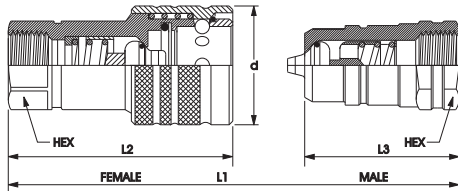
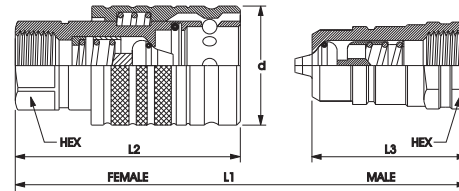


Single Acting Sleeve



Push/Pull Sleeve



RECOMMENDED FOR:

General purpose steel hydraulic couplings. Heavy Duty Plating. Typical applications include; industrial equipment, hydraulic hand tools, agricultural machinery, construction and mobile plant, hydraulic cylinders, test rigs and power packs, logging equipment, mining machinery, oil processing and steel production.

FEATURES:

- Poppet Check Valves with rubber poppet seal for improved sealing when disconnected. Check Valves automatically close on disconnection, and open on connection.
- Single Acting Sleeve is manually retracted to connect, or disconnect.
- Push/Pull Sleeve can be moved in either direction to connect, or disconnect. When sleeve is held firmly by hand, or in a bracket, Male Tip will simply push in to connect to Female Body.
- 1/2" Nominal Body Sizes can be mounted in dual breakaway bracket, protecting hose from damage if subjected to excessive pulling force, allowing coupling halves to break apart, eg. a towed farm implement disconnecting from tractor. See page 320.
- RYCO Quick Release Couplings have full spanner hex for ease of installation and extra balls in locking mechanism for extra security.
- Couplings are able to swivel when unpressurised, reducing hose kinking and twisting. This feature reduces twist on the hose; the couplings should not be used as swivel joints.

- -08,-12 & -16 Nominal Body Sizes of **R81, R82, R85 & R86** Series can be interconnected to same Nominal Body Size.
- Individual Nominal Body Sizes of **R80, R81, R82 & R86** Series, and **-08, 12 & -16** Nominal Body Sizes of **R85** Series, can be connected to same Nominal Body Size of **R91, R94 & R96** Series (Ball Check Valves), however the lower of the flow rates and working pressures apply.

TECHNICAL DATA

- **Seals:** Nitrile (Buna N) O Rings. Back Up Washer prevents extrusion of O Ring at high pressures.
- **Operating Temperature Range:** From -20°C to +125°C (-4°F to +257°F).
- **Working Pressure:** See chart below.
- **Pressure Drop and Nominal Flow Rates:** See pages 326 and 328. Improved flow and less pressure drop compared to Ball Type Check Valves.
- **Fluid Compatibility:** Mineral/petroleum based hydraulic oils.
- **Specifications and Cross Reference:**
R85 Series: all sizes conform to ISO Type A and cross reference with other ISO Type A couplings.
R80, R81, R82 & R86 Series: 1/2", 3/4" & 1" Nominal Body sizes conform to ISO Type A and cross reference with other ISO Type A couplings.
 1/4", 3/8" & 1/2" Nominal Body sizes cross reference with Pioneer and Safeway. See page 321 for cross reference listing.

SINGLE ACTING SLEEVE POPPET CHECK VALVES

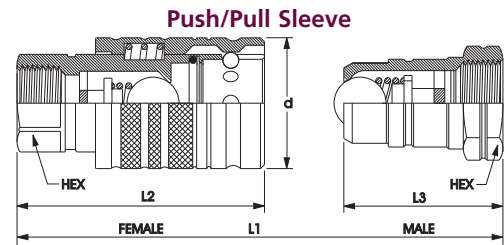
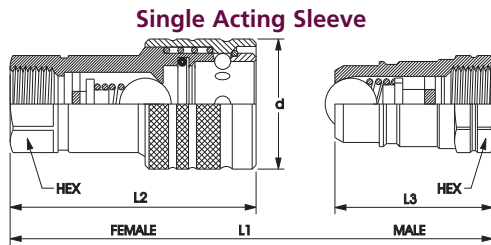
DIMENSIONS IN mm

FEMALE THREAD SIZE	NOM. BODY SIZE	RYCO PART NUMBER			MAXIMUM WORKING PRESSURE		d DIAMETER OF SLEEVE	L1 LENGTH COUPLED TOGETHER	L2 LENGTH FEMALE BODY	L3 LENGTH MALE TIP	SPANNER HEX SIZE
		FEMALE BODY	MALE TIP	COMPLETE COUPLING	bar	psi					
1/4 BSPP	1/4	R80-04F	R80-04M	R80-04FM	350	5100	27	76	56	38	19
3/8 BSPP	3/8	R80-06F	R80-06M	R80-06FM	350	5100	34	85	63	43	24
1/2 BSPP	1/2	R81-08F	R81-08M	R81-08FM	300	4350	38	96	70	48	27
3/4 BSPP	3/4	R82-12F	R82-12M	R82-12FM	250	3625	45	114	85	57	34
1 BSPP	1	R82-16F	R82-16M	R82-16FM	250	3625	52	131	99	65	41
1/4 NPT	1/4	R85-04F	R85-04M	R85-04FM	350	5100	26	70	49	35	19
3/8 NPT	3/8	R85-06F	R85-06M	R85-06FM	350	5100	30	85	61	43	22
3/4 NPT	3/4	R85-12F	R85-12M	R85-12FM	250	3625	45	114	85	57	34
1 NPT	1	R85-16F	R85-16M	R85-16FM	250	3625	52	131	99	65	41
3/4 UNO	1/2	R86-12F	R86-12M	R86-12FM	300	4350	38	96	70	48	27

