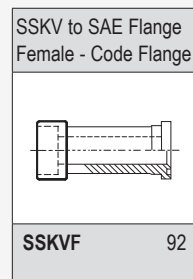
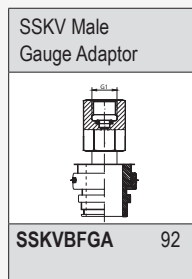
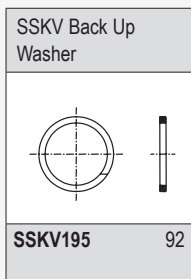
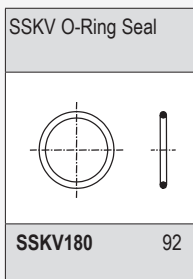
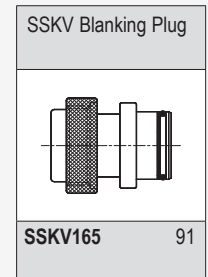
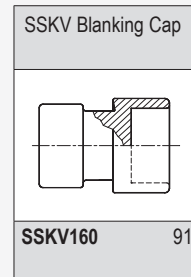
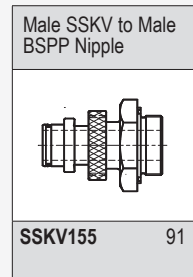
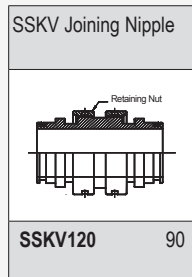
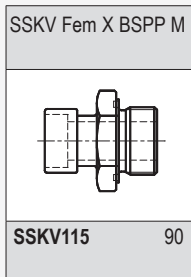
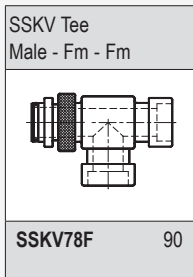
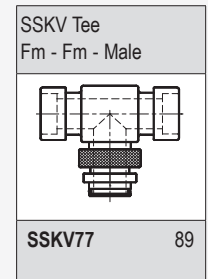
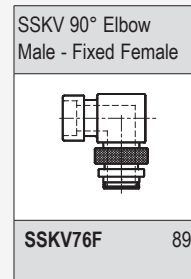
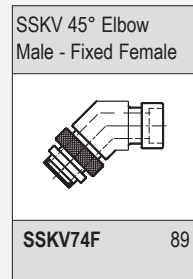
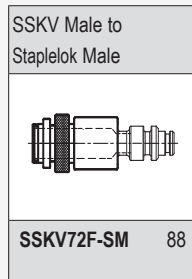
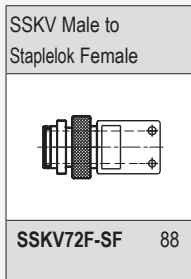
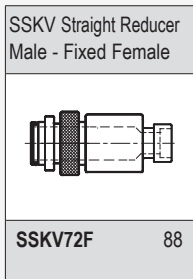
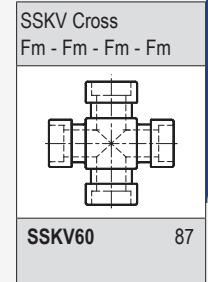
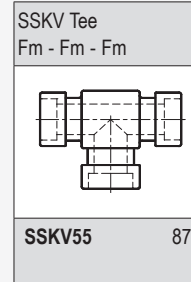
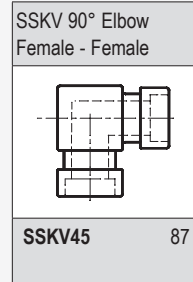
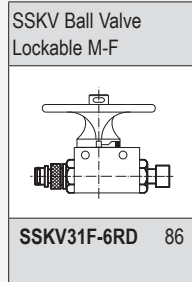
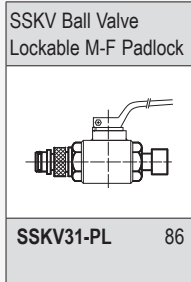
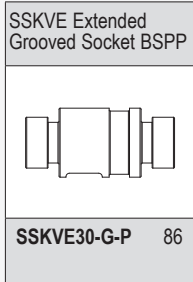
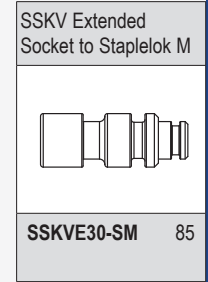
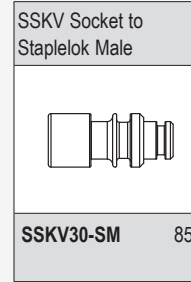
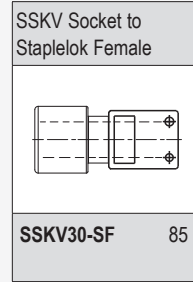
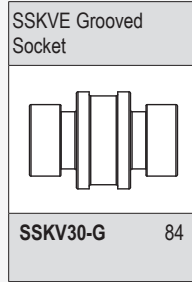
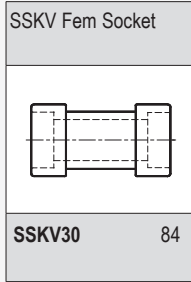
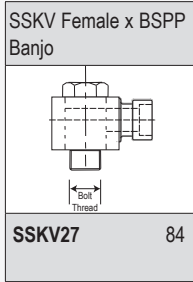


Product Code		Nominal ID			Dimension mm		
		SKV			OD	T	T
Suit SKV Hose Tails	Suit SKV Adaptors	DN	Inch	ID			
SSKVC-25	SSKVC-25	25	1"	34.5	45.0	7.5	6.5
SKVAC-32	SKVAC-32	32	1.1/4"	37.8	49.0	6.0	7.5
SKVHC-40		40	1.1/2"	43.5	60.5	10.0	9.5
	SKVAC-40	40	1.1/2"	54.0	69.0	12.5	10
SSKVC-50		50	2"	58.0	75.0	9.5	12.5
	SKVAC-50	50	2"	63.0	79.0	9.5	9.5
SKVHC-63		63	2.1/2"	70.5	84.0	10.5	9.5
	SKVAC-63	63	2.1/2"	74.0	89.0	12.5	10.5
SKVAC-100	SKVAC-100	100	4"	117.0	137.0	9.7	12.5

† Universal Clip - †† Suits both tail and adaptor

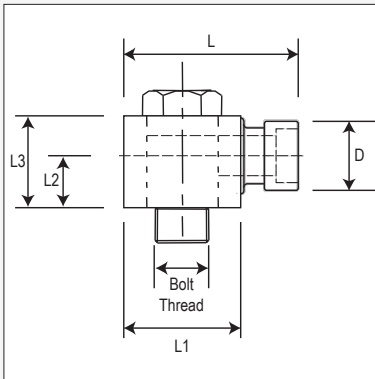
This page is part of a complete catalogue containing technical and safety data.
All data must be reviewed when selecting a product.
Pirtek reserve the right to change technical specifications without notice

PRANGE SSKV ADAPTORS



SSKV27

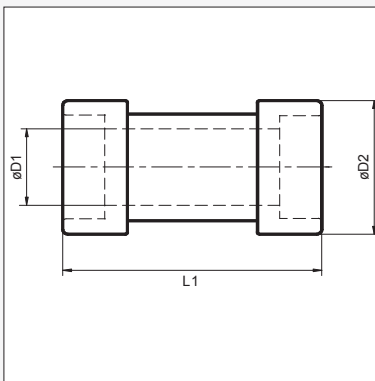
PRANGE SSKV BANJO



Product Code	Nominal Size				Dimensions mm				
	SSKV			BSPP Thread					
	Dash	Inch	DN	Inch	L	L1	L2	L3	D
SSKV27-10-06	10	3/8"	10	3/8" - 19					18
SSKV27-10-08	10	3/8"	10	1/2" - 14					18
SSKV27-13-08	13	1/2"	13	1/2" - 14					24
SSKV27-20-12	20	3/4"	20	3/4" - 14					30

SSKV30

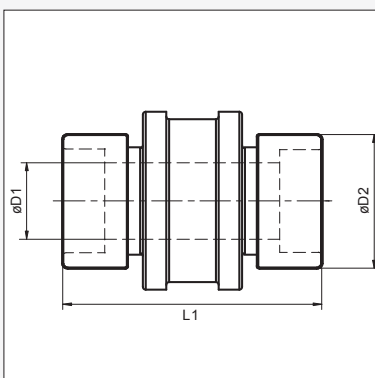
PRANGE SSKV FEMALE SOCKET



Product Code	Nominal Size						Dimensions mm		
	SSKV D1			SSKV D2					
	Dash	Inch	DN	Dash	Inch	DN	D1	D2	L
SSKV30-10	10	3/8"	10	10	3/8"	10		18	
SSKV30-13	13	1/2"	13	13	1/2"	13	10	24	
SSKV30-20	20	3/4"	20	20	3/4"	20	15	30	

SSKV30-G

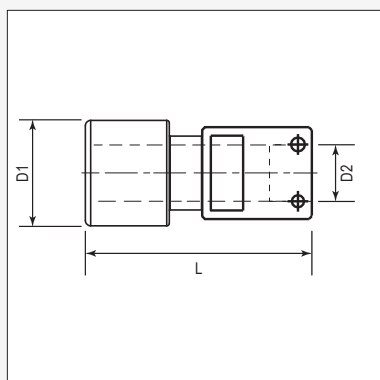
PRANGE SSKV FEMALE SOCKET GROOVED



Product Code	Nominal Size						Dimensions mm		
	SSKV D1			SSKV D2					
	Dash	Inch	DN	Dash	Inch	DN	D1	D2	L
SSKV30-25G	25	1"	25	25	1"	25	20	36	
SSKV30-40G	40	1.1/2"	40	40	1.1/2"	40	30	54	
SSKV30-50G	50	2"	50	50	2"	50	40	70	
SSKV30-63G	63	2.1/2"	63	63	2.1/2"	63	50	84	

SSKV30-SF

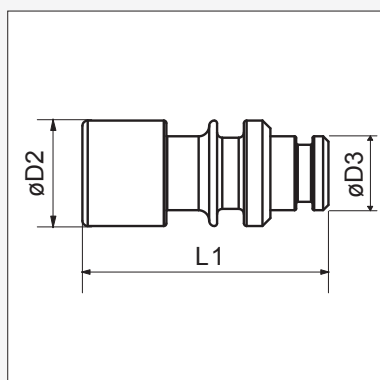
PRANGE SSKV FEMALE x
STAPLE FEMALE ADAPTOR



Product Code	Nominal Size				Dimensions mm			
	SSKV			Staplelok				
	Dash	Inch	DN	DN	D1	D2	L	
SSKV30-10-SF-10	10	3/8"	10	10		20.2		

SSKV30-SM

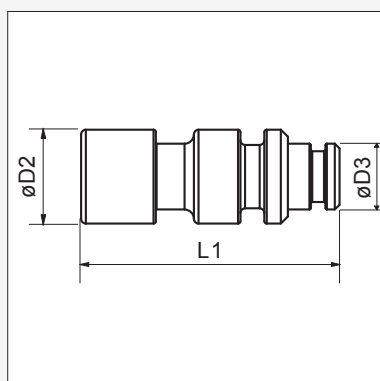
PRANGE SSKV FEMALE x
STAPLE MALE ADAPTOR



Product Code	Nominal Size						Dimensions mm		
	SSKV			Staplelok					
	Dash	Inch	DN	Dash	Inch	DN	D2	D3	L1
SSKV30-10-SM-10	10	3/8"	10	10	3/8"	10	18	13.9	
SSKV30-10-SM-13	10	3/8"	10	13	1/2"	13	18	17.9	
SSKV30-10-SM-20	10	3/8"	10	20	3/4"	20	18	23.9	
SSKV30-13-SM-13	13	1/2"	13	13	1/2"	13	24	17.9	
SSKV30-13-SM-25	13	1/2"	13	25	1"	25	24	30.9	

SSKVE30-SM

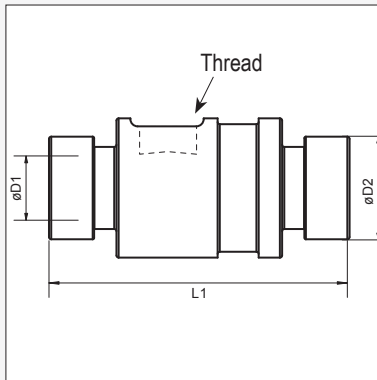
PRANGE SSKV FEMALE x
STAPLE MALE ADAPTOR (EXTENDED)



Product Code	Nominal Size						Dimensions mm		
	SSKV			Staplelok					
	Dash	Inch	DN	Dash	Inch	DN	D2	D3	L1
SSKVE30-10-SM-10-85	10	3/8"	10	10	3/8"	10	18	13.9	85

SSKVE30-G-P

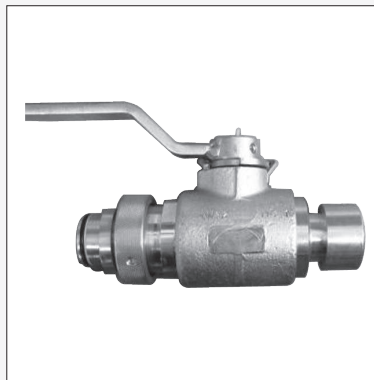
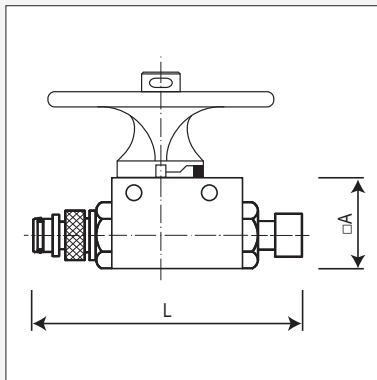
PRANGE SSKV FEMALE SOCKET
GROOVED AND TAPPED BSP



Product Code	Nominal Size						BSP TThread	Dimensions mm		
	SSKV D1			SSKV D2						
	Dash	Inch	DN	Dash	Inch	DN		Inch	D1	D2
SSKVE30-25G-06P	25	1"	25	25	1"	25	3/8" - 19	20	36	
SSKVE30-40G-06P	40	1.1/2"	40	40	1.1/2"	40	3/8" - 19	30	54	
SSKVE30-50G-06P	50	2"	50	50	2"	50	3/8" - 19	40	70	
SSKVE30-63G-16P	63	2.1/2"	63	63	2.1/2"	63	1" - 11	50	84	

SSKV31F

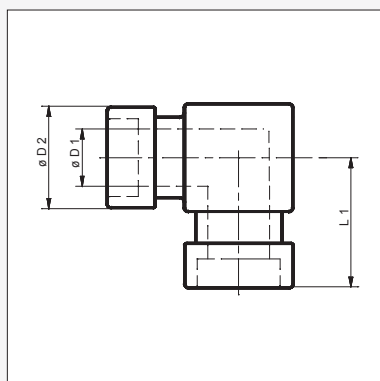
PRANGE SSKV BALL VALVE
M - F LOCKABLE



Product Code	Body	No. of Mounting Holes	Nominal Bore			Pressure Rating bar		Dimensions mm			
			Dash	Inch	DN	Working	Burst	L	A	AF	D
SSKV31F-10-6RD	Block	1	6	3/8"	10	500	1250	-	-	-	-
SSKV31F-13-6RD	Block	1	8	1/2"	13	500	1250	-	-	-	-
SSKV31F-20-6RD	Block	2	12	3/4"	20	500	1250	-	-	-	-
SSKV31F-25-6RD	Block	2	16	1"	25	400	1000	-	-	-	-
SSKV31-40-1PL	Cast	na	24	1.1/2"	40	250	500	-	-	-	-
SSKV31-50-1PL	Cast	na	32	2"	50	250	500	-	-	-	-

SSKV45

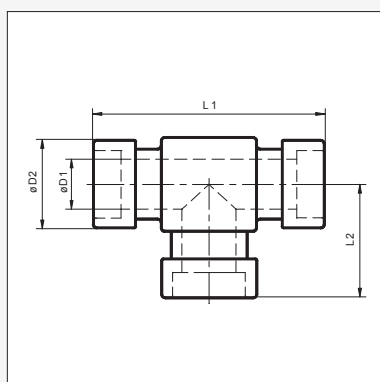
PRANGE SSKV 90° ELBOW
FIXED EQUAL FEMALE COUPLING



Product Code	Nominal Size			Dimensions mm		
	Dash	Inch	DN	D1	D2	L1
SSKV45-10	10	3/8"	10	7	18	
SSKV45-13	13	1/2"	13	10	24	45
SSKV45-20	20	3/4"	20	15	30	49

SSKV55

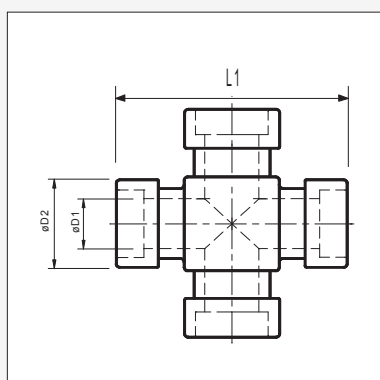
PRANGE SSKV TEE
FIXED FEMALE COUPLING



Product Code	Nominal Size			Dimensions mm			
	Dash	Inch	DN	D1	D2	L1	L2
SSKV55-10	10	3/8"	10	7	18		
SSKV55-20	20	3/4"	20	15	30	110	49
SSKV55-25	25	1"	25	20	36	120	60

SSKV60

PRANGE SSKV CROSS
FIXED FEMALE COUPLING

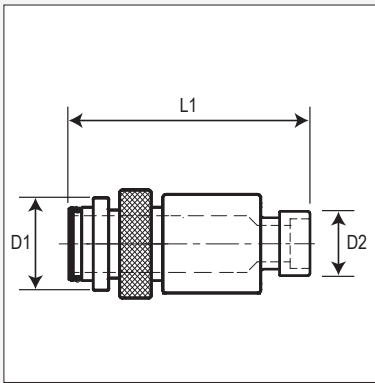


Product Code	Nominal Size			Dimensions mm			
	Dash	Inch	DN	D1	D2	L1	
SSKV60-10	10	3/8"	10	7	18		
SSKV60-13	13	1/2"	13	10	24	85	

SSKV72F

PRANGE SSKV

MALE - FEMALE STRAIGHT COUPLING

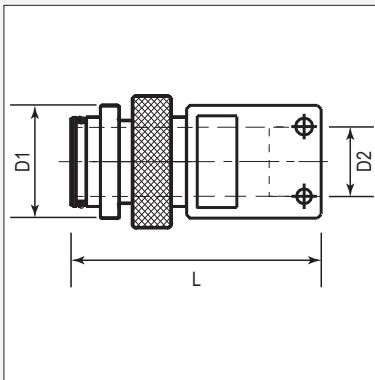


Product Code	Nominal Size						Dimensions mm		
	SSKV Male			SSKV Female					
	Dash	Inch	DN	Dash	Inch	DN	D1	D2	L1
SSKV72F-13-10	13	1/2"	13	10	3/8"	10	24	18	
SSKV72F-13-20	13	1/2"	13	20	3/4"	20	24	30	
SSKV72F-20-13	20	3/4"	20	13	1/2"	13	30	24	
SSKV72F-25-20	25	1"	25	20	3/4"	20	36	30	

SSKV72F-SF

PRANGE SSKV MALE x

STAPLE FEMALE ADAPTOR

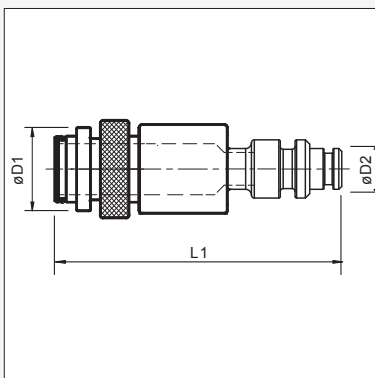


Product Code	Nominal Size Dimensions mm						Dimensions mm		
	SSKV Male			Staplelok Female					
	Dash	Inch	DN	Dash	Inch	DN	D1	D2	L1
SSKV72F-10-SF-10	10	3/8"	10	10	3/8"	10	18	20.2	

SSKV72F-SM

PRANGE SSKV MALE x

STAPLE MALE ADAPTOR

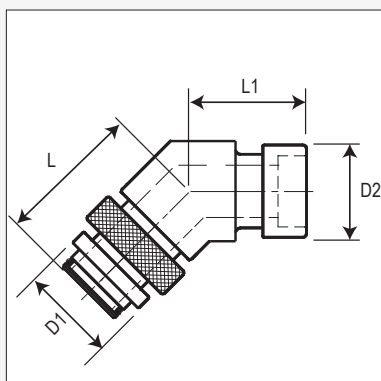


Product Code	Nominal Size						Dimensions mm		
	SSKV Male			Staplelok Male					
	Dash	Inch	DN	Dash	Inch	DN	D1	D2	L1
SSKV72F-10-SM-10	10	3/8"	10	10	3/8"	10	18	13.9	

SSKV74F

PRANGE SSKV

MALE - FEMALE 45° EQUAL ELBOW

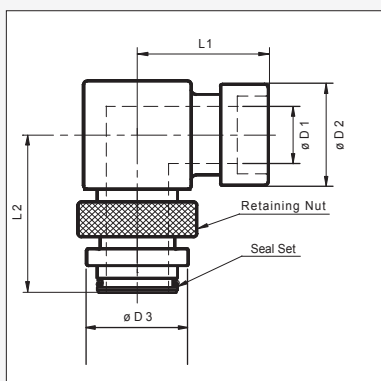


Product Code	Nominal Size						Dimensions mm		
	SSKV Male			SSKV Female					
	Dash	Inch	DN	Dash	Inch	DN	L	L1	D1/D2
SSKV74F-10	10	3/8"	10	10	3/8"	10			18
SSKV74F-13	13	1/2"	13	13	1/2"	13			24
SSKV74F-20	20	3/4"	20	20	3/4"	20			30
SSKV74F-25	25	1"	25	25	1"	25			36

SSKV76F

PRANGE SSKV

MALE - FEMALE 90° EQUAL ELBOW

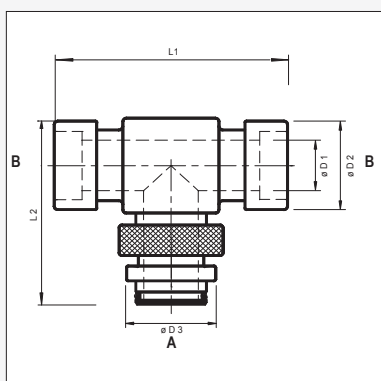


Product Code	Nominal Size						Dimensions mm				
	SSKV Male			SSKV Female							
	Dash	Inch	DN	Dash	Inch	DN	L1	L2	D1	D2	D3
SSKV76F-10	10	3/8"	10	10	3/8"	10	41	51	7	18	18
SSKV76F-13	13	1/2"	13	13	1/2"	13	45	56	10	24	24
SSKV76F-20	20	3/4"	20	20	3/4"	20	49	65	15	30	30
SSKV76F-25	25	1"	25	25	1"	25	60	75	20	36	36
SSKV76F-50	50	2"	50	50	2"	50	97	102	40	70	70

SSKV77

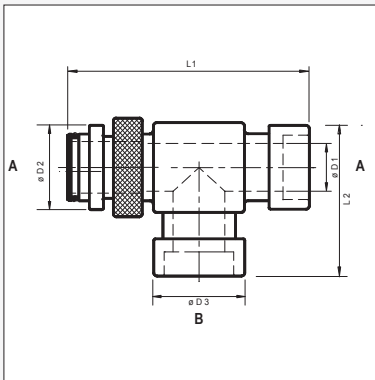
PRANGE SSKV TEE

EQUAL FM-FM-MALE COUPLING



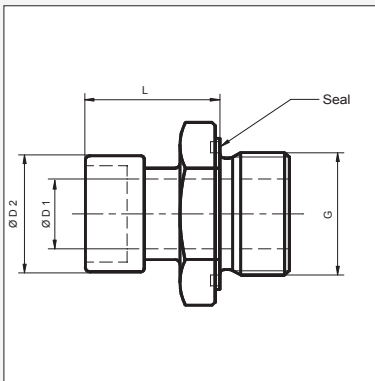
Product Code	Nominal Size			Dimensions mm				
	Dash	Inch	DN	D1	D2	D3	L1	L2
SSKV77-10	10	3/8"	10	7	18	18		

SSKV78F

PRANGE SSKV TEE
MALE-FM-FM COUPLING

Product Code	Nominal Size End A			Nominal Size End B			Dimensions mm				
	Dash	Inch	DN	Dash	Inch	DN	D1	D2	D3	L1	L2
SSKV78F-10	10	3/8"	10	10	3/8"	10	7	18	18		
SSKV78F-13	13	1/2"	13	13	1/2"	13	10	24	24		
SSKV78F-13-13-10	13	1/2"	13	10	3/8"	10	10	24	18		
SSKV78F-20	20	3/4"	20	20	3/4"	20	15	30	30		
SSKV78F-20-20-10	20	3/4"	20	10	3/8"	10	15	30	18		
SSKV78F-25	25	1"	25	25	1"	25	20	36	36		

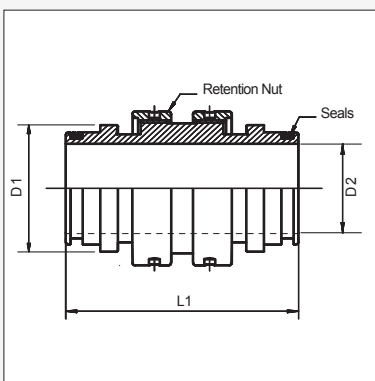
SSKV115

PRANGE SSKV STRAIGHT ADAPTOR
SSKV FEMALE x BSPP MALE

Product Code	Nominal ID			Thread G	Dimensions mm		
	SSKV			BSPP			
	Dash	Inch	DN	Inch	D1	D2	L
SSKV115-10-04	10	3/8"	10	1/4" - 19	7	18	
SSKV115-10-06	10	3/8"	10	3/8" - 19	7	18	
SSKV115-10-08	10	3/8"	10	1/2" - 14	7	18	
SSKV115-13-08	13	1/2"	13	1/2" - 14	10	24	35
SSKV115-20-08	20	3/4"	20	1/2" - 14	15	30	
SSKV115-20-12	20	3/4"	20	3/4" - 14	15	30	40
SSKV115-20-16	20	3/4"	20	1" - 11	15	30	
SSKV115-25-16	25	1"	25	1" - 11	20	36	37
SSKV115-63-40	63	2.1/2"	63	2.1/2" - 11	50	84	

SSKV120

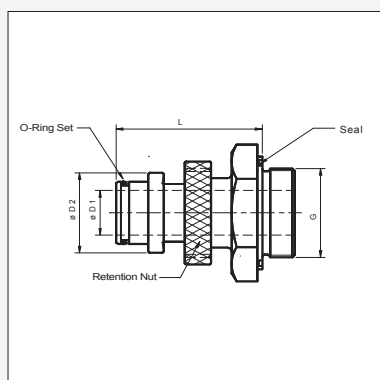
PRANGE SSKV JOINING NIPPLE



Product Code	Nominal Size						Dimensions mm		
	SSKV			SSKV					
	Dash	Inch	DN	Dash	Inch	DN	D1	D2	L1
SSKV120-10	10	3/8"	10	10	3/8"	10	18	7	
SSKV120-13	13	1/2"	13	13	1/2"	13	24	10	
SSKV120-20	20	3/4"	20	20	3/4"	20	30	15	
SSKV120-20-10	20	3/4"	20	10	3/8"	10	30/18	15/7	
SSKV120-25	25	1"	25	25	1"	25	36	20	
SSKV120-32	32	1.1/4"	32	32	1.1/4"	32	44	24	
SSKV120-40	40	1.1/2"	40	40	1.1/2"	40	54	30	
SSKV120-50	50	2"	50	50	2"	50	70	40	
SSKV120-63	63	2.1/2"	63	63	2.1/2"	63	84	50	

SSKV155

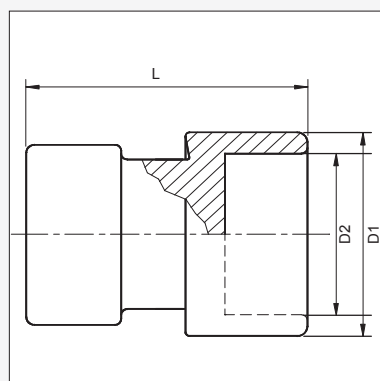
PRANGE SSKV STRAIGHT ADAPTOR
SSKV MALE x BSPP MALE



Product Code	Nominal ID			Thread G		Dimensions mm		
	SSKV			BSPP				
	Dash	Inch	DN	Inch		D1	D2	L
SSKV155-10-04	10	1/4"	10	1/4" - 19		7	18	
SSKV155-10-06	10	3/8"	10	3/8" - 19		7	18	
SSKV155-10-08	10	3/8"	10	1/2" - 14		7	18	
SSKV155-13-08	13	1/2"	13	1/2" - 14		10	24	
SSKV155-20-08	20	3/4"	20	1/2" - 14		15	30	
SSKV155-20-12	20	3/4"	20	3/4" - 14		15	30	
SSKV155-20-16	20	3/4"	20	1" - 11		15	30	
SSKV155-25-16	25	1"	25	1" - 11		20	36	
SSKV155-32-20	32	1.1/4"	32	1.1/4" - 11		24	44	
SSKV155-40-24	40	1.1/2"	40	1.1/2" - 11		30	54	
SSKV155-50-32	50	2"	50	2" - 11		40	70	
SSKV155-63-40	63	2.1/2"	63	2.1/2" - 11		50	84	

SSKV160

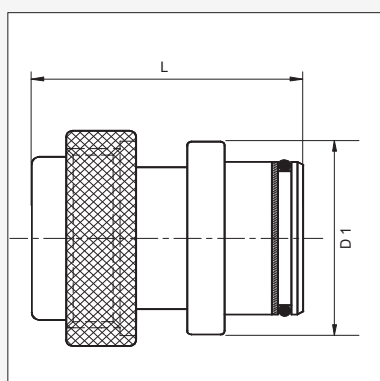
PRANGE SSKV BLANKING CAP



Product Code	Nominal Size			Dimensions mm		
	SSKV					
	Dash	Inch	DN	D1	D2	L
SSKV160-10	10	3/8"	10	18	7	
SSKV160-13	13	1/2"	13	24	10	
SSKV160-20	20	3/4"	20	30	15	
SSKV160-25	25	1"	25	36	20	
SSKV160-32	32	1.1/4"	32	44	24	
SSKV160-40	40	1.1/2"	40	54	30	
SSKV160-50	50	2"	50	70	40	
SSKV160-63	63	2.1/2"	62	84	50	

SSKV165

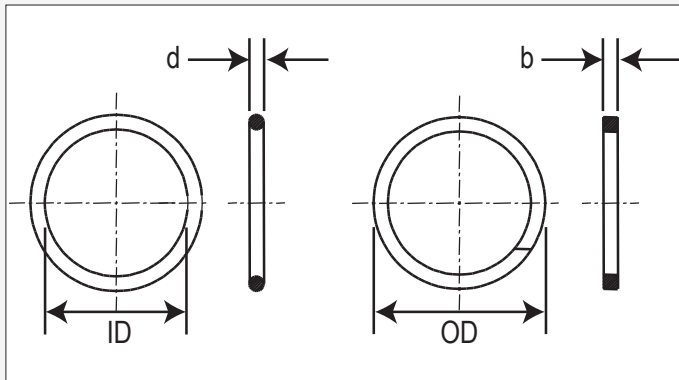
PRANGE SSKV BLANKING PLUG



Product Code	Nominal Size			Dimensions mm		
	SSKV					
	Dash	Inch	DN	D1	L	
SSKV165-10	10	3/8"	10	18		
SSKV165-13	13	1/2"	13	24		
SSKV165-20	20	3/4"	20	30		
SSKV165-25	25	1"	25	36		
SSKV165-32	32	1.1/4"	32	44		
SSKV165-40	40	2.1/2"	40	54		
SSKV165-50	50	2"	50	70		
SSKV165-63	63	2.1/2"	63	84		

SSKV180 / SSKV195

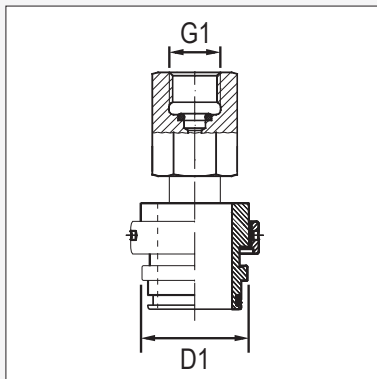
SSKV O-RING AND BACK-UP WASHER



Product Code	Nominal ID			Dimensions mm			
	O-Ring Seal			ID	d		
	Dash	Inch	DN				
SSKV180-10	10	3/8"	10	10	2		
SSKV180-13	13	1/2"	13	13	2.5		
SSKV180-20	20	3/4"	20	18	2.5		
SSKV180-25	25	1"	25	23	2.5		
SSKV180-32	32	1.1/4"	32	28	2.5		
SSKV180-40	40	1.1/2"	40	36	3		
SSKV180-50	50	2"	50	48	3		
SSKV180-63	63	2.1/2"	63	59	3		
	Back-Up Washer			OD	b		
	Dash	Inch	DN				
SSKV195-10	10	3/8"	10	14.1	0.8		
SSKV195-13	13	1/2"	13	18.1	0.8		
SSKV195-20	20	3/4"	20	23	1.0		
SSKV195-25	25	1"	25	28	1.0		
SSKV195-32	32	1.1/4"	32	33	1.0		
SSKV195-40	40	1.1/2"	40	42	1.5		
SSKV195-50	50	2"	50	54	1.5		
SSKV195-63	63	2.1/2"	63	65	1.5		

SSKVBFGA

PRANGE SSKV GAUGE ADAPTOR

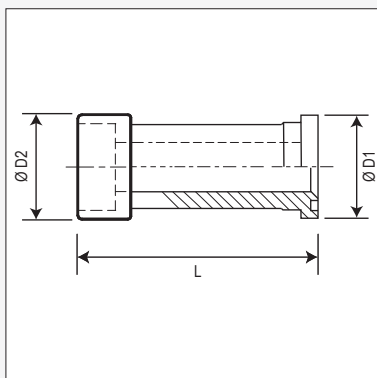


Product Code	Nominal Size			BSPP Female G1	Dimensions mm		
	SSKV				D1		
	Dash	Inch	DN	Inch			
SSKVBFGA-1004	10	3/8"	10	1/4" - 19	18		

SSKVF

PRANGE SSKV FLANGE ADAPTOR

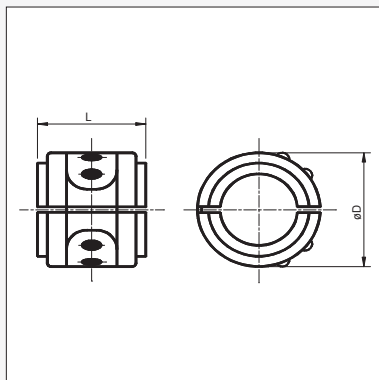
SSKV FEMALE x CODE FLANGE



Product Code	Nominal ID			Code Flange	Dimensions mm		
	SSKV				D1	D2	L
	Dash	Inch	DN	Size			
SSKVF-25-C621-24	25	1"	25	Code 62 -24	63.5	36	
SSKVF-40-C621-24	40	1.1/2"	40	Code 62 -24	63.5	54	
SSKVF-50-C621-32	50	2"	50	Code 62 -32	79.5	70	
SSKVF-63-C611-40	63	2.1/2"	63	Code 61 -40	84.1	84	

SSKV-SHL

PRANGE SSKV SHELL

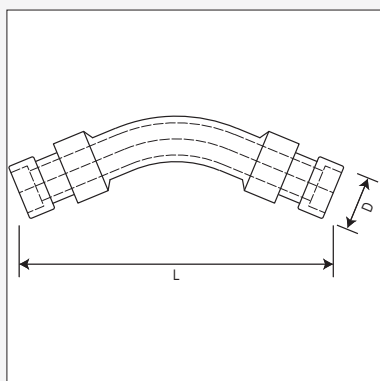


Product Code	Nominal Size			Dimensions mm	
	SSKV				
	Dash	Inch	DN	L	D
SSKV-SHL-10	10	3/8"	10	35	25
SSKV-SHL-13	13	1/2"	13	40	28
SSKV-SHL-20	20	3/4"	20	39	36
SSKV-SHL-25	25	1"	25	43	45
SSKV-SHL-32	32	1.1/4"	32	57	52
SSKV-SHL-40	40	1.1/2"	40	63	64
SSKV-SHL-50	50	2"	50	69	78
SSKV-SHL-63	63	2.1/2"	63	97	97

SSKVM135

PRANGE SSKV MANIFOLD

SKV FEMALE x BSPP MALE

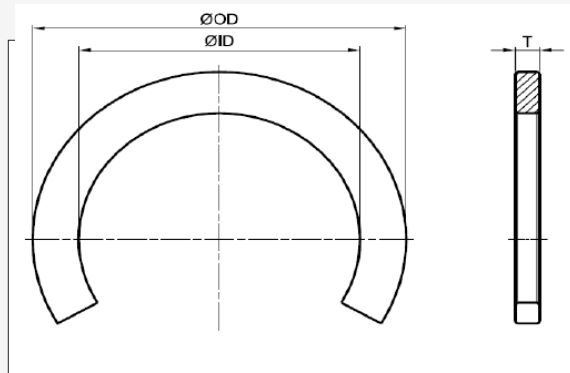


Product Code	Nominal ID			Dimensions mm	
	SSKV				
	Dash	Inch	DN	D	L
SSKVM135-25	25	1"	25	36	
SSKVM135-40	40	1.1/2"	40	54	
SSKVM135-50	50	2"	50	70	
SSKVM135-63	63	2.1/2"	63	84	

SSKVHC / SSKVAC

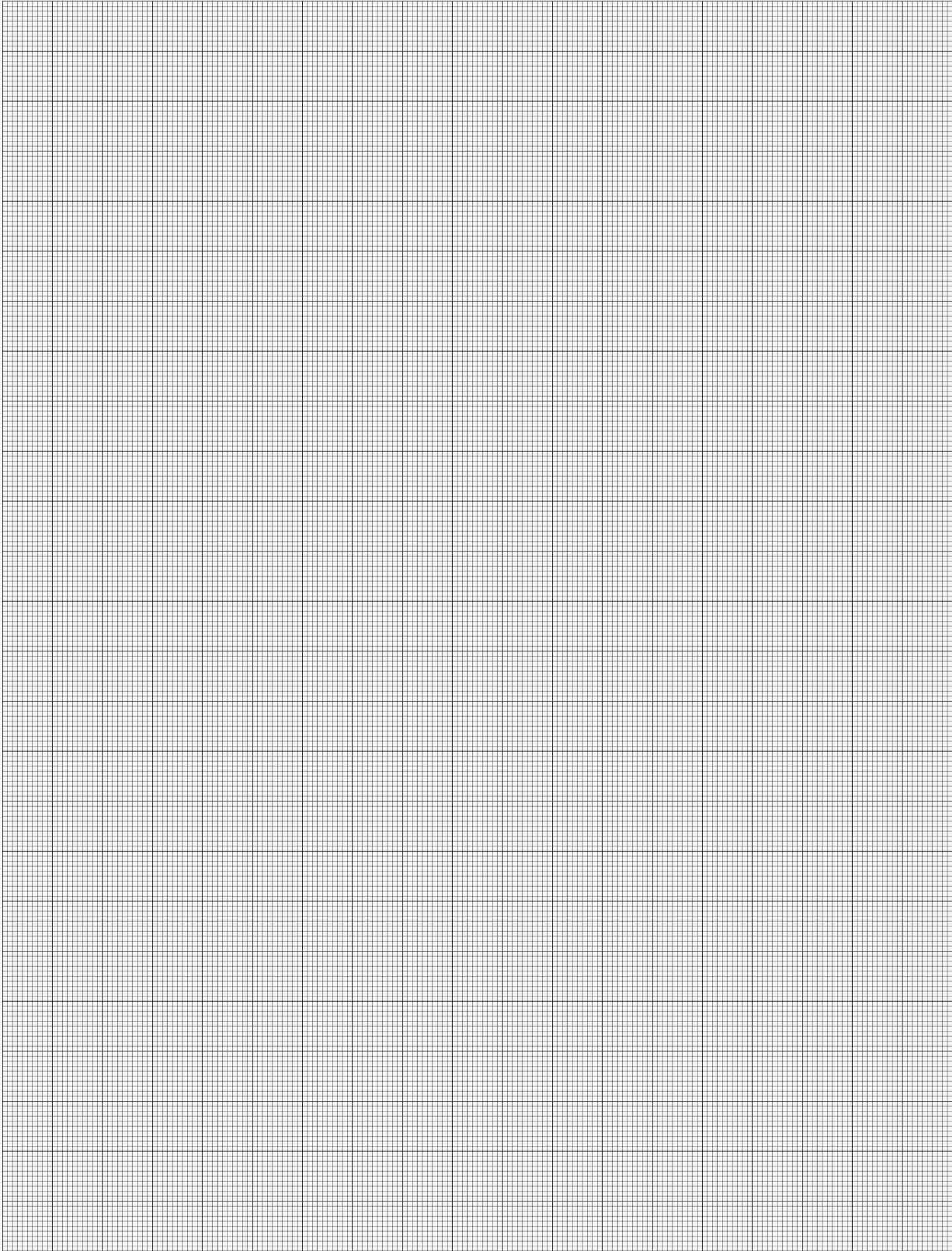
SSKVHC - HOSETAIL CLIPS SSKVAC - ADAPTOR CLIPS SSKVC - UNIVERSAL CLIPS

PRANGE SSKV HOSETAIL AND ADAPTOR CLIPS



Product Code		Nominal ID			Dimension mm		
		SSKV					
Suit SSKV Hose Tails	Suit SSKV Adaptors	DN	Inch	ID	OD	T	
SSKVHC-10		10	3/8"	15.0	24.0	7.0	
	SSKVAC-10	10	3/8"	18.5	28.0	7.0	
SSKVHC-13		13	1/2"	18.6	29.0	5.0	
	SSKVAC-13	13	1/2"	23.0	33.0	6.0	
SSKVC-20	SSKVC-20	20	3/4"	29.5	39.0	6.5	
SSKVC-25	SSKVC-25	25	1"	34.5	45.0	7.5	
SSKVC-32	SSKVC-32	32	1.1/4"	35.5	52.0	5.5	
SSKVHC-40		40	1.1/2"	44.6	63.0	15.5	
	SSKVAC-40	40	1.1/2"	53.5	70.0	14.0	
SSKVC-50		50	2"	58.0	75.0	9.5	
	SSKVAC-50	50	2"	69.0	84.0	11.0	
SSKVHC-63		63	2.1/2"	79.0	94.0	13.7	
	SSKVAC-63	63	2.1/2"	88.0	109.0	14.0	

† Universal Clip - †† Suits both tail and adaptor



CLIPLINE

LOW PROFILE COUPLING

MEDIUM PRESSURE

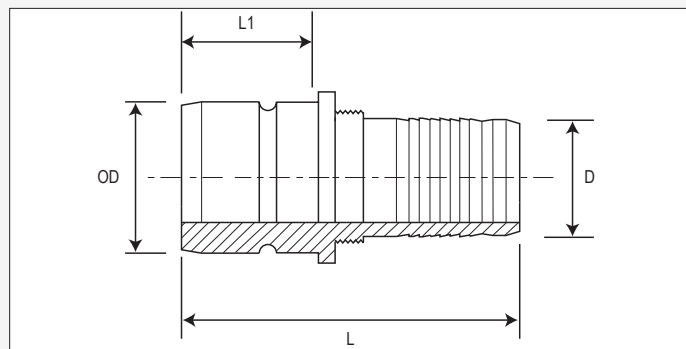


The threaded latch design of the hose tail / ferrule combination is suited only to use with hose Product Code JBF-40

* Maximum Working Pressure 140 bar

CLM1

CLIPLINE MALE HOSE TAIL



Product Code	Nominal Bore Staple			Nominal Bore Hose			Dimensions mm			
	Dash	Inch	DN	Dash	Inch	DN	L	L1	D	OD
CLM1-63-40	40	2.1/2"	63	40	2.1/2"	63	180	74	62.5	81.8

BSMS

BRIDGESTONE FERRULE

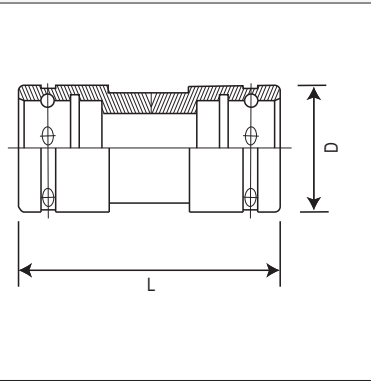
JBF MULTI-SPIRAL HOSE



Product Code	Nominal Bore Staple			Dimensions mm		
	Dash	Inch	DN	L	OD	
BSMS-40	40	2.1/2"	63	94.9	93.3	Note threaded latch

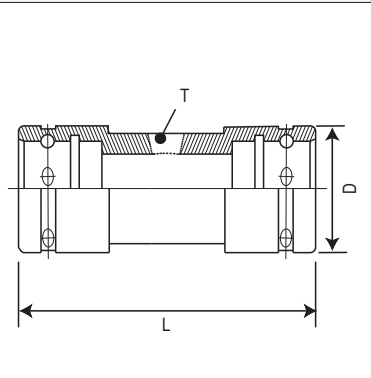
CL30

CLIPLINE FEMALE SOCKET



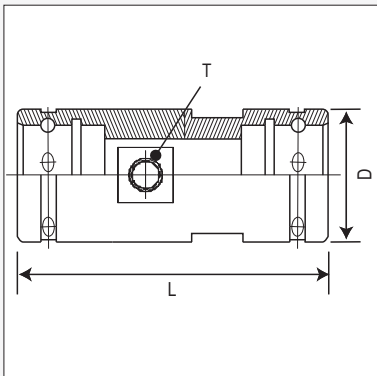
Product Code	Nominal Bore Staple			Nominal Bore Staple			Dimensions mm		
	Dash	Inch	DN	Dash	Inch	DN	L	D	ID
CL30-63	40	2.1/2"	63	40	2.1/2"	63	150	109	82

CLE30

CLIPLINE EXTENDED
BSPT TAPPED COUPLING

Product Code	Nominal Bore Clipline			Nominal Bore Clipline			Dimensions mm		
	Dash	Inch	DN	Dash	Inch	DN	L	D	T
CLE30-63-16T	40	2.1/2"	63	40	2.1/2"	63		109	R-1"

CLE30G

CLIPLINE EXT. & GROOVED
BSPP TAPPED COUPLING

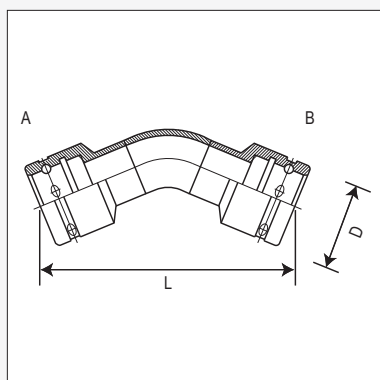
Product Code	Nominal ID			Thread T	Dimensions mm		
	Dash	Inch	DN	BSPP	L	D	Retaining Groove
CLE30G-63-16P	40	2.1/2"	65	G-1"		109	†

† The retaining groove around the coupling circumference allows fast installation / removal of the adaptor using a bolted key arrangement. These fittings form part of a total bulkhead design package, and are made to order. Please contact Pirtek for details

CLM135

CLIPLINE MANIFOLD

45° ELBOW F-F

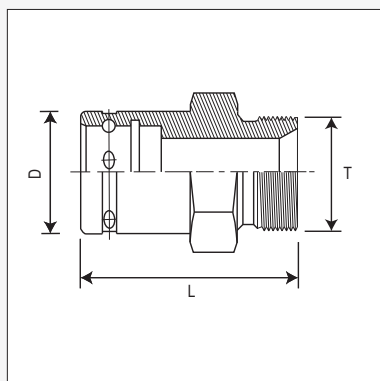


Product Code	Nominal Size						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	D	
CLM135-63	40	2.1/2"	63	40	2.1/2"	63	314	110	

CL115

ADAPTOR

CLIPLINE FEMALE x BSPP MALE

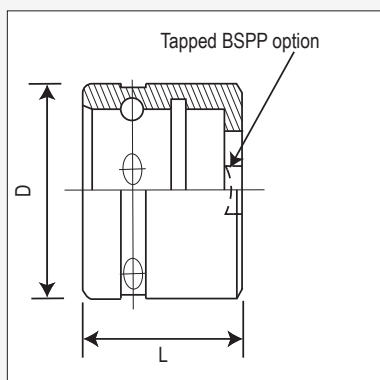


Product Code	Nominal Size			BSPP Thread	Dimensions mm				
	Cipline Female				T	L	D	T	
	Dash	Inch	DN						
CL115-63-32P	40	2.1/2"	63	2"	121	109	G-2"		
CL115-63-40P	40	2.1/2"	63	2.1/2"	125	109	G-2.1/2"		

BSPP End requires the use of a 'Z' Series Bonded Seal available separately. See page 139

CL160

CLIPLINE CAP



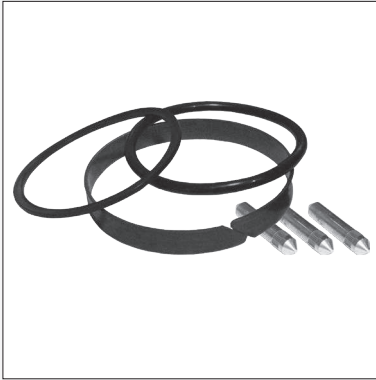
Product Code	Nominal Size			Dimensions mm			
	Dash	Inch	DN	L	D	ID	
CL160-63	40	2.1/2"	65	91.5	109	82	

BSPP Tapped Port available for all sizes upon request. Please specify when ordering

CLK

CLIPLINE PIN KIT

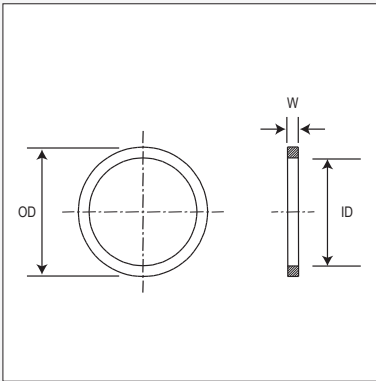
O-RING, BACKUP, PINS & RETAINER



Product Code	Nominal ID			Kit Includes
	Dash	Inch	DN	
CLK-63	40	2.1/2"	63	1 x O-Ring (CLO-63) 1 x Back-up Ring (CLB-63) 1 x Spring Clip (CLC-63) 3 x Retaining Pins (CLP-63)

CLB

CLIPLINE BACKUP RING

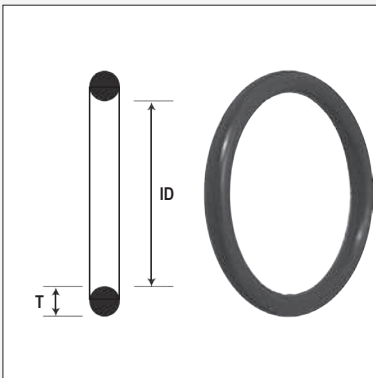


Product Code	Dimensions mm			BS
	OD	ID	Width W	
CLB-63	92	82.8	1.8	339BUR

This product is shown for technical reference only. It is available only as part of the complete kit **CLK-63**

CLO

O-RING SEAL



Product Code	Dimensions mm			BS
	OD	ID	Thickness T	
CLO-63	92	82	5	339D90

This product is shown for technical reference only. It is available only as part of the complete kit **CLK-63**

CLP

CLIPLINE SECURING PIN



Product Code	Dimensions mm		
	Length	OD	OD Milled Section
CLP-63	58	10.9	11.3

This product is shown for technical reference only. It is available only as part of the complete kit **CLK-63**

CLC

CLIPLINE RETAINING CLIP



Product Code	Dimensions mm		
	OD	ID	Width W
CLC-63	107	104.2	11.7

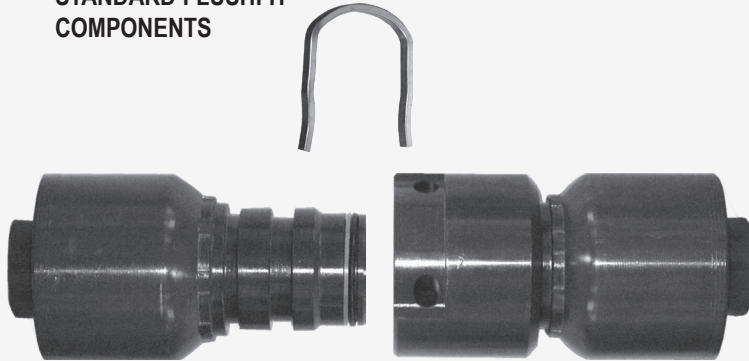
This product is shown for technical reference only. It is available only as part of the complete kit **CLK-63**

FLUSHFIT

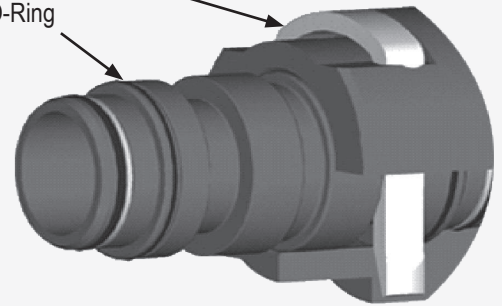
LOW PROFILE COUPLING

STANDARD AND SUPER

STANDARD FLUSHFIT
COMPONENTS



Double width staple
Secondary O-Ring



CUTAWAY OF SUPER FLUSHFIT
ASSEMBLED JOINT

Description:

- Steel bodied low profile coupling system for full bore internal flow path with smallest possible exterior dimensions
- The staple is retained fully within the coupling profile to be snag-free
- Available in standard and super configurations (Standard configuration design varies according to fitting size)
- The Super form embodies a secondary O-Ring to maintain a clean environment in the main bore
- A clearance area simplifies staple extraction
- Fewer loose parts than similar designs

Materials and Specifications:

- Flat Teflon backup ring
- Nitrile O-Rings
- Free cutting steel body
- Hardened staple in either single width (Standard design) or double width (Super design)
- 2" material conforms to (BS 970-080M47) (UNI EN C45)
- 2 1/2" material 50 D (BS 4360-90) (UNI EN S355J2G3 extruded tube). Alternatively material conforms to (BS 970-230M07) (UNI EN 11SMnPb30)

Applications:

- Standard Series: low to medium pressure large bore lines (pressure and return) where the application requires a smooth exterior profile to avoid snagging
- Super Series: extra high pressure large bore lines where the application requires a smooth exterior profile to avoid snagging
- Refer Pirtek for selection of suitable hoses to use with Flushfit Standard and Super fittings

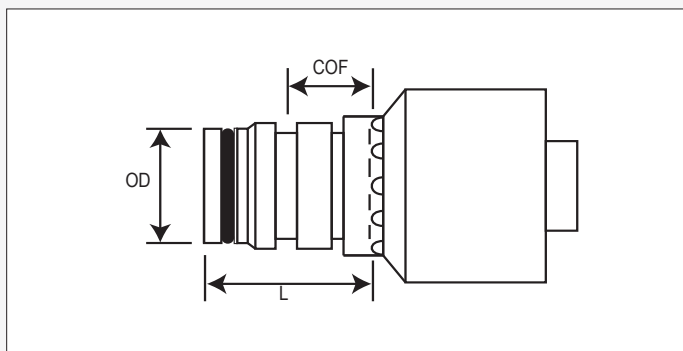
NOMINAL WORKING PRESSURES FLUSHFIT STANDARD AND SUPER

Size			Standard Flushfit - bar		Super Flushfit - bar	
Dash	Inch	DN	Working Pressure	Burst Pressure	Working Pressure	Burst Pressure
24	1.1/2"	40	146	584	420	1680
32	2"	50	112	448	420	1680
40	2.1/2"	63	69	276	350	1400

FFM1

FLUSH FIT STANDARD MALE HOSE TAIL

Suited to use with wire braided hydraulic hose

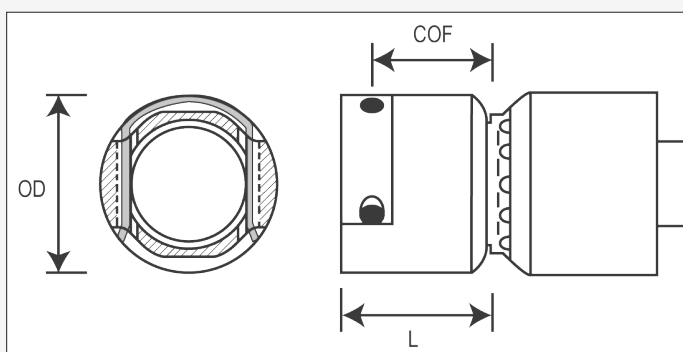


Product Code	Nominal Bore Flush Fit			Nominal Bore Hose			Dimensions mm				
J Series	Dash	Inch	DN	Dash	Inch	DN	OD	COF	L	O-Ring	Teflon Backup
FFM1-4024J	24	1.1/2"	40	24	1.1/2"	40	42.06	31.4	62.8	42.4 OD x 2.4 Ø	42 x 38 x 1.5 Thick
FFM1-5032J	32	2"	50	32	2"	50					
FFM1-6340J	40	2.1/2"	63	40	2.1/2"	63					

FFF1

FLUSH FIT STANDARD FEMALE HOSE TAIL

Suited to use with wire braided hydraulic hose



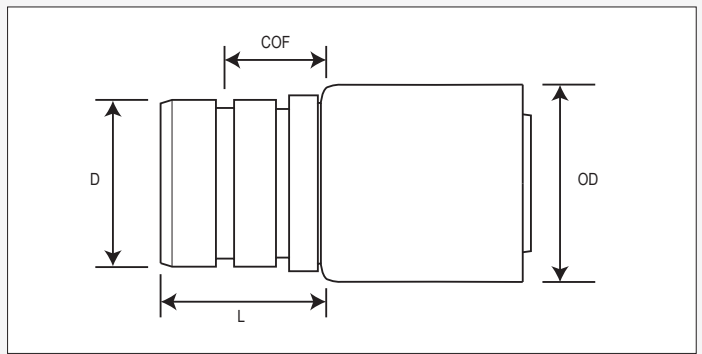
Product Code	Nominal Bore Flush Fit			Nominal Bore Hose			Dimensions mm		
K / J Series	Dash	Inch	DN	Dash	Inch	DN	OD	L	COF
FFF1-4024J	24	1.1/2"	40	24	1.1/2"	40	70	65.4	53.5
FFF1-5032J	32	2"	50	32	2"	50	83	64	53
FFF1-6340J	40	2.1/2"	63	40	2.1/2"	63	106	81	61

FFIM1

FLUSH FIT STANDARD
MALE INDUSTRIAL HOSE TAIL

Ferrule supplied with hose tail

Suited to use with FRAS rated air / water hose IRFAW



Product Code	Nominal Bore Flush Fit			Nominal Bore Hose			Dimensions Hose Tail mm			Dimensions Ferrule mm	
L Series	Dash	Inch	DN	Dash	Inch	DN	L	D	COF	Length	OD
FFIM1-5032L	32	2"	50	32	2"	50	57.1	55.9	33.3		
FFIM1-6340L	40	2.1/2"	63	40	2.1/2"	63	79.1	76.1	50.4	91.2	90.2

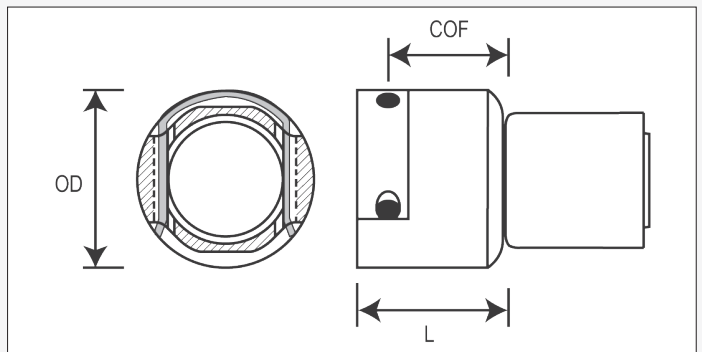
FFIF1

FLUSH FIT STANDARD
FEMALE INDUSTRIAL HOSE TAIL

Ferrule supplied with hose tail

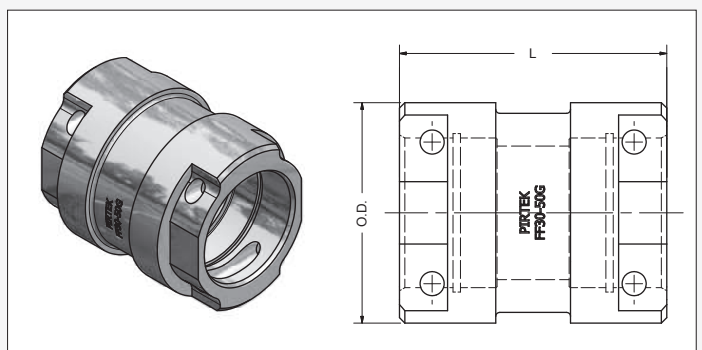
Internal O-Ring not shown

Suited to use with FRAS rated air / water hose IRFAW



Product Code	Nominal Bore Flush Fit			Nominal Bore Hose			Dimensions Hose Tail mm			Dimensions Ferrule mm	
L Series	Dash	Inch	DN	Dash	Inch	DN	L	OD	COF	Length	Ø
FFIF1-5032L	32	2"	50	32	2"	50	55.8	76	40.2		
FFIF1-6340L	40	2.1/2"	63	40	2.1/2"	63	65.4	106	44.8	91.2	90.2

FF30-G

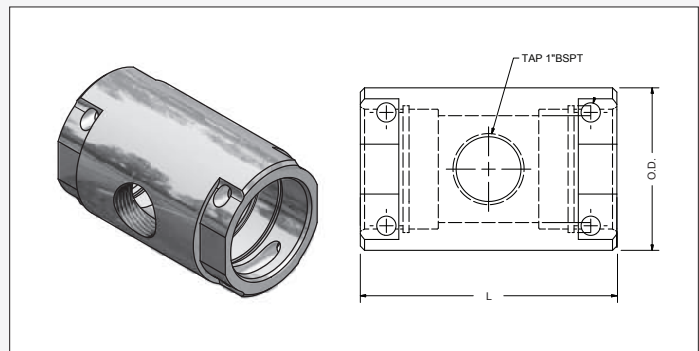
FLUSH FIT STANDARD
FEMALE SOCKET (GROOVED)

Product Code	Nominal Bore End 1			Nominal Bore End 2			Dimensions mm				
	Dash	Inch	DN	Dash	Inch	DN	L	OD			
FF30-50G	32	2"	50	32	2"	50		76			
FF30-63G	40	2.1/2"	63	40	2.1/2"	63		106			

FFE30-T

FLUSH FIT STANDARD

SOCKET C/W BSPT SIDE PORT



MINING PRODUCTS

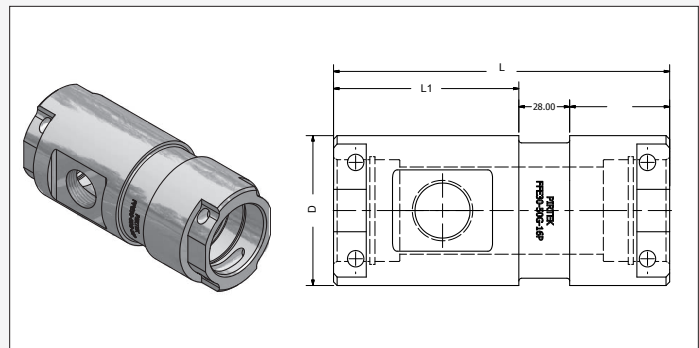
Product Code	Nominal Bore End 1			Nominal Bore End 2			Dimensions mm		Thread		
	Dash	Inch	DN	Dash	Inch	DN	L	OD	BSPT		
FFE30-40-16T	24	1.1/2"	40	24	1.1/2"	40			1" - 11		
FFE30-50-16T	32	2"	50	32	2"	50		76	1" - 11		
FFE30-63-16T	40	2.1/2"	63	40	2.1/2"	63		106	1" - 11		

FFE30-G-P

FLUSH FIT STANDARD

FEMALE SOCKET (GROOVED)

TAPPED BSPP



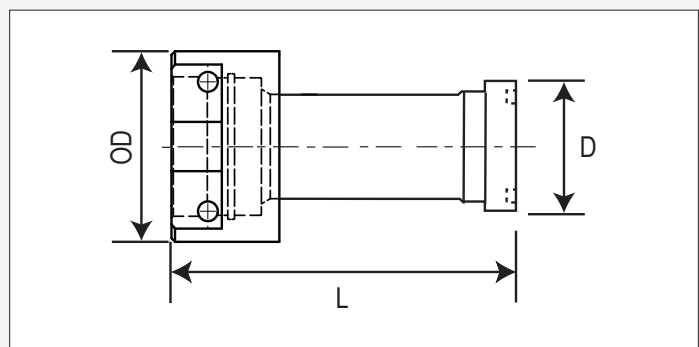
FLUSH FIT

Product Code	Nominal Bore End 1			Nominal Bore End 2			Dimensions mm			Tapped Thread
	Dash	Inch	DN	Dash	Inch	DN	L	L1	D	BSPP
FFE30-50G-16P	32	2"	50	32	2"	50			76	1" - 11
FFE30-63G-16P	40	2.1/2"	63	40	2.1/2"	63			106	1" - 11

FFF-xx-C611

FLUSHFIT STD - CODE 61 FLANGE

STRAIGHT ADAPTOR



Product Code	Nominal OD						Dimensions mm		
	Flushfit			Code 61 Flange					
	Dash	Inch	DN	Dash	Inch	DN	L	OD	D
FFF-50-C611-32	32	2"	50	32	2"	50		76	71.4
FFF-63-C611-40	40	2.1/2"	63	40	2.1/2"	63		106	84.1

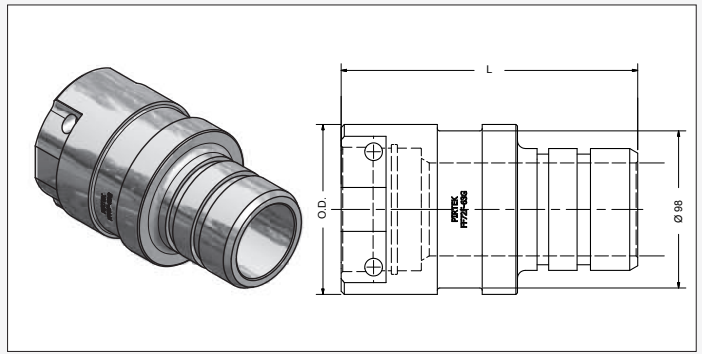


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Pirtek reserve the right to change technical specifications without notice

105
U

FF72F

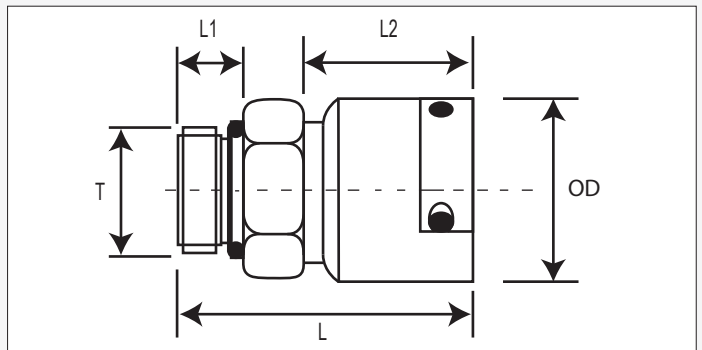
FLUSH FIT STANDARD
MALE-FEMALE COUPLING
(GROOVED)



Product Code	Nominal Bore End 1			Nominal Bore End 2			Dimensions mm			
	Dash	Inch	DN	Dash	Inch	DN	L	OD		
FF72F-50G-40G	32	2"	50	24	1.1/2"	40		76		
FF72F-63G	40	2.1/2"	63	40	2.1/2"	63		106		

FF115F

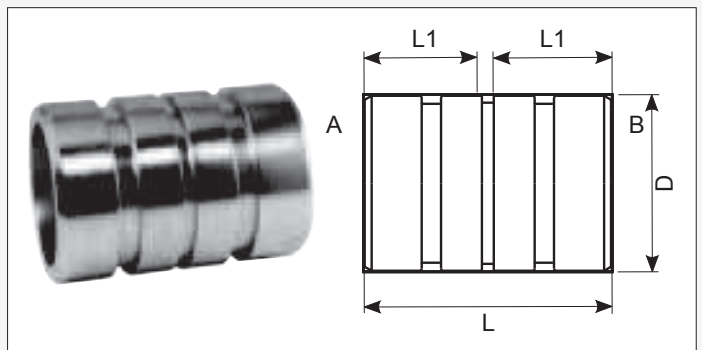
FLUSH FIT STANDARD
FIXED FEMALE - BSPP MALE



Product Code	Nominal Bore Flush Fit			Nominal Size T BSPP			Dimensions mm				
	Dash	Inch	DN	Dash	Inch	DN	L	L1	L2	OD	BSPP Thread
FF115F-40-24P	24	1.1/2"	40	24	1.1/2"	40					1.1/2" - 11
FF115F-50-32P	32	2"	50	32	2"	50				76	2" - 11
FF115F-63-40P	40	2.1/2"	63	40	2.1/2"	63				106	2.1/2" - 11

FF120

FLUSH FIT JOINING NIPPLE



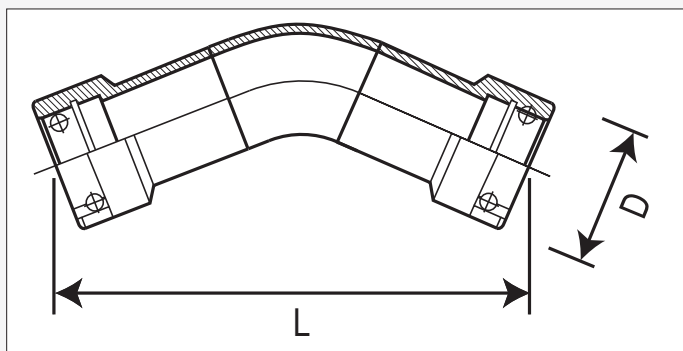
Product Code	Nominal ID						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	L1	D
FF120-50-40	32	2"	50	24	1.1/2"	40			
FF120-50	32	2"	50	32	2"	50			55.9
FF120-63	40	2.1/2"	63	40	2.1/2"	63			76.1

FFM135

FLUSH FIT MANIFOLD

45° ELBOW F-F

Internal O-Ring not shown
This fitting is made to order

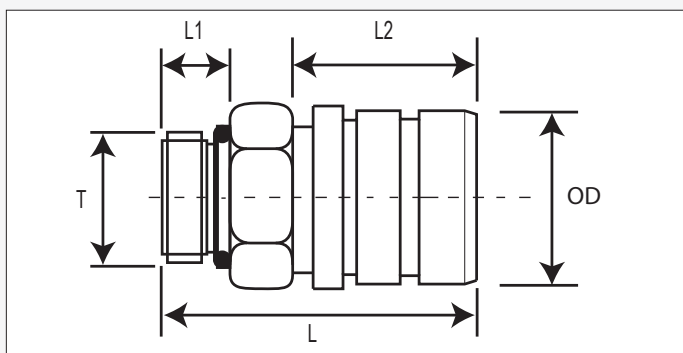


Product Code	Nominal ID						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	D	
FFM135-50	32	2"	50	32	2"	50	315	76	
FFM135-63	40	2.1/2"	63	40	2.1/2"	63	315	106	
FFM135-50-16T	32	2"	50	32	2"	50	315	76	1" BSPT Tapped Side Port
FFM135-63-16T	40	2.1/2"	63	40	2.1/2"	63	315	106	

FF155

FLUSH FIT STANDARD

MALE - BSPP

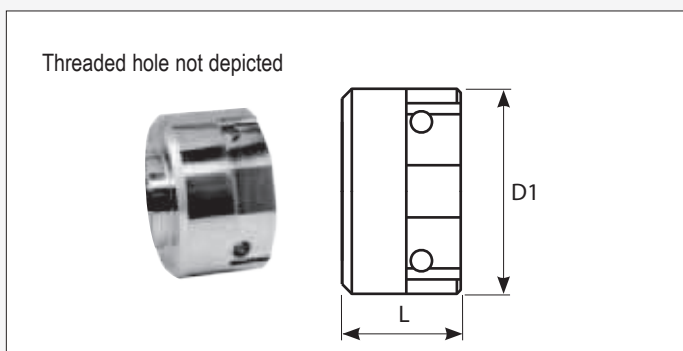


Product Code	Nominal Bore Flush Fit			Nominal Size T BSPP			Dimensions mm				
	Dash	Inch	DN	Dash	Inch	DN	L	L1	L2	OD	
FF155-40-24P	24	1.1/2"	40	24	1.1/2"-11	40					
FF155-50-32P	32	2"	50	32	2"-11	50		23	57.1	55.9	
FF155-63-40P	40	2.1/2"	63	40	2.1/2"-11	63		30	79.1	76.1	

FF160 TH

FLUSH FIT CAP

8 mm THREADED HOLE



Product Code	Nominal ID						Dimensions mm		
	Side A			Side B					
	Dash	Inch	DN	Dash	inch	DN	L	D1	Thread
FF160TH-40	24	1.1/2"	40	24	1.1/2"	40			M8x1.5
FF160TH-50	32	2"	50	32	2"	50		76	M8x1.5
FF160TH-63	40	2.1/2"	63	40	2.1/2"	63		106	M8x1.5



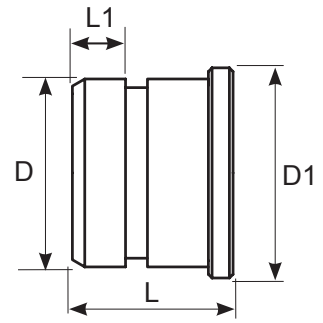
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FF165 TH

FLUSH FIT PLUG

8 mm THREADED HOLE

Threaded hole not depicted



Product Code	Nominal ID						Dimensions mm				
	Side A			Side B							
	Dash	Inch	DN	Dash	inch	DN	L	L1	D	D1	Thread
FF165TH-40	24	1.1/2"	40	24	1.1/2"	40	44	28	46	56	M8x1.5
FF165TH-50	32	2"	50	32	2"	50	48	28	55.9	65	M8x1.5
FF165TH-63	40	2.1/2"	63	40	2.1/2"	63	67	25	76.1	85	M8x1.5

FF175

FLUSH FIT STANDARD

SECURING STAPLE

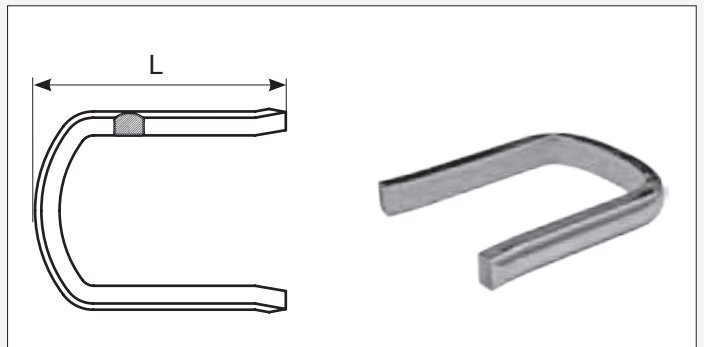


Product Code	Nominal Size Flush Fit			Staple Profile	Dimensions mm		
	Dash	Inch	DN		Length	Staple Thickness	Staple Width
FF175-40	24	1.1/2"	40	Rectangular	59	4	8.1
FF175-50	32	2"	50	Rectangular	63	3	8.1
FF175-63	40	2.1/2"	63	Rectangular	85	5	8.1

FF175D

FLUSH FIT STANDARD

'D' SECTION SECURING STAPLE

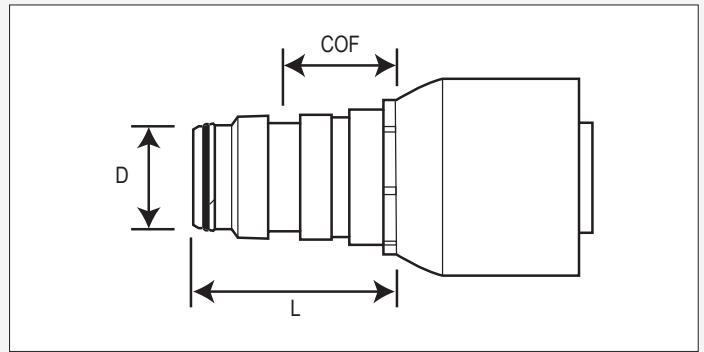


Product Code	Nominal Size Flush Fit			Dimensions mm		
	Dash	Inch	DN	Length	Staple Thickness	Staple Width
FF175D-63	40	2.1/2"	63	85	5	8.1

FF180 / FF195
FLUSH FIT STANDARD
O-RING & BACKUP - DURO 90

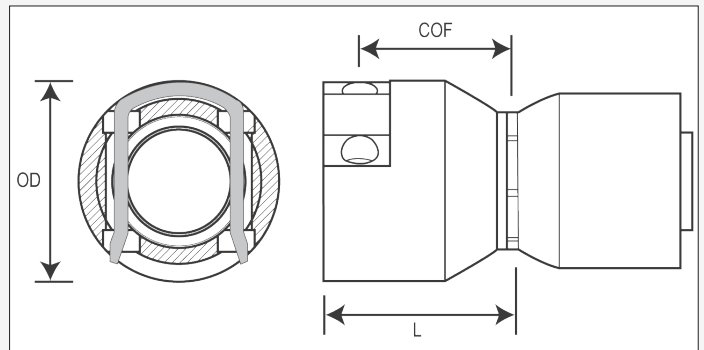
Product Codes		Location	Nominal Size Flush Fit			Dimensions O-Ring mm			Dimensions Backup mm		
O-Ring	Backup		Dash	Inch	DN	OD	ID	Ø	OD	ID	W
FF180-40	FF195-40	Male	24	1.1/2"	40	42.4	37.6	2.4	42	38	1.5
FF180-50	FF195-50	Female	32	2"	50	60.0	56.0	2.0	N/A	N/A	N/A
FF180-63	FF195-63	Female	40	2.1/2"	63	81.00	75.00	3.0	N/A	N/A	N/A

FFSM1

FLUSH FIT SUPER
MALE HOSE TAIL

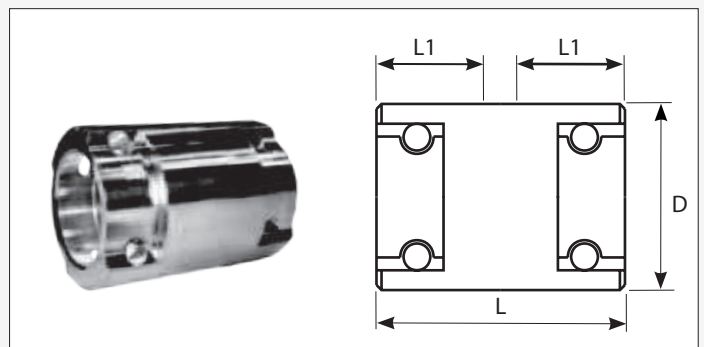
Product Code	Nominal Bore Flush Fit			Nominal Bore Hose			Dimensions mm		
J & X Series	Dash	Inch	DN	Dash	Inch	DN	L	COF	D
FFSM1-5032J	32	2"	50	32	2"	50	90	51.5	45.9
FFSM1-5032X	32	2"	50	32	2"	50	90	51.5	45.9
FFSM1-63-40	40	2.1/2"	63	40	2.1/2"	63	Uses BSMS-40 Ferrule with JBF-40 hose		

FFSF1

FLUSH FIT SUPER
FEMALE HOSE TAIL

Product Code	Nominal Bore Flush Fit			Nominal Bore Hose			Dimensions Hose Tail mm		
J & X Series	Dash	Inch	DN	Dash	Inch	DN	L	OD	COF
FFSF1-4024X	24	1.1/2"	38	24	1.1/2"	38	84	89	68
FFSF1-5032J	32	2"	50	32	2"	50	97	95.2	75
FFSF1-5032X	32	2"	50	32	2"	50	97	95.2	75
FFSF1-63-40	40	2.1/2"	63	40	2.1/2"	63	Uses BSMS-40 Ferrule with JBF-40 hose		

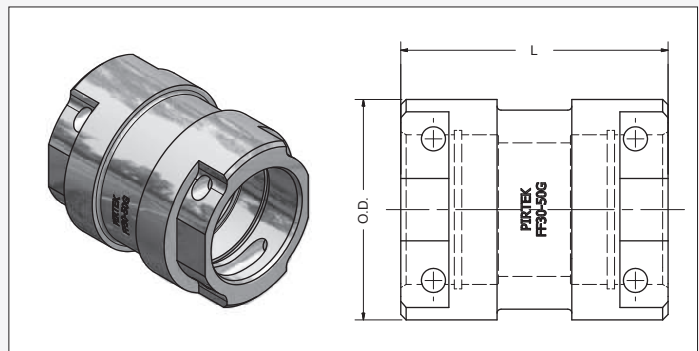
FFS30

FLUSH FIT SUPER
FEMALE SOCKET

Product Code	Nominal Bore End 1			Nominal Bore End 2			Dimensions mm				
	Dash	Inch	DN	Dash	Inch	DN	L	L1	D		
FFS30-50	32	2"	50	32	2"	50			95.2		

FFS30-G

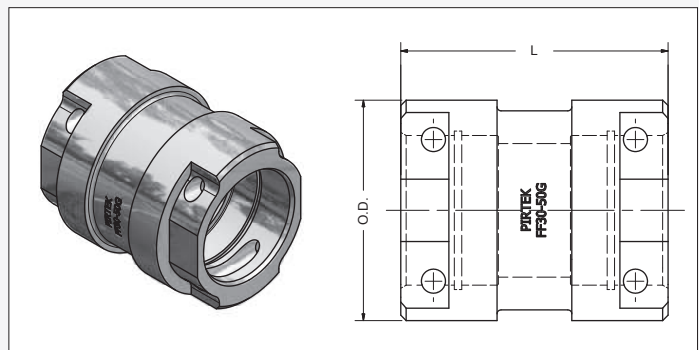
FLUSH FIT SUPER FEMALE SOCKET (GROOVED)



Product Code	Nominal Bore End 1			Nominal Bore End 2			Dimensions mm			BSPP Tapped Port (not shown)
	Dash	Inch	DN	Dash	Inch	DN	L	OD		
FFS30-50G	32	2"	50	32	2"	50		95.2		
FFS30-50G-06P	32	2"	50	32	2"	50		95.2		Side Tapped 3/8" BSPP
FFS30-63G	40	2.1/2"	63	40	2.1/2"	63				
FFS30-63G-16P	40	2.1/2"	63	40	2.1/2"	63				Side Tapped 1" BSPP