PUSH/PULL SLEEVE POPPET CHECK VALVES

DIMENSIONS IN mm

FEMALE THREAD SIZE	NOM. BODY SIZE	RYCO PART NUMBER			MAXIMUM WORKING PRESSURE		d DIAMETER OF SLEEVE	L1 LENGTH COUPLED TOGETHER	L2 LENGTH FEMALE BODY	L3 LENGTH MALE TIP	SPANNER HEX SIZE
		FEMALE BODY	MALE TIP	COMPLETE COUPLING	bar	psi					
1/2 BSPP	1/2	R81-08P	R81-08M	R81-08PM	300	4350	38	96	70	48	27
1/2 NPT	1/2	R85-08P	R85-08M	R85-08PM	300	4350	38	96	70	48	27
3/4 UNO	1/2	R86-12P	R86-12M	R86-12PM	300	4350	38	96	70	48	27
7/8 UNO	1/2	R86-14P	R86-14M	R86-14PM	300	4350	38	110	74	58	30



RECOMMENDED FOR:

General purpose steel hydraulic couplings. Heavy Duty Plating. Typical applications include; industrial equipment, hydraulic hand tools, agricultural machinery, construction and mobile plant, hydraulic cylinders, test rigs and power packs, logging equipment, mining machinery, oil processing and steel production.

FEATURES:

- Precision machined for long reliable life (some slight weeping may occur if couplings are pressurised when disconnected). Check Valves automatically close on disconnection, and open on connection.
- Single Acting Sleeve is manually retracted to connect, or disconnect.
- Push/Pull Sleeve can be moved in either direction to connect, or disconnect. When sleeve is held firmly by hand, or in a bracket, Male Tip will simply push in to connect to Female Body.
- 1/2" Nominal Body Sizes can be mounted in dual breakaway bracket, protecting hose from damage if subjected to excessive pulling force, allowing coupling halves to break apart, eg. a towed farm implement disconnecting from tractor. See page 320.
- RYCO Quick Release Couplings have full spanner hex for ease of installation and extra balls in locking mechanism for extra security.

- Couplings are able to swivel when unpressurised, reducing hose kinking and twisting. This feature is to reduce twist on hose; the couplings should not be used as swivel joints.
- Individual Nominal Body Sizes of **R91, R94 & R96** Series can be interconnected. Can be connected to same Nominal Body Size of **R80, R81, R82, R86**, and **-08, -12 & -16** Nominal Body Sizes of **R85** Series (Poppet Check Valves), however the lower of the flow rates and working pressures apply.

TECHNICAL DATA

- **Seals:** Nitrile (Buna N) O Rings. Back Up Washer prevents extrusion of O Ring at high pressures.
- **Operating Temperature Range:** From -20°C to +125°C (-4°F to +257°F).
- **Working Pressure:** See chart below.
- **Pressure Drop and Nominal Flow Rates:** See pages 326 and 328.
- **Fluid Compatibility:** Mineral/petroleum based hydraulic oils.
- **Specifications and Cross Reference:** 1/2", 3/4" & 1" Nominal Body sizes conform to ISO Type A and cross reference with other ISO Type A couplings. 1/4", 3/8" & 1/2" Nominal Body sizes cross reference with Pioneer and Safeway. See page 321 for cross reference listing.

SINGLE ACTING SLEEVE BALL CHECK VALVES

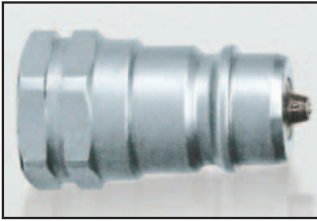
DIMENSIONS IN mm

FEMALE THREAD SIZE	NOM. BODY SIZE	RYCO PART NUMBER			MAXIMUM WORKING PRESSURE		d DIAMETER OF SLEEVE	L1 LENGTH COUPLED TOGETHER	L2 LENGTH FEMALE BODY	L3 LENGTH MALE TIP	SPANNER HEX SIZE
		FEMALE BODY	MALE TIP	COMPLETE COUPLING	bar	psi					
1/2 BSP	1/2	R91-08F	R91-08M	R91-08FM	250	3625	38	96	70	48	27
1/4 NPTF	1/4	R94-04F	R94-04M	R94-04FM	350	5100	27	76	56	38	19
3/8 NPTF	3/8	R94-06F	R94-06M	R94-06FM	250	3625	34	85	63	43	24
1/2 NPTF	1/2	R94-08F	R94-08M	R94-08FM	250	3625	38	96	70	48	27