FFSE30-G-P

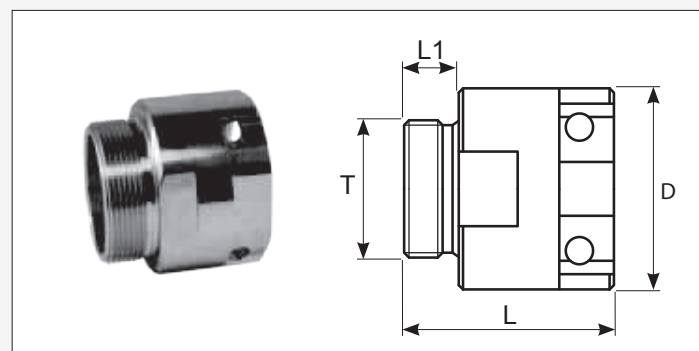
FLUSH FIT SUPER FEMALE SOCKET (GROOVED) TAPPED BSPP



Product Code	Nominal Bore End 1			Nominal Bore End 2			Dimensions mm			BSPP Tapped Port (not shown)
	Dash	Inch	DN	Dash	Inch	DN	L	OD		
FFSE30-63G-16P	40	2.1/2"	63	40	2.1/2"	63				1" - 11

FFS115F

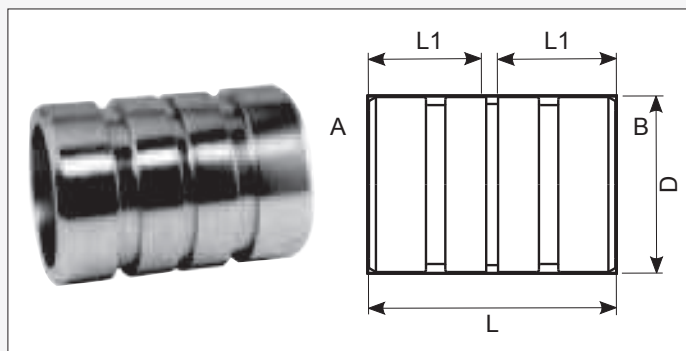
FLUSH FIT SUPER FIXED FEMALE - BSPP MALE



Product Code	Nominal Bore Flush Fit			Nominal Size T BSPP			Dimensions mm			Thread
	Dash	Inch	DN	Dash	Inch	DN	L	L1	OD	BSPP
FFS115F-50-32P	32	2"	50	32	2"	50			95.2	2" - 11
FFS115F-63-40P	40	2.1/2"	63	40	2.1/2"	63				2.1/2" - 11

FFS120

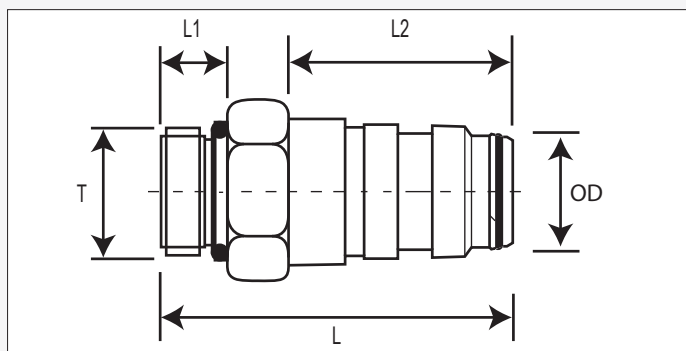
FLUSH FIT SUPER MALE NIPPLE



Product Code	Nominal Bore Flush Fit End A			Nominal Bore Flush Fit End B			Dimensions mm				
	Dash	Inch	DN	Dash	Inch	DN	L	L1	OD		
FFS120-50	32	2"	50	32	2"	50					
FFS120-63	40	2.1/2"	63	40	2.1/2"	63					

FFS155

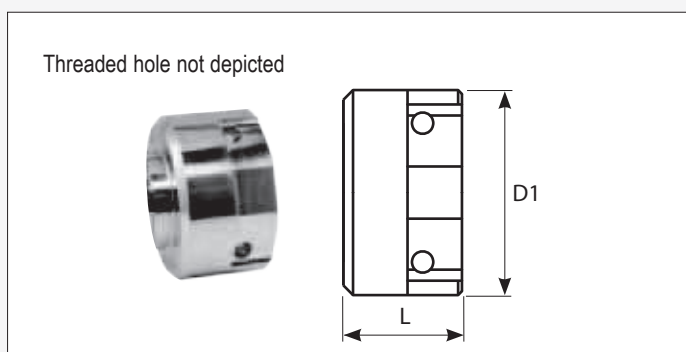
FLUSH FIT SUPER MALE - BSPP



Product Code	Nominal Bore Flush Fit			Nominal Size T BSPP			Dimensions mm				Thread
	Dash	Inch	DN	Dash	Inch	DN	L	L1	L2	OD	BSPP
FFS155-50-32P	32	2"	50	32	2"	50					2" - 11
FFS155-63-40P	40	2.1/2"	63	40	2.1/2"	63					2.1/2" - 11

FFS160TH

FLUSH FIT SUPER CAP 8 mm THREADED HOLE

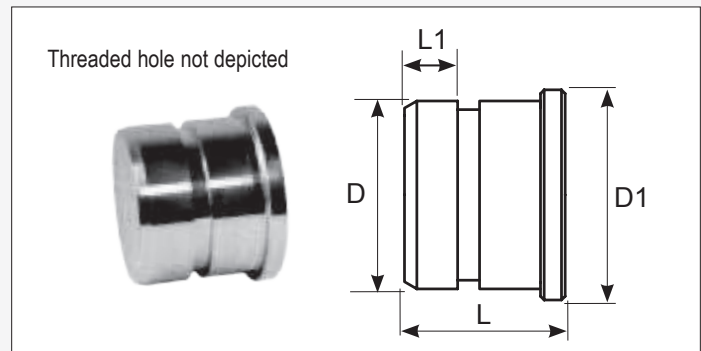


Product Code	Nominal ID						Dimensions mm		
	Side A			Side B			L	D1	Thread
	Dash	Inch	DN	Dash	inch	DN			
FFS160TH-50	32	2"	50	32	2"	50		95.2	M8x1.5
FFS160TH-63	40	2.1/2"	63	40	2.1/2"	63			M8x1.5

FFS165TH

FLUSH FIT SUPER PLUG

8 mm THREADED HOLE

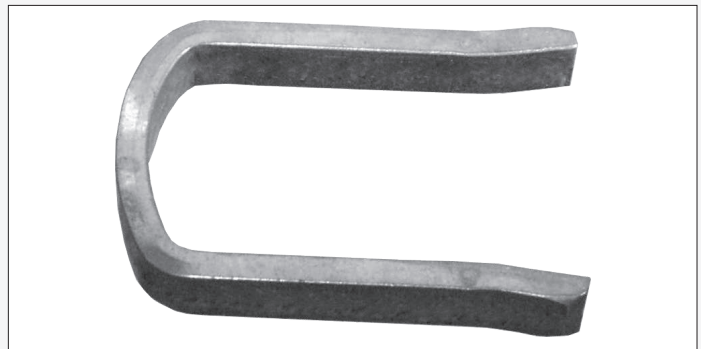


Product Code	Nominal ID						Dimensions mm				
	Side A			Side B							
	Dash	Inch	DN	Dash	inch	DN	L	L1	D	D1	Thread
FFS165TH-50	32	2"	50	32	2"	50	48	28	56	65	M8x1.5
FFS165TH-63	40	2.1/2"	63	40	2.1/2"	63	67	25	76	85	M8x1.5

FFS175D

FLUSH FIT SUPER SECURING STAPLE

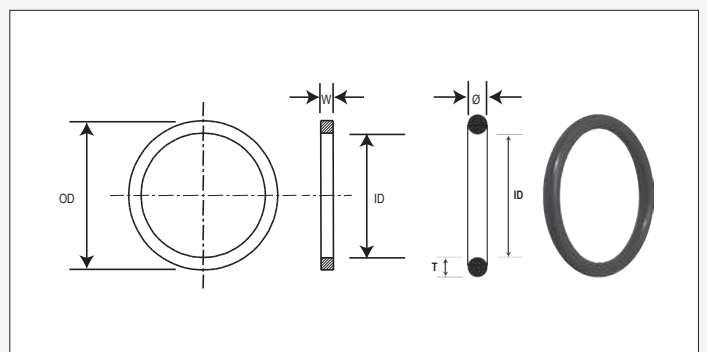
'D' SECTION



Product Code	Nominal Size Flush Fit			Profile	Dimensions mm		
	Dash	Inch	DN	Length	Length	Staple Thickness	Staple Width
FFS175D-40	24	1.1/2"	40	'D'			
FFS175D-50	32	2"	50	'D' Section	94	9.5	12
FFS175D-63	40	2.1/2"	63	'D' Section	107	10.5	14

FFS180 & FFS195

FLUSH FIT SUPER O-RING & BACK-UP - DURO 90

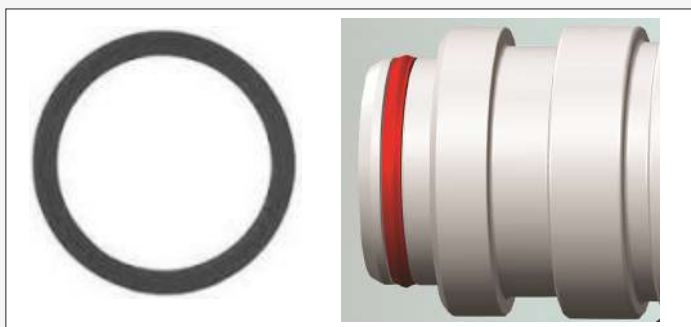


Product Codes		Location	Nominal Size Flush Fit			Dimensions O-Ring mm			Dimensions Backup mm		
O-Ring	Backup		Dash	Inch	DN	OD	ID	Ø	OD	ID	W
FFS180-50	FFS195-50	Male	32	2"	50	46.0	40.0	3.0	47.0	42.0	1.5
FFS180-63	FFS195-63	Male	40	2.1/2"	63	66.00	59.00	3.0	65.00	59.0	1.5

FFS200

FLUSH FIT SUPER

ONE PIECE SEAL - POLYURETHANE



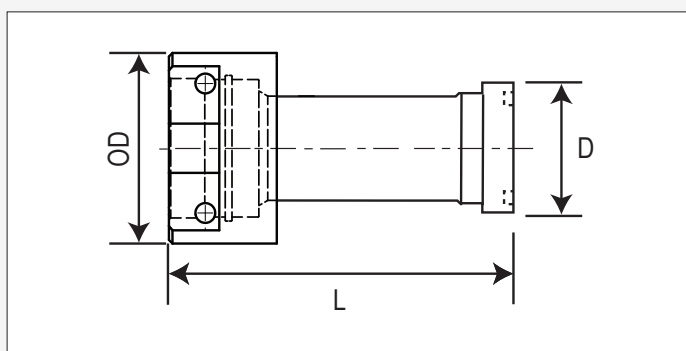
Product Codes	Location	Nominal Size Flush Fit			Dimensions mm	
		Dash	Inch	DN	ID	A (Width)
FFS200-40	Male	24	1.1/2"	40	38.5	4.2
FFS200-50	Male	32	2."	50	44.5	4.2
FFS200-63	Male	40	2.1/2"	63	58.5	4.6
FFS200-76	Male	76	3"	76	70.5	4.6

Material: Thermoplastic Polyurethane **Temperature:** -25° C to 110° C**Colour:** Red **Impulse Cycles:** 1,000,000 minimum

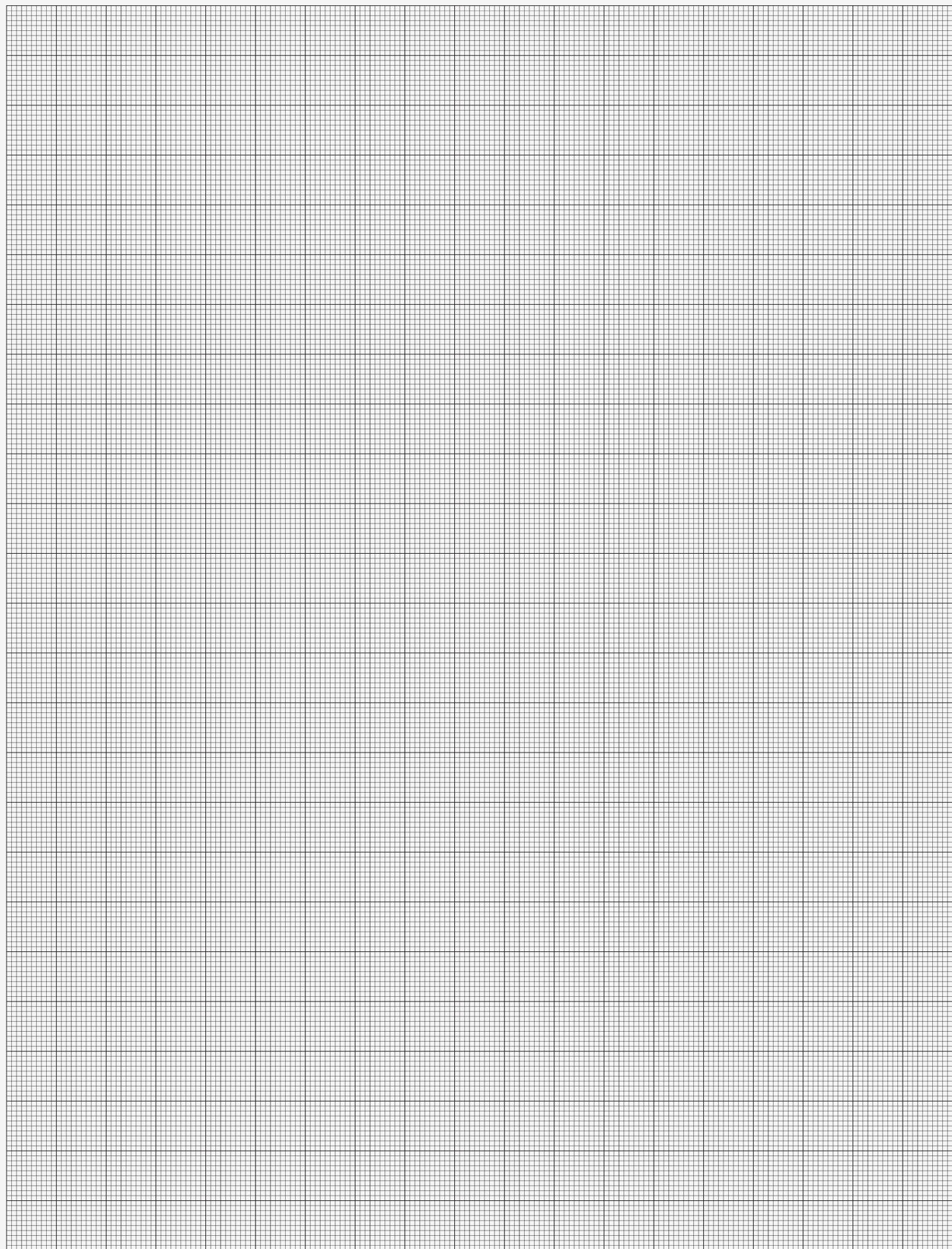
FFSF-xx-C6x1

FLUSH FIT SUPER - CODE FLANGE

STRAIGHT ADAPTOR



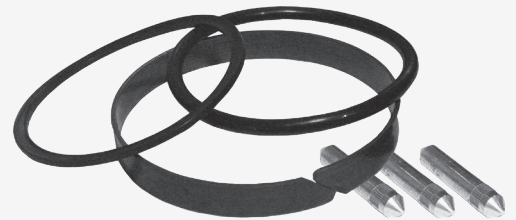
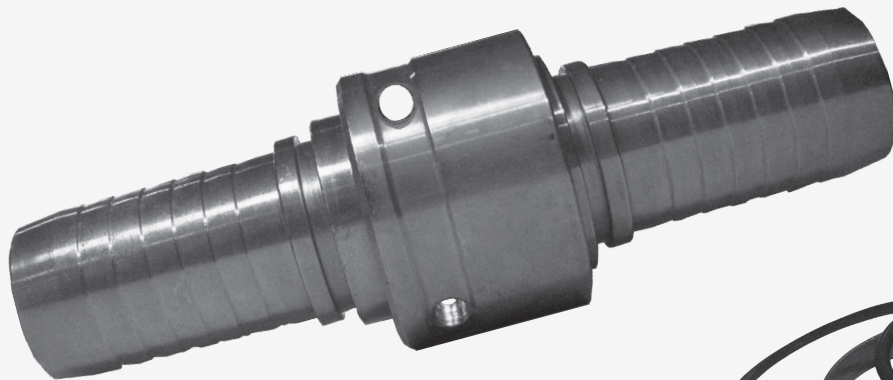
Product Code	Nominal OD						Dimensions mm		
	Flushfit Super			Code Flange					
	Size	Inch	DN	Type	Dash	Inch	L	OD	D
FFSF-50-C621-32	50	2"	50	Code 62	32	2"		95.2	79.5
FFSF-63-C611-40	63	2.1/2"	63	Code 61	40	2.1/2"			84.1



SLIMLINE® ORIGINAL

LOW PRESSURE COUPLING

LOW PROFILE



Description:

- Steel bodied hose tail originally developed for use in Australian underground coal mines
- Intended to provide a full bore internal flow path with smallest possible exterior dimensions
- Retention system uses 2 or 3 shear pins and a pin retaining clip in spring steel
- 'Snag free' external profile

Materials and Specifications:

- Free cutting steel body and pins
- Flat Teflon or NBR backup ring
- Nitrile O-Ring

Applications:

- Low to medium pressure large bore return lines where the application requires a smooth exterior profile to avoid snagging
- Two piece ferrule and tail types using the FFI ferrule are suited to industrial hose only

Note:

This design has evolved into 3 variations of differing pressure capabilities, and differentiated by the pin size and clip width

Consult Pirtek for availability

NOMINAL WORKING PRESSURES

SLIMLINE ORIGINAL

Size			Slimline Low Pressure (SLL) - Bar		Slimline Med Pressure (Slim) Bar		Slimline High Pressure (SLH) Bar	
Dash	Inch	DN	Working Pressure	Burst Pressure	Working Pressure	Burst Pressure	Working Pressure	Burst Pressure
24	1.1/2"	40	-	-	100	400	140	560
32	2"	50	17	68	70	280	140	560
40	2.1/2"	63	70	280				

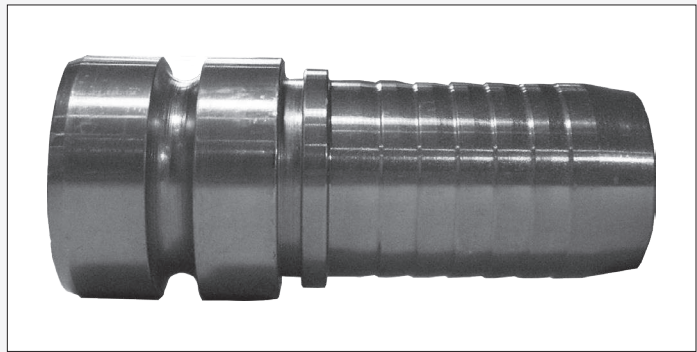
ISLM1

INDUSTRIAL SLIMLINE

MALE HOSE TAIL

Requires FFI-xx ferrule

eg ISLM1-5032 requires a FFI-50 ferrule to suit FRAS hose



Product Code	Nominal Bore Slimline			Nominal Bore Hose			Dimensions mm		
	Dash	Inch	DN	Dash	Inch	DN	Length	OD	Cutoff Factor*
ISLM1-4024	24	1.1/2"	40	24	1.1/2"	40	110	47.4	41
ISLM1-5032	32	2"	50	32	2"	50	136	60.2	55
ISLM1-6340	40	2.1/2"	63	40	2.1/2"	63	182	76.15	69

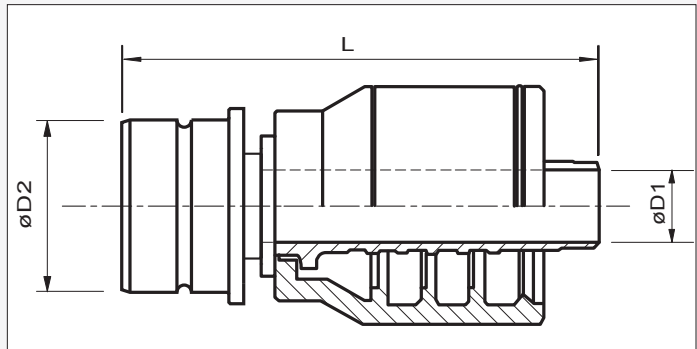
* Sealing point for cut off factor is at the midpoint of the leading land area

SLM1

SLIMLINE

MALE HOSE TAIL

U Series Lightweight is to suit FRAS hose



Product Code	Nominal Bore Slimline			Nominal Bore Hose			Dimensions mm		
	Dash	Inch	DN	Dash	Inch	DN	Length	D2	D1
SLMM1-5032J	32	2"	50	32	2"	50	143.5	60.3	42
SLHM1-5032J	32	2"	50	32	2"	50			
SLMM1-5032U	32	2"	50	32	2"	50	143.5	60.3	42
SLLM1-6340J	40	2.1/2"	63	40	2.1/2"	63	153	76.2	55

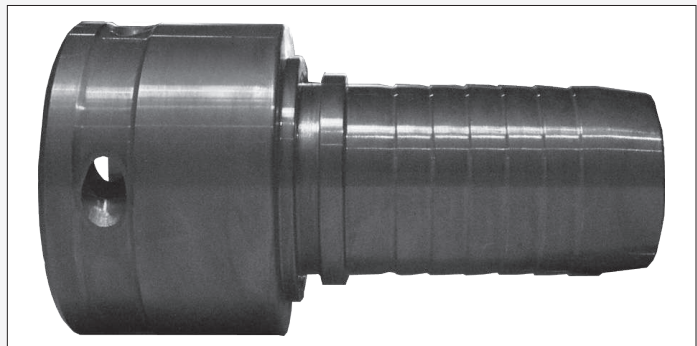
ISLF1

INDUSTRIAL SLIMLINE

FEMALE HOSE TAIL

Requires FFI-xx ferrule

eg ISLF1-5032 requires a FFI-50 ferrule to suit FRAS hose



Product Code	Nominal Bore Slimline			Nominal Bore Hose			Dimensions mm		
	Dash	Inch	DN	Dash	Inch	DN	Length	OD	Cutoff Factor *
ISLF1-4024	24	1.1/2"	40	24	1.1/2"	40	116	63.4	30

* Sealing point for cut off factor is the internal O-Ring

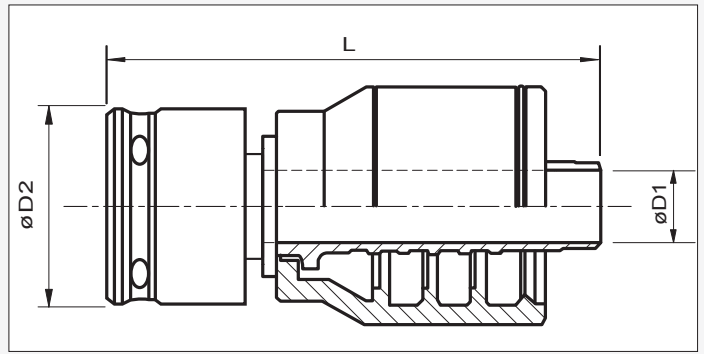


This page is part of a complete catalogue containing technical and safety data.
All data must be reviewed when selecting a product.
Pirtek reserve the right to change technical specifications without notice

SLF1

SLIMLINE

FEMALE HOSE TAIL



Product Code	Nominal Bore Slimline			Nominal Bore Hose			Dimensions mm		
	Dash	Inch	DN	Dash	Inch	DN	Length	D2	D1
SLMF1-5032J	32	2"	50	32	2"	50	139.7	76.5	42
SLHF1-5032J	32	2"	50	32	2"	50			
SLLF1-6340J	40	2.1/2"	63	40	2.1/2"	63	153	98.5	55

SL30

SLIMLINE

FEMALE SOCKET



Product Code	Nominal Bore Staple			Nominal Bore Hose			Dimensions mm		
	Dash	Inch	DN	Dash	Inch	DN	L	OD	ID
SLM30-40	24	1.1/2"	40	24	1.1/2"	40			
SLM30-50	32	2"	50	32	2"	50	85.0	76.8	60.8
SLL30-63	40	2.1/2"	63	40	2.1/2"	63	100	99	76.8

SLE30

SLIMLINE

COUPLING FEMALE FIXED

TAPPED 1" BSP PORT



Product Code	Nominal Bore Flush Fit			Nominal Bore Hose			Dimensions mm		
	Dash	Inch	DN	Dash	Inch	DN	Length	OD	BSP Thread †
SLME30-50-16P	32	2"	50	32	2"	50	113.7	76.5	G-1"
SLME30-50-16T	32	2"	50	32	2"	50	113.7	76.5	R-1"
SLLE30-63-16P	40	2.1/2"	63	40	2.1/2"	63	132	98.5	G-1"
SLLE30-63-16T	40	2.1/2"	63	40	2.1/2"	63	132	98.5	R-1"

† 'G' denotes parallel thread (requires use of a 'Z' Series bonded seal available separately - see page 141)

'R' denotes tapered thread

SL115

SLIMLINE FEMALE x BSP MALE

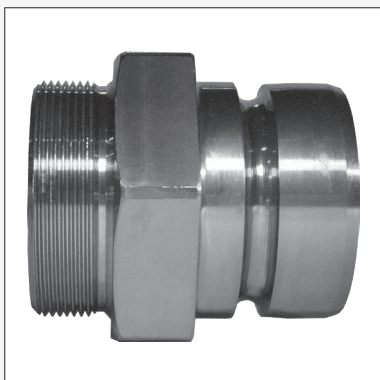


Product Code	Nominal ID			BSP Thread †	Dimensions mm			
	Slimline Female							
	Dash	Inch	DN	T	L	Thread Length	OD	Hex AF
SL115-40-24P	24	1 1/2"	40	G-1 1/2"				
SLM115-50-32P	32	2"	50	G-2"	90	28	76	76
SLM115-50-32T	32	2"	50	R-2"	93	30	76	76
SLM115-50-40P	32	2"	50	R-2"				
SLL115-63-40P	40	2.1/2"	63	G-2.1/2"	100	25	98.5	98
SLL115-63-40T	40	2.1/2"	63	R-2.1/2"	105	30	98.5	98

† 'R' denotes tapered thread 'G' denotes parallel thread. (The parallel thread requires use of a 'Z' Series bonded seal available separately - see page 141)

SL155

SLIMLINE MALE x BSPP MALE



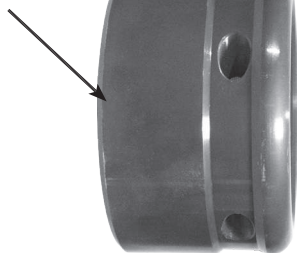
Product Code	Nominal ID			BSPP Thread	Dimensions mm			
	Slimline Male							
	Dash	Inch	DN	T	L	Thread Length	Staple OD	Hex AF
SL155-40-24P	24	1.1/2"	40	G-1.1/2"				
SLM155-50-32P	32	2"	50	G-2"	85	25	66	76
SLL155-63-40P	40	2.1/2"	63	G-2.1/2"	100	25	83	87.5

† 'G' denotes parallel thread (requires use of a 'Z' Series bonded seal available separately - see page 141)

SL160

SLIMLINE CAP

Optional BSPP
threaded port



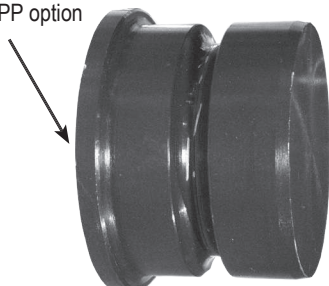
Product Code	Nominal Bore Slimline			Dimensions mm		
	Dash	Inch	DN	L	OD	ID
SL160-40	24	1 1/2"	40	42	77	
SLM160-50	32	2"	50	60	76	60.6
SLL160-63	40	2 1/2"	63	79	100	76.5

BSPP Tapped Port available for all sizes upon request. Please specify when ordering

SL165

SLIMLINE MALE PLUG

Blind tapped
BSPP option



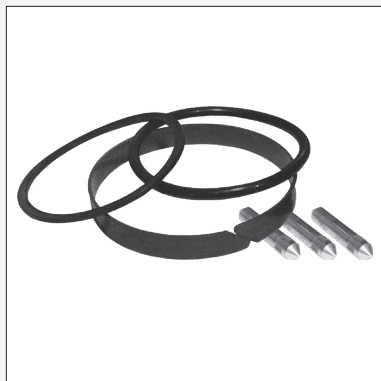
Product Code	Nominal Bore Slimline			Dimensions mm		
	Dash	Inch	DN	Length	Slimline OD	Max. OD
SL165-40	24	1 1/2"	40			
SLM165-50	32	2"	50	47	60	68
SL165-63	40	2 1/2"	63	47	60	68

BSPP Tapped Port available for all sizes upon request. Please specify when ordering

SLK

SLIMLINE PIN KIT

O-RING, BACKUP, PINS & RETAINER

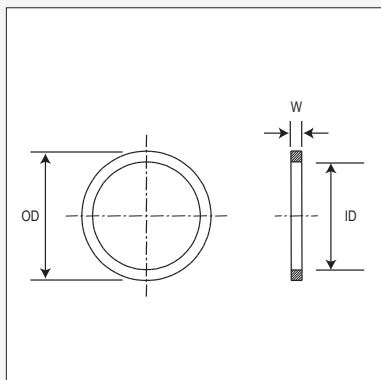


Product Code	Nominal ID			Kit Includes
	Dash	Inch	DN	
SLMK-40	24	1.1/2"	40	1 x O-Ring (SLO-40) 1 x Back-up Ring (SLB-40) 1 x Spring Clip (SLC-40) 2 x Retaining Pins (SLP-40)
SLMK-50	32	2"	50	1 x O-Ring (SLO-50) 1 x Back-up Ring (SLB-50) 1 x Spring Clip (SLC-50) 2 x Retaining Pins (SLP-50)
SLHK-50	32	2"	50	1 x O-Ring 1 x Back-up Ring 1 x Spring Clip 3x Retaining Pins
SLLK-63	40	2.1/2"	63	1 x O-Ring (SLO-63) 1 x Back-up Ring (SLB-63) 1 x Spring Clip (SLC-63) 3 x Retaining Pins (SLP-63)

Note that only 2 retaining pins are required in the original Slimline® design

SLB

SLIMLINE BACKUP RING

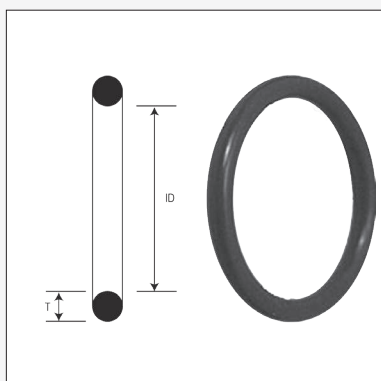


Product Code	Dimensions mm		
	OD	ID	Width W
SLB-40	57.3	48.2	1.88
SLB-50	68.8	60.4	1.93
SLB-63	86	76.2	2.0

This product is shown for technical reference only. It is available only as part of the complete kit **SLK-63**

SLO

O-RING SEAL



Product Code	Dimensions mm		
	OD	ID	Thickness T
SLO-40	56.7	47.5	5.35
SLO-50	70.3	60.4	5.35
SLO-63	85.5	75.5	5.35

This product is shown for technical reference only. It is available only as part of the complete kit **SLK-63**

SLP

SLIMLINE SECURING PIN



Product Code	No. of Pins	Dimensions mm		
		Length	OD	OD Milled Section
SLP-40	2	34.6	7.9	8.1
SLP-50	2	41.2	7.9	8.3
SLHP-50	3	45.5	9.5	9.8
SLP-63	3	52.6	9.5	9.8

This product is shown for technical reference only. It is available only as part of the complete kit **SLK-63**

SLC

SLIMLINE RETAINING CLIP



Product Code	Dimensions mm		
	OD	ID	Width W
SLC-40	61.6	58.2	7.9
SLC-50	76.5	72.9	7.9
SLC-63	93.8	89.8	11.6

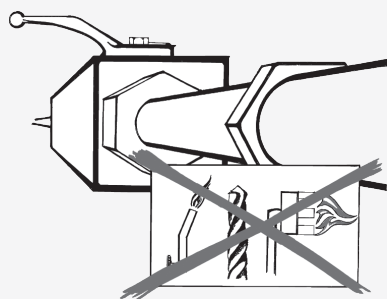
This product is shown for technical reference only. It is available only as part of the complete kit **SLK-63**

HIGH PRESSURE BALL VALVES

SAFE PRACTICE REQUIREMENTS

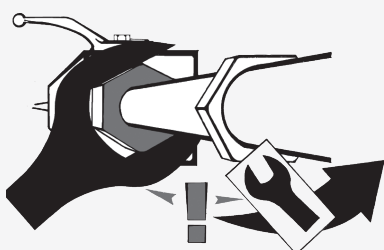
GENERAL INSTRUCTION

- Ball valves must be operated only at the positions of the stop pins ie fully open or fully closed
- Never use a ball valve to control or throttle flow - seals and seats will be damaged and heat will be induced to the system
- Do not use mechanical aids to assist turning ball valves (gripping jaws on spindles, levers, pipe extensions, hammers etc)
- Ensure all special operating conditions concerning the application are communicated to the supplier before selecting a ball valve (including criteria such as humidity, vibrations, operation frequency, electromagnetic fields, explosive zones, anti-static etc)
- Store valves as supplied in a dry area free of contamination and with protective caps in place
- Do not operate ball valves more than 10 times per minute in explosive zones, as induced heat may create a dangerous situation
- Always wear protective gloves - the handle will adopt the temperature of the fluid
- Never modify a ball valve by drilling mounting holes, welding etc



INSTALLATION

- Use only a ball valve that is correctly matched to the intended application with regard to pressure rating, materials of construction, operating temperature, port configuration and lock out capabilities
- EN ISO 5211.8 stipulates that a ball valves must turn 1/4 turn clockwise to close the valve, and incorporate a notch on the spindle to show the current ball position
- Installation should be by qualified people and in a totally depressurised pipe system
- Clean thoroughly all system components prior to installation to prevent damage to the sealing elements
- Always hold any end adaptors securely to counter torque loads when tightening fittings
- Do not tighten or loosen the end adaptors from their factory settings in any way
- Always drain a valve and the complete system before dismantling if dealing with toxic, combustible or explosive media



- With flanged valves, ensure flange connection bolts are properly centred with the opposing flange before tightening bolts in a crosswise procedure
- Use only clean undamaged seals of the correct Standard between flanges
- Use correct size and strength of bolts, and heed length of engagement requirements in tapped holes
- Heed good welding practice when using welded end valves
- Eliminate any welding residue to ensure a clean internal space of the valve
- Ensure the ball cavity remains within tolerable limits during the welding process to prevent distortion and seat / seal damage
- Ensure the installed valve meets with the requirements of the pipe layout to ensure proper accessibility

INITIAL OPERATION

- Reread all instructions and operational requirements prior to commissioning, and gain any necessary approvals
- Use only qualified personnel for initial commissioning of the system
- Note that the operating torque of a valve that has been in storage or has been in the same operating position for a prolonged period will be noticeably higher than published breakaway torques
- Fully bleed the pipeline system before initial operation

ALL AIR BUBBLES MUST BE REMOVED PRIOR TO FULL PRESSURISATION. RISK OF EXPLOSION!!

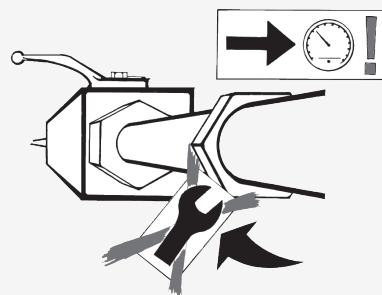
- Build the pressure up slowly
- If a ball valve is used as a pipe line termination point, the open end adaptor must be properly closed to prevent any internal debris being expelled unexpectedly

MAINTENANCE & SURVEYS

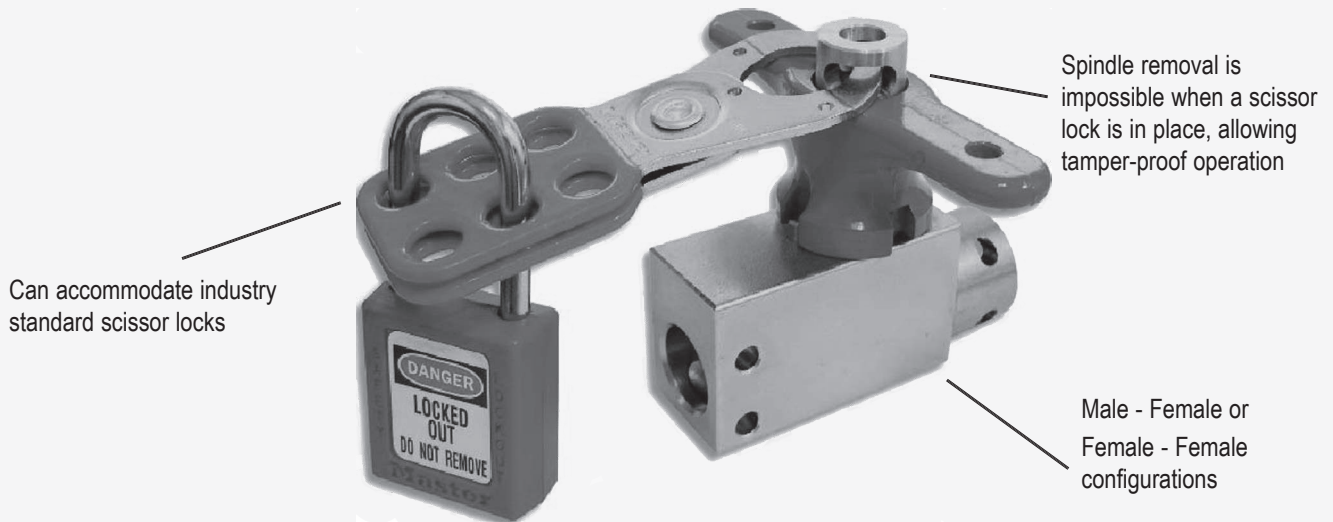
- When draining a system to prevent frost damage or for cleaning, drain the ball cavity by opening the ball to the 45° position
- Do not disassemble ball valves
- Poor quality sealants must not be used for storage
- Inspect valves regularly for proper operating function (6 monthly minimum)
- Replace corroded, leaking or immovable ball valves without delay

REMOVAL FROM SERVICE

- Never remove a ball valve without first relieving system pressure
- Always turn a valve to the mid position to properly relieve the internal cavity pressure
- Drain the system of fluid completely
- Wear personal protective equipment as necessary



SLV / SSV

LOCKABLE BALL VALVES
STANDARD AND SUPER STAPLE**Description:**

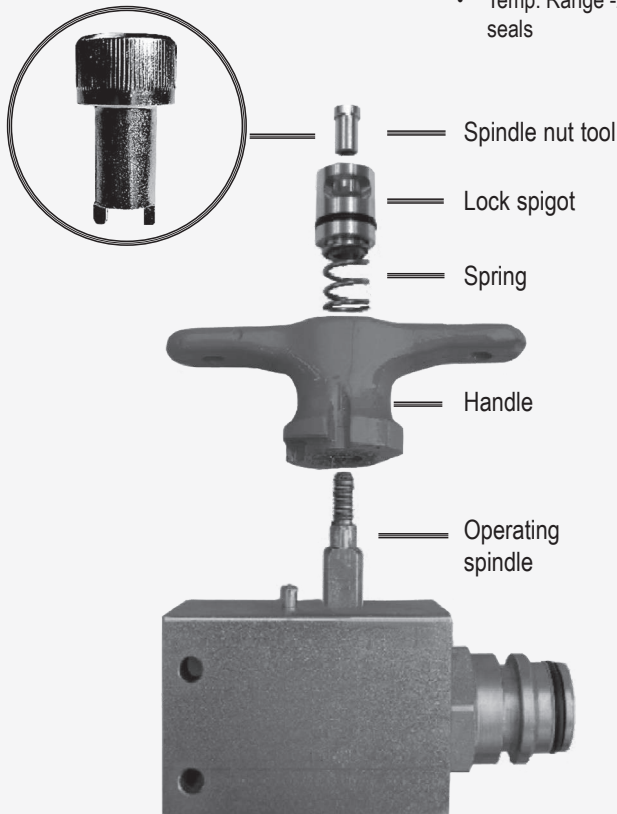
- Steel bodied ball valve with either fixed female or male - female configurations
- Patented safety locking design that is fully compliant with padlocks and scissor locks in common use
- Able to be configured to the customer requirement as to handle position (standard configuration is for the valve to be closed when the handle is in the pictured position)

Materials and Specifications:

- Passivated zinc corrosion protection
- All steel construction
- Nitrile seals
- High working pressures
- Handle movement involves a lift and twist operation, preventing tampering or disassembly when a padlock is in place (the lifting action is prevented by the presence of a padlock)
- Temp. Range -20 to +100°C with standard seals

Features:

- Handles can be colour coded to customer request (red is standard)
- Mounting holes (not illustrated) are incorporated in some styles - Refer Pirtek

**PROCEDURE TO ALTER THE LOCK FUNCTION**

1. Start with the handle in the open position
2. Unscrew the spindle nut at the top of the handle (use the tool circled at left)
3. Remove the lock spigot and spring before sliding the handle vertically clear of the operating spindle
4. Rotate the handle through 1/2 turn anti-clockwise
5. Refit the handle in the new position
6. Replace the spring and lock spigot
7. Secure the handle using the spindle nut tool

REPLACEMENT HANDLE REPAIR KIT

The components shown at left (excluding the valve body and spindle nut tool) can be ordered using Product Code **SV-HD6RD-KIT**

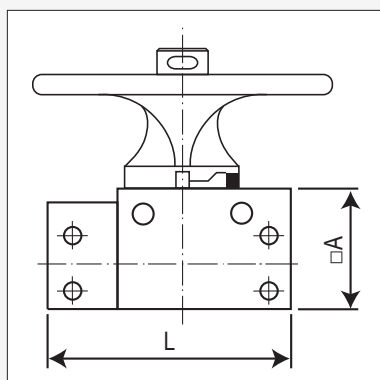
SPINDLE NUT TOOL

Available to order using Product Code **SLV-TOOL**

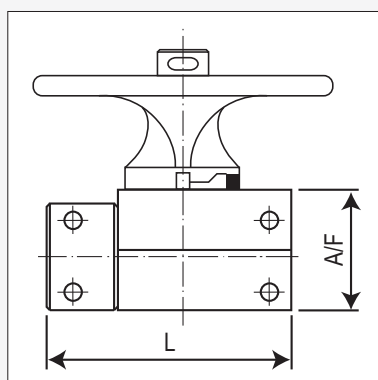
SLV01

LOCKABLE BALL VALVE

FEMALE - FEMALE STD. STAPLE



Config. 1 Square



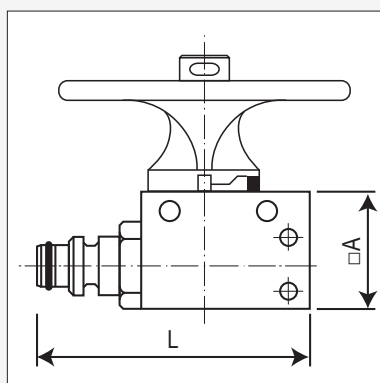
Config. 2 Hexagonal

Product Code	Configuration	Nominal Bore			Pressure Rating bar		Dimensions mm		
		Dash	Inch	DN	Working	Burst	L	A	AF
SLV01-06-6RD	1	6	3/8"	10	500	1250	88	40	-
SLV01-08-6RD	1	8	1/2"	12	500	1250	112	40	-
SLV01-12-6RD	1	12	3/4"	20	500	1250	115	50	-
SLV01-16-6RD	2	16	1"	25	400	1000	135	-	60

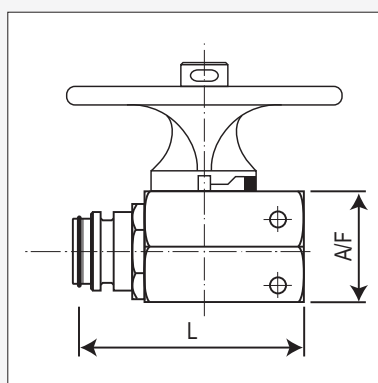
SLV31F

LOCKABLE BALL VALVE

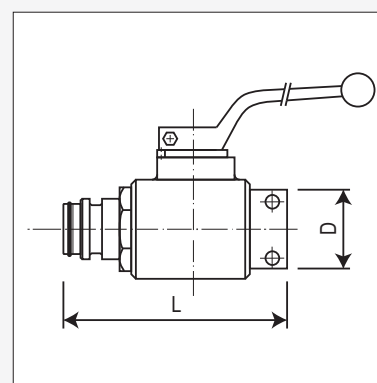
MALE - FEMALE STD. STAPLE



Config. 1 Square



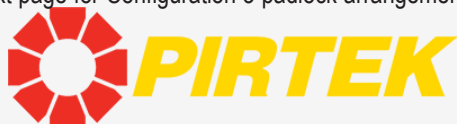
Config. 2 Hexagonal



Config. 3 Round

Product Code	Configuration	Nominal Bore			Pressure Rating bar		Dimensions mm			
		Dash	Inch	DN	Working	Burst	L	A	AF	D
SLV31F-06-6RD	1	6	3/8"	10	500	1250	88	40	-	-
SLV31F-08-6RD	1	8	1/2"	12	500	1250	112	40	-	-
SLV31F-12-6RD	1	12	3/4"	20	500	1250	115	50	-	-
SLV31F-16-6RD	2	16	1"	25	400	1000	135	-	60	-
SLV31F-20-6RD	2	20	1.1/4"	32	300	600	145	-	60	-
SLV31F-24-1PL †	3	24	1.1/2"	40	250	500	190	-	-	70
SLV31F-32-1PL †	3	32	2"	50	200	400	200	-	-	82

† See next page for Configuration 3 padlock arrangement (1PL suffix)

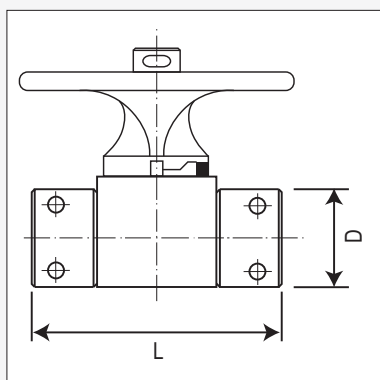


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SSV01

LOCKABLE BALL VALVE

FEMALE - FEMALE SUPER STAPLE

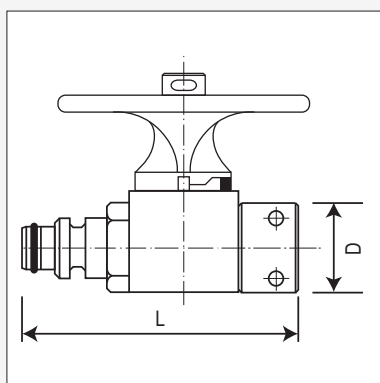


Product Code	Configuration	Nominal Bore			Pressure Rating bar		Dimensions mm		
		Dash	Inch	DN	Working	Burst	L	D	
SSV01-20-6RD	1	20	1.1/4"	32	350	700	195	70	

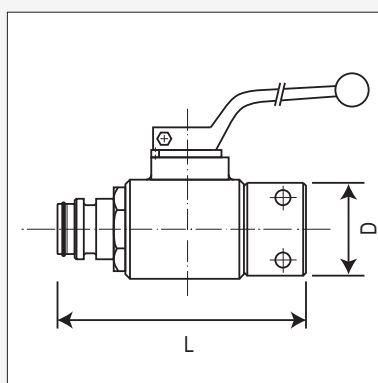
SSV31

LOCKABLE BALL VALVE

MALE - FEMALE SUPER STAPLE



Config. 1 Square



Config. 3 Round



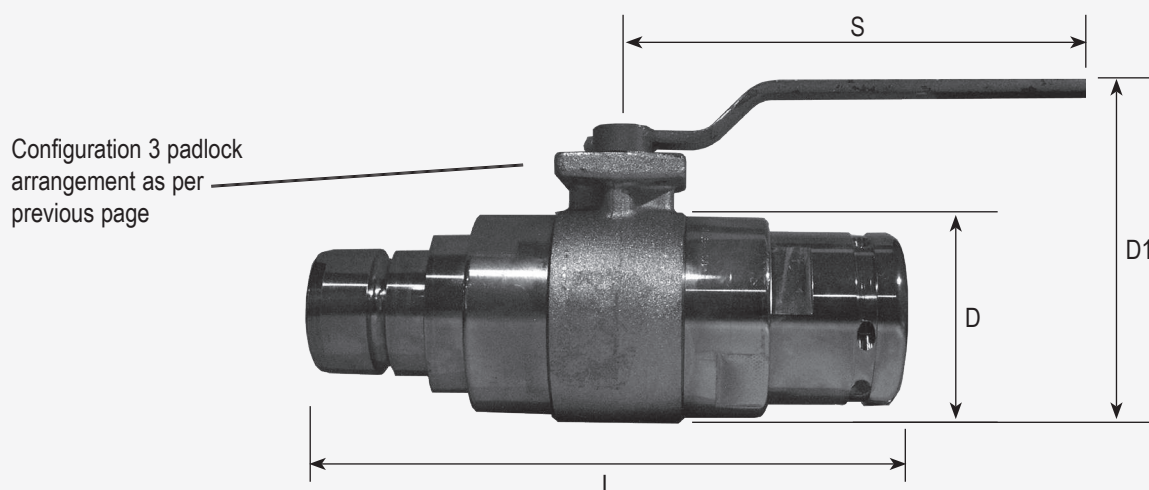
Config. 3 Padlock Arrangement

Product Code	Configuration	Nominal Bore			Pressure Rating bar		Dimensions mm		
		Dash	Inch	DN	Working	Burst	L	D	
SSV31-12-6RD	1	12	3/4"	20	500	1250	160	45	
SSV31-16-6RD	1	16	1"	25	420	1000	205	60	
SSV31-20-6RD	1	20	1.1/4"	32	420	700	205	95	
SSV31-20-1PL	3	20	1.1/4"	32	420	700	205	82	
SSV31-24-1PL	3	24	1.1/2"	40	420	700	235	82	
SSV31-32-1PL	3	32	2"	50	350	700	260	95	

CLBV

LOCKABLE BALL VALVE

CLIPLINE MALE - FEMALE



Description:

- Steel bodied ball valve with fixed male - female configuration
- Lockable lever handle with positive stop points at the open and closed positions
- Lever can be removed (Allen key required) and repositioned as desired

Materials and Specifications:

- Passivated zinc corrosion protection
- All steel construction
- Nitrile seals
- 140 bar working pressure
- Temp. Range -20 to +100°C with standard seals

Features:

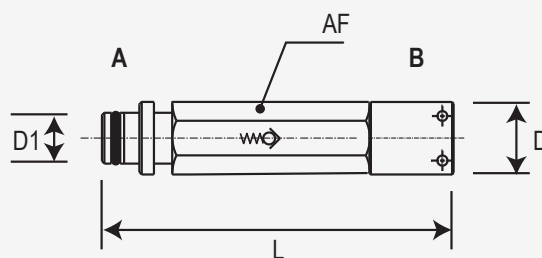
- Allows lockable valve installation on Cipline circuits

Product Code	Configuration	Nominal Bore			Pressure Rating bar		Dimensions mm			
		Dash	Inch	DN	Working	Burst	L	D	D1	S
CLBV-63	3	63	2.1/2"	65	140	280	370	125	215	300

SCV

STAPLELOK CHECK VALVE

STANDARD STAPLELOK M-F

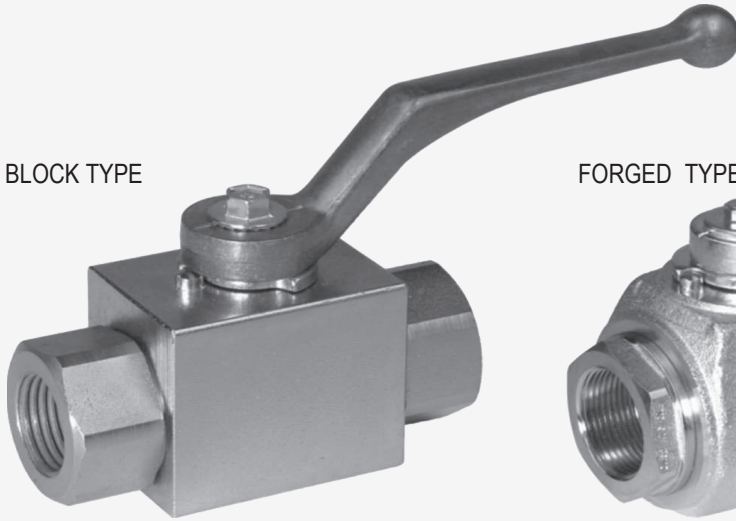


Product Code	Nominal Bore			Pressure Rating bar			Dimensions mm			
	Dash	Inch	DN	Cracking	Working	Burst	D	D1	L	AF
SCV-10	6	3/8"	10	0.5	420	700	30	14	132	36

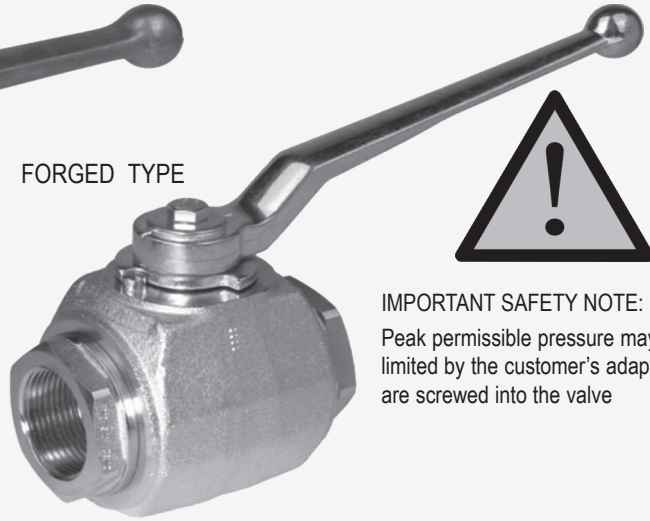
SPBV

HIGH PRESSURE BALL VALVES CONVENTIONAL BSPP FEMALE ENDS

BLOCK TYPE



FORGED TYPE


IMPORTANT SAFETY NOTE:

Peak permissible pressure may be limited by the customer's adaptors that are screwed into the valve

Description:

- Steel bodied ball valve in either block style or forged steel
- Pressure balanced floating ball between seals ensures a maintenance free life
- Pre-loaded ball seats guarantee tightness even in vacuum
- Stem fitted from within the housing prevents blow-off of the stem

Materials and Specifications:

- Free cutting steel body, ball, seat and stem
- Polyamide ball seat
- Perbunan NBR O-rings
- 3 grades of plating according to product
 1. black oxidised body
 2. CR6 free corrosion protection
 3. chemically applied nickel plating
- Zinc alloy handles
- Temp. Range -20 to +100°C with standard seals

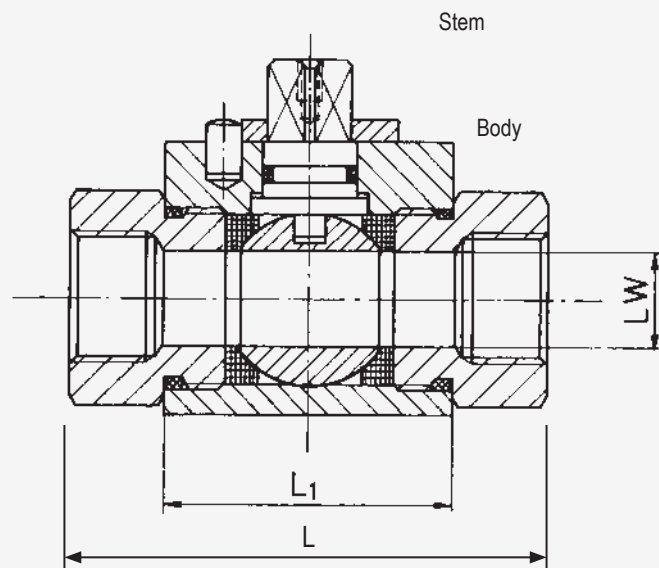
Applications:

- General hydraulics
- steam
- paint
- thermo oil
- Special seals may be required in some applications. Please advise if planning an application other than normal hydraulics

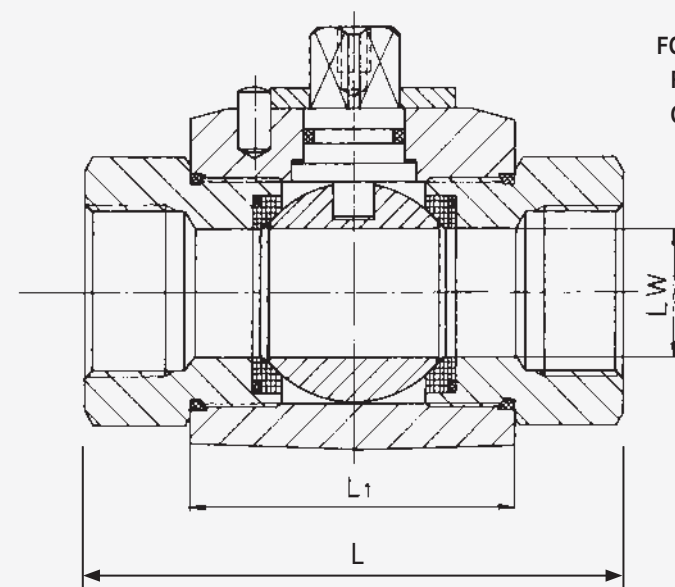
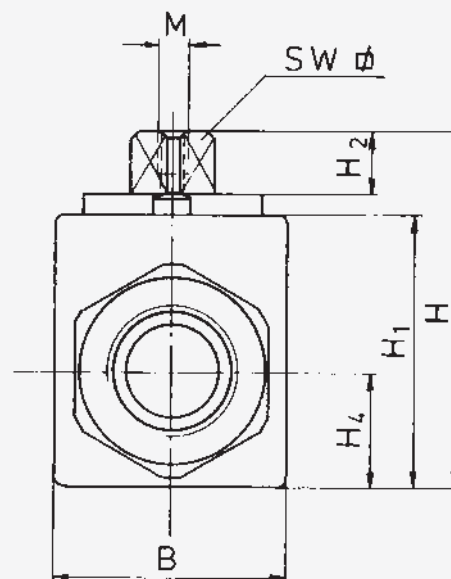
SPBV

HIGH PRESSURE BALL VALVES

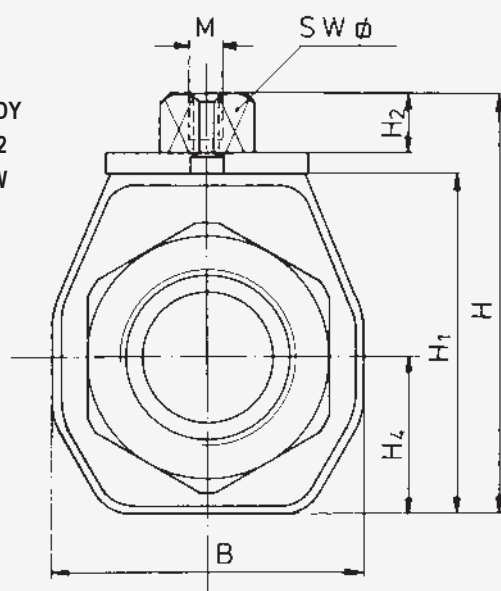
CONVENTIONAL BSPP FEMALE ENDS



BLOCK TYPE BODY
REFER COLUMN 2
OF TABLE BELOW



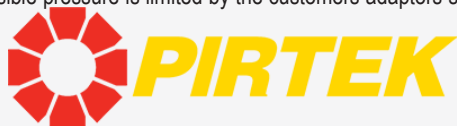
FORGED TYPE BODY
REFER COLUMN 2
OF TABLE BELOW



PIRTEK SPBV HIGH PRESSURE BALL VALVES

Product Code	Body Type	Surface Finish	Nominal Size			Valve WP *	Dimensions mm									
			Dash	BSPP	DN		LW	L1	B	H	H1	H2	H4	SW	M	S
SPBV-04	Block	Black	04	1/4"	6	400	6	36.2	26	43.4	32	11	12.8	9	M5	3
SPBV-06	Block	Black	06	3/8"	10	400	10	43.2	32	49.2	38	10.9	16.25	9	M5	3
SPBV-08	Block	Black	08	1/2"	13	400	13	48.2	35	51.2	40	10.9	17.25	9	M5	3
SPBV-12	Block	Black	12	3/4"	20	400	20	62.2	49	73.4	57	16	24.5	14	M6	4
SPBV-16	Block	Black	16	1"	25	400	24	66.2	60	76.6	60	16	26.5	14	M6	4
SPBV-16G	Forged	Yellow Pass.	16	1"	25	400	65	58	79.4	63	16	28.2	14	14	M6	4
SPBV-20	Block	Black	20	1 1/4"	32	350	24	66.4	60	76.6	60	12	26.5	14	M6	4
SPBV-20A	Forged	Nickel	20	1 1/4"	32	400	32	80	80	104.4	85.4	18.5	39.5	17	M8	5
SPBV-20G	Forged	Yellow Pass.	20	1 1/4"	32	420	32	80	80	104.4	85.4	18.5	39.5	17	M8	5
SPBV-24	Forged	Black	24	1 1/2"	40	400	38	85	84	111.4	92.4	18.5	42	17	M8	5
SPBV-24G	Forged	Yellow Pass.	24	1 1/2"	40	400	38	85	84	111.4	92.4	18.5	42	17	M8	5
SPBV-32	Forged	Black	32	2"	50	400	47.5	100	104	129	110	18.5	52	17	M8	5
SPBV-32G	Forged	Yellow Pass.	32	2"	50	400	47.5	100	104	129	110	18.5	52	19	M8	5

* Peak permissible pressure is limited by the customers adaptors screwed into the valves



This page is part of a complete catalogue containing technical and safety data.
All data must be reviewed when selecting a product.
Pirtek reserve the right to change technical specifications without notice

SHBV

HANDLES TO SUIT

HIGH PRESSURE BALL VALVES



Product Code	To suit Product Codes				Material	Dimensions mm		
	Conventional	Stainless Steel	Flanged	3-Way		Valve Stem	L	Offset
SHBV-06	SPBV-04, -06, -08	SSBV-04, -06, -08		STBV-04, -06, -08	Zinc alloy	9	110	36
SHBV-16	SPBV-12, -16, -20	SSBV-12, -16	FBVC62-16		Zinc alloy	14	165	65
SHBV-24	SPBV-20A, -24	SSBV-20, -24, -32	FBVC62-20, -24, -32		Zinc alloy	17	280	16
SHBV-32	SPBV-32				Zinc alloy	19	210	66

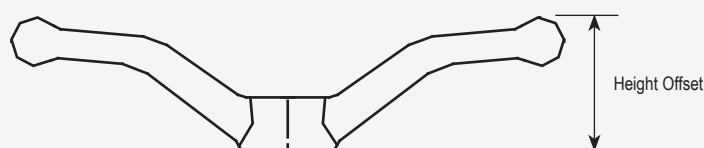
PLEASE NOTE

Zinc alloy handles contain no aluminium and are suited for use in underground coal mines. Steel handles for the same purpose are available to special request. Please contact your nearest Pirtek Centre

SHTV

BUTTERFLY HANDLES TO SUIT

BALL VALVES



Product Code	To suit Product Codes	Material	Dimensions mm		
			Valve Stem	Width	Height Offset
SHTV-06	SPBV-04, -06, -08 SSBV-04, -06, -08 STBV-04, -06, -08	Zinc alloy	9	116.5	27.8
SHTV-12	SPBV-12, -16, -20 SSBV-12, -16, -20 STBV-12, -16, -20	Zinc alloy	14	116.5	27.8

Handle is supplied complete with fixing stud

SKBV

O-RING KITS TO SUIT HIGH PRESSURE BALL VALVES



IMPORTANT SAFETY NOTE:

Ball Valve overhaul using these kits should be performed by authorised personnel only. Please consult important safety notes concerning ball valves on page 87



Kit consists of :-

For -04 to -16

- 2 x Ball Seats (POM material)
- 2 x Adaptor O-rings (NBR material)
- 1 x Stem O-ring (NBR material)
- 1 x Thrust ring (POM material)

For -20 to -32

- Kits include the above plus :-
- 2 x Seat O-rings (NBR material)

Product Code	To suit Product Codes	
	Conventional BSPP	Flanged
SKBV-04	SPBV-04	
SKBV-06	SPBV-06	
SKBV-08	SPBV-08	
SKBV-12	SPBV-12	
SKBV-16	SPBV-16, -20	FBVC62-16
SKBV-20	SPBV-20A	FBVC62-20
SKBV-24	SPBV-24	FBVC62-24
SKBV-32	SPBV-32	FBVC62-32

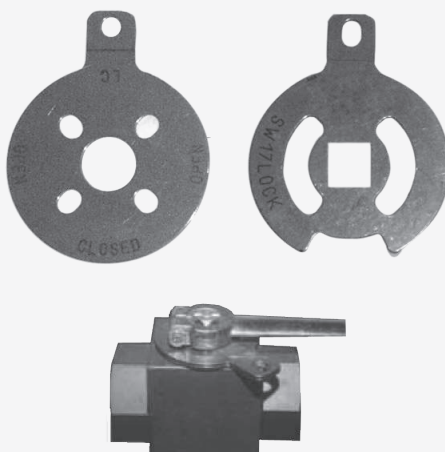
BVPK *(replaces VLP)*

STEEL LOCK PLATES TO SUIT MOST BALL VALVES

Easily fitted locking device for Pirtek ball valves bearing

Product Codes:

SPBV / SSBV / STBV / FBVC62



Product Code	Description
BVPK-08	Suits -04, -06, -08 Ball Valves
BVPK-16	Suits -12, -16 Ball Valves
BVPK-32	Suits -20, -24, -32 Ball Valves

SSBV

HIGH PRESSURE BALL VALVES

STAINLESS STEEL



IMPORTANT SAFETY NOTE: Refer also to the BSPP Thread Table on page 92 when determining the pressure rating of threaded adaptors in combination with SSBV Ball Valves

Description:

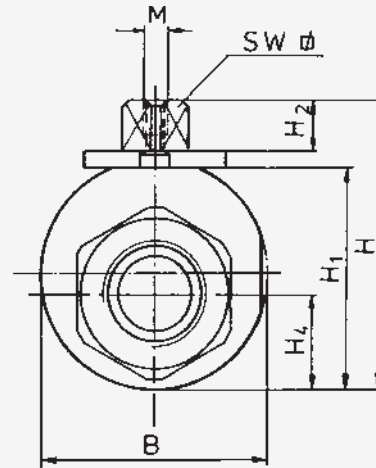
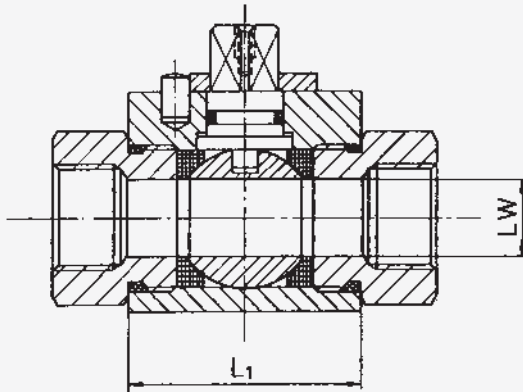
- 1.4571 Stainless steel ball valve
- Pressure balanced floating ball between seals ensures a maintenance free life
- Pre-loaded ball seats guarantee tightness even in vacuum
- Stem fitted from within the housing prevents blow-off of the stem

Materials and Specifications:

- SS316Ti steel body, ball, and stem
- Polyamide ball seat
- Perbunan NBR O-ring
- ball seats and seals must be chosen as appropriate to the intended application
- Zinc alloy handles
- Temp. Range -20 to +100°C with standard seals

Applications:

- Chemicals
- Petrochemical
- Environmental technologies
- Offshore
- High pressure cleaning equipment



PIRTEK SSBV STAINLESS STEEL BALL VALVES

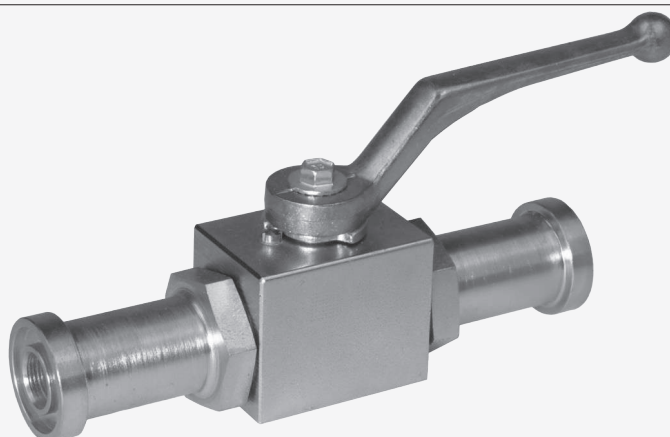
Product Code	Body Type	Screwed Ends	Nominal Size			Peak WP	Dimensions mm								
		BSPP	Dash	Inch	DN	bar	LW	L1	B	H	H1	H2	H4	M	SW□
SSBV-04	Round Bar	1/4"	06	1/4"	6	400	6	36.2	35	43.6	32.2	11	13	M5	9
SSBV-06	Round Bar	3/8"	06	3/8"	10	400	10	43.2	42	49.5	38.25	10.9	16.5	M5	9
SSBV-08	Round Bar	1/2"	08	1/2"	13	400	13	48.2	45	52	40.75	10.9	18	M5	9
SSBV-12	Round Bar	3/4"	12	3/4"	20	350	20	62.2	60	74.4	57.8	16	25.5	M6	14
SSBV-16	Round Bar	1"	16	1"	25	350	24	66.2	65	79.2	62.8	16	28	M6	14
SSBV-20	Round Bar	1.1/4"	20	1.1/4"	32	250 ↑	32	81.6	90	103	84	18.5	38.1	M8	17
SSBV-24	Round Bar	1.1/2"	24	1.1/2"	32	250 ↑	38	86.6	100	114.9	95.9	18.5	45.5	M8	17
SSBV-32	Round Bar	2"	32	2"	32	250 ↑	47.5	101.6	115	129.5	110.5	18.5	52.5	M8	17

† Peak permissible pressure limited by BSPP thread capability

FBVC62

HIGH PRESSURE BALL VALVES

SAE CODE 62 FLANGED ENDS



Description:

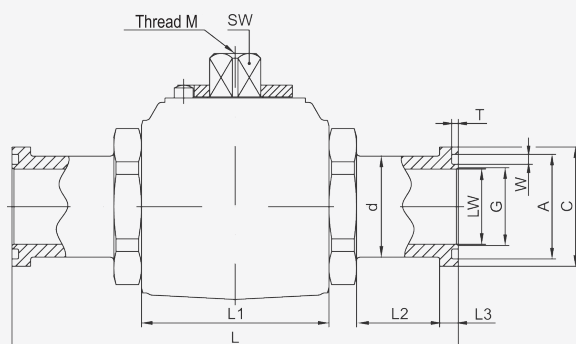
- Steel bodied ball valve in either block style or forged steel (block style depicted)
- Pressure balanced floating ball between seals ensures a maintenance free life
- Pre-loaded ball seats guarantee tightness even in vacuum
- Stem fitted from within the housing prevents blow-off of the stem

Materials and Specifications:

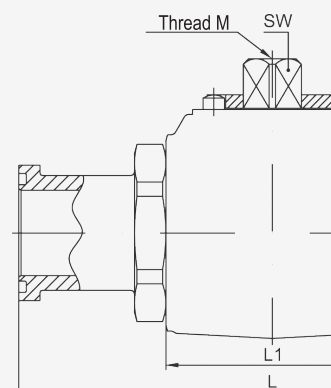
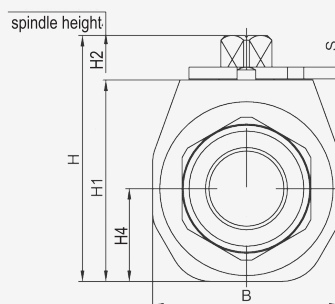
- Free cutting steel body, ball, seat and stem
- Polyamide ball seat
- Perbunan NBR O-rings
- CR6 free corrosion protection
- Zinc alloy handles
- Temp. Range -20 to +100°C with standard seals

Applications:

- hydraulics
- ship building
- engineering
- mining
- Special seals may be required in some applications. Please advise if planning an application other than normal hydraulics



Forged



Block

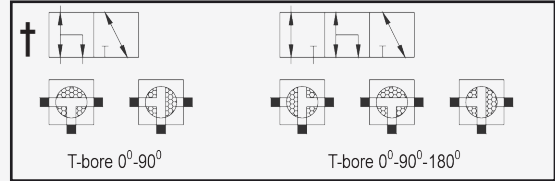
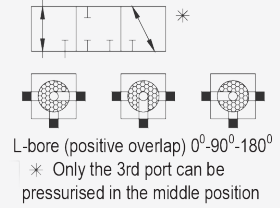
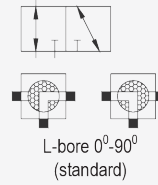
PIRTEK FPBVC62 HIGH PRESSURE FLANGED BALL VALVES

Product Code	Body Type	Surface Finish	Nominal Size			Peak WP	Dimensions mm																	
			Dash	Inch	DN		bar	LW	L1	B	H	H1	H2	H4	SW	M	S	L	L2	L3	d	C	A	W
FBVC62-16	Block	Pass. zinc	16	1"	25	350	24	66.2	60	76.6	60	16	26.5	14	M6	4	199	40	9.5	38	47.6	39.7	4.2	2.8
FBVC62-20	Forged	Pass. zinc	20	1.1/4"	32	400	32	80	80	104	85.4	18.5	39.5	17	M8	5	223	45	10.3	44	54	44.5	4.2	2.8
FBVC62-24	Forged	Pass. zinc	24	1.1/2"	40	400	38	85	84	111	92.4	18.5	42	17	M8	5	281	70	12.6	51	63.5	53.7	4.2	2.8
FBVC62-32	Forged	Pass. zinc	32	2"	50	400	47.5	100	104	129	110	18.5	52	17	M8	5	316	80	12.6	67	79.4	63.3	4.2	2.8

STBV

HIGH PRESSURE BALL VALVES

3-WAY



Description:

- Either block or forged body 3 way ball valve
- Pressure balanced floating ball between seals ensures a maintenance free life
- Pre-loaded ball seats guarantee tightness even in vacuum (see applications note)
- Stem fitted from within the housing prevents blow-off of the stem
- L pattern standard

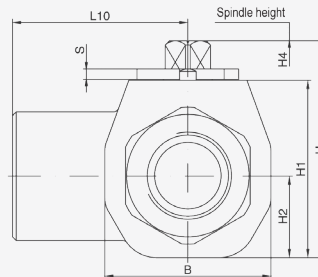
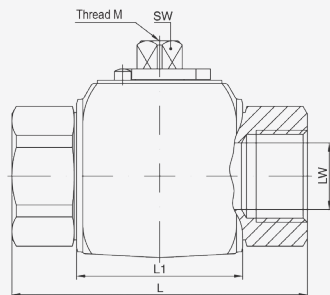
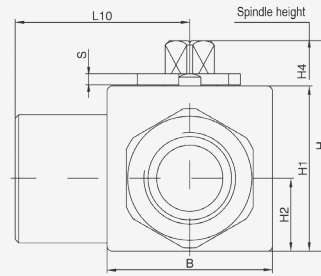
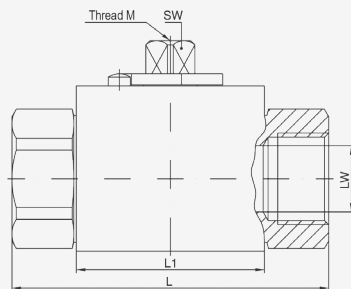
† T Pattern Available to special order

Materials and Specifications:

- Steel body, ball, and stem
- Polyamide ball seat
- Perbunan NBR O-ring
- ball seats and seals must be chosen as appropriate to the intended application
- Zinc alloy handles
- Temp. Range -20°C to 100°C with standard seals

Applications:

- general hydraulics
- construction & agriculture
- mining
- the third port cannot be closed
- *the blocked port pressure must be zero or at least lower than the other ports for sealing to be effective*

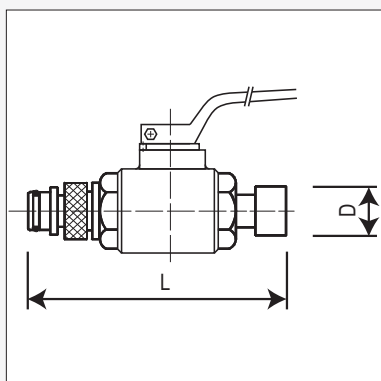


PIRTEK STBV 3-WAY BALL VALVES

Product Code	Body Type	Screwed Ends	Nominal Size			Peak WP	Dimensions mm								
		BSPP	Dash	Inch	DN	bar	L1	B	H	H1	H2	H4	M	S	SW
STBV-04	Block	1/4"	06	1/4"	6	400	36	26	43.5	32	13	10.9	M5	3	9
STBV-06	Block	3/8"	06	3/8"	10	400	43	32	49	38	16.5	10.9	M5	3	9
STBV-08	Block	1/2"	08	1/2"	13	350	48	35	51	40	17.5	10.9	M5	3	9
STBV-12	Forged	3/4"	12	3/4"	20	350	61	49	73	57	24.5	16	M6	4	14
STBV-16	Forged	1"	16	1"	25	350	65	60	76	60	26.5	16	M6	4	14

SKV31-PL

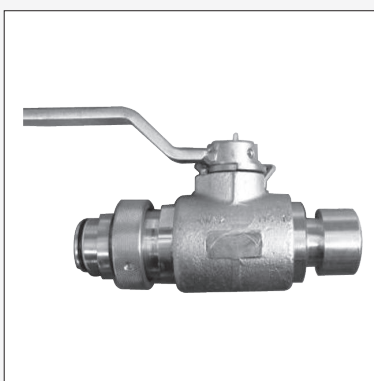
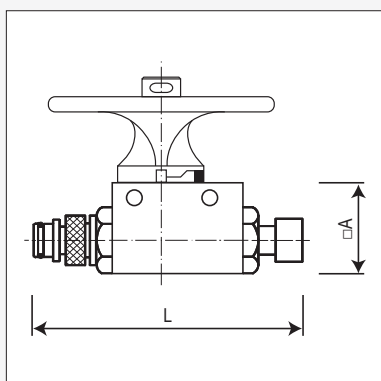
HIGH PRESSURE ISOLATION VALVE
MALE - FEMALE PADLOCKABLE



Product Code	Nominal Bore			Pressure Rating bar		Dimensions mm	
	Dash	Inch	DN	Working	Burst	L	D
SKV31-50-1PL	50	2"	50	200	400		

SSKV31F

PRANGE SSKV BALL VALVE
M - F LOCKABLE



Product Code	Body	No. of Mounting Holes	Nominal Bore			Pressure Rating bar		Dimensions mm			
			Dash	Inch	DN	Working	Burst	L	□A	AF	D
SSKV31F-10-6RD	Block	1	6	3/8"	10	500	1250	-	-	-	-
SSKV31F-13-6RD	Block	1	8	1/2"	13	500	1250	-	-	-	-
SSKV31F-20-6RD	Block	2	12	3/4"	20	500	1250	-	-	-	-
SSKV31F-25-6RD	Block	2	16	1"	25	400	1000	-	-	-	-
SSKV31-40-1PL	Cast	na	24	1.1/2"	40	250	500	-	-	-	-
SSKV31-50-1PL	Cast	na	32	2"	50	250	500	-	-	-	-

FLOW RATES

HIGH PRESSURE BALL VALVES

All Pirtek ball valves are full flow designs. A ball valve should never be used as a flow regulating device - ie it should always be either fully open or fully closed. As such, a ball valve can be treated as simply part of the conduit in which it is installed. It is common practice to treat hydraulic components such as ball valves as an equivalent length of straight pipe to allow for turbulence associated with entrance and exit losses.

Catalogue Section E (pages E2 through E6) details recommended flow velocities for a wide range of hydraulic conduits, but the flow nomograph (Fig.1) and selector graph (Fig. 2) below may be helpful for less rigorous assessments.