PUSH/PULL SLEEVE BALL CHECK VALVES

DIMENSIONS IN mm

FEMALE THREAD SIZE	NOM. BODY SIZE	RYCO PART NUMBER			MAXIMUM WORKING PRESSURE		d DIAMETER OF SLEEVE	L1 LENGTH COUPLED TOGETHER	L2 LENGTH FEMALE BODY	L3 LENGTH MALE TIP	SPANNER HEX SIZE
		FEMALE BODY	MALE TIP	COMPLETE COUPLING	bar	psi					
1/2 BSP	1/2	R91-08P	R91-08M	R91-08PM	250	3625	38	96	70	48	27
1/2 NPTF	1/2	R94-08P	R94-08M	R94-08PM	250	3625	38	96	70	48	27
3/4 UNO	1/2	R96-12P	R96-12M	R96-12PM	250	3625	38	96	70	48	27

CONNECT UNDER PRESSURE MALE TIP
R81-08CPM


These Male Tips are able to be connected to the Female Body, even if there is residual pressure in the Male Tip provided that the circuit has been **switched off** or **isolated**, i.e. the pump is turned off and circuit is not being supplied with pressure and flow; they are not designed to be connected under pressure while the circuit is operating.

A secondary valve in the poppet of the Male allows sufficient oil to escape to unload the pressure inside the Male Tip at the moment of connecting (same dimensions as **R81-08M** and **R85-08M** on page 318).

BREAKAWAY BRACKETS AND BREAKAWAY KITS
RB

RB-08P DUAL 1/2 INCH KIT

Comprises: 2 x **R81-08PM** Female & Male Couplers Push/Pull
 1 x **RB-08X** Bracket
 4 x **C38X** Circlips
 2 x **RDP-08** Dust Plugs
 2 x **RDC-08** Dust Caps

Also available separately:

RB-08 DUAL BRACKET FOR 1/2 INCH COUPLINGS
 (includes 4 Circlips)

- 1/2" Nominal Body Size Quick release Couplings can be mounted in dual breakaway bracket, by means of circlips around sleeve. This protects hose from damage if subjected to excessive pulling force, allowing coupling halves to break apart, eg. a towed farm implement disconnecting from tractor.

- A Push/Pull Sleeve coupling mounted in breakaway bracket will allow male tip to push-to-connect. A Single Acting coupling requires coupling to be pushed forward from behind breakaway bracket to connect.

SPARE PARTS AND ACCESSORIES
O RINGS AND BACK UP WASHERS; SOLD IN PACKS ONLY

PACK PART NO	PACK CONTAINS	SUITS
R80D-04TO	5 ea -04 O Ring and Teflon Back Up Washer	R80-04F, R94-04F
R80D-06TO	5 ea -06 O Ring and Teflon Back Up Washer	R80-06F, R94-06F
R81D-08TO	5 ea -08 O Ring and Teflon Back Up Washer NOTE: Also suits newer Push/Pull Sleeve Couplings with lip.	R81-08F, R86-12F, R94-08F R81-08P, R85-08P, R86-12P, R91-08F, R91-08P, R94-08P, R96-12P
R81D-08PTO	5 ea -08 O Ring and Teflon Back Up Washer Push/Pull Sleeve NOTE: Suits older Push/Pull Sleeve couplings without lip.	R81-08P, R85-08P, R86-12P, R91-08F, R91-08P, R94-08P, R96-12P If coupling has lip in front of O Ring, use R81D-08TO .
R82D-12TO	5 ea -12 O Ring and Teflon Back Up Washer	R82-12F, R85-12F
R82D-16TO	5 ea -16 O Ring and Teflon Back Up Washer	R82-16F, R85-16F
R85D-04TO	5 ea -04 O Ring and Teflon Back Up Washer	R85-04F
R85D-06TO	5 ea -06 O Ring and Teflon Back Up Washer	R85-06F
R86D-14SK	5 ea -14 Seal Kit (O Ring and Teflon Back Up Washer)	R86-14F

RUBBERISED DUST CAPS AND PLUGS (DP = DUST PLUG; DC = DUST CAP)

SUITS	BLACK NUMBER	RED NUMBER
R80-04F, R85-04F, R94-04F R80-04M, R85-04M, R94-04M	QDP-04 QDC-04	
R80-06F, R85-06F, R94-06F R80-06M, R85-06M, R94-06M	QDP-06 QDC-06	
R81-08F, R81-08P, R85-08P, R86-12F, R86-12P, R86-14P, R91-08F, R91-08P, R96-12P, R94-08F, R94-08P	QDP-08	RDP-08
R81-08M, R85-08M, R86-12M, R86-14M, R91-08M, R94-08M, R96-12M	QDC-08	RDC-08
R82-12F, R85-12F R82-12M, R85-12M	QDP-12 QDC-12	
R82-16F, R85-16F R82-16M, R85-16M	QDP-16 QDC-16	



RECOMMENDED MAXIMUM PRESSURE FOR CONNECTION & DISCONNECTION

Trapped pressure in couplers may make it difficult to connect or disconnect. Shown below are ISO Recommended Maximum