For information concerning the empirical formulae and design charts that form the basis of hydraulic flow theory, the reader is referred to Pirtek Technical Catalogue Section Q

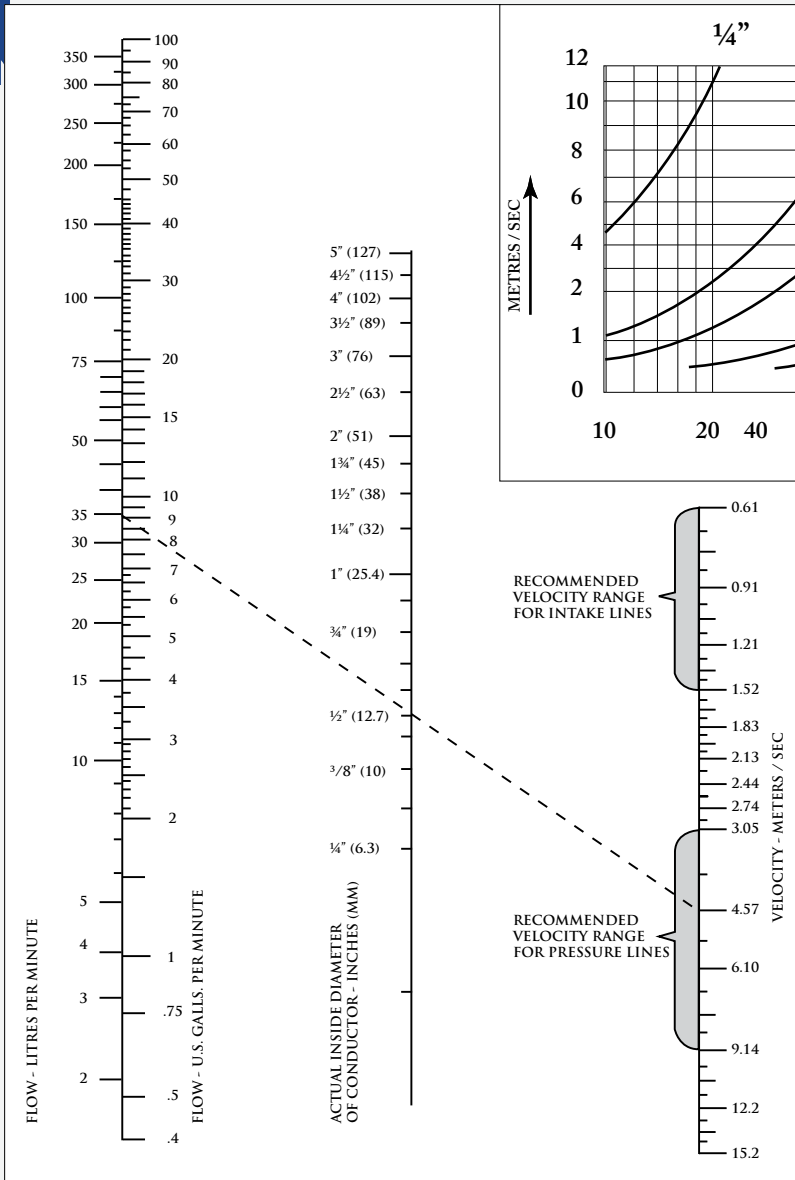


Fig.1 Flow Nomograph

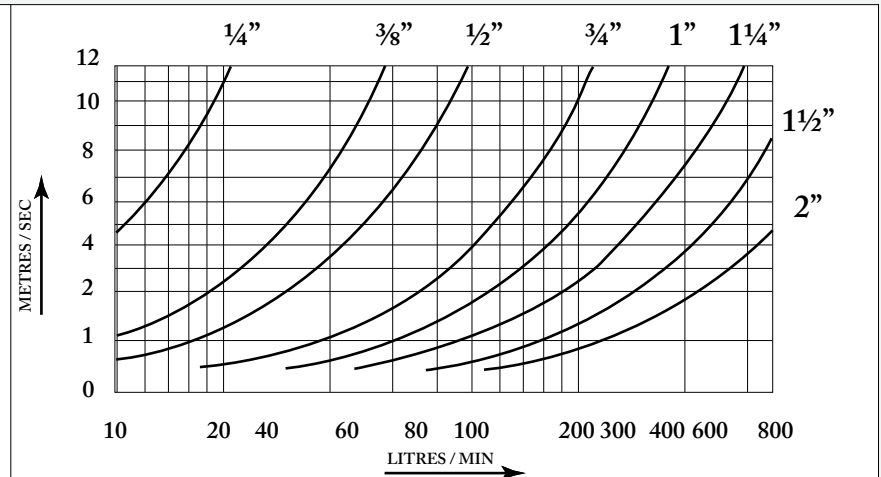


Fig. 2 Ball Valve Selector

Component	Loss coefficient K	L/D
Ball Valve fully open	0.05	1.75
Globe Valve fully open	10	350
Tee, through side outlet	2	70
Tee (Run)	0.9	31.5
Elbow - medium radius	1.5	52.5
Elbow - long radius	0.7	24.5
Elbow 45°	0.4	14

Minor pressure loss in pipe and tube systems can be expressed as:

$$h_{\text{minor_loss}} = K * v^2 / (2 * g)$$

Where:

$$h_{\text{minor_loss}} = \text{minor head loss (m)}$$

K = minor loss coefficient (dimension-less)

v = flow velocity (m/s)

g = acceleration of gravity (m/s²) - use 9.806 m/s²

The ratio L/D is used where the designer wishes to express the losses as an equivalent length of pipe. Multiply the tabulated L/D ratio by the internal diameter of the component to determine the equivalent length of conduit that the component represents



FCS

STEEL SPRING GUARD

Galvanised steel wire



Provides support to bends

Description:

- Wound heavy gauge galvanised wire ideal for the protection of hose exposed to severe operating conditions
- The wire helps to distribute a bending radius on curved hoses, and reduces the likelihood of kinking
- Helps prevent abrasion and resists deep cuts

Materials and Specifications:

- Galvanised steel wire

Applications:

- Common in quarries as protection from flying stones

STEEL SPRING GUARD						Suits Hose Type & Dash Size				
Product Code	Dimensions mm				Box Quantity	R1AT/PE2	R2AT	C25 / PC25	C35 / PC35/PE435	C42 / PC42/PE442/PE642
	ID	OD	Wire Ø	Pitch						
FCS-01	10.8	13.2	1.2	5	4 x 5 m	Intended for use with small diameter Synflex and STH hose				
FCS-02	13	15.2	1.2	5	4 x 5 m	Intended for use with Bridgestone® hose PLT-04 (Komatsu® specific)				
FCS-03	15	18.2	1.6	5.5	10 x 5 m	-03, -04	-03			
FCS-04	16	19.2	1.6	5.5	10 x 5 m	-05	-04		-05	-04
FCS-06	20	23.2	1.6	5.5	8 x 5 m	-06	-05, -06		-06	
FCS-08	23.5	27.5	2	6	6 x 5 m	-08	-08		-08	-06
FCS-10	26.5	30.5	2	6	5 x 5 m	-10	-10	-10		-08
FCS-11	30	34	2	6	5 x 5 m	-12		-12	-10, -12	
FCS-12	33	37	2	6	4 x 5 m		-12			-12
FCS-14	38	43	2.5	7.5	4 x 5 m	Used in conjunction with DAS sleeve on -12 sizes				
FCS-16	41	46	2.5	7.5	4 x 5 m	-16	-16	-16	-16	-16
FCS-20	48.5	53.5	2.5	7.5	3 x 5 m	-20	-20	PC25-20	PC35-20 PE435-20	
FCS-24	54	59.6	2.8	9	3 x 5 m	-24		C25-20	-20	-20
FCS-30	59.5	65.1	2.8	7.5	3 x 5 m		-24	-24	-24	-24
FCS-32	69	75.3	3.15	8	1 x 5 m	-32	-32			
FCS-36	75	81.3	3.15	7.5	1 x 5 m				C35-32	C42EH-32

DAS

DIFFUSION ABRASION SLEEVE



Description:

- Black or red textile (Polyamide 6) sleeve for the assistance in protection of people and machinery via protection and bundling of hose, hose assemblies, cables, wires etc.
- Dense yet not bulky protection is achieved through
 1. protection of the encased product from abrasion
 2. being very effective in reducing the concentrated stream of pin hole leaks
- Burst resistant
- The smooth surface facilitates sliding over even very long assemblies, and use of talcum powder or compressed air will further facilitate the process
- Offers good leakage containment in the event of hose failure

Materials and Specifications:

- De-aerated compact woven nylon fibres (Polyamide 6)
- In test conditions the sleeve contained the sharp stream of hydraulic oil passing through a 0.8 mm Ø pre-drilled hole when the pressure was raised to 800 bar and held for 1 minute
- Abrasion resistance exceeds the requirements of ISO 6945 (holds up to 50,000 cycles)
- Oil retention capability of 100 psi pressure for 3 minutes when tested to SAE J343
- Approved by USMSHA for the use in mines.
- Exceeds the electrical conductivity requirements of ISO 8031 (between 2 and 8 x 10⁹ Ohm/metre)
- Working temperature -60°C to 125°C
- Melting point 225°C +/- 10°C

Applications:

- Widely used as abrasion protection wherever hoses and cables may be exposed to damage through rubbing
- Gaining widespread acceptance as an effective (though not total) barrier to the dangers of hydraulic hose leaks in the vicinity of personnel, especially in underground coal mining
- Additional protection can be achieved using two layers of DAS sleeve
- The sleeve must be securely fixed to the ferrule of the hose fitting if effective protection is to be achieved at the hose to fitting interface. Epoxied heat shrink is preferred, although other methods may be adopted
- A loose fit is preferred when seeking to gain protection against a hose leak



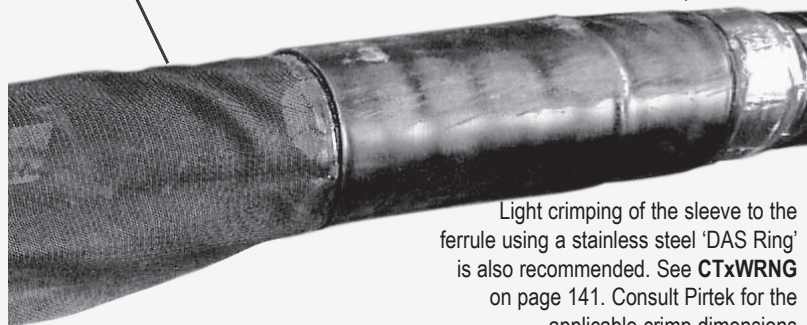
IMPORTANT SAFETY NOTE:

Diffusion Abrasion Sleeve (DAS) is a diffusion device and conditionally a burst suppression device

PIRTEK DIFFUSION ABRASION SLEEVE

Product Code		Nominal ID mm		Coil Length
		Flat	Round Ø	m
Black	Red			
DAS-20	DAS-20RD	31	20	50
DAS-25	DAS-25RD	39	25	50
DAS-31	DAS-31RD	49	31	50
DAS-40	DAS-40RD	63	40	50
DAS-53	DAS-53RD	83	53	50
DAS-60	DAS-60RD	94	60	50
DAS-73	DAS-73RD	115	73	50
DAS-93	DAS-93RD	146	93	50
DAS-112	DAS-112RD	176	112	50

Note the loose fit



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SSG / FRASG

SPIRAL SAFETY GUARD AND FRAS GUARD

High abrasion resistance

Larger sizes ideal for bundling hoses

Rounded edges

FRAS rated



Description:

- Flame retardant high density polyethylene with a domed centre and rounded edges strip wound
- An ideal and economical hose wrap for individual hoses or for use in bundling
- Available as normal fire resistant safety wrap, and also in an approved fire resistant and anti-static (FRAS) form for use in underground coal mines
- UV resistant
- Rounded edges prevent industrial injury
- Can be retrofitted on site to existing hoses and bundles while in place
- Self lubricating properties
- Exceptional anti-crushing and abrasion resistance

Materials and Specifications:

- High density polyethylene copolymer
- ASTM D792 density 1.03 g/cm²
- ASTM D648 temperature 103°C
- ASTM D2863 Oxygen Index 26%
- International compliance to EN ISO 6805 tests 8030 and 8031
- FRAS version Approval No. MSHA IC-213/2
- *Not approved for use on electrical cables*
- Working temperature -100°C to +100°C
- Vicat softening temperature +130°C (Pin Penetration Test)

Applications:

- Agricultural equipment
- Mining and quarrying
- Oil and gas distribution
- Forestry (colour coding available to order)
- Welding hose protection
- Robotic arms and booms
- Transport
- *Not approved for use on electrical cables*

PIRTEK SAFETY SPIRAL GUARD & FRAS GUARD						Hose Dash Size	Hose Type				Range of Hose OD
Product Code			Dimensions mm		Coil Length		R1AT/PE2	R2AT	C-PC25/C-PC35/PE435	C-PC42/PE442/PE642	
Safety Spiral	FRAS Guard										
Black	Black	Red †	OD	ID	m						mm
SSG-012BL	-	-	12	8.5	20	-03	●	●			9-12
SSG-016BL	FRASG-016BL	-	16	13	20	-04	●	●		●	12-17
SSG-020BL	FRASG-020BL	-	20	16	20	-04 to -08	●	●	●	●	16-22
SSG-025BL	FRASG-025BL	-	25	21	20	-08 to -10	●	●	●	●	22-28
SSG-032BL	FRASG-032BL	FRASG-032RD	32	27	20	-12	●	●	●	●	27-33
SSG-040BL	FRASG-040BL	FRASG-040RD	40	35	20	-16	●	●	●	●	33-42
SSG-050BL	FRASG-050BL	FRASG-050RD	50	44	20	-20 to -24	●	●	●	●	42-55
SSG-063BL	FRASG-063BL	FRASG-063RD	63	57	20	-24 to -32		●	●	●	52-65
SSG-075BL	FRASG-075BL	FRASG-075RD	75	66	20	-32 to -40	●	●	●	●	65-80
SSG-090BL	FRASG-090BL	-	90	79	20	Hose bundles 80 mm to 150 mm diameter					

† Subject to availability

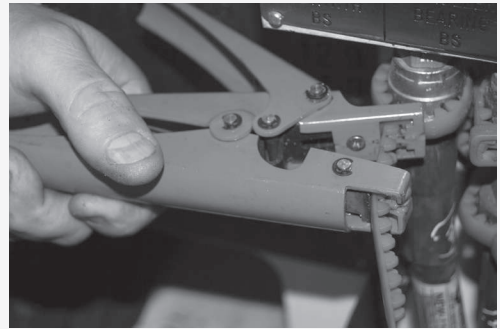
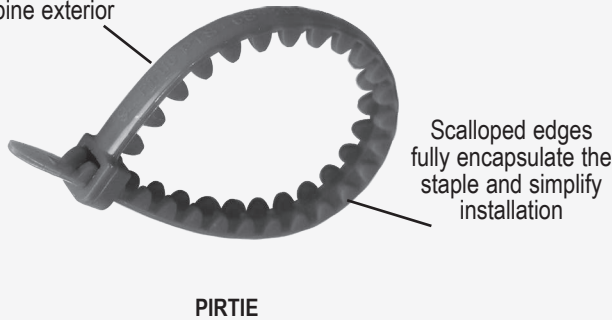


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PIRTIE

PIRTEK STAPLE RETENTION STRAP

Embossed identification data on spine exterior



The cutting tool in action. Note teeth removed from adjacent ties to enable their use in tight situations

Description - Original Design:

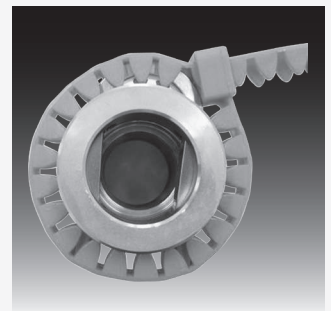
- Robust construction.
- Easy installation due to design.
- Can be located at any position. No start point.
- Designed to suit the staple widths and height.
- The tie fully encapsulates the staple.
- Staples are held tight in the fittings to eliminate staple float..
- Tooth design allows the Pir-Tie to fit closely around sockets and manifolds or odd shapes.
- Ties can be joined together to increase the length.
- All 3 sizes are able to be tensioned tightly then trimmed using one Tensioner / Cutter Tool.
- In tight areas the Pir-Tie can be turned inside out and have teeth strategically removed, to reduce the height to that similar to a standard cable tie. This feature allows ties to be installed in tight situations.
- Small pack quantities to reduce wastage.
- The red colour is easier to see in an underground coal environment

Materials Specifications:

- Made from Red Du-pont UV stabilised virgin flame resistant rated nylon (as required by "MSHA") to a Pirtek registered design (Patent Pending)



IMPORTANT SAFETY NOTE:
Periodic staple inspection should still be conducted as part of general maintenance and a staple audit process



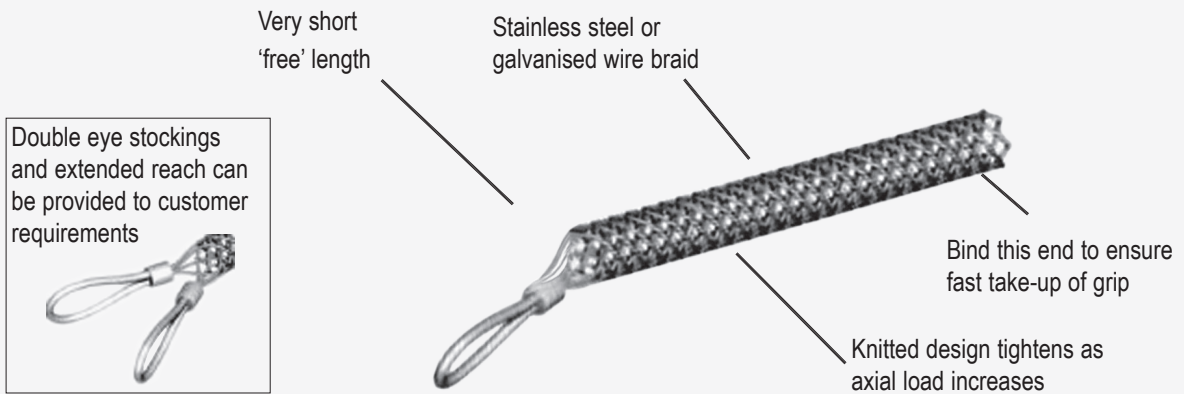
Combination tightening and cutting snips
Product Code:
PTS-CUTTER



IMPROVED PIRTEK TIE RETENTION DEVICE & FLUSH CUTTERS				
Product Code	Description	Suits Staple Type		Pack Size
		Standard	Super	
PTS-06S-20S	Secures DN6 through DN20	•		1
PTS-25S-75S	Secures DN25 through DN75	•		1
PTS-25SS-63SS	Secures DN25 through DN63		•	1
PTS-CUTTER	Combination Snips			1

GRIP-CHEK

BRAIDED STEEL WIRE STOCKING



Description:

- Hand made stainless steel or galvanised wire mesh stocking designed to afford maximum grip to a rubber hydraulic hose assembly in the event of fitting failure, thereby minimising uncontrolled whip of the assembly
- Developed to industry requirements in response to increasing demand for higher safety levels in underground mining applications
- Reusable many times (subject to a maintenance schedule)

Materials and Specifications:

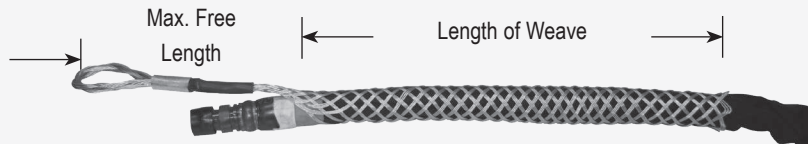
- Stainless steel or galvanised wire strands in various configurations to achieve strength requirements
- Copper ferrules (stainless steel on request)
- Special configurations such as double looped ends and extended reach can be provided to order (DE as a suffix signifies double ended types with alloy ferrule. Copper and stainless steel ferrules are available on request.)

Applications and Notes:

- Can be used in conjunction with Diffusion Abrasion Sleeve (DAS)
- Provides a closer and stronger grip on the hose than is possible with whip checks
- enables almost direct restraint along the longitudinal axis of the hose to minimise uncontrolled flailing of the hose end

Installation:

- Bind the free end of the weave tightly with tape to ensure a more rapid grip response where initial slipping may otherwise occur
- Must always be affixed to a suitable load bearing attachment point - NOT hose to hose (use Pir-Chek for hose to hose restraint - see page 139)
- The use of Pir-Chek is preferred in the hose size ranges from DN6 to DN20 (-04 to -12. Refer page 139
- Shackle strength to exceed rated wire breaking strain
- 13 to 40mm "slack" over shackle bolt is recommended. It must not be tight to the shackle bolt

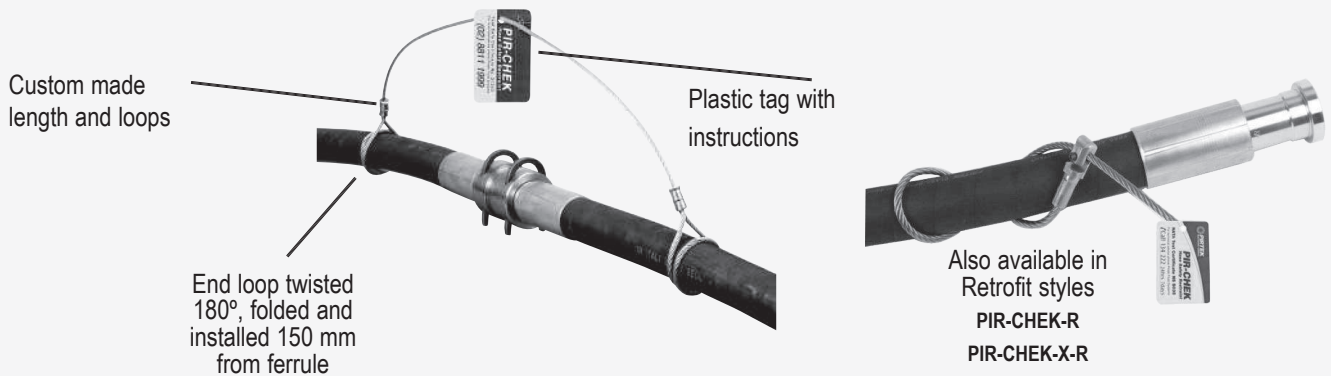


GRIP-CHEK

Product Code		Dimensions mm				Strands in Weave & Wires / Strand	Total Strands	Aggregate Wire Breaking Strain	To Suit Pirtek Hose Product	
									Medium Pressure	High Pressure
Galvanised	Stainless Steel	Suits Outside Ø	Max. Free Length	I.D. of Eye	Length of Weave	Qty. x No.	No.	kN	R2AT / 2SC	C-PC35/C42/PE442/PE642
GRIP-CHEKGAL-25	GRIP-CHEKSS-25	34 - 44	460	62	650	6 x 3	18	53.1	R2AT-16, PE225-16	-16
GRIP-CHEKGAL-32	GRIP-CHEKSS-32	45 - 55	515	62	650	6 x 3	18	53.1	R2AT-20, R2AT-24	-20
GRIP-CHEKGAL-40	GRIP-CHEKSS-40	56 - 66	640	75	650	6 x 3	18	75.1	-	-24
GRIP-CHEKGAL-50	GRIP-CHEKSS-50	67 - 82	720	95	650	6 x 3	18	75.1	R2AT-32, 2SC-40	-32
GRIP-CHEKGAL-63	GRIP-CHEKSS-63	83 - 100	780	100	650	6 x 3	18	108	2SC-48, JBF-40	-
Double Eye Grip - Cheks										
GRIP-CHEKGAL-10-DE		19 - 28	190	15	500	6 x 2	12	38	Polyflex-06	-
GRIP-CHEKGAL-13-DE		28 - 40	230	18	600	6 x 2	12	57	-	WB1100-08
GRIP-CHEKGAL-50-DE		60 - 70	330	22	900	6 x 2	12	100		IRSAB-051

PIR-CHEK

PIRTEK WHIP CHECK FOR HOSES



Description:

- A specially fabricated high strength wire assembly (4 mm or 6 mm stainless steel) designed to prevent uncontrolled flaying of a hose in the event of fitting blow off or accidental disconnection
- For effective implementation, each assembly must be custom made to suit the specific requirements
- Products have been tested by Test Safe Australia for use at 450 bar working pressure and flow rates to 400 litres per minute (dependent on hose diameter)
- A durable plastic tag with installation instructions is attached to each cable
- Customer specific colour codes and other information can be added on request

Materials Specifications:

- Available in 2 gauges of stainless steel high strength 4 mm or 6 mm wire
- Terminating loops sized to suit hose type and ferrule dimensions
- Clamps of nickel plated copper or stainless steel

Determining the Required Length:

Provide the following data to your Pirtek representative:

- Measure hose OD
- Measure ferrule / fitting OD
- *For hose to fixed point applications* measure from the proposed anchor point to a point 150 mm beyond the ferrule and add 200 mm. Document the anchor point
- *For hose to hose applications* measure from a point 150 mm beyond the ferrule of one hose to the corresponding point of the second hose and add 200 mm
- Specific requirements of colour codes etc

Applications:

- Used whenever the occurrence of hose fitting blow-off or accidental disconnection of a hose end could endanger the lives of personnel working nearby
- Primarily intended for use in underground mines where confined spaces make hydraulic hose failures potentially very dangerous
- Ideal also for securing compressed air and steam hoses where sudden expansion of released gas can cause severe whipping

PIRTEK WHIP CHECK INSTALLATION INSTRUCTIONS

Standard Whip-Chek	Retrofit Whip-Chek
• Hold a looped end in the centre of the loop and twist the top half through 180°. Then fold the twisted end over the bottom section of the loop and slide over the hose end to a point about 150 mm beyond the ferrule • Repeat for the second looped end • Suited to both hose to hose installation or hose to a fixed anchor point	• Lay the Pirchek-R across the top of the hose about 200mm from the end of the hose and similarly about 200mm from the end of the Pirchek-R. • Pass the ends of the Pirchek-R under the hose crossing each other, and bringing back to the top. • With the locking screw backed off leaving the slot clear, lay the Pirchek cable through the slot, in the Pirchek-R attachment. Pull up snugly, check location is 150 / 200mm from back of ferrule and fully insert screw past the cable and into the lower section of the attachment. • Attach the other end to a suitable anchor point

PIRTEK WHIP CHECK

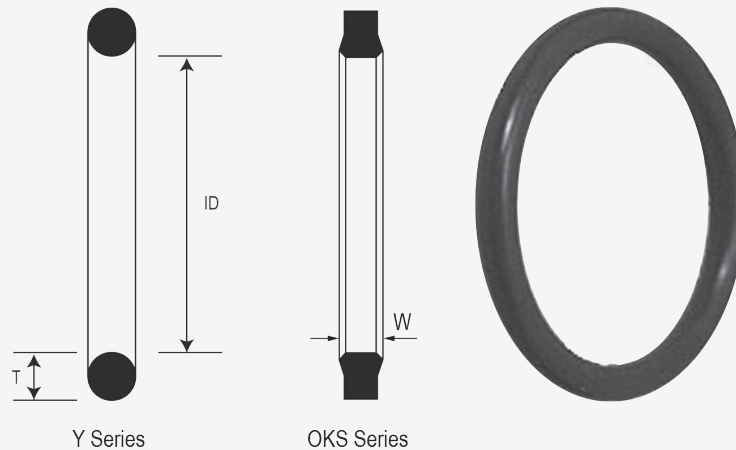
Product Codes		Description
Standard	With Colour Coding	
PIR-CHEK	PIR-CHEK-C	Pir-Chek Whip Chek 4 mm S/Steel Up to 2000 mm
PIR-CHEK-X	PIR-CHEK-X-C	Pir-Chek Whip Chek 6 mm S/Steel Up to 2000 mm
PIR-CHEK-X-R		Retrofit Pir-Chek 6 mm S/S Up to 2000 mm One Loop End
PIR-CHEK-X-R-D		Retrofit Pir-Chek 6 mm S/S Up to 2000 mm Double Loop End



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O-RINGS

NITRILE AND POLYURETHANE AND CAT® D SECTION



Description (Y Series):

- Standard O-Ring for SAE Flanges
- Conforms to BS Code dimensions (except Y-10 which is exclusive to Komatsu flanges)
- YD Series conforms to Caterpillar specifications

Materials and Specifications:

- NBR Nitrile
- Duro 90 hardness
- Conform to BS1806

Applications:

- O Ring seal for use with SAE Code 61 and Code 62 flanges (ISO / DIS 6162)
- For extreme conditions or to make installation easier, OKS O-Rings are preferred

Description (OKS Series):

- A general purpose compound suitable for applications requiring resistance to high temperatures and compression set
- Recommended for use in SAE flanges (especially Code 62) where elevated temperatures and arduous conditions are expected
- Special profile prevents seal 'pumping' to provide reliable flange sealing

Materials and Specifications:

- 93IRHD Polyester Polyurethane (AU)
- Temperature range -30° to 100°C
- Durometer hardness: 93
- Color: Blue

Applications:

- Outstanding resistance to blended aromatic fuels and straight aromatics as well as halogenated hydrocarbons
- 600 bar maximum working pressure
- Good resistance to strong acids and steam

Y SERIES NITRILE SEAL

Product Code	BS Code	Dimensions mm		
		OD	ID	Thickness T
Y-08	210	25.7	18.64	3.53
Y-10 †		29.0	21.8	3.60
Y-12	214	32.05	24.99	3.53
Y-16	219	39.98	32.92	3.53
Y-20	222	44.75	37.69	3.53
Y-24	225	54.28	47.22	3.53
Y-32	228	63.8	56.74	3.53
Y-40	232	76.5	69.44	3.53
Y-48	237	92.38	85.32	3.53

OKS SERIES POLYESTER POLYURETHANE

Product Code	Dimensions mm		
	OD	ID	Thickness W
OKS-12	31.75	23.37	3.50
OKS-16	39.62	31.24	3.50
OKS-20	44.45	36.07	3.50
OKS-24	53.98	45.34	3.50
OKS-32	63.5	54.86	3.50

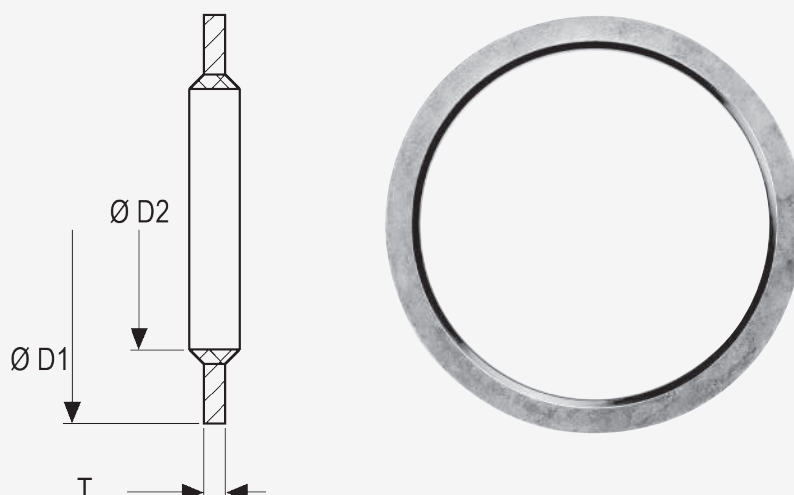
YD SERIES CATERPILLAR® D SECTION

Product Code	Dimensions mm		
	OD	ID	Thickness W
YD-12	Caterpillar® Dimensions		
YD-16			
YD-20			
YD-24			
YD-32			

† Suits Komatsu Flange Size 10 - not covered by ISO / DIS 6162

BONDED SEALS

BSPP



Description:

- A rectangular section, metal washer, with a trapezoidal shaped ring of vulcanised nitrile rubber bonded to the inside.
- The seal is for use in high pressure environments where copper washers are unsuitable
- Sometimes equipped with a thin additional membrane to assist in self centralising the seal over the BSPP thread during installation

Materials and Specifications:

- Mild steel zinc plated
- Steel BS1449 Part 1: 1983 CS4 BRH 5
- Tensile strength of steel 540 MN/m² min.
- Zinc plated to DEF STAN 03-20/1
- Colour passivated to DEF 03-33
- O-Ring NBR nitrile
- Stainless steel also in some sizes

Applications:

- Used as a high pressure seal on all BSPP male threaded adaptors where no encapsulated O-Ring is present
- Surpasses the functionality of copper washers

Z SERIES BONDED WASHER ('DOWTY SEAL')

Product Code		Min. Burst Pressure bar	Dimensions mm		
Normal	Stainless		D1	D2	Thickness T
Z-02		1480	15.9	10.4	2.0
Z-04	SSZ-04	1540	20.6	13.8	2.0
Z-06	SSZ-06	1230	23.8	17.3	2.0
Z-08	SSZ-08	1120	28.6	21.6	2.34
Z-10		1240	31.8	23.5	2.34
Z-12	SSZ-12	1050	34.9	27.1	2.34
Z-16	SSZ-16	780	42.8	33.9	2.34
Z-20		690	52.4	42.9	3.25
Z-24		690	58.6	48.5	3.25
Z-32		720	73.1	60.6	3.25
Z-40		680	90.2	76.1	3.25

TOOLS

INTERNAL HOSE CLEANING KIT

FKIT

Covers all sizes from 1/4" to 2"

VKIT

(Not illustrated)

Covers all sizes from 1/4" to 1.1/4"



IMPORTANT USAGE NOTE:

Hoses must be cleaned
FROM BOTH ENDS by use
of the appropriate pellet
BEFORE installing the fittings

Description:

The Pirtek hose cleaning kit is the ideal choice for high volume cleaning of hydraulic pipes and hoses, as well as dry and liquid flow lines. The unit shoots oversized foam projectiles to clean straight, curved and coiled tubes, pipes and hoses 3/16"-2" (4.8-51mm) I.D. A hinged nozzle housing allows rapid loading of projectiles for fast throughput of large cleaning jobs

Mobile Solution:

For applications where larger hose and tube sizes are not encountered, a smaller kit catering for sizes up to 1.1/4" is available

Special Situations:

A wide range of special projectiles are available to special order for special situations

Examples include:

Abrasive: Hose, tube or pipe with build up of contamination, surface rust or scale.

Grinding: Straight lengths of tube or pipe with greater build up of contamination, surface rust or scale

PIRTEK HOSE CLEANING - STANDARD HOSE CLEANING PELLETS

Product Code	Description	Qty per Bag	Suits Pipe OD	Suits Hose ID
			mm	ins
PJS-007	STANDARD PELLET - 7 mm	300	6	1/4"
PJS-010	STANDARD PELLET - 10 mm	300	8	
PJS-012	STANDARD PELLET - 12 mm	300	10	3/8"
PJS-016	STANDARD PELLET - 16 mm	300	13	1/2"
PJS-020	STANDARD PELLET - 20 mm	300	16	
PJS-022	STANDARD PELLET - 22 mm	300	19	5/8", 3/4"
PJS-026	STANDARD PELLET - 26 mm	200	22	
PJS-033	STANDARD PELLET - 33 mm	50	25	1"
PJS-040	STANDARD PELLET - 40 mm	50	32	1.1/4"
PJS-050	STANDARD PELLET - 50 mm	40	38	1.1/2"
PJS-060	STANDARD PELLET - 60 mm	30	50	2"
PJS-070	STANDARD PELLET - 70 mm	10	63	2.1/2"
PJS-075	STANDARD PELLET - 75 mm	10	70	
PJS-085	STANDARD PELLET - 85 mm	10	80	3"

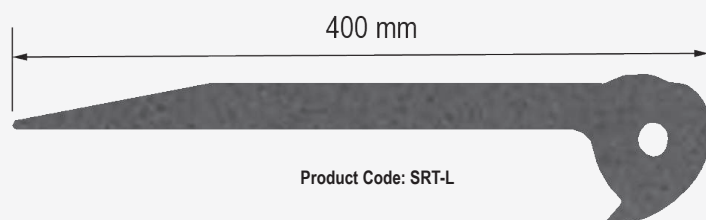


TOOLS

STAPLE REMOVAL TOOLS



Standard tool with hammer end



Long tool with prising wedge

- Simple longwall tools for removing and replacing staples
- Available in 2 styles - short or long
- Either style easily carried in a tool bag
- Tools are supplied to order. Please contact Pirtek

CTxWRNG

DAS SLEEVE FIXING RINGS

STAINLESS STEEL



Construction:

304 stainless steel circular ring

Applications:

For the attachment of one or two stainless steel braids to any circular object, particularly convoluted stainless steel tubing.

Also commonly used to securely fasten DAS sleeving to a hose assembly at the ferrule to alleviate the risk of high pressure injection injuries.

Product Code	ID	Width	Normal Application
	mm		
CTSWRNG-006	11.0	20	Single layer of stainless steel braid
CTSWRNG-008	14.4	20	
CTSWRNG-010	17.8	20	
CTSWRNG-012	21.7	20	
CTSWRNG-016	25.0	20	
CTSWRNG-020	30.0	25	
CTSWRNG-025	37.8	25	
CTSWRNG-032	44.2	30	
CTSWRNG-040	54.7	30	
CTSWRNG-050	68.0	35	
CTSWRNG-065	86.7	35	
CTSWRNG-080	99.0	40	
CTSWRNG-100	121.0	50	

Product Code	ID	Width	Normal Application
	mm		
CTDWRNG-006	14.4	20	Double layer of stainless steel braid
CTDWRNG-008	15.5	20	
CTDWRNG-010	19.0	20	
CTDWRNG-012	22.9	20	
CTDWRNG-016	26.2	20	
CTDWRNG-020	30.4	25	
CTDWRNG-025	39.8	25	
CTDWRNG-032	46.6	30	
CTDWRNG-040	57.2	30	
CTDWRNG-050	70.0	35	
CTDWRNG-065	88.0	35	
CTDWRNG-080	101.2	40	
CTDWRNG-100	123.0	50	



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LANOLIN PROTECT

LANOLIN LUBRICANT & PROTECTANT



PIR300C



PIR1L



PIRG165ml

Aerosols :

- Product code: **PIR300C**
- Lanolin / hydrocarbon solvents blend
- Appearance: yellowish/tan coloured liquid with a slight characteristic wool odour.
- Boiling point melting point: 195°C
- Vapour pressure: 0.06 Kpa @ 38°C
- Specific gravity: 0.85 – 0.88
- Flash point: 78°C (solvent content)
- Flammability limits: 0.6 – 7.0 L.E.L. – U.E.L.
- Solubility in water: partial, turns to white emulsion.
- Autoignition temperature: >200°C
- Water resistant, water dispersant
- Anti corrosive spray
- Suits all ferrous and non ferrous materials such as steel, iron, stainless steel, copper, timber, leather, vinyl, canvas, plastics etc.
- Not for use on high speed bearings
- Safe to use on electrical equipment to 70000 Volts (**DO NOT** apply to live electrical equipment)

Sprayable Liquids:

- Product Codes: **PIR1L, PIR5L, PIR20L, PIR750ML**
- Properties as for the aerosol form, but with higher lanolin content
- Use in harsh environments or where surfaces require a thicker film for more robust long term protection is required

ALL LANOLIN PRODUCTS
ARE NON TOXIC AND
ENVIRONMENTALLY
FRIENDLY

Refer Pirtek for
MSDS sheets for these
Products

Greases (anhydrous lanolin):

- Product codes: **PIRG165mL, PIRG1L, PIRG4L**
- Appearance: yellowish, tenacious, semisolid fatty substance with a slight characteristic odour
- Boiling Point Melting Point: 175°C (decomposition)
- Vapour pressure: not available
- Specific Gravity: 0.89 - 0.95
- Flash Point: 232 - 238°C (complies with Flash Point Determination in accordance with AS 2106.2:1999 using the Pensky-Martens apparatus conducted by Department of Mineral Resources, Mine Safety Laboratory)
- Flammability Limits: Not available
- Solubility in Water: Immiscible
- Ideal as a water resistant, anti-corrosive underwater and general purpose grease
- Nut and thread anti-sieze
- Protects metal, timber, rubber, vinyl, plastics
- Safe to use on electrical equipment to 70000 Volts (**DO NOT** apply to live electrical equipment)

PIRTEK LANOLIN PRODUCTS

Product Code	Description	Aerosol	Liquid	Grease	Packaging
PIR300C	300gm Aerosol Can	•			Aerosol
PIR1L	1ltr Trigger Pack Lanolin Lubricant		•		1 litre Trigger Pack
PIR750ML	750 ml Trigger Pack Lanolin Lubricant		•		750 ml Trigger Pack
PIR5L	5 Litre Liquid Jerry		•		5 litre Jerry Can
PIR20L	20ltr Drum C/W Tap + Empty 1ltr Trig Pack		•		20 litre drum + trigger pack (empty)
PIR200L	200ltr Drum C/W Airator		•		200 litre drum with aerator
PIRG165ML	165ml Grease Tottle Bottle			•	165 ml tottle bottle
PIRG1LP	1 Litre Grease Pail			•	1 litre pail
PIRG4LP	4 Litre Grease Pail			•	4 litre pail
PIRJ/T	Pirtek 1ltr Empty Jerry				1 litre Jerry can (empty)
PIRMS4	Merchandise Display Stand				Merchandise stand only
PIRRA200L	200 Litre Liquid Release Agent Drum		Release agent		200 litre drum
PIRRA1000L	1000 Litre Liquid Release Agent Drum		Release agent		1000 litre drum

LANOLIN PROTECT

POINTS TO NOTE

SAFETY

- Liquid lanolin products contain specifically blended solvents that require a short time to evaporate. It is essential that the products are not applied to electrical equipment while it is live
- Lanolin products are derived from natural wax (wool grease) and are biodegradable, non toxic, and provide a safe, superior alternative to traditional petrochemical based dewatering and lubricating fluids
- Lanolin products provide high load bearing capabilities on bearings, but are not suited to use in high speed bearings
- Do not spray liquid lanolin products near fire, flame or sparks
- Lanolin products will not wash off. If surfaces coated with lanolin are to be painted, clean surfaces with white spirits, or steam clean above 65°C



EMULSION COMPATIBILITY AND LIMITATIONS (UNDERGROUND MINING)

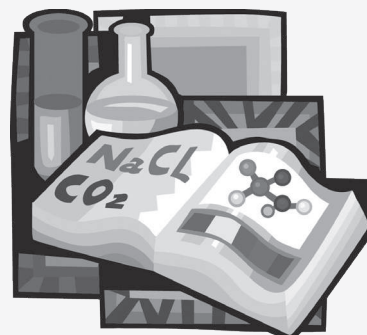
Pirtek Protect Lanolin lubricant and anti-seize greases offer long term protection, even in the harshest conditions. They protect, lubricate, penetrate and displace.

In the harsh environment that is underground mining using longwall equipment, machinery in the longwall is subject to mine waters and emulsions. It is important to lubricate moving parts and O-rings in the machinery to ensure that the equipment is kept running smoothly and to prolong the life of the machinery. Pirtek Protect lanolin lubricant and anti-seize grease do just that!

Independent tests have been performed for both the lanolin lubricant and the anti-seize grease. Both products were each added with longwall emulsions at a set concentrate, based on the upper limit that might be reached in field application. Both products passed an O-ring swell test and thermal stability test.

- The O-ring swell test consisted of an O-ring immersed in the lanolin lubricant mixed with a longwall emulsion, and an O-ring immersed in the anti-seize grease mixed with a long wall emulsion. The O-rings were left in the mix for 56 days at 70°C. At the end of the test date, both O-rings were found to have no significant difference in swell.
- The thermal stability test was performed on both the Protect Lanolin lubricant and anti-seize grease, to test the oil separation when these products were added to the longwall emulsion.
- The stability tests were conducted for 168 hours at 70°C. At the end of the test period, there was no oil separation in either product.
- Excessive application of Lanolin grease to fittings and threads in a hydraulic system has been reported to cause precipitation of the grease in low-flow areas such as pilot systems. This can lead to a collection of microscopic debris that may cause problems with valve operation

As a result of the this last point, the Protect lanolin product should not be allowed to come in contact with longwall emulsion hydraulic fluid. Its use should be restricted to lubrication of mechanical and electrical components external to the emulsion



FLASH POINT

Flash Point Approval has been granted to the range of Lanolin Products in accordance with Australian Standards AS2106.2:1999, using the Pensky-Martens apparatus.

Flash Point approval testing of the Lanolin Products was conducted and the approval has been granted by the Department of Mineral Resources Mine Safety Laboratory of New South Wales to Australian Standards AS2106.2:1999 in a controlled laboratory environment. The Department of Mineral Resources has also assessed the Material Safety Data Sheets (MSDS) Industrial Grade, approval has also been granted as all MSDS are compiled to the criteria of Worksafe Australia guidelines.

Flash Point testing has been undertaken to ensure that its products are safe to use in the mining industry for both Open Cut and Underground operations.



This page is part of a complete catalogue containing technical and safety data.
All data must be reviewed when selecting a product.
Pirtek reserve the right to change technical specifications without notice

LANOLIN PROTECT

RECOMMENDED APPLICATIONS

OVERVIEW

Aerosols :

- Electrical connectors
- Lubricant for drilling, cutting, machining and pressing
- Welding anti spatter
- Component preservation
- Vehicle rust protection
- Lubrication of light chains
- Air tool lubrication
- Locks and hinges
- Rejuvenates plastics, vinyls, aluminium & powder coating
- Reduce oxidation during shipping

Sprayable Liquids:

- Harsh & corrosive environments
- Heavy chain & wire rope (non sling & non webbing)
- High speed and load bearing chains
- Battery terminals & connectors e.g. electrical fork trucks
- Assembly lube for rubber hoses & multi pin plugs
- Preservation & protect motors & bearings
- Outside storage protection

Greases:

- Food grade certified
- Non conductive to 70KV
- Rubber grease, non perishing, excellent belt grip
- Welding nozzle dip
- Drilling & cutting aid
- All purpose lubricant
- Anti-seize for nuts & bolts
- Metal to metal soft seal gasket
- Stop galling of st. steel & alumin.
- Stops electrolysis of dissimilar metals

Release Agents:

- Concrete form work
- Water resistant
- Self healing
- Stops swelling of timber end grain
- Less cleanup after stripping
- Extends formwork life
- No damage to the environment

MINING

Pirtek Protect products are ideal in the mining environment because they provide what is effectively a hermetic seal or encapsulation of the targeted equipment. This protective film offers:

- environmental friendliness
- safety for workers
- non-toxicity
- superior dielectric performance
- long term pro-active protection
- Reduced acid etching
- great lubrication and anti-seize properties
- reduced hydrolysis
- reduced dismantling time and improved safety
- better opportunities for maintenance and therefore reduced downtime
- easy clean up

Use it on

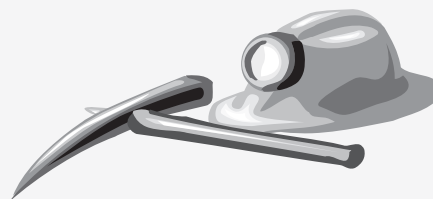
- Roof Bolters - Drive chains, fittings, linkages and guides
- Rib Bolters - Drive gears, fittings, linkages
- Miner- Drive chains, chassis and protective covers, linkages, fittings, actuator pins, mounting bolts, electrical equipment and connections
- Shuttle Car- Universals and drive chains, linkages, fittings, cable level wind system, chassis, electrical equipment and connections, haulage chains and flight bars, mounting bolts, actuator pins and sprockets
- Mobile boot end- Drive chains, track adjustment bolts, guides, fittings, linkages, hinges and electrical equipment, chassis and protective covers
- Pumps and fan systems- linkages, protective covers, pump/fan housing, electrical equipment and fittings
- Conveyor Belts- Chains, shackles, turn buckles, electrical equipment, loop take up system, wire cables fittings, rollers, hanging brackets, pins, drive units, nuts/bolts, belt stands and rails

Long Wall Mining Operation

- Chock Supports- Linkages and electrical equipment
- Actuator pins, actuators, relay bars and guides
- Alternating Face Conveyor- Electrical equipment (motors etc), dog bone bolts, chain drives, sprockets, linkages, guides, threads (except hydraulic), main gate and tail gate drive units
- Stage Loader and Crusher Unit- Linkages, electrical equipment, guides, threads (except hydraulic) and bolts
- Pump Station- Pumps (except internal), electrical motors, filters, threads (except hydraulic) and bolts
- Conveyor Belts- Chains, shackles, turn buckles, loop take up system, electrical equipment, fittings (except hydraulic), wire cable, rollers, hanging brackets, pins, drive units, belt stands and rails

Washing or Screening Plant

- Conveyor belts- Electrical equipment, chains, shackles, wire cables, loop take up system, fittings, hanging brackets, pins, belt stands and rails
- Electrical Equipment- Motors, fittings, connections, lighting, camera surveillance systems, transformers, circuit breakers and distribution panels
- Screening & washing system- Electrical equipment, drive units, chains, wire rope, pins, fittings, slides, nuts & bolts



LANOLIN PROTECT

RECOMMENDED APPLICATIONS

METAL PRESERVATION

The metal preservation properties of Lanolin date back to ancient times. With modern refinement methods, Pirtek Protect offers you a product that can assist in so many ways. Machined, fabricated or ground components can be hermetically sealed against oxidization.

Benefits:

- Hermetic component preservation
- Remains pro-active
- Resists acid etching
- Great anti-seize properties
- Non-toxic lanolin film
- Easy clean up

Technical:

- Remove all oxidation or existing scale (e.g. wire brush)
- All surfaces must be dry and clean prior to coating
- Due to its pro-active properties, Pirtek Protect's protective coating will remain operative until removed
- A thin film of Pirtek Protect should be applied to all metal surfaces prior to storage. Lambswool pads may also be used to apply spray to components
- Pirtek Protect Products will preserve all joints and fittings for ease of servicing
- Clean off with steam cleaner or hot soapy water wash above 60°C



WELDING

Pirtek Protect can save you many hours of lost production time by taking away those annoying and costly problems of Spatter!!! Also helps preservation of weld seams and plating.

Benefits:

- Reduction of embrittlement
- Base metal protection
- Component anti-spatter release agent
- Anti-spatter agent for fabrication workbenches
- Spatter release agent for welding head
- Reduces hydrolysis
- Easy to remove (Hot water wash above 60°C)

Technical:

Pirtek Protect is recommended for all welding situations

- For MIG shields, dip the heated end of the hand-piece in Protect to prevent spatter adhesion. Repeat as necessary
- All Pirtek Protect should be left for 30 seconds to allow the hydrocarbon solvent to evaporate prior to welding
- Pirtek Protect should only be applied while welds are still hot (but only if weld surface temperature is $\leq 195^{\circ}\text{C}$)
- For best results the ideal application temperature is above 65°C
- Pirtek Protect can penetrate up to 10 microns in mild steel at approximately 65°C.



LANOLIN PROTECT

RECOMMENDED APPLICATIONS

MARINE COATING

Benefits

Hull protection:

Pirtek Protect is not and has no anti-foul qualities, but will reduce water drag factors

An ideal marine coating because of its proven ability to resist acid etching, i.e. barnacles. Subsequent re-application requires no special hull treatment such as sanding/grinding etc. Slipway or hardstand time is reduced due to the saving in preparation and spray application time

Virtually eliminates electrolysis – a little spray will stop this expensive killer

Drastically reduces bacterial attachments, thereby saving our waterways from the toxic cocktails caused by some traditional anti-fouls

Resistant to acid etching

Base metal penetration

Pro-active ability

Reduces hydrolysis

Also good for:

Outboard legs Sail Drives Bow Thrusters

Stern Drives Log Spigots Intake Pick-up Grates

Propellers

Buoys

Preparation

All equipment which has been in sea water, should first be washed down with liquid chlorine (3:1).

All boat hulls must be washed down with liquid chlorine (3:1) to kill any microscopic spore.

Fibreglass hulls: For new or previously untreated hulls a Gelcote sealer should be applied if one has not been applied previously, prior to applying Pirtek Protect. The surface must be CLEAN and DRY. Pirtek Protect should not affect the Gelcote sealer used on fibreglass hulls and there have been no reported instances where Pirtek Protect has reacted with a Gelcote sealer coating. If you are unsure about applying Pirtek Protect it is recommended that an inconspicuous section be coated to test for reactivity. If reaction occurs please do not apply Pirtek Protect.

Aluminium hulls: The surface must be CLEAN and DRY. If heavy oxidation exists, remove with aluminium cleaner, and then apply Pirtek Protect.

Previously anti-fouled hulls: Remove marine growth and loose anti-foul particles thoroughly. Surface must be CLEAN and DRY before application of our Pirtek Protect

Propellers: Clean propeller or fitting back to base metal and wash with a liquid pool chlorine at 3:1 ratio to kill any microscopic spore. (very important)

Application

Pirtek Protect Coating can be applied by:

(a) Sprays (including airless)

(b) Roller or brush

Generally 1 or 2 coats are sufficient.

Always allow evaporation time between coats and before launching. Remember Protect always remains tacky until submerged

Propellers: It is preferable to heat the metal to between 65°C to 100°C. Liberally apply Pirtek Protect Grease directly onto the hot components and rub in where practical.

Re-application

Clean off with steam cleaner or hot pressure wash. Surface may be cleaned by using Surface Prep or by hand scrubbing with hot water above 60°C.

When CLEAN and DRY, re-apply as per instructions

Maintenance

All moored hulls MUST be visually inspected, and the hull wiped down every 4– 6 weeks if required.



LANOLIN PROTECT

RECOMMENDED APPLICATIONS

AROUND THE HOME

Pirtek Protect products are ideal in the mining environment because they provide what is effectively a hermetic seal or encapsulation of the targeted equipment. This protective film offers:

- Stop squeaks from hinges on gates, doors and children's toys
- Having trouble again with that key in a padlock or door one, quick squirt protects and lubricates for long periods
- Lubricate sliding doors to restore smooth action
- Oil the bike chain and coat the bike preventing rust, Pirtek Protect works as well as a polish without the elbow grease
- Rejuvenate those dried out seals on pool pumps and filters
- Lubricate tracks for garage doors ensuring trouble free operation
- Protect your valuable tools from rust and corrosion
- Release those rusted up nuts and bolts in seconds

Antennas / aerials

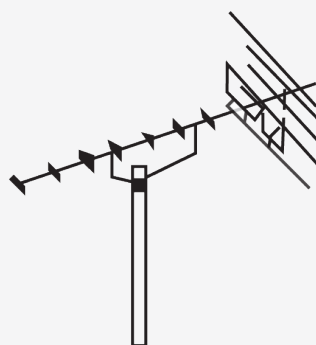
Due to the composition of dissimilar metals and high thermal cycling rates, antennas / aerials can benefit greatly from an application of Pirtek Protect, especially in severe corrosive environments.

Benefits

- Penetrates joints
- Penetrates base metals
- Reduces electrolysis
- No seizing of fittings
- The oxidization process is retarded

Technical

- Remove all flaking and oxidation with a wire brush.
- Apply Pirtek Protect to the antenna installation.
- Before application all components must be dry and should be carried out on a warm to hot day for best results.
- Pirtek Protect can be used as an anti-seize during installation on all bolts and nuts to protect and extend the life of your antenna.
- Non-conductive to 70KV but will not impede electrical contacts



PROTECT

INDUSTRIAL ASSEMBLY PRODUCTS

REFER PIRTEK FOR MSDS SHEETS



Threadlockers :

Product Codes:

IAT43 in 10 ml and 50 ml bottles

Medium Strength Blue IAT43 Nut Lock

Description

Protect IAT43 is an anaerobic formulation designed to be used on parts in an "As Received" condition, such as those with protective films (oils) etc.

Applications

Designed for direct application onto as received parts where a light oily film exists or where surrounding parts contamination is a problem in maintenance

Useful Hint

Where possible, remove thick deposits of grease or dirt, however IAT43 will penetrate the film once it has been tightened

Properties

Use as a conventional medium strength Locker on cleaned parts with strengths up to 12N/mm² or as a convenient all purpose locker on oily parts with 8-10/mm² typical strength depending on oil type and film

Procedure for Application

Product is normally hand applied from the bottle. Full cure time 24 hours

Compatible Accelerators / Primers

Not recommended

Technical Features

Resin... ..Mod Methacrylate
 Colour... ..Blue Thixotropic
 Cure Speed... ..<15 mins @ 20°C
 Viscosity... ..2500-5000
 Thixotropic Gap Fill... ..0.1mm
 Flash Point... ..>85°C
 Life... ..12 months @ 20°C
 Specific Gravity... ..1.04
 Max. Operating Temp. . . -53°C to + 150°C



Threadlockers:

Product Codes:

IAT77 in 10 ml and 50 ml bottles

High Strength Red IAT77 Stud Lock

Description

IAT77 is an anaerobic locking compound in the form of a viscous paste and it is used to give high strength locking action

Applications

Mostly for fasteners of 25 mm (1" size) and above. Examples include

- Studs on Pressure Vessels
- Studs on Locomotive Units
- Hydraulic Studs on Presses
- Rock Crusher Studs
- Crawler Track Studs

Useful Hint

To speed cure or to help cure in cold conditions, use IAA471 Activator on parts

Properties

High Torque: 23.7 N-m (210 ins. lbs)
 Breakloose / Prevailing Torque: 34 N-m on rotation through 180 degrees

Procedure for Application

Product is normally hand applied from the bottle. Ensure parts are clean, dry and free from oil and grease

Compatible Accelerators / Primers

IAA471 Activator can be used, but up to 30% strength reduction may be incurred

Technical Features

Resin:Dimethacrylate
 Colour:Red
 Fixture Speed with Activator: <10 mins/6 hours
 Cure Speed without Activator: .1 hour/24 hours
 Viscosity:6500 cps
 Gap Fill:0.010"
 Flash Point:>85°C
 Shelf Life:12 months @ 20°C
 Specific Gravity:1.10
 Max. Operating Temp. -50°C to +150°C



Surface Preparation:

Product Code:

IAA471-200 in 200 ml Aerosol

Structural Activator for Anaerobics

Description

IAA471 Aerosol assists in speeding up the cure time of all anaerobic fluids and pastes and extends the cure through volume (especially suited to Pirtek Protect IAT43 and IAT77 threadlockers).

Applications

Use IAA471 when materials are inactive (plastics or passivated metals) or where temperature is under 15°C.

Physical Properties

Standard Grade Solvent:Heptane Based
 Evaporation:60 seconds
 Flammability:Flammable

Technical Features

OdourCharacteristic Odour
 ViscosityNon-Viscous
 Flash Point:17°C
 Boiling Point56-57°C
 Flash Point-17 °C
 Solubility in WaterSlightly Soluble



PROTECT

INDUSTRIAL ASSEMBLY PRODUCTS

REFER PIRTEK FOR MSDS SHEETS



Sealing & Gasketing :

Product Codes:

IAS69 in 50 ml bottle

High Strength Hydraulic Sealant - Brown

Description

IAS69 Hydraulic Seal is an anaerobic liquid which cures to form a tough, high pressure seal on all types of threaded couplings used on low, medium and high pressure lines

Applications

IAS69 is used for all types of hydraulic connections, sealing against typical pressure line ratings. Use Hydraulic Seal to fit valves, threaded couplings, adaptors, quick disconnect parts, compression fittings and vibration proofing joints. Designed for direct application onto as received parts where a light oily film exists or where surrounding parts contamination is a problem in maintenance

Useful Hint

For fast cure, clean parts and apply local heat to joints with a heat gun or soft flame

Properties

IAS69 is tolerant of a light oil film. Seals up to 400bar, 20mm fittings, and makes vibration proof joints

Procedure for Application

Product is normally hand applied from the bottle. Ensure parts are clean, dry and free from oil and grease. Full cure in 12 hours

Compatible Accelerators / Primers

IA471 Activator can be used, but up to 30% strength reduction may be incurred

Cured Performance

ISO10964 Break/Prevailing Strgth.. 15/≥8 N.m
DIN54454 Break/Prevail.. Strgth.24/15-35 N.m

Technical Features

Resin.....Dimethacrylate
Colour.....Brown
Cure Speed With Activator.....<5 minutes
Cure Speed Without Activator...10-20 minutes
Brookfield RVDVII + @ 20C.
Spindle 5 @ 20rpm.....400 to 800cps
Gap Fill.....0.05mm to 0.25mm
Flash Point.....>100°C
Shelf Life.....12 months @ 20°C
Specific Gravity.....1.06
Max Operating Temp. -55°C to + 150°C



Sealing & Gasketing:

Product Codes:

IAS72 in 50 ml tube

Low Pressure Pipe Seal - White

Description

IAS72 White Pipesel is an instant low pressure sealant for fine and coarse threads up to 2" in diameter. S72 does not fully cure until some 60 hours after application, allowing re-alignment of elbows and joints

Applications

Replaces tapes and dopes, stops gas and fluid leaks on most metals and assists in lubricating during assembly. IAS72 will not shred or tear which would contaminate your system. Use IAS72 to seal against oils, gases, chemicals, water, steam etc.

Useful Hint

Wipe threads with clean shop cloth. Apply a continuous bead to 3rd or 4th thread depending on the thread length

Properties

Instantaneous low pressure seal. No locking action up to 48 hours. Easy break loose allowing re-alignment

Procedure for Application

Ensure parts are clean, dry and free from oil and grease. Degreasing directly assists results

Compatible Accelerators / Primers

Not recommended

Technical Features

Resin.....Dimethacrylate
Colour.....White Paste
Cure Speed w/ Activator...Not Recommended
Cure Speed W/out Activator....Up to 60 hours
Viscosity20,000cps
Gap Fill.....0.4mm
Flash Point.....>85°C
Shelf Life.....12 months @ 20°C
Specific Gravity.....1.25
Max Operating Temp.-55°C to + 150°C



Sealing & Gasketing:

Product Code:

IAS55 in 50 ml tube

Designer Gasket - Purple Paste

Description

Flange Seal Type IAS55 is a purple, smooth, thick paste. Easily applied, it cures once confined between the parts to form in place a tough, flexible gasket. IAS55 gives an instant low pressure seal

Applications

IAS55 is used for fuel and water pumps, split crank cases on engines, gearbox covers, engine thermostats, air compressor end caps, engine timing cam covers onto blocks, pump couplings, fuel tanks on small implements, chainsaws, lawn mowers etc. Use IAS55 for dressing gaskets, spacers etc.

Useful Hints

Where gap size is large or where the surface is uneven, apply IA471 Activator to help the product cure through volume. IAS55 can be roller coated, screen printed, traced or pad applied.

Properties

Instant low pressure sealant. Forms any size or shape. Will not shrink or relax. IAS55 is flexible and will not crack

Procedure for Application

Product is normally hand applied from the tube. Ensure parts are clean, dry and free from oil and grease

Compatible Accelerators / Primers

IA471 Activator can be used, but up to 20% strength reduction may be incurred

Cured Performance

Full Cure Time.....12 hours
Tensile Strength.....8 N/mm²
Static Shear Strength.....12.5 N/mm²

Technical Features

Resin.....Modified Urethane Acrylate
Colour.....Purple Paste
Cure Speed With Activator.....<2 hours
Cure Speed Without Activator...Up to 12 hours
Viscosity>1,000,000cps
Gap Fill.....0.5mm
Flash Point.....>100°C
Shelf Life.....12 months @ 20°C
Specific Gravity.....1.10
Max Operating Temp.-55°C to + 150°C



PROTECT

INDUSTRIAL ASSEMBLY PRODUCTS

REFER PIRTEK FOR MSDS SHEETS



Sealing & Gasketing :

Product Codes:

IAS77 in 50 ml tube

High Strength Gas Pipe Seal - Yellow

Description

Protect IAS77 is a high viscosity thixotropic gel paste which cures rapidly, sealing instantly to 10 bar through its anaerobic cure system in contact with metals in the absence of air (oxygen). When fully cured it resists pressure up to 350 bar. IAS77 is not suitable for oxygen systems. AGA Certificate 6900

Applications

Typical applications are in sealing of all types of threaded connections against water, oil, gases and most common materials conveyed by pipes

Useful Hint

When cure speed is extended due to low temperatures or inactive surfaces, activator can be used. Best results are found if IAS77 is applied to 2nd or 3rd threadform. Excess can be wiped away, any migration into lines will not solidify and can be flushed away during commissioning

Properties

Fast cure to fixture usually <15 mins. @ 20°C

Temperature range: -50°C to +150°C

Typical Strength: 5 N/mm²

Sizes 6mm up to 75mm (coarse)

Increase of gap size or fit extends the cure time

Procedure for Application

Product is normally hand applied from the bottle. Ensure parts are clean, dry and free from oil and grease. Full cure 6-12 hours

Compatible Accelerators / Primers

IA471 Activator can be used, but up to 30% strength reduction may be incurred

Technical Features

Resin:Dimethacrylate

Colour:Yellow

Cure Speed with Activator:<10 minutes

Cure Speed w/o Activator:.....<15 mins @ 20°C

Viscosity:>50,000 cps

Gap Fill:0.05mm to 0.4mm

Flash Point:>100° C

Shelf Life:12 months @ 20°C

Specific Gravity:1.09

Max. Operating Temp.+150°C



Sealing & Gasketing:

Product Codes:

IAS57 in 50 ml tube

PTFE Instant Pipe Sealant

Description

Protect IAS57 Instant Pipe Sealant is an easy to use anaerobic pipe sealant which sets fast to give an instant low pressure seal of 100 psi and a high pressure seal of 10000 psi when fully cured. This high strength product provides 100% sealing capability and does not shrink after curing, unlike more traditional solvent based pipe dopes.

Applications

IAS57 Instant Pipe Sealant with Teflon lubricates parts during assembly. The cure system allows for realignment of parts up to 24 hours from application. This product can be used on most hydraulic, pneumatic, oil, water and gas connections.

Useful Hint

Ensure parts are clean, dry and free from oil and grease.

Cured Performance

Full Cure Time:.....24 hours @ 20°C

Shear Strength.....10000 psi

Procedure for Application

Product is normally hand applied from the tube or brushed directly onto threaded parts. Primers such as IA471 (Standard Anaerobic Activator) can be used. However up to 20% strength loss can occur when using accelerators.

Technical Features

Resin Dimethacrylate

ColourWhite

Fixture Speed w/Activator.....<10mins

Fixture Speed w/out

Activator.....4 hour

Visco.....300,000 – 400,000cps

Gap Fill.....0.254mm

Shelf Life.....12 months @ 20°C

Max. Operating Temp.-54°C to + 200°C



Retaining:

Product Code:

IAR41 in 10 ml and 50 ml bottles

Medium Strength Bearing Fit - Yellow

Description

Bearing Fit IAR41 is a single part anaerobic securing compound, designed for fitting cylindrical metal assemblies and cures when confined between the parts

Applications

Protect IAR41 will secure all types and sizes of bearings, shafts and cylindrical parts which will require disassembly in the future. IAR41 is of medium strength and is colour coded yellow for job identification

Useful Hint

To speed cure or to help cure in cold conditions, use IA471 Activator on parts

Properties

Fast cure usually <15 mins. @ 20°C

Medium strength removable compound

Typical Strength: 12 N/mm²

Procedure for Application

Product is normally hand applied from the bottle. Ensure parts are clean, dry and free from oil and grease. Full cure 12 hours

Physical Properties

Standard Grade Solvent:.....Heptane Based

Resin.....Mod. Dimethacrylate

Colour.....Yellow

Cure Speed With Activator.....<5 minutes

Cure Speed Without Activator....10-15minutes

Viscosity.....1500 cps

Gap Fill.....0.2 mm

Flash Point.....>100°C

Shelf Life.....12 months @ 20 C

Specific Gravity.....1.06

Operating Temp.....-55°C to + 150°C



Consult Pirtek for
MSDS Sheets
for all Industrial
Assembly Products

PROTECT

INDUSTRIAL ASSEMBLY PRODUCTS

REFER PIRTEK FOR MSDS SHEETS



Retaining :

Product Codes:

IAR62 in 10 ml and 50 ml bottles

High Strength / High Temperature

Description

IAR62 Retainer is rated up to 232°C as the upper operational temperature and is designed for bonding/securing in a high strength manner, all types of cylindrically fitted parts

Applications

Protect IAR62 is used on all types of applications where temperatures exceed the design features of conventional Retainers, above 150°C. It develops high strength at elevated temperatures.

Useful Hint

Speed cure IAR62 by applying a localised heat with a heat gun or by placing parts in an oven @ 100°C for 30 minutes. Pre-heating of parts also accelerates the fixture and ultimate final cure

Properties

Good gap fill ability. Elevated upper temperature limits. Resistant to 3000 psi shear

Procedure for Application

Product is normally hand applied from the bottle. Ensure parts are clean, dry and free from oil and grease. Full cure in 24 hours

Compatible Accelerators / Primers

IA471 Activator can be used, but up to 30% strength reduction may be incurred

Cured Performance

Typical Breakaway Strength:.....20 N/mm²

Technical Features

Resin.....Mod. Dimethacrylate
 Colour.....Green
 Cure Speed With Activator.....10 minutes
 Cure Speed Without Activator.....30 minutes
 Viscosity.....7000 cps
 Gap Fill.....0.4 mm max.
 Flash Point.....>85°C
 Shelf Life.....12 months @ 20°C
 Specific Gravity.....1.08
 Max. Operating Temp.....-55°C to + 232°C



Instant Bonding:

Product Codes:

IACA41 in 25 ml bottle

Quick Bonding

Description

IACA41 is a hybrid quality Cyanoacrylate which is surface insensitive and bonds to a wide variety of materials including wood, paper, cardboard, leather, fabrics etc. Bond times vary according to the substrates but are generally faster than normal superglues

Applications

Typical applications include wood trim on furniture, balsa wood bonding for hobbyists, leather accessories on shoes, fabric bows on shoes and lampshade bonding.

Other features include versatile bonding or most elastomers, metals and plastics

Useful Hint

On elastomer bonding and some plastics, residues or release agents on surfaces should be removed by wiping with a solvent cleaner

Properties

Steel to Steel:.....20 N/mm²
 Rubber to Rubber10 N/mm²
 Plastic to Plastic15 N/mm²

Procedure for Application

Ensure parts are clean, dry and free from oil and grease. Apply sparingly to one side and hold parts until handling strength is achieved (typically less than 15 seconds)

Compatible Accelerators / Primers

Primers such as A021 or Double Strength A113 as accelerators for fillet cure for priming absorbent surfaces (available from Pirtek to order)

Technical Features

Resin.....Modified Ethyl
 Colour.....Clear
 Cure Speed W/ Activator..Not Recommended
 Cure Speed W/o Activator.....<10 seconds
 Viscosity.....120cps
 Gap Fill.....0.1mm
 Flash Point.....>85°C
 Shelf Life.....12 months @ 20°C
 Specific Gravity.....1.05
 Operating Temp.-60°C to + 80°C



Instant Bonding:

Product Code:

IACA60 in 25 ml bottle

High Strength Instant Adhesive

Description

IACA60, when compared to other low viscosity Cyanoacrylates, outperforms most products for cure speed, final cured strength and simply the wide range of difficult plastics and elastomers it can bond

Applications

For example, Nitrile, Neoprene and natural rubbers can be bonded in 1-2 seconds and all the bonds are stronger than the material itself. Plastics such as ABS, soft PVC, Polyacetal, EPT and EVA all bond in 1-2 seconds and the bonds are stronger than the material being bonded. Metals such as steel, aluminium, copper and brass all bond in under 5 seconds and the bond strengths are superior to other manufacturers low viscosity products

Useful Hints

Slower cures of up to 12 seconds are found on Polymethyl Methacrylate (PMMA), Bakelite, Polycarbonate and Viton rubber. Polyolefins can be treated with special preparations. Consult Pirtek re Product Data Sheet 25 when dealing with these difficult plastics

Properties

Speed: Plastics (most)<2 seconds
 Rubbers (most)<4 seconds
 Metals<5 seconds
 Strength:.....Plastics to substrate failure
Rubbers to substrate failure
Metals >30 N/mm² (Shear 15 N/mm²)

Procedure for Application

For best results, degrease/abrade and make sure the surfaces are clean and free from dirt, dust and contamination such as mould release agents. Apply a thin film or drop to one surface only and bring parts together holding firmly for a few seconds until the parts achieve a handling strength. Remember one drop bonds about 25mm² and a 25 ml bottle has about 200 drops. 24 hours for full cure

Compatible Accelerators / Primers

Primers such as A021 or Double Strength A113 as accelerators for fillet cure for priming absorbent surfaces (available from Pirtek to order)

Technical Features

Resin.....Modified Ethyl CA
 Colour.....Clear
 Cure Speed With Activator.....Instant
 Cure Speed Without Activator.....1-5 seconds
 Viscosity.....20cps
 Gap Fill.....0.1 mm
 Flash Point.....>85°C
 Shelf Life.....12 months @ 20°C
 Specific Gravity.....1.06
 Max. Operating Temperature.....-60°C to + 90°C



PROTECT

INDUSTRIAL ASSEMBLY PRODUCTS

REFER PIRTEK FOR MSDS SHEETS

IATDS198



TDS198 EPOXY :

Product Codes:

IATDS198 in 180 mm x 20 mm Rod

Aluminium Stick - Epoxy Putty

Description

A hand kneadable, speciality epoxy putty that mixes in one minute to provide fast, permanent repairs to most aluminium surfaces. When applying it to surfaces it is necessary to work the material forcefully into the surface and apply pressure until adhesion begins to take effect. Lower temperature causes longer cure time. The handy rod form has the curing agent encapsulated in the contrasting colour base material. It's putty-like consistency eliminates drips and runs, providing "no mess" application with no tools required to use. The mixed epoxy turns from a silvery colour to "Alloy" upon curing and will not yellow upon exposure to UV light. After final cure, Aluminium Stick may be drilled, sawed, tapped, filed, sanded and painted. It allows patching in areas where welding is impossible.

Applications

After proper mixing, Aluminium Stick moulds like clay and may be used to permanently patch dents, scratches, cuts, gouges and holes in items such as housings and all types of repairs to mouldings and injection type shapes. Aluminium Stick is ideal for making emergency repairs to reforming, rebuilding and patching anything made out of aluminium such as HVAC parts, refrigeration units, air conditioning units, machine parts, alu-roofing, flagpoles, shelving, platforms, walkways, campers, vehicles, canopies, gutters, truck bodies, wheels, manifolds, stripped threads, marine hardware and casings.

Useful Hint

Mixing: Twist or cut off required amount. To mix, knead with fingers to a uniform colour. If mixing is difficult, warm the stick to room temperature or slightly above. Apply to the surface to be repaired (within 2 minutes of mixing). The mixed epoxy does not exhibit high bond strength at this point, but appears to be merely lying on the surface.

Force into any cracks or holes to be filled and strike off excess material, preferably with a tool wetted with clean water. Work the material forcefully into the surface and apply pressure until adhesion begins to take effect.

For a smooth appearance, hand rub with water or a damp cloth prior to hardening. Remove excess material before hardening begins. After 15-20 minutes the epoxy will harden like metal and start to form a tenacious bond. After just 45 minutes IATDS198 is completely cured and can be drilled, sawed, carved, sanded, stained or painted.

Properties

Opening Time:	5 minutes
Max. Temp Resistance:	120°C (150°C intermittent)
Initial Cure:	1 hour max.
Full Cure Time:	24 hours
Lap Shear Strength (Steel):	4.8 N/mm ²
Shore D Hardness:	70/80
Compressive Strength:	84 N/mm ² - 12,000 psi

Procedure for Application

Surface should be cleaned free of grease or dirt. Scuffing or sanding the surface prior to cleaning helps to ensure a good bond.

Technical Features

Resin:	Epoxide Light Silver
Epoxy Resistance:	Hydrocarbons, ketones, esters, halo-carbons, alcohols, aqueous salt solutions and dilute acids and bases
Electrical Resistance:	30,000 mega Ohms
Dielectric Strength (Steel):	300 Volts/mil
Shrinkage:	<1%
Non-Volatile Content:	100%
Shelf Life:	>6 months @ 25°C

IATDS252



TDS252 EPOXY:

Product Codes:

IATDS252 in 180 mm x 20 mm Rod

Steel Stick - Epoxy Putty

Description

Steel Stick is a hand kneadable, non rusting, steel reinforced epoxy putty that mixes in one minute to provide fast, permanent repairs to items made of ferrous and aluminium metals. It comes in a handy rod form with the curing agent encapsulated in the contrasting colour base material. It's putty-like consistency eliminates drips and runs, providing "no mess" application with no tools required to use. Steel Stick is black in colour after use.

Applications

After proper mixing, Steel Stick moulds like clay and may be used in many industrial and home Maintenance applications, including repair of iron pipes, tanks, tools and equipment, repair blow holes, holding and placement of fixtures and signs, repairs to moulds, patterns and castings, making prototypes, threadlocking, repair cracked castings, repairs to down spouts and gutters, light fixture installations, repairs to duct-work, anchor bolts, as well as countless other uses. The unused portion of Steel Stick will remain stable for years if protected from direct contact with the air, in cool conditions.

Useful Hint

Mixing: Twist or cut off required amount. To mix, knead with fingers to a uniform colour. If mixing is difficult, warm Steel Stick to room temperature or slightly above. Apply to the surface to be repaired (within 2 minutes of mixing). The mixed epoxy does not exhibit high bond strength at this point, but appears to be merely lying on the surface. Force into any cracks or holes to be filled and strike off excess material, preferably with a tool wetted with clean water. When applying to a damp, wet or slowly leaking area, work the material forcefully into the surface and apply pressure until adhesion begins to take effect. For a smooth appearance of the cured compound, hand rub with water or a damp cloth prior to hardening. Remove excess material before hardening begins. After 15-20 minutes the epoxy will harden like metal and start to form a tenacious bond. After just 45 minutes Steel Stick is completely cured and can be drilled, sawed, carved, sanded stained or painted.

Properties

Opening Time:	3.5 minutes
Max. Temperature Resistance:	120°C (150°C intermittent)
Initial Cure:	1 hour max.
Full Cure Time:	24 hours
Lap Shear Strength (Steel):	6.2 N/mm(2)
Shore D Hardness:	80
Compressive Strength:	84 N/mm(2) - 12,000 psi

Procedure for Application

Surface should be cleaned free of grease or dirt. Scuffing or sanding the surface prior to cleaning helps to ensure a good bond.

Technical Features

Resin:	Epoxide
Chemical Resistance:	Hydrocarbons, ketones, esters, halo-carbons, aqueous salt solutions and dilute acids and bases
Electrical Resistance:	30,000 mega Ohms
Dielectric Strength (Steel):	300 Volts/mil
Shrinkage:	<1%
Non-Volatile Content:	100%
Shelf Life:	>6 months @ 25°C

IAREX5-25



REX5 EPOXY:

Product Code:

IAREX5 in 25 ml double syringe

Fast Set General Purpose - Clear

Description

IAREX5 is a two part component low odour epoxy with an open time of 60 minutes and sets hard but workable. It is a viscous material that is usually supplied in cartridge format and is designed to mix in a ratio of 1-1 by volume using static type mixing nozzles.

Applications

IAREX5 epoxy is an effective adhesive for wood, metals, ceramic, fibreglass and most plastics. Typical applications include repairs and renovation of metal castings, ceramic tiles, vessels or ornaments, wooden, metal or plastic furniture, stone or concrete paving slabs or copings. It is particularly useful for securing household fittings to brick, plaster, wooden or plastic surfaces, laminating melamine surface sheet to wood or block board, modelling and test rig manufacture.

IAREX5 epoxy is not suitable for polythene, polypropylene or plasticised PVC. If in doubt, carry out a small trial with the adhesive before using on a large application.

Once the pack has been opened, the cap (which is contained within the plungers) should be removed and placed over the open ends of the syringe. The cap will fit in only one way to avoid contamination.

Typical Performance

ADV60 allows an open time of approximately 60 minutes prior to setting and gives a handling time of 10 hours with full cure @ 20°C in about 72 hours.

Useful Hint

Cut nozzles and extrude equal amounts and mix for about 30 seconds. Static mix nozzles should be firstly equalised and a little extruded out and discarded as waste to ensure correct balanced mixing. Apply to a prepared surface and press or clamp surfaces together supporting the joint if required.

Note the handling time as the product chosen is a slow set variety.

Temperature vs Strength

Ultimate strength is achieved above 60°C. It drops significantly from 50° to a minimum @ 40° of less than 25% of full strength or less.

Properties

CURED PROPERTIES	
Static mix nozzle	opentime 4 mins.
Volume 100g mix	3.5mins
Cure to Light Fixture	15 minutes
Cure to moderate handling @ 50°C strength	2 hours
Full 24 hour cure - shear	<18N/mm2
Full 24 hour cure - peel	<6N/mm2
Speed Cured @ 60°C to 50% approx strength	20-25 minutes
Chemical Resistance	Moderate / Good
Impact Resistance	Poor
Heat Resistance	20°C to +60°C
Water Resistance	Moderate

Procedure for Application

Surface should be cleaned free of grease or dirt. Scuffing or sanding the surface prior to cleaning helps to ensure a good bond.

Technical Features

Resin:	Epoxide
Chemical Resistance:	Hydrocarbons, ketones, esters, halo-carbons, aqueous salt solutions and dilute acids and bases
Electrical Resistance:	30,000 mega Ohms
Dielectric Strength (Steel):	300 Volts/mil
Shrinkage:	<1%
Non-Volatile Content:	100%
Shelf Life:	>6 months @ 25°C

PROTECT

INDUSTRIAL ASSEMBLY PRODUCTS

REFER PIRTEK FOR MSDS SHEETS



Silicone Sealant:

Product Codes:

IASIL in 300 ml Tube

High Temperature Silicon - Black

Description

IASIL RTV Silicone is a one part, easily applied, paste-like sealant that cures to form a high purity elastomer on exposure to atmospheric moisture. No primers or accelerators are needed. When cured, it resists most chemicals, high temperatures and exhibits excellent mechanical properties

Applications

All applications where a non-sag sealant of exceptional longevity is required to bond glass, metals, ceramics, wood stone etc. IASIL eliminates leakage, reduces noise, absorbs vibration, seals and bonds parts into a secure unit.

Useful Hint

Where surfaces require only a single sided bond, it is possible to treat the side not requiring adhesion with a release agent or simply apply petroleum jelly or oil. When cured torque up the parts to form a compressive seal

Properties

Cure rate is 3mm in 24 hours but is humidity and temperature dependant. The rate of cure can be accelerated by increasing the temperature (70°C max.) and increasing the humidity levels

Procedure for Application

Product is normally hand applied from the cartridge. Ensure parts are clean, dry and free from oil and grease. Full cure in 72 hours

Compatible Accelerators / Primers

Products are available to order for difficult surfaces. Please consult Pirtek

Cured Performance

Full Cure Time:72 hours maximum

Tensile Strength:2 N/mm² - 300psi

Hardness :34 Shore A

Elongation :450%

Technical Features

Resin:Polydimethyl Siloxane
Colour:Black
Cure Speed:Skin 15 mins
Cure Speed:3mm in 24 hours
Shelf Life:9-12 months unopened
Specific Gravity:1.25 @ 250°C
Operating Temperature:-70°C to +225°C
(-70°C to + 300°C Intermittent)



Aluminium Anti-Seize Lubricants:

Product Codes:

IAAA 500 g

Aluminium Anti-Seize - High Temp. 871°C

Description

IAAA Aluminium-Graphite Anti-Seize paste consists of uniform, fine flaked particles in a special blend of lubricants and oils. It is ideal for use on a wide range of industrial products to prevent seizing, galling and excessive wear.

Applications

Can be used on nuts, bolts screws, pipe threads, O-rings, shafts and hubs. Typical applications include conveyor systems, gear boxes, chains, cams, u-joints, sprockets and tracking.

Protects up to 980°C

Prevents seizing and galling of metals

Protects against harsh and corrosive environments

Note that IAAA is not a high speed load carrying lubricant and is not recommended for ball or roller bearings.

On Part Performance

Temperature:.....-53°C up to 871°C

Water Resistance:.....Excellent

Corrosivity:.....Very Low

Protection Level:.....Salt Water, Chemicals

Procedure for Application

Ensure parts are clean and dry, then simply apply by brush to provide instant protection.

Technical Features

Base:.....Highly Modified Synthetic Oil
Additives:.....Copper, Graphite, Aluminium,
Anti Corrosion Properties

Shelf Life:.....1½ Years

Consistency:.....Paste

Viscosity120K - 175K

Lubricity .k Factor0.18

Coefficient of Friction0.07 from 20°C - 760°C

Specific Gravity:.....app 1.3

Flash Point:.....>150°C

Texture:.....Smooth Paste

Meets or exceeds the requirements of MIL-A-907E specification and

conforms to GM -6108M



Nickel Anti-Seize Lubricants:

Product Code:

IANA 225g

Nickel Anti-Seize - High Temp. 1315°C

Description

IANA Nickel-Graphite Anti-Seize paste is a high temperature resistant anti seize paste that lubricates during assembly, providing protection against seizing, galling and excessive wear even in the most adverse conditions.

Applications

Lube for threaded parts

Lube for valve seatings

Rust preventative on any assembly

Fork Lift chain guard and lube

Boiler hinges and door latches

Prevents seizure on aero jets, turbines etc.

Protects threads, gears, pulleys, chains, rollers, cables, hinges, pivots, sprockets, oven doors, exhaust manifold parts, flues, and assemblies etc.

Useful Hints

Nickel Anti-Seize prevents corrosion in adverse conditions such as high and low temperatures and extremes of surrounding conditions such as rain, water jets, salt spray, salt water immersion etc.

Because nickel is such a hard metal that can keep surfaces apart, IANA is particularly well suited to applications involving dissimilar metals

Torque / Tension Relationships

Pre-load is provided with lubricity reducing friction, controlling on torque variations, and assisting in achieving the desired tensile pre-load

Properties

Resists galvanic action

Eliminates galling on press fits

Eliminates pitting and electrolysis

Eliminates seizure and protects from rust

Used in:

Automotive – on and off road.

Marine and on board equipment

All types of Industrial equipment

Procedure for Application

Ensure parts are clean and dry, then simply apply by brush to provide instant protection.

Technical Features

Resin:.....Nickel particles in speciality extended base

Colour:.....Metallic Silver

Cure Speed:30 mins @ 25°C

Re-coating:After 30 mins

Viscosity (thixotropic).....120K - 175K

Lubricity .k Factor0.13

Coefficient of Friction0.17 at 71°C

Solvent Resistance:Insoluble in water

Shelf Life:1½ Years

Max. Operating Temperature:-53°C to + 1315°C

Meets or exceeds the requirements of MIL-A-907E specification



TECHNICAL DATA

CHEMICAL RESISTANCE TABLE - ANAEROBICS

AGENT	INDUSTRIAL ANAEROBIC				
	IAS55, IAS57	IAS69, IAS72, IAS77	IAR41, IAR62	IAT43	IAT77
Legend: G = Good C = Conditional U = Unsatisfactory - No Data					
Abrasive Coolant	G	G	G	G	G
Acetaldehyde	G	G	G	G	G
Acetate Solvents	G	G	G	G	G
Acetamide	G	G	G	G	G
Acetic Acid	G	G	G	G	G
Acetic Acid <10%	G	G	G	G	G
Acetic Acid >10%	-	-	-	G	-
Acetic Acid - Glacial	G	G	G	G	G
Acetic Anhydride	G	G	G	G	G
Acetone	G	G	G	G	G
Acetylene (Liq. Phase)	G	G	G	G	G
Acid Clay	G	G	G	G	G
Acrylic Acid	G	G	G	G	G
Acrylonitrile	G	G	G	G	G
Activated Alumina	G	G	G	G	G
Activated Carbon	G	G	G	G	G
Activated Silica	G	G	G	G	G
Alcohol - Allyl	G	G	G	G	G
Alcohol - Amyl	G	G	G	G	G
Alcohol - Benzyl	G	G	G	G	G
Alcohol - Butyl	G	G	G	G	G
Alcohol - Ethyl	G	G	G	G	G
Alcohol - Furfuryl	G	G	G	G	G
Alcohol - Hexyl	G	G	G	G	G
Alcohol - Isopropyl	G	G	G	G	G
Alcohol - Methyl	G	G	G	G	G
Alcohol - Propyl	G	G	G	G	G
Alum - Ammonium	G	G	G	G	G
Alum - Chrome	G	G	G	G	G
Alum - Potassium	G	G	G	G	G
Alum - Sodium	G	G	G	G	G
Alumina	G	G	G	G	G
Aluminium Acetate	G	G	G	G	G
Aluminium Bicarbonate	G	G	G	G	G
Aluminium Bifluoride	G	G	G	G	G
Aluminium Chloride	G	G	G	G	G
Aluminium Sulfate	G	G	G	G	G
Ammonia Anhydrous	U	U	U	U	U
Ammonia Solutions	U	U	U	U	U
Ammonium Bisulfite	G	G	G	G	G
Ammonium Borate	G	G	G	G	G
Ammonium Bromide	G	G	G	G	G
Ammonium Carbonate	G	G	G	G	G
Ammonium Chloride	G	G	G	G	G
Ammonium Chromate	G	G	G	G	G
Ammonium Fluoride	G	G	G	G	G
Ammonium Fluorosilicate	G	G	G	G	G
Ammonium Formate	G	G	G	G	G
Ammonium Hydroxide	G	G	G	G	G
Ammonium Hyposulfite	G	G	G	G	G
Ammonium Iodide	G	G	G	G	G
Ammonium Molybdate	G	G	G	G	G
Ammonium Nitrate	G	G	G	G	G
Ammonium Oxalate	G	G	G	G	G
Ammonium Persulfate	G	G	G	G	G
Ammonium Phosphate	G	G	G	G	G
Ammonium Picrate	G	G	G	G	G
Ammonium Sulfate	G	G	G	G	G
Amnim. Sulfate Scrubber	G	G	G	G	G
Ammonium Sulfide	G	G	G	G	G

AGENT	INDUSTRIAL ANAEROBIC				
	IAS55, IAS57	IAS69, IAS72, IAS77	IAR41, IAR62	IAT43	IAT77
Legend: G = Good C = Conditional U = Unsatisfactory - No Data					
Ammonium Thiocyanate	G	G	G	G	G
Amyl Acetate	G	G	G	G	G
Amyl Amine	G	G	G	G	G
Amyl Chloride	G	G	G	G	G
Aniline	G	G	G	G	G
Aniline Dyes	G	G	G	G	G
Anodizing Bath	G	G	G	G	G
Antichlor Solution	G	G	G	G	G
Antimony Acid Salts	G	G	G	G	G
Antimony Oxide	G	G	G	G	G
Antioxidant Gasoline	G	G	G	G	G
Aqua Regia	U	U	U	U	U
Argon	G	G	G	G	G
Armeen	G	G	G	G	G
Arochlor	G	G	G	G	G
Aromatic Gasoline	G	G	G	G	G
Aromatic Solvents	G	G	G	G	G
Arsenic Acid	G	G	G	G	G
Asbestos Slurry	G	G	G	G	G
Ash Slurry	G	G	G	G	G
Asphalt Emulsions	G	G	G	G	G
Asphalt Molten	G	G	G	G	G
Bagasse Fibers	G	G	G	G	G
Barium Acetate	G	G	G	G	G
Barium Carbonate	G	G	G	G	G
Barium Chloride	G	G	G	G	G
Barium Hydroxide <10%	G	G	G	G	G
Barium Hydroxide >10%	-	-	-	G	-
Barium Sulfate	G	G	G	G	G
Battery Acid <10%	G	G	G	G	G
Battery Acid >10%	-	-	-	G	-
Battery Diffuser Juice	G	G	G	G	G
Bauxite (See Alumina)	G	G	G	G	G
Bentonite	G	G	G	G	G
Benzaldehyde	G	G	G	G	G
Benzene	G	G	G	G	G
Benzene Hexachloride	G	G	G	G	G
Benzene-Hydrochloric Acid	G	G	G	G	G
Benzoic Acid	G	G	G	G	G
Benzotriazole	G	G	G	G	G
Beryllium Sulfate	G	G	G	G	G
Bicarbonate Liquor	G	G	G	G	G
Bilge Lines	G	G	G	G	G
Bleach Liquor	G	G	G	G	G
Bleached Pulp	G	G	G	G	G
Borax (S) Liquors	G	G	G	G	G
Boric Acid	G	G	G	G	G
Brake Fluids	G	G	G	G	G
Brine Chlorinated	G	G	G	G	G
Brine (Cold)	G	G	G	G	G
Bromine Solution	-	-	-	-	G
Butadiene	G	G	G	G	G
Butyl Acetate	G	G	G	G	G
Butyl Alcohol	G	G	G	G	G
Butyl Amine	G	G	G	G	G
Butyl Cellosolve (S)	G	G	G	G	G
Butyl Chloride	G	G	G	G	G
Butyl Ether (Dry)	G	G	G	G	G
Butyl Lactate	G	G	G	G	G
Butyl Resin	G	G	G	G	G

AGENT	INDUSTRIAL ANAEROBIC				
	IAS55, IAS57	IAS69, IAS72, IAS77	IAR41, IAR62	IAT43	IAT77
Legend: G = Good C = Conditional U = Unsatisfactory - No Data					
Butyraldehyde	G	G	G	G	G
Butyric Acid <10%	G	G	G	G	G
Butyric Acid >10%	-	-	-	G	-
Cadmium Chloride	G	G	G	G	G
Cadmium Plating Bath	G	G	G	G	G
Cadmium Sulfate	G	G	G	G	G
Calcium Acetate	G	G	G	G	G
Calcium Bisulfate	G	G	G	G	G
Calcium Carbonate	G	G	G	G	G
Calcium Chlorate	G	G	G	G	G
Calcium Chloride	G	G	G	G	G
Calcium Chloride Brine	G	G	G	G	G
Calcium Citrate	G	G	G	G	G
Calcium Ferrocyanide	G	G	G	G	G
Calcium Formate	G	G	G	G	G
Calcium Hydroxide	G	G	G	G	G
Calcium Lactate	G	G	G	G	G
Calcium Nitrate	G	G	G	G	G
Calcium Phosphate	G	G	G	G	G
Calcium Silicate	G	G	G	G	G
Calcium Sulfamate	G	G	G	G	G
Calcium Sulfate	G	G	G	G	G
Calcium Sulfite	G	G	G	G	G
Camphor	G	G	G	G	G
Carbitol	G	G	G	G	G
Carbolic Acid (Phenol) <10%	G	G	G	G	G
Carbolic Acid (Phenol) >10%	-	-	-	G	-
Carbon Bisulfide	G	G	G	G	G
Carbon Black	G	G	G	G	G
Carbon Tetrachloride	G	G	G	G	G
Carbonic Acid <10%	G	G	G	G	G
Carbonic Acid >10%	-	-	-	G	-
Carbowax (S)	G	G	G	G	G
Carboxymethyl Cellulose	G	G	G	G	G
Carmauba Wax	G	G	G	G	G
Casein	G	G	G	G	G
Casein Water Paint	G	G	G	G	G
Celite	G	G	G	G	G
Cellosolve (S)	G	G	G	G	G
Cellulose Pulp	G	G	G	G	G
Cellulose Xanthate	G	G	G	G	G
Cement DryAir Blow	G	G	G	G	G
Cement Grout	G	G	G	G	G
Cement Slurry	G	G	G	G	G
Ceramic Enamel	G	G	G	G	G
Ceric Oxide	G	G	G	G	G
Chalk	G	G	G	G	G
Chemical Pulp	G	G	G	G	G
Chestnut Tanning	G	G	G	G	G
China Clay	G	G	G	G	G
Chloral Alcoholate	G	G	G	G	G
Chloramine	G	G	G	G	G
Chlorinated Hydrocarbons	G	G	G	G	G
Chlorinated Paperstock	G	G	G	G	G
Chlorinated Solvents	G	G	G	G	G
Chlor Sulphuric Acid	U	U	U	U	U
Chlorinated Wax	G	G	G	G	G
Chlorine Dioxide	U	U	U	U	U
Chlorine Liquid	U	U	U	U	U
Chlorine (Dry)	U	U	U	U	U

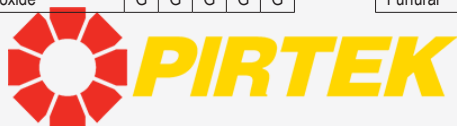
TECHNICAL DATA

CHEMICAL RESISTANCE TABLE - ANAEROBICS

AGENT	INDUSTRIAL ANAEROBIC				
	IAS55, IAS57	IAS69, IAS72, IAS77	IAR41, IAR62	IAT43	IAT77
Legend: G = Good C = Conditional U = Unsatisfactory - No Data					
Chloroacetic Acid <10%	G	G	G	G	G
Chloroacetic Acid >10%	-	-	-	G	-
Chlorobenzene (Dry)	G	G	G	G	G
Chlorosulfonic Acid	U	U	U	U	U
Chrome Acid Cleaning <10%	G	G	G	G	G
Chrome Acid Cleaning >10%	-	-	-	G	-
Chrome Liquor <10%	G	G	G	G	G
Chrome Liquor >10%	-	-	-	G	-
Chrome Plating Bath <10%	G	G	G	G	G
Chrome Plating Bath >10%	-	-	-	G	-
Chromic Acid 10%	G	G	G	G	G
Chromic Acid 50% (Cold)	U	U	U	U	U
Chromic Acid 50% (Hot)	U	U	U	U	U
Chromium Acetate	G	G	G	G	G
Chromium Chloride	G	G	G	G	G
Chromium Sulfate	G	G	G	G	G
Classifier	G	G	G	G	G
Clay	G	G	G	G	G
Coal Slurry	G	G	G	G	G
Coal Tar	G	G	G	G	G
Cobalt Chloride	G	G	G	G	G
Copper Amnium Formate	G	G	G	G	G
Copper Chloride	G	G	G	G	G
Copper Cyanide	G	G	G	G	G
Copper Naphthenate	G	G	G	G	G
Copper Plating(Acid Procs)	G	G	G	G	G
Copper Plating(Alk Procs)	G	G	G	G	G
Copper Sulfate	G	G	G	G	G
Core Oil	G	G	G	G	G
Corundum	G	G	G	G	G
Creosote	G	G	G	G	G
Creosote - Cresylic Acid	G	G	G	G	G
Cyanide Solution	G	G	G	G	G
Cyanuric Chloride	G	G	G	G	G
Cyclohexane	G	G	G	G	G
Cylinder Oils	G	G	G	G	G
De-Ionized Water	G	G	G	G	G
De-Ionized Water Low Conductivity	G	G	G	G	G
Detergents	G	G	G	G	G
Developer, photographic	G	G	G	G	G
Dextrin	G	G	G	G	G
Diacetone Alcohol	G	G	G	G	G
Diammonium Phosphate	G	G	G	G	G
Diamylamine	G	G	G	G	G
Diatomaceous Earth Slurr	G	G	G	G	G
Diazo Acetate	G	G	G	G	G
Dibutyl Ohthalate	G	G	G	G	G
Dichlorophenol	G	G	G	G	G
Dichloro Ethyl Ether	G	G	G	G	G
Dicyandamide	G	G	G	G	G
Dielectric Fluid	G	G	G	G	G
Diester Lubricants	G	G	G	G	G
Diethyl Ether Dry	G	G	G	G	G
Diethyl Sulfate	G	G	G	G	G
Diethylamine	G	G	G	G	G
Diethylene Glycol	G	G	G	G	G
Diglycolic Acid	G	G	G	G	G
Dimethyl Formamide	G	G	G	G	G
Dimethyl Sulfoxide	G	G	G	G	G

AGENT	INDUSTRIAL ANAEROBIC				
	IAS55, IAS57	IAS69, IAS72, IAS77	IAR41, IAR62	IAT43	IAT77
Legend: G = Good C = Conditional U = Unsatisfactory - No Data					
Dioxane Dry	G	G	G	G	G
Dioxidene	G	G	G	G	G
Dipentene - Pinene	G	G	G	G	G
Diphenyl	G	G	G	G	G
Distilled Water(Indust)	G	G	G	G	G
Dowtherm (S)	G	G	G	G	G
Drying Oil	G	G	G	G	G
Dust - Flue (Dry)	G	G	G	G	G
Dye Liquors	G	G	G	G	G
Emery - Slurry	G	G	G	G	G
Emulsified Oils	G	G	G	G	G
Enamel Frit Slip	G	G	G	G	G
Esters General	G	G	G	G	G
Ethyl Acetate	G	G	G	G	G
Ethyl Alcohol	G	G	G	G	G
Ethyl Amine	G	G	G	G	G
Ethyl Bromide	G	G	G	G	G
Ethyl Cellosolve (S)	G	G	G	G	G
Ethyl Cellosolve Slurry(S)	G	G	G	G	G
Ethyl Formate	G	G	G	G	G
Ethyl Silicate	G	G	G	G	G
Ethylene Diamine	G	G	G	G	G
Ethylene Dibromide	G	G	G	G	G
Ethylene Dichloride	G	G	G	G	G
Ethylene Glycol	G	G	G	G	G
Ethylenediamine T	G	G	G	G	G
Fatty Acids	G	G	G	G	G
Fatty Acids Amine	G	G	G	G	G
Fatty Alcohol	G	G	G	G	G
Ferric - Flocc	G	G	G	G	G
Ferric Chloride	G	G	G	G	G
Ferric Nitrate	G	G	G	G	G
Ferric Sulfate	G	G	G	G	G
Ferrocene - Oil Sol	G	G	G	G	G
Ferrous Chloride	G	G	G	G	G
Ferrous Oxalate	G	G	G	G	G
Ferrous Sulfate 10%	G	G	G	G	G
Ferrous Sulfate (Sat)	G	G	G	G	G
Fertilizer Sol	G	G	G	G	G
Flotation Concentrates	G	G	G	G	G
Fluoride Salts	G	G	G	G	G
Fluorine/Gaseous/Liquid	G	G	G	G	G
Fluorolube	G	G	G	G	G
Fluosilic Acid	G	G	G	G	G
Flux Soldering	G	G	G	G	G
Fly Ash Dry	G	G	G	G	G
Foam Latex Mix	G	G	G	G	G
Foamite	G	G	G	G	G
Formaldehyde (Cold)	G	G	G	G	G
Formaldehyde (Hot)	-	-	-	-	G
Formic Acid (Dil Cold)	G	G	G	G	G
Formic Acid (Dil Hot)	-	-	-	-	G
Formic Acid (Cold)	G	G	G	G	G
Formic Acid (Hot)	-	-	-	-	G
Freon (S)	-	-	-	-	G
Fuel Oil	G	G	G	G	G
Fuming Nitric Red	U	U	U	U	U
Fuming Sulfuric	U	U	U	U	U
Fuming Oleum	U	U	U	U	U
Furfural	G	G	G	G	G

AGENT	INDUSTRIAL ANAEROBIC				
	IAS55, IAS57	IAS69, IAS72, IAS77	IAR41, IAR62	IAT43	IAT77
Legend: G = Good C = Conditional U = Unsatisfactory - No Data					
Gallic Acid <5%	G	G	G	G	G
Gallic Acid >5%	-	-	-	G	-
Gallium Sulfate	G	G	G	G	G
Gasoline - Acid Wash	G	G	G	G	G
Gasoline - Alk Wash	G	G	G	G	G
Gasoline Aviation	G	G	G	G	G
Gasoline Copper Chloride	G	G	G	G	G
Gasoline Ethyl	G	G	G	G	G
Gasoline Motor	G	G	G	G	G
Gasoline Sour	G	G	G	G	G
Gasoline White	G	G	G	G	G
Gluconic Acid	G	G	G	G	G
Glue - Animal Gelatin	G	G	G	G	G
Glue - Plywood	G	G	G	G	G
Glutamic Acid	G	G	G	G	G
Glycerine Lye - Brine	U	U	U	U	U
Glycerol	G	G	G	G	G
Glycine	G	G	G	G	G
Glycine Hydrochloride	G	G	G	G	G
Glycol Amine	G	G	G	G	G
Glycolic Acid	G	G	G	G	G
Glyoxal	G	G	G	G	G
Gold Chloride	G	G	G	G	G
Gold Cyanide	G	G	G	G	G
Granodine	G	G	G	G	G
Grape Pomace Graphite	G	G	G	G	G
Grease Lubricating	G	G	G	G	G
Green Soap	G	G	G	G	G
Grinding Lubricant	G	G	G	G	G
Grit Steel	G	G	G	G	G
Gritty Water	G	G	G	G	G
Groundwood Stock	G	G	G	G	G
GRS Latex	G	G	G	G	G
Gum Paste	G	G	G	G	G
Gypsum	G	G	G	G	G
Halane Sol	G	G	G	G	G
Halogen Tin Plating	G	G	G	G	G
Halowax (S)	G	G	G	G	G
Harvel - Trans Oil	G	G	G	G	G
Heptane	G	G	G	G	G
Hexachlorobenzene	G	G	G	G	G
Hexadiene	G	G	G	G	G
Hexamethylenetetramine	G	G	G	G	G
Hexane	G	G	G	G	G
Hydrazine	G	G	G	G	G
Hydrazine Hydrate	G	G	G	G	G
Hydrobromic Acid <10%	G	G	G	G	G
Hydrobromic Acid >10%	-	-	-	G	-
Hydrochloric Acid	G	G	G	G	G
Hydrocyanic Acid <10%	G	G	G	G	G
Hydrocyanic Acid >10%	-	-	-	G	-
Hydrofluoric Acid	U	U	U	U	U
Hydrogen Peroxide (dil)	G	G	G	G	G
Hydrogen Peroxide(con)	-	-	-	-	G
Hydroponic Sol	G	G	G	G	G
Hydroquinone	G	G	G	G	G
Hypo	G	G	G	G	G
Hypochlorous Acid	G	G	G	G	G
Ink	G	G	G	G	G
Ink in Solvent - Printing	G	G	G	G	G



This page is part of a complete catalogue containing technical and safety data.
All data must be reviewed when selecting a product.
Pirtek reserve the right to change technical specifications without notice

TECHNICAL DATA

CHEMICAL RESISTANCE TABLE - ANAEROBICS

AGENT	INDUSTRIAL ANAEROBIC				
	IAS55, IAS57	IAS69, IAS72, IAS77	IAS62	IAT43	IAT77
Legend:					
G = Good					
C = Conditional					
U = Unsatisfactory					
- No Data					
Iodine in Alcohol	G	G	G	G	G
Iodine-Potassium Iodide	G	G	G	G	G
Iodine Solutions	G	G	G	G	G
Ion Exchange Service	G	G	G	G	G
Ion Exclusion Glycol	G	G	G	G	G
Irish Moss Slurry	G	G	G	G	G
Iron Ore Taconite	G	G	G	G	G
Iron Oxide	G	G	G	G	G
Isobutyl Alcohol	G	G	G	G	G
Isobutyraldehyde	G	G	G	G	G
Isooctane	G	G	G	G	G
Isopropyl Alcohol	G	G	G	G	G
Isocyanate Resin	G	G	G	G	G
Isopropyl Acetate	G	G	G	G	G
Isopropyl Ether	G	G	G	G	G
Itaconic Acid	G	G	G	G	G
Jet Fuels	G	G	G	G	G
Jewelers Rouge	G	G	G	G	G
Jig Table Slurry	G	G	G	G	G
Kaolin - China Clay (S)	G	G	G	G	G
Kelp Slurry	G	G	G	G	G
Kerosense	G	G	G	G	G
Kerosene Chlorinated	G	G	G	G	G
Ketone	G	G	G	G	G
Lacquer Thinner	G	G	G	G	G
Lactic Acid	G	G	G	G	G
Lapping Compound	G	G	G	G	G
Latex - Natural	G	G	G	G	G
Latex - Synthetic	G	G	G	G	G
Latex Synthetic Raw	G	G	G	G	G
Laundry Wash Water	G	G	G	G	G
Laundry Bleach	G	G	G	G	G
Laundry Blue	G	G	G	G	G
Laundry Soda	G	G	G	G	G
Lead Arsenate	G	G	G	G	G
Lead Oxide	G	G	G	G	G
Lead Sulfate	G	G	G	G	G
Lignin Extract	G	G	G	G	G
Lime Slaked	G	G	G	G	G
Lime Sulfur Mix	G	G	G	G	G
Liquid Ion Exchange	G	G	G	G	G
Lithium Chloride	G	G	G	G	G
LOX (Liquid O2)	U	U	U	U	U
Ludox	G	G	G	G	G
Lye	U	U	U	U	U
Machine Coating Colour	G	G	G	G	G
Magnesite Slurry	G	G	G	G	G
Magnesite	G	G	G	G	G
Magnesium Bisulfite	G	G	G	G	G
Magnesium Carbonate	G	G	G	G	G
Magnesium Chloride	G	G	G	G	G
Magnesium Hydroxide	G	G	G	G	G
Magnesium Sulfate	G	G	G	G	G
Maleic Acid	G	G	G	G	G
Maleic Anhydride	G	G	G	G	G
Manganese Chloride	G	G	G	G	G
Manganese Sulfate	G	G	G	G	G
Melamine Resin	G	G	G	G	G
Menthol	G	G	G	G	G
Mercaptans	G	G	G	G	G

AGENT	INDUSTRIAL ANAEROBIC				
	IAS55, IAS57	IAS69, IAS72, IAS77	IAS62	IAT43	IAT77
Legend:					
G = Good					
C = Conditional					
U = Unsatisfactory					
- No Data					
Mercuric Chloride	G	G	G	G	G
Mercuric Nitrate	G	G	G	G	G
Mercury	G	G	G	G	G
Mercury Dry	G	G	G	G	G
Methane	G	G	G	G	G
Methyl Alcohol	G	G	G	G	G
Methyl Acetate	G	G	G	G	G
Methyl Bromide	G	G	G	G	G
Methyl Carbitol	G	G	G	G	G
Methyl Cellosolve (S)	G	G	G	G	G
Methyl Chloride	G	G	G	G	G
Methyl Ethyl Ketone	G	G	G	G	G
Methyl Isobutyl Ketone	G	G	G	G	G
Methyl Lactate	G	G	G	G	G
Methyl Orange	G	G	G	G	G
Methylamine	G	G	G	G	G
Methylene Chloride	G	G	G	G	G
Mineral Spirits	G	G	G	G	G
Mixed Acid/Nitric/Sulfuric	U	U	U	U	U
Monochloroacetic Acid	G	G	G	G	G
Morphonoline	G	G	G	G	G
Mud	G	G	G	G	G
Nalco Sol	G	G	G	G	G
Naphtha	G	G	G	G	G
Naphthalene	G	G	G	G	G
Naval Stores Solvent	G	G	G	G	G
Nematocide	G	G	G	G	G
Neoprene Emulsion	G	G	G	G	G
Neoprene Latex	G	G	G	G	G
Nickel Acetate	G	G	G	G	G
Nickel Ammonium Sulfate	G	G	G	G	G
Nickel Chloride	G	G	G	G	G
Nickel Cyanide	G	G	G	G	G
Nickel Fluoborate	G	G	G	G	G
Nickel Ore Fines	G	G	G	G	G
Nickel Plating Bright	G	G	G	G	G
Nickel Sulfate	G	G	G	G	G
Nicotinic Acid <10%	G	G	G	G	G
Nicotinic Acid >10%	-	-	-	G	-
Nitrate Sol	G	G	G	G	G
Nitration Acid(s)	U	U	U	U	U
Nitric Acid	U	U	U	U	U
Nitric Acid <10%	G	G	G	G	G
Nitric Acid 10%	-	-	-	G	-
Nitric Acid 20%	-	-	-	-	G
Nitric Acid Anhydrous	U	U	U	U	U
Nitric Acid Fuming	U	U	U	U	U
Nitro Aryl Sulfonic Acid	G	G	G	G	G
Nitrobenzene - Dry	G	G	G	G	G
Nitrocellulose	G	G	G	G	G
Nitrofurane	G	G	G	G	G
Nitroguanidine	G	G	G	G	G
Nitroparaffins - Dry	G	G	G	G	G
Nitrosyl Chloride	G	G	G	G	G
Norite Carbon	G	G	G	G	G
Nuchar	G	G	G	G	G
Oakite (S) Compound	G	G	G	G	G
Oil, Creosote	G	G	G	G	G
Oil, Emulsified	G	G	G	G	G
Oil, Fuel	G	G	G	G	G

AGENT	INDUSTRIAL ANAEROBIC				
	IAS55, IAS57	IAS69, IAS72, IAS77	IAS62	IAT43	IAT77
Legend:					
G = Good					
C = Conditional					
U = Unsatisfactory					
- No Data					
Oil, Lubricating	G	G	G	G	G
Oil, Soluble	G	G	G	G	G
Oleic Acid (Hot)	G	G	G	G	G
Oleic Acid (Cold)	G	G	G	G	G
Ore Fines - Flotation	G	G	G	G	G
Ore Pulp	G	G	G	G	G
Organic Dyes	G	G	G	G	G
Oxalic Acid (Cold)	G	G	G	G	G
Ozone (Wet)	U	U	U	U	U
Paint - Linseed Base	G	G	G	G	G
Paint - Water Base	G	G	G	G	G
Paint - Remover - Sol Type	G	G	G	G	G
Paint - Vehicles	G	G	G	G	G
Palmitic Acid	G	G	G	G	G
Paper Board Mill Waste	G	G	G	G	G
Paper Coating Slurry	G	G	G	G	G
Paper Pulp	G	G	G	G	G
Paper Pulp with Amun	G	G	G	G	G
Paper Pulp with Dye	G	G	G	G	G
Paper Pulp, bleached	G	G	G	G	G
Paper Pulp, bleach - washed	G	G	G	G	G
Paper Pulp Chlorinated	G	G	G	G	G
Paper Groundwood	G	G	G	G	G
Paper Rag	G	G	G	G	G
Paper Stocks, Fine	G	G	G	G	G
Paradichlorobenzene	G	G	G	G	G
Paraffin Molten	G	G	G	G	G
Paraffin Oil	G	G	G	G	G
Paraformaldehyde	G	G	G	G	G
Pectin Solution Acid	G	G	G	G	G
Pentachlorethane	G	G	G	G	G
Pentaerythritol Sol	G	G	G	G	G
Perchloroethylene (Dry)	G	G	G	G	G
Perchloric Acid <10%	G	G	G	G	G
Perchloric Acid >10%	-	-	-	G	-
Perchloromethyl Mercaptan	G	G	G	G	G
Permanganic Acid	U	U	U	U	U
Persulfuric Acid	U	U	U	U	U
Petroleum Ether	G	G	G	G	G
Petroleum Jelly	G	G	G	G	G
Phenol Formaldehyde Resins	G	G	G	G	G
Phenolic Glue	G	G	G	G	G
Phloroglucinol	G	G	G	G	G
Phosphate Ester	G	G	G	G	G
Phosphatic Sand	G	G	G	G	G
Phosphoric Acid 85% (Hot)	U	U	U	U	U
Phosphoric Acid 85% (Cold)	-	-	-	-	G
Phosphoric Acid 50% (Hot)	-	-	-	-	G
Phosphoric Acid 50% (Cold)	-	-	-	-	G
Phosphoric Acid 10% (Hot)	-	-	-	-	G
Phosphoric Acid 10% (Cold)	G	G	G	G	G
Phosphorous Molten	G	G	G	G	G
Phosphotungstic Acid	G	G	G	G	G
Photographic Sol	G	G	G	G	G
Phthalic Acid	G	G	G	G	G
Phytate	G	G	G	G	G
Phytate Salts	G	G	G	G	G
Pickling Acid, Sulfuric	G	G	G	G	G
Picric Acid Solutions	G	G	G	G	G
Pine Oil Finish	G	G	G	G	G

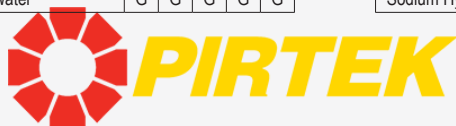
TECHNICAL DATA

CHEMICAL RESISTANCE TABLE - ANAEROBICS

AGENT	INDUSTRIAL ANAEROBIC				
	IAS55, IAS57	IAS69, IAS72, IAS77	IAR41, IAR62	IAT43	IAT77
Legend: G = Good C = Conditional U = Unsatisfactory - No Data					
Plating Sol As follows:	G	G	G	G	G
Brass Cyanide	G	G	G	G	G
Bronze - Cyanide	G	G	G	G	G
Chromium/Cadmium Cyanide	G	G	G	G	G
Cobalt Acid	G	G	G	G	G
Copper Acid	G	G	G	G	G
Gold Cyanide	G	G	G	G	G
Iron - Acid	G	G	G	G	G
Lead - Fluoro	G	G	G	G	G
Nickel Bright	G	G	G	G	G
Platinum	G	G	G	G	G
Silver - Cyanide	G	G	G	G	G
Tin - Acid	G	G	G	G	G
Tin Alk Barrel	G	G	G	G	G
Zinc Acid	G	G	G	G	G
Zinc Alk Cyanide	G	G	G	G	G
Polyacrylonitrile Slurry	G	G	G	G	G
Polypentek	G	G	G	G	G
Polysulfide Liquor	G	G	G	G	G
Polyvinyl Acetate Slurry	G	G	G	G	G
Polyvinyl Chloride	G	G	G	G	G
Porcelain Frit	G	G	G	G	G
Potash <10%	G	G	G	G	G
Potash >10%	-	-	-	G	-
Potassium Acetate	G	G	G	G	G
Potassium Alum Sulfate	G	G	G	G	G
Potassium Bromide	G	G	G	G	G
Potassium Carbonate	G	G	G	G	G
Potassium Chlorate	G	G	G	G	G
Potassium Chloride Sol	G	G	G	G	G
Potassium Chromate	G	G	G	G	G
Potassium Cyanide Sol	G	G	G	G	G
Potassium Dichromate	G	G	G	G	G
Potassium Ferricyanide	G	G	G	G	G
Potassium Hydroxide	U	U	U	U	U
Potassium Iodide	G	G	G	G	G
Potassium Nitrate	G	G	G	G	G
Potassium Perchlorate	G	G	G	G	G
Potassium Permanganate	G	G	G	G	G
Potassium Persulfate	G	G	G	G	G
Potassium Phosphate	G	G	G	G	G
Potassium Silicate	G	G	G	G	G
Potassium Sulfate	G	G	G	G	G
Potassium Xanthate	G	G	G	G	G
Press Board Waste	G	G	G	G	G
Propionic Acid	G	G	G	G	G
Propyl Alcohol	G	G	G	G	G
Propyl Bromide	G	G	G	G	G
Propylene Glycol	G	G	G	G	G
Pumice	G	G	G	G	G
Pyranol	G	G	G	G	G
Pyridine	G	G	G	G	G
Pyrogalllic Acid	G	G	G	G	G
Pyrogen Free Water	G	G	G	G	G
Pyrole	G	G	G	G	G
Pyromellitic Acid	G	G	G	G	G
Quebracho Tannin	G	G	G	G	G
Rag Stock Bleached	G	G	G	G	G
Rare Earth Salts	G	G	G	G	G
Rayon Acid Water	G	G	G	G	G

AGENT	INDUSTRIAL ANAEROBIC				
	IAS55, IAS57	IAS69, IAS72, IAS77	IAR41, IAR62	IAT43	IAT77
Legend: G = Good C = Conditional U = Unsatisfactory - No Data					
Rayon Spin Bath	G	G	G	G	G
Rayong Spin Bath spent	G	G	G	G	G
Resorcinol	G	G	G	G	G
River Water	G	G	G	G	G
Road Oil	G	G	G	G	G
Roccal	G	G	G	G	G
Rosin - Wood	G	G	G	G	G
Rosin in Alcohol	G	G	G	G	G
Rosin Size	G	G	G	G	G
Rubber Latex	G	G	G	G	G
Safrole	G	G	G	G	G
Salt Alkaline	G	G	G	G	G
Salt Electrolytic	G	G	G	G	G
Salt Refrg	G	G	G	G	G
Sand - Air Brown Slurry	G	G	G	G	G
Sand - Air Phosphatic	G	G	G	G	G
Sea Coal	G	G	G	G	G
Sea Water	G	G	G	G	G
Selenium Chloride	G	G	G	G	G
Sequestrene	G	G	G	G	G
Sewage	G	G	G	G	G
Shellac	G	G	G	G	G
Shower Water	G	G	G	G	G
Silica Gel	G	G	G	G	G
Silica Ground	G	G	G	G	G
Silicone Tetrachloride	G	G	G	G	G
Silicone Fluids	G	G	G	G	G
Silver Cyanide	G	G	G	G	G
Silver Iodide - Aqu	G	G	G	G	G
Silver Nitrate	G	G	G	G	G
Size Emulsion	G	G	G	G	G
Skelly Solve EL	G	G	G	G	G
Slate to 400 Mesh	G	G	G	G	G
Soap Lye	U	U	U	U	U
Soap Solutions(Stearates)	G	G	G	G	G
Soap Stone Air Blown	G	G	G	G	G
Soda Pulp	G	G	G	G	G
Sodium Acetate	G	G	G	G	G
Sodium Acid Fluoride	G	G	G	G	G
Sodium Aluminate	G	G	G	G	G
Sodium Arsenate	G	G	G	G	G
Sodium Benzene Sulfonate	G	G	G	G	G
Sodium Bichromate	G	G	G	G	G
Sodium Bisulfite	G	G	G	G	G
Sodium Bromide	G	G	G	G	G
Sodium Carbonate	G	G	G	G	G
Sodium Chlorate	G	G	G	G	G
Sodium Chlorite	G	G	G	G	G
Sodium Cyanide	G	G	G	G	G
Sodium Ferricyanide	G	G	G	G	G
Sodium Formate	G	G	G	G	G
Sodium Glutamate	G	G	G	G	G
Sodium Hydrogen Sulfate	G	G	G	G	G
Sodium Hydrosulfite	G	G	G	G	G
Sodium Hydrosulfide	G	G	G	G	G
Sodium Hydrochloride	G	G	G	G	G
Sodium Hydro 20% (Cold)	G	G	G	G	G
Sodium Hydro 20% (Hot)	-	-	-	-	G
Sodium Hydro 50% (Cold)	-	-	-	-	G
Sodium Hydro 50% (Hot)	U	U	U	U	U

AGENT	INDUSTRIAL ANAEROBIC				
	IAS55, IAS57	IAS69, IAS72, IAS77	IAR41, IAR62	IAT43	IAT77
Legend: G = Good C = Conditional U = Unsatisfactory - No Data					
Sodium Hydro 70% (Cold)	-	-	-	-	G
Sodium Hydro 70% (Hot)	U	U	U	U	U
Sodium Hypochlorite	G	G	G	G	G
Sodium Lignosulfonate	G	G	G	G	G
Sodium Metasilicate	G	G	G	G	G
Sodium Molten	G	G	G	G	G
Sodium Nitrate	G	G	G	G	G
Sodium Nitrite - Nitrate	G	G	G	G	G
Sodium Perborate	G	G	G	G	G
Sodium Peroxide	U	U	U	U	U
Sodium Persulfate	G	G	G	G	G
Sodium Phosphate - Mono	G	G	G	G	G
Sodium Phosphate - Tri	G	G	G	G	G
Sodium Potassium Chloride	G	G	G	G	G
Sodium Salicylate	G	G	G	G	G
Sodium Sesquicarbonate	G	G	G	G	G
Sodium Silicate	G	G	G	G	G
Sodium Silcofluoride	G	G	G	G	G
Sodium Stannate	G	G	G	G	G
Sodium Sulfate	G	G	G	G	G
Sodium Sulfide	G	G	G	G	G
Sodium Sulfite	G	G	G	G	G
Sodium Thiocyanate	G	G	G	G	G
Sodium Thiosulfate	G	G	G	G	G
Sodium Tungstate	G	G	G	G	G
Sodium Xanthate	G	G	G	G	G
Solox - Denat Ehtanol	G	G	G	G	G
Soluble Oil	G	G	G	G	G
Solvent Naphthas	G	G	G	G	G
Sorbic Acid	G	G	G	G	G
Sour Gasoline	G	G	G	G	G
Soybean Sludge - Acid	G	G	G	G	G
Spensol Solution	G	G	G	G	G
Stannic Chloride	G	G	G	G	G
Starch	G	G	G	G	G
Starch base	G	G	G	G	G
Stearic Acid	G	G	G	G	G
Steep Water	G	G	G	G	G
Sterilization Steam	G	G	G	G	G
Stillage Distillers	G	G	G	G	G
Stoddard Solvent	G	G	G	G	G
Styrene	G	G	G	G	G
Styrene Butadiene Latex	G	G	G	G	G
Sulfamic Acid	G	G	G	G	G
Sulfan - Sulfuric Anhydride	G	G	G	G	G
Sulfathiazole	G	G	G	G	G
Sulfite Liquor	G	G	G	G	G
Sulfite Stock	G	G	G	G	G
Sulfonated Oils	G	G	G	G	G
Sulfones	G	G	G	G	G
Sulfonic Acids	G	G	G	G	G
Sulfonyl Chloride	G	G	G	G	G
Sulfur Slurry	G	G	G	G	G
Sulfur Solution	G	G	G	G	G
in Carbon Disulfide	G	G	G	G	G
Sulphuric Acid 0 - 7%	-	-	-	-	G
Sulphuric Acid 7 - 40%	-	-	-	-	G
Sulphuric Acid 40 - 75%	U	U	U	U	U
Sulphuric Acid 75 - 95%	U	U	U	U	U
Sulphuric Acid 95 - 100%	-	-	-	-	G



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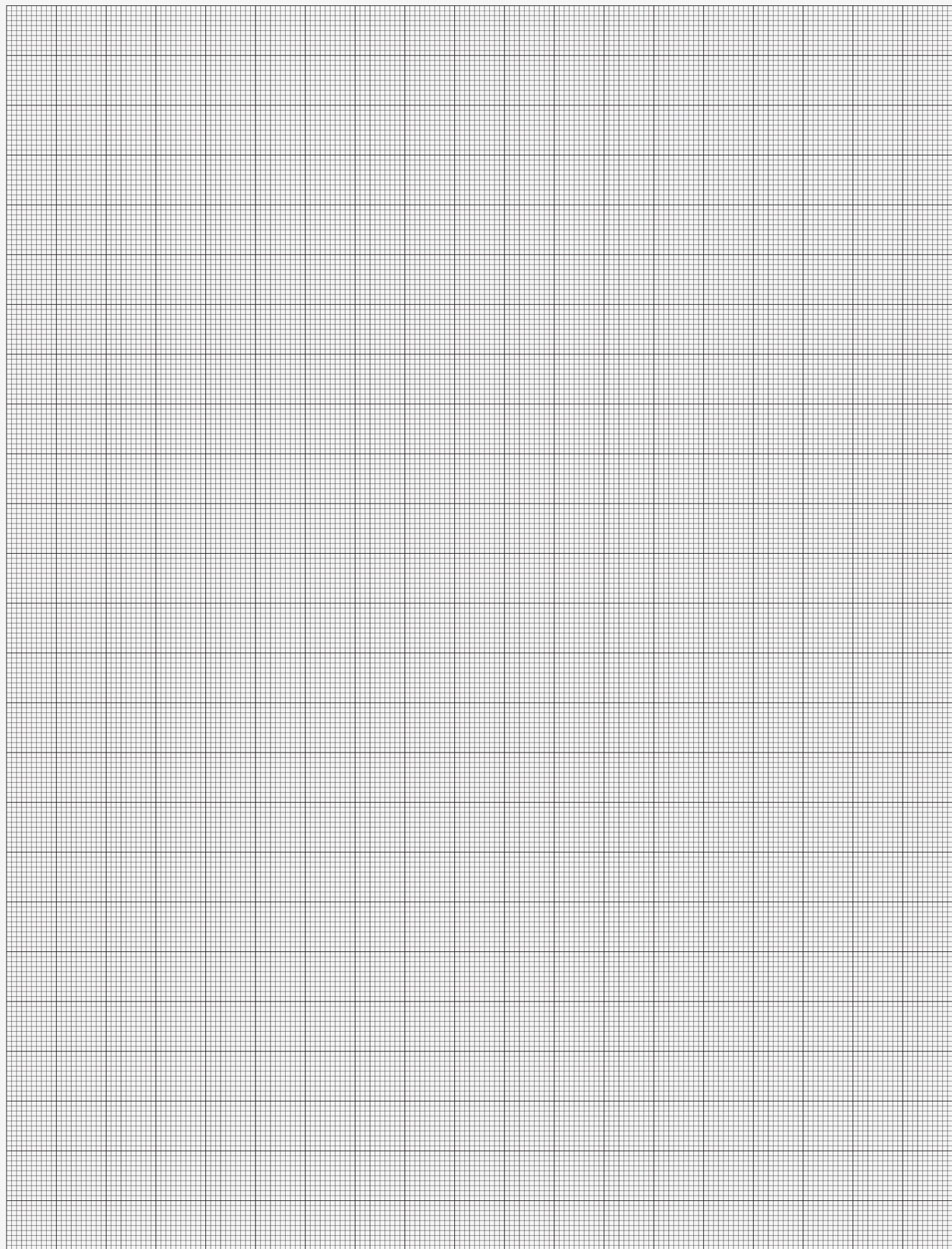
TECHNICAL DATA

CHEMICAL RESISTANCE TABLE - ANAEROBICS

AGENT	INDUSTRIAL ANAEROBIC				
	IAS55, IAS57	IAS69, IAS72, IAS77	IAR41, IAR62	IAT43	IAT77
Legend: G = Good C = Conditional U = Unsatisfactory - No Data					
Sulphurous Acid	-	-	-	-	G
Sulfuryl Chloride	G	G	G	G	G
Surfactants	G	G	G	G	G
Synthetic Latex	G	G	G	G	G
Tactonite - Fines	G	G	G	G	G
Talc - Slurry	G	G	G	G	G
Tankage - Slurry	G	G	G	G	G
Tannic Acid (Cold)	-	-	-	-	G
Tarmin	G	G	G	G	G
Tar & Tar Oil	G	G	G	G	G
Tartaric Acid	G	G	G	G	G
Television Chemicals	G	G	G	G	G
Tergitol (S)	G	G	G	G	G
Terpineol	G	G	G	G	G
Tetraethyl Lead	G	G	G	G	G
Tetrahydrofuran	G	G	G	G	G
Tetranitromethane	G	G	G	G	G
Textile Dyeing	G	G	G	G	G
Textile Finishing Oil	G	G	G	G	G
Textile Printing Oil	G	G	G	G	G
Thiocyanic Acid	G	G	G	G	G
Thioglycolic Acid	G	G	G	G	G
Thionyl Chloride	G	G	G	G	G
Thiophosphoryl Chloride	G	G	G	G	G
Thiourea	G	G	G	G	G
Thorium Nitrate	G	G	G	G	G
Thymol	G	G	G	G	G
Tin Tetrachloride	G	G	G	G	G
Tinning Sol DuPont	G	G	G	G	G
Titania Paper Coating	G	G	G	G	G
Titanium Oxide Slurry	G	G	G	G	G
Titanium Oxy Sulfate	G	G	G	G	G
Titanium Sulfate	G	G	G	G	G
Titanium Tetrachloride	G	G	G	G	G
Toluol	G	G	G	G	G
Toluene	G	G	G	G	G
p - Toluene Sulfonic Acid	-	-	-	-	G
Transil Oil	G	G	G	G	G
Trichloroacetic Acid	G	G	G	G	G
Trichlorethane 1,1,1	G	G	G	G	G
Trichlorethylene	G	G	G	G	G
Trichlorethylene - Dry	G	G	G	G	G
Tricresyl Phosphate	G	G	G	G	G
Triethanolamine	G	G	G	G	G
Triethylene Glycol	G	G	G	G	G
Trioxane	G	G	G	G	G
Tungstic Acid	G	G	G	G	G
Turpentine	G	G	G	G	G
UCON (S) Lube	G	G	G	G	G
Udylite Bath - Nickel	G	G	G	G	G
Undecylenic Acid	G	G	G	G	G
Unichrome Sol Alk	G	G	G	G	G
Uranium Salts	G	G	G	G	G
Uranyl Nitrate	G	G	G	G	G
Uranyl Sulfate	G	G	G	G	G
Urea Ammonia Liquor	G	G	G	G	G
Vacuum to 100 Micron	G	G	G	G	G
Vacuum 100 Micron	G	G	G	G	G
Vacuum Oil	G	G	G	G	G
Vanadium Pentoxide	G	G	G	G	G

AGENT	INDUSTRIAL ANAEROBIC				
	IAS55, IAS57	IAS69, IAS72, IAS77	IAR41, IAR62	IAT43	IAT77
Legend: G = Good C = Conditional U = Unsatisfactory - No Data					
Slurry	G	G	G	G	G
Varnish	G	G	G	G	G
Varsol - Naphtha Solv	G	G	G	G	G
Versene (S)	G	G	G	G	G
Vinyl Acetate Dry or	G	G	G	G	G
Chloride Monomer	G	G	G	G	G
Vinyl Chloride Latex Emul	G	G	G	G	G
Vinyl Resin Slurry	G	G	G	G	G
Viscose	G	G	G	G	G
Vortex - Hydroclone	G	G	G	G	G
Water - Acid Below pH7	G	G	G	G	G
Water pH7 to 8	G	G	G	G	G
Water Alkaline-Over pH8	G	G	G	G	G
Water Mine Water	G	G	G	G	G
Water Potable	-	-	-	G	-
Water River	G	G	G	G	G
Water Sandy	G	G	G	G	G
Water 'White' low pH	G	G	G	G	G
Water 'White' high pH	G	G	G	G	G
Wax Chlorinated	G	G	G	G	G
Wax Emulsions	G	G	G	G	G
Weed Killer Dirbromide	G	G	G	G	G
Weisberg Sulfate Plating	G	G	G	G	G
Wood ground pulp	G	G	G	G	G
Wort Lines	G	G	G	G	G
X - Ray Developing Bath	G	G	G	G	G
Xylene	G	G	G	G	G
Zelan	G	G	G	G	G
Zeolite Water	G	G	G	G	G
Zinc Acetate	G	G	G	G	G
Zinc Bromide	G	G	G	G	G
Zinc Chloride	G	G	G	G	G
Zinc Cyanide - Alk	G	G	G	G	G
Zinc Fines Slurry	G	G	G	G	G
Zinc Flux Paste	G	G	G	G	G
Zinc Galvanizing	G	G	G	G	G
Zinc Hydrosulfite	G	G	G	G	G
Zinc Oxide in Water	G	G	G	G	G
Zinc Oxide in Oil	G	G	G	G	G
Zinc Sulfate	G	G	G	G	G
Zincolate	G	G	G	G	G
Zirconyl Nitrate	G	G	G	G	G
Zirconyl Sulfate	G	G	G	G	G

GASES	INDUSTRIAL ANAEROBIC				
	IAS55, IAS57	IAS69, IAS72, IAS77	IAR41, IAR62	IAT43	IAT77
Legend: G = Good C = Conditional U = Unsatisfactory - No Data					
Acetylene	G	G	G	G	G
Acid & Alkali Vapors	G	G	G	G	G
Air	G	G	G	G	G
Amine	G	G	G	G	G
Ammonia	G	G	G	G	G
Butane	G	G	G	G	G
Butadiene Gas/Liquid	G	G	G	G	G
Butylene Gas/Liquid	G	G	G	G	G
By-Product Gas (Dry)	G	G	G	G	G
Carbon Dioxide	G	G	G	G	G
Carbon Disulfide	G	G	G	G	G
Carbon Monoxide	G	G	G	G	G
Chloride (Dry)	G	G	G	G	G
Chlorine (Dry)	U	U	U	U	U
Chlorine (Wet)	U	U	U	U	U
Coke-Oven Gas (Cold)	G	G	G	G	G
Coke-Oven Gas (Hot)	-	-	-	-	G
Cyanogen Chloride	G	G	G	G	G
Cyanoegen Gas	G	G	G	G	G
Ethane	G	G	G	G	G
Ether-see Diethyl Ether	G	G	G	G	G
Ethylene	G	G	G	G	G
Ethylene Oxide	G	G	G	G	G
Freon (S) (11-12-21-22)	-	-	-	-	G
Furnace Gas (Cold)	-	-	-	-	G
Furnace Gas (Hot)	G	G	G	G	G
Gas Drip Oil	G	G	G	G	G
Gas Flue	G	G	G	G	G
Gas Manufacturing	G	G	G	G	G
Gas Natural	G	G	G	G	G
Helium	G	G	G	G	G
Hydrogen Gas - Cold	G	G	G	G	G
Hydrogen Chloride	G	G	G	G	G
Hydrogen Cyanide	G	G	G	G	G
Hydrogen Sulfide-W/D	G	G	G	G	G
Isobutane	G	G	G	G	G
Methane	G	G	G	G	G
Methyl Chloride	G	G	G	G	G
Natural Gas - Dry	G	G	G	G	G
Nitrogen Gas	G	G	G	G	G
Nitrous Oxide	G	G	G	G	G
Oil - Solvent Vapor	G	G	G	G	G
Oxygen	U	U	U	U	U
Ozone	U	U	U	U	U
Producer Gas 50 PSI	G	G	G	G	G
Propane	G	G	G	G	G
Propylene	G	G	G	G	G
Steam H Pressure ("70 psi)	U	U	U	U	U
Steam L Pressure ("70 psi)	G	G	G	G	G
Sulfur Dioxide	G	G	G	G	G
Sulfure Dioxide Dry	G	G	G	G	G
Sulfur Trioxide Gas	G	G	G	G	G
Sulfuric Acid Vapor	U	U	U	U	U



ENVIRONMENTAL SOLUTIONS

SPILL CONTAINMENT PRODUCTS

REFER PIRTEK FOR MSDS SHEETS



Spill Kits:

A range of Response Kits and sizes to cater for the clean up and containment of all likely scenarios

1. General Purpose Kits for petroleum hydrocarbon products, coolants, solvents, water based and non-aggressive liquids
2. Hydrocarbon Kits for the clean up of oil, greases and oil based paints where a water repellent effect is desirable eg marinas, cooling ponds etc
3. Hazardous Chemical Kits for containment and clean up of hazardous, aggressive or unknown liquids

Individual components are all available separately for economical replenishment

Containment:

A variety of Pads, Pillows, Socks and Booms

Available in three grades corresponding to the Spill Kits at left

Pads & Pillows are ideal for absorbing spills, catching drips, and for wiping down equipment

Pirtek Socks come in 1.2, 1.5, and 3 metre lengths. String them together as portable bunding for containing the flow of a spill, or barricade entry to a stormwater drain system

Pirtek Booms used in daisy chains of 3 or 6 metre lengths help to contain larger spills, especially hydrocarbon spills on water

Bio-Sorb Floor Sweeps:

Available in 2 grades

Premium

Highly absorbent and biologically active floor sweep

Light weight natural cellulose material

Easy to apply and use

Environmentally friendly

Zeolite

Naturally occurring absorbent mineral

Suitable floor sweep for most chemical spills

Suppresses odours and gases

Heavier properties make it suited for use in windy areas

Ecologically safe

Drainwarden:

Semi permanent installation into storm water catch basins to assist in the removal of oil, sediment, silt, rubbish etc from the storm water drain

A replaceable polypropylene absorbent sock captures contaminants whilst allowing water to pass through

Ideal for use in parking lots, vehicle storage areas, service areas, construction sites, and industrial plants

Available in various sizes for standard drains, or custom made to individual requirements

Easily installed and maintained

TYPICAL APPLICATIONS FOR SPILL KITS

General Purpose	
Spills on Hard Surfaces (see also Hydrocarbon list)	
Alcoholic Beverages	Mineral Spirits
Asphalt	Molasses
Beer	Rust Inhibitors
Buttermilk	Sea Water
Cane Juice	Silicone
Carbonated Water	Soap Solutions
Chocolate Syrup	Solvents
Cider	Soy Sauce
Coolants	Starch
Cream	Sugar (Liquids)
Detergents	Tallow
Dyes	Tomato Juice
Fruit Juice	Turpentine
Glucose	Vegetable Juice
Grape Juice	Vinegar
Honey	Water - Fresh
Ink	Water - Salt
Iodine	Whey
Lard	White Liquor (Pulp Mill)
Mayonnaise	White Water (Paper Mill)
Milk	

Hydrocarbon	
Oil spills on water	
Anise Oil	Hydraulic Oil - Synthetic
Aromatic Hydrocarbons	Jet Fuel
Bay Oil	Kerosene
Castor Oil	Lemon Oil
Cinnamon Oil	Lubricants
Citric Oil	Mineral Oil
Clove Oil	Oil based paint
Coconut Oil	Oils: Diesel Fuel
Cod Liver Oil	Oils: Fuel
Cooking Oil	Olive Oil
Corn Oil	Palm Oil
Cottonseed Oil	Paraffin
Ethanol	Petroleum
Fuel Oils	Pine Oil
Gasoline: leaded: refined	Rosin Oil
Gasoline: unleaded	Silicone Oil
Ginger Oil	Tanning Oil
Ginger Oil	Transformer Oil
Grease	Turbine Oil
Hydraulic Oil	Vegetable Oil
Hydraulic Oil - Petroleum	

Hazchem	
Spills on Hard Surfaces	
Acetate Solvent	Mercury
Acetic Acid	Naphthalene
Acetone	Nitrous Acid
Acetyl Bromide	Pesticides
Adipic Acid	Phosphoric Acid
Alkaline	Photographic Solutions
Aluminium Sulphate	Plating Solutions
Ammonia: liquid	Potassium
Antifreeze	Sulphuric Acid
Arsenic Acid	Tannic Acid
Battery Acid	Tanning Liquors
Bleach	Toluene
Carbonic Acid	Trichloroacetic Acid
Chlorine Water	Varnish
Citric Acid	Vinyl Chloride
Flu silicic Acid	Weed Killers
Formic Acid	
Glycolic Acid	
Lacquer Thinners	
Lacquers	
Linoleic Acid	

SPILL KITS

KIT CONTENTS

REFER PIRTEK FOR MSDS SHEETS



32 litre:

General Purpose. Our smallest kit is designed for the space behind the driver's seat in transport vehicles or alternatively in workshops and factories where only a small spill is likely

Hydrocarbon. This kit would suit situations where only a small spill on water may occur

Hazardous Chemicals. Best suited to laboratories, hospitals, food manufacturers and farms



55 litre:

General Purpose. Easily transportable kit ideal for trucks, service vehicles and forklifts

Hydrocarbon. Specifically aimed at boats and marinas

Hazardous Chemicals. A convenient solution for immediate response to chemical spills in laboratories, hospitals, small factories and forecourts



100 litre:

General Purpose. Wheelie bin portability for oil spills on land. Small to medium workshops, manufacturing plants and forecourts

Hydrocarbon. For the clean up and containment of medium spills on water, near stormwater drains, and refuelling depots / marinas

Hazardous Chemicals. Enables a fast response to a medium spill of virtually any chemical

200 litre:

General Purpose. Wheelie bin portability for larger oil spills on land. Large workshops, mines, manufacturing plants and forecourts

Hydrocarbon. For the clean up and containment of larger spills on water, near stormwater drains, and refuelling depots / marinas

Hazardous Chemicals. The best solution in where a variety of chemicals are used and stored in food production areas, factories, laboratories, and hospitals

Component	Kit Spill Capacity litres	General Purpose				Hydrocarbon				Hazardous Chemicals			
		32	55	100	200	32	55	100	200	32	55	100	200
Product Code	ENSK-	32GP	55GP	100GP	200GP	32H	55H	100H	200H	32HZ	55HZ	100HZ	200HZ
Nylon Bag with Signage †		1	1 †			1	1			1	1		
240 litre Wheelie Bin				1	1			1	1			1	1
Bio Sorb Premium			1x5kg	2x10kg	3x10kg								
Bio Sorb Zeolite		1x2.5kg									1x2.5kg	2x14Ltr	3x14Ltr
GP Containment Socks 1.2m long		2	3	4	5								
GP Containment Socks 3m long					1								
Oil Only Containment Socks						2x1.2m	4x1.2m	2x1.2m	3x1.2m				
Hazchem Containment Socks										3x1.2m	3x1.2m	4x1.2m	3x3m
GP Pads		10	10	30	50								
Oil Only Poly Pads						20	30	30	100				
Hazchem Poly Pads										15	25	30	50
GP Pillows				1	2								
Oil Only Pillows						1	1	1	2				
Hazchem Pillows										2	2	1	2
Absorbent Booms 125mm dia								2x3m	2x3m				
Contaminated Waste Bags		2	3	7	10	2	3	7	10	2	3	7	10
Nitrile Gloves		1 pr	1 pr	2 pr	2 pr	1 pr	1 pr	2 pr	2 pr	1 pr	1 pr	2 pr	2 pr
Instruction Sheet		1	1	1	1	1	1	1	1	1	1	1	1
MSDS		1	1	1	1	1	1	1	1	1	1	1	1

† Replacement 55 litre bag **Product Code ENSK-55GPK**

PIRTEK WHEELIE BINS FOR SPILL KITS		
Total Spill Capacity (litres)	Red / Blue (Oil and General Purpose)	Yellow (Hazardous Chemicals)
120 LITRE	ENB-RB120	ENB-Y120
240 LITRE	ENB-RB240	ENB-Y240



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SPILL KITS

15 LITRE KIT CONTENTS

REFER PIRTEK FOR MSDS SHEETS



Our all-new range of 15 litre spill kits caters for those situations where a no-fuss single use solution is required

15 litre Disposable:

General Purpose. Our all new disposable kit is designed for single use only, where all of the used contents of the kit are deposited into the original bag, sealed with the included cable tie, and disposed of as per Local Government requirements.

Hydrocarbon. As above for situations where only a small spill on water may occur

Hazardous Chemicals. As for the general purpose kits, but best suited to laboratories, hospitals, food manufacturers and farms



NEW !!

Component	Kit	General Purpose	Hydrocarbon	Hazardous Chemicals
		15	15	15
Spill Capacity litres		15	15	15
Product Code	ENSK-	15GP	15H	15HZ
Plain plastic spill kit bag		1	1	1
2.5 kg Floor Sweep		1		
GP Pads		5		
Oil Only Poly Pads			13	
Hazchem Poly Pads				7
7.5 Kg Hazsorb Floor Sweep				1
Cable Tie		1	1	1
Nitrile Gloves		1 pr	1 pr	1 pr
Instruction Sheet		1	1	1
MSDS		1	1	1

INDUSTRY CLASSIFICATIONS

Industry Kit Capacity litres	General Purpose Spill Kits				Hydrocarbon Spill Kits				Hazardous Chemicals Spill Kits				Boom	Bio Sorb	
	32 L	55 L	100 L	200 L	32 L	55 L	100 L	200 L	32 L	55 L	100 L	200 L		Prem	Zeolite
Aluminium Products		•	•	•		•	•			•	•			•	•
Amusement Rides	•	•	•	•	•	•	•	•						•	•
Army	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Automotive Services	•	•	•	•					•	•	•	•		•	•
Blasting / Drilling	•	•	•	•	•	•	•	•							•
Bowling Clubs	•	•	•	•	•	•	•	•	•	•	•	•		•	•
Bridge & Civil	•	•	•	•	•	•	•	•					•	•	•
Coal	•	•	•	•	•	•	•	•					•	•	•
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All data must be reviewed when selecting a product.
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ENCB / ENBG / ENSK

EMPTY BAG



Product Code	Printed Information
ENCB †	CONTAMINATED WASTE (CLEAR HEAVY DUTY VINYL BAG 450 mm x 720 mm)
ENBG	BAG EMPTY - PIRTEK SIGNAGE ONLY
ENBG-32GP	BAG EMPTY - GENERAL PURPOSE 32 LITRE
ENBG-32H	BAG EMPTY - HYDROCARBON 32 LITRE
ENBG-32HZ	BAG EMPTY - HAZCHEM 32 LITRE
ENBG-55GP	BAG EMPTY - GENERAL PURPOSE 55 LITRE
ENSK-55GPK	SPILL KIT - 55 LITRE (GENERAL PURPOSE) HEAVY DUTY BAG
ENBG-55H	BAG EMPTY - HYDROCARBON 55 LITRE
ENBG-55HZ	BAG EMPTY - HAZCHEM 55 LITRE

A range of pre-labelled clear heavy duty plastic bags in 2 sizes to facilitate disposal of used spill containment products (pads, pillows, socks, floor sweep). Dispose of the bagged products in accordance with Local Authority requirements

† Includes bag tie

ENBS

BIO-SORB PREMIUM



Product Code	Description
ENBS-10	PIRTEK BIO-SORB PREMIUM 10KG (Absorbs 36 litres hydraulic oil)
ENBS-10P	PIRTEK BIO-SORB PREMIUM 10KG PALLET (70 bags)
ENBS-5	PIRTEK BIO-SORB PREMIUM 5KG (Absorbs 18 litres hydraulic oil)
ENBS-5P	PIRTEK BIO-SORB PREMIUM 5KG PALLET (140 bags)

Manufactured from a special selection of organic cellulose products, Bio-Sorb Premium floor sweep will quickly absorb a wide variety of liquids including petroleum, oils, fuels, cooking oils, sewage, and other messy liquids that could contaminate the environment. The strong wicking effect helps to reduce leach-back, and enables Bio-Sorb Premium to meet stringent liquid release standards.

Once absorbed, a selection of inoculated microbes go to work to 'eat and digest' oils and many types of hydrocarbons

Application: Recommended for hard surfaces such as tar and concrete. Spread over the spill and work back and forth with a stiff broom until the surface is dry and no slick remains. No secondary detergents or solvent washes are necessary

Not suited to windy conditions (see ENZE Zeolite)

ENZE

BIO-SORB ZEOLITE



Product Code	Description
ENZE-10	PIRTEK BIO-SORB ZEOLITE 14Ltr (Absorbs approx. 24 litres hydraulic oil)
ENZE-10P	PIRTEK BIO-SORB ZEOLITE 14Ltr PALLET (80 bags)
ENZE-25	PIRTEK BIO-SORB ZEOLITE 2.5KG (Absorbs approx. 6 litres hydraulic oil)
ENZE-25P	PIRTEK BIO-SORB ZEOLITE 2.5KG PALLET (288 bags)

Zeolite is a naturally occurring absorbent mineral. It has a large negatively charged internal surface area that enables it to trap and retain liquids, odours and vapours. Naturally clean and off-white in colour, Zeolite is a safe non-toxic product ideal for today's demands for environmentally safe floor sweeps. The coarse nature of Zeolite makes it safe to use in windy conditions. Zeolite absorbs on contact, and has been de-dusted to reduce bogging and improve handling. The strong wicking action helps to remove most fresh stains from the surface. It passes all landfill leachate tests, and will not 'slip' when fully absorbed, making clean up easy

Application: Apply liberally over the spill and wait for the petroleum / chemical to be fully absorbed

ENP

ABSORBENT PADS

100 PACK



Product Code	Intended Use	Dimensions (mm)
ENP-05H	OIL ONLY	5 x 430 x 480
ENP-10GP	GENERAL PURPOSE	10 x 430 x 480
ENP-10H	OIL ONLY	10 x 430 x 480
ENP-10HZ	HAZARDOUS CHEMICALS	10 x 430 x 480

The ENP-10GP pads are good for absorption of most spilled liquids except acids and chemicals. Perforated to 1/2 size, they are intended for use on hard surfaces or for wiping down equipment etc.

The ENP-10HZ pads are primarily for acids and chemicals respectively, but can be used for oil and water based liquids. Best for hard surfaces

ENP-05H and ENP-10H pads are for absorbing oil spills on hard surfaces, whilst repelling water. They can float indefinitely on water

10 mm thick pads of all types can absorb up to 1.2 litres of hydraulic oil (more when used for lower viscosity products)

ENPR

ABSORBENT PADS

PERFORATED ROLL FORM (400 GRAMMES / M²)



Product Code	Intended Use	Dimensions
ENPR-10GP	GENERAL PURPOSE	960 mm x 44 metres
ENPR-10H	OIL ONLY	960 mm x 44 metres
ENPR-10HZ	HAZARDOUS CHEMICALS	960 mm x 44 metres

As for ENP above, but in convenient roll form.

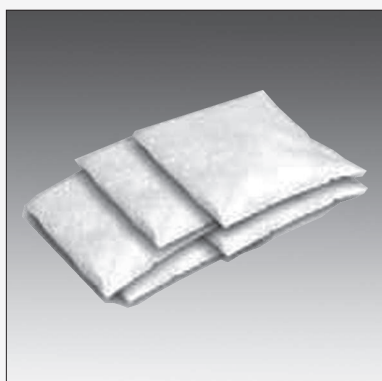
Ideal for covering large areas e.g. underneath vehicles and machinery

Perforated in the middle (horizontally) the entire length of the roll and vertically every 430mm. This enables pads (430mm x 480mm) to be torn from the roll if required

Note: All rolls are dimpled for added strength

ENPI

ABSORBENT PILLOWS



Product Code	Intended Use	Dimensions (mm)
ENPI-20HZ	HAZARDOUS CHEMICALS	20 x 450 x 200
ENPI-50GP	GENERAL PURPOSE	50 x 400 x 500
ENPI-50H	OIL ONLY	50 x 450 x 450
ENPI-50HZ	HAZARDOUS CHEMICALS	50 x 450 x 450

As for ENP pads but with higher absorption capacity (typically 4 litres of liquid for the 50 mm thick pillows). Ideal for absorbing leaks and drips without splattering and spreading, or the emergency plugging of drums etc

ENOS ORGANIC SOCKS



Product Code	Intended Use	Dimensions
ENOS-125X3GP	ORGANIC GENERAL PURPOSE	125 mm x 3 metres
ENOS-125X3H	ORGANIC ABSORBENT - KSORB OIL ONLY	125 mm x 3 metres
ENOS-75X12GP	ORGANIC GENERAL PURPOSE	75 mm x 1.2 metres
ENOS-75X3GP	ORGANIC GENERAL PURPOSE	75 mm x 3 metres

ENPS POLYPROPYLENE SOCKS



Product Code	Intended Use	Dimensions
ENPS-125X3HZ	POLYPROPYLENE YELLOW HAZCHEM	125 mm x 3 metres
ENPS-75X12H	POLYPROPYLENE OIL ONLY	75 mm x 1.2 metres
ENPS-75X12HZ	POLYPROPYLENE YELLOW HAZCHEM	75 mm x 1.2 metres
ENPS-75X3HZ	POLYPROPYLENE YELLOW HAZCHEM	75 mm x 3 metres
ENSB-125 †	REPLACEMENT POLYPROPYLENE BILGE	75 mm x 250 mm

Designed to contain the flowpath of a spill to prevent it reaching stormwater drains or walkways. Available for acids / chemicals (HZ suffix), or water repellent / oil absorption (H suffix) in various sizes

† Used in Pirtek Drain Warden ENDW - see page 162

ENPB POLYPROPYLENE BOOM



Product Code	Intended Use	Dimensions
ENPB-125X3H	POLY FLOATING ABSORBENT BOOM C/W CLIPS	125 mm x 3 metres
ENPB-125X6H	POLY FLOATING ABSORBENT BOOM C/W CLIPS	125 mm x 6 metres
ENPB-200X3H	POLY FLOATING ABSORBENT BOOM C/W CLIPS	200 mm x 3 metres

Used to contain oil spills on water surfaces. Used generally in elongated sausages contained by strong netting and secured to each other by clips at each end (supplied)



ENPD PLUG 'N' DIKE



Product Code	Description	Quantity
ENPD-250	PLUG 'N' DIKE PRE MIX	250 Gram

A non-toxic material to provide an excellent first response method for sealing and controlling flammable and/or hazardous leaks and spills, whether drains, dike pressurised (up to 1.5 meter head) or large spills

It includes a high water-absorption polymer in a bentonite base, which absorbs over 300 times its own weight in water, to produce a seal against penetration of fuels and chemicals. It can effectively seal punctured drums and tanks, reduce damage liability and costly cleanups

Plug N' Dike is used straight from the tub/bucket. Just take a handful of the premix and apply directly over the leak. No surface preparation is necessary, even on dirty, rusty or greasy surfaces



ENGL NITRILE GLOVES (PAIR)



Product Code	Description
ENGL	NITRILE GLOVES (PAIR)

Good resistance to animal fats and mineral oils (hydrocarbons)

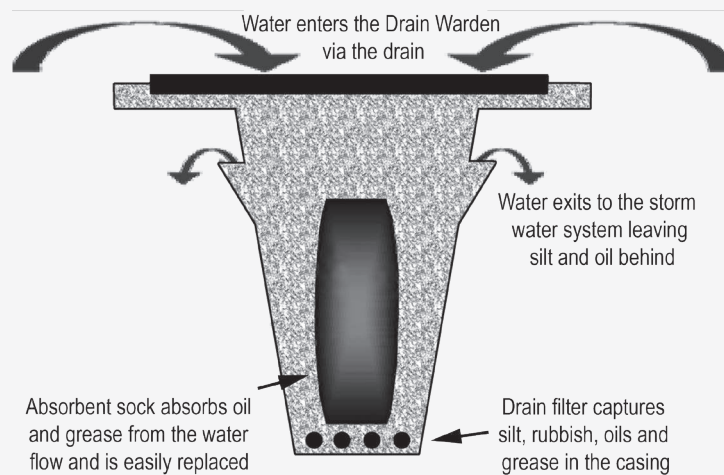
ENSP DUST SHOVEL & PAN



Product Code	Description
ENSP	DUST SHOVEL & PAN PIRTEK BLUE

DRAIN WARDEN

OIL & SILT COLLECTION BASIN



Description :

- The Drain Warden filter insert is a simple device designed to fit most drain catch basins
- Held in place by the metal grate
- Effectively removes coarse sediments, oil, grease, litter and debris from storm water
- Ideal in parking lots which tend to be sources of water pollution; cars and trucks drip oil and grease on to the surface which is otherwise carried into the catch basins by rain water
- Perfect in workshops where contractual or design considerations prevent structural alteration of existing drainage facilities
- Effective as a guard in case of emergency spills, capturing spills whilst allowing emergency spill response teams to activate

Materials & Specifications:

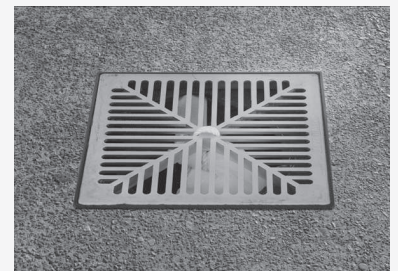
- polypropylene fabric and organic absorbent sock

Installation:

- Lift the drain grate using a suitable lifting aid
- Clean out existing debris and obstructions
- Insert the drain warden
- Replace the drain grate
- Trim any surplus skirt

PIRTEK DRAIN WARDEN

Product Code	Description	Basin Depth mm	Skirt Dimensions mm
ENDW-12	DRAIN WARDEN - 1.2 x 1.2 MSQ SKIRT - 600MM BASIN	600	1200 x 1200
ENDW-24	DRAIN WARDEN - 2.4 x 1.2 MSQ SKIRT - 600MM BASIN	600	2400 x 1200
ENSB-125	REPLACEMENT POLYPROPYLENE BILGE	75 mm x 250 mm	



WORK MAT

HEAVY DUTY PORTABLE GROUND MAT



Description :

- The Work Mat is a portable ground mat that has been designed for messy work in the field. The 'Work Mat' is ideally suited to the servicing of vehicles and other equipment, especially the repair of hydraulic hoses and fittings, anywhere there is a risk of oils & fuels leaking
- It slips under the equipment being worked on, and collects all hydrocarbons (oils & fuels) that should drip or leak onto the 'Work Mat'. The absorbent properties and structural strength of the mat ensures that no mess is left behind

Materials & Specifications:

The Work Mat consists of:

- a durable UV resistant, impervious layer as a base,
- a layer of meltblown polypropylene for absorption,
- a top layer of HDPE matting that allows the oils & fuels to pass through to the absorbent layer

Advantages:

- The top layer that acts as a separation layer between the absorbent and the operator, keeping them clear from the collected hydrocarbons, while they work.
- The Work Mat is hydrophobic, and is designed to only absorb oils & fuels. This means it's an ideal work companion in either wet or dry conditions.
- When not in use, the Work Mat simply rolls up like a swag, for easy storage or transportation to the next job. The 3 sided entry style facilitates easy replacement of the absorption layer

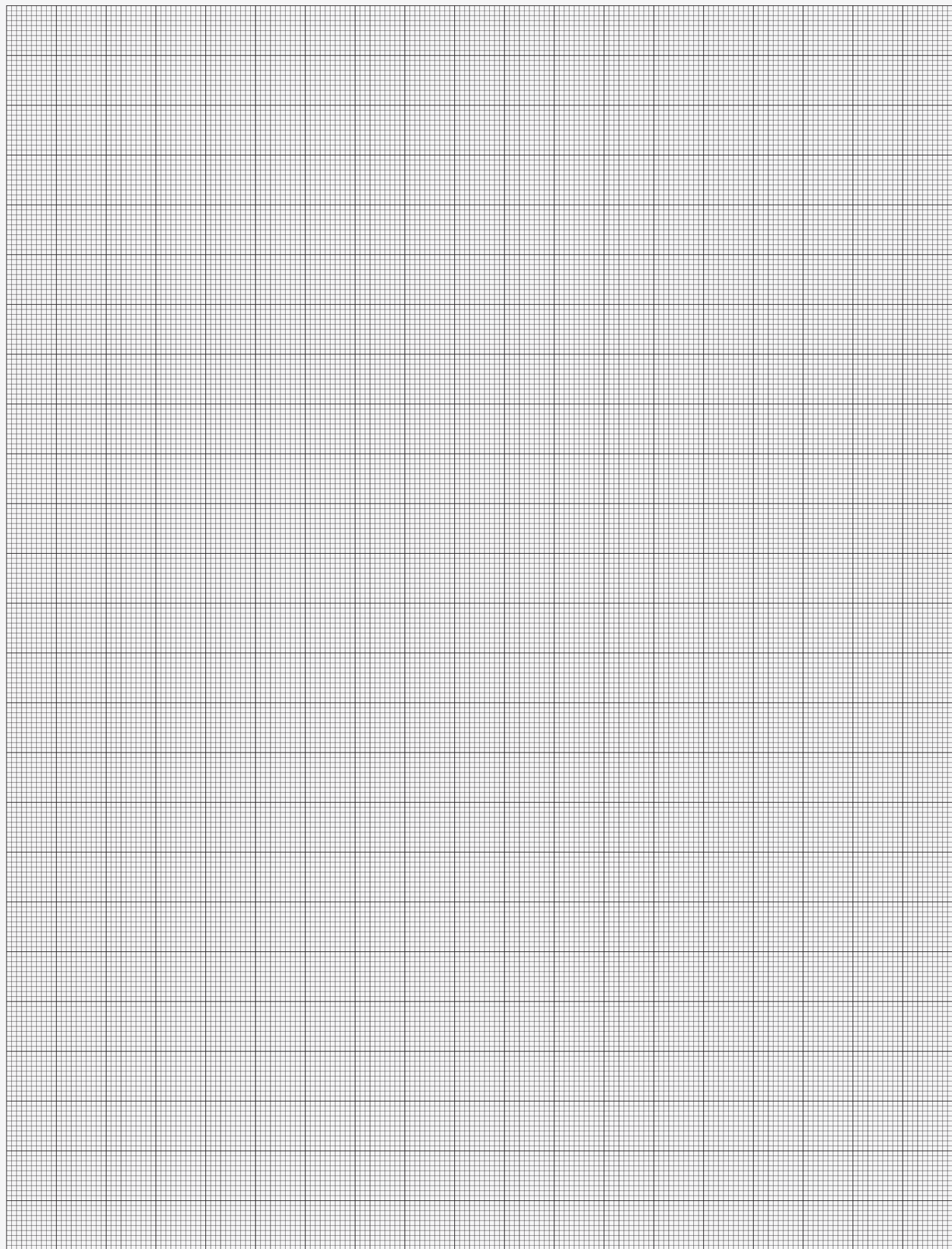
PIRTEK WORK MAT		
Product Code	Description	Mat Dimensions mm
ENHDM3S-L	WORK MAT LARGE (with 3 sided entry)	2500 x 3000
ENHDM3S-S	WORK MAT SMALL (with 3 sided entry)	1500 x 2000

GLOSSARY OF TERMS

SPILL CONTROL & CONTAINMENT

Term	Definition
Absorbents	Spill products that take up and hold water or oil; sorbents used in oil spill cleanup are made of oleophilic materials
Aquatic	Habitats and ecosystems that exist in bodies of water, refers to both marine and fresh water environments
Asphalt	A brown to black residue formed from weathered petroleum products, consisting chiefly of a mixture of hydrocarbons; varies in texture from hard and brittle to plastic
Biodegradable	The breaking down of substances by micro-organisms, which use the substances for food.
Boom	A temporary floating barrier used to contain an oil spill
Cellulose	A natural organic component found in plants & wood
Contingency plan	A document that describes a set of procedures and guidelines for containing and cleaning up oil spills.
Deployment	Strategic placement of equipment and personnel
Dispersion	The spreading of oil on any surface
Ecosystem	The interrelationships between all of the living things in an area
Emulsions	A mixture of small droplets of oil and water.
Encapsulate	To enclose and capture within a Spill device
Evaporation	The physical change by which any substance is converted from a liquid to a vapour or gas
Facility Response Plan	A detailed plan which must be prepared by facilities which may cause "substantial harm" to the environment. The plan must contain an Emergency Response Action Plan and demonstrate that a facility has the resources to respond to the worst case spill
Fate	The outcome; the fate of an oil spill is what happens to the oil
Freshwater spill	An oil spill that occurs in or affects bodies of freshwater, such as lakes and rivers
Hydrocarbons	A large class of organic compounds containing only carbon & hydrogen; common in petroleum products and other oils
Hydrophobic	Having a tendency to repel water; hydrophobic materials will not easily absorb water
Incidental oil spill	Minor oil leaks, drips or stains from vehicles, machinery & general traffic.
Incineration	The destruction of wastes by burning at high temperatures
Marine	Relating to the seas and oceans.

Term	Definition
Micro-organism (or Microbes)	A very small plant, animal, or bacteria; some micro-organisms actually break oil down into less harmful substances
National Response System	A network of individuals and teams from local, state, and federal agencies who combine their expertise and resources to ensure that oil spill control and cleanup activities are timely and efficient and minimise threats to human health and the environment
Non-petroleum oils	Oils that are not derived from petroleum; this group of oils includes vegetable oils and animal fats.
Oil	Crude oil and refined petroleum products (motor oils, fuels, lubricants, etc.), as well as vegetable oils, animal fats and other non-petroleum oils
Oil slick	A layer of oil floating on the surface of water.
Oleophilic	Having a strong affinity for oils; oleophilic materials absorb or stick to oils
On-Scene Coordinator (OSC)	The person responsible for overseeing the cleanup efforts at a spill.
Polyaromatic hydrocarbons	A family of chemical substances that are found in many types of oil; polyaromatic hydrocarbon vapours can cause harm to humans and animals that inhale them.
Polypropylene	A type of plastic noted for its resistance to many chemicals, solvents and acids.
Skimmers	Devices used to remove oil from the water's surface.
Slick	A thin film of oil on the water's surface.
Sock	Spill Product used to block and restrict the flow of the spill from entering stormwater drains or walkways
Specific Gravity	The density of a substance to the density of water, if substance has a greater density to water, the substance it is more likely to sink. If substance has a lesser density to water, the substance it is more likely to float on the surface
Spill Station Management	A Pirtek representative services all kits within a plant location i.e. checking, replenishing and re-sealing the contents of spill kits at regular intervals
Surfactant	A substance that breaks oil into small droplets; this helps to increase the surface area of the oil spill, which increases the rate at which the oil can be degraded or weathered into less toxic substances (See dispersant)
Viscosity	Having a resistance to flow; substances that are extremely viscous do not flow easily
Viscous	The tendency of a liquid to hold itself together; viscous liquids pour freely and have the consistency of syrup or honey
Water Column	An imaginary cylinder of water from the surface to the bottom of a water body; water conditions, temperature, and density vary throughout the water column



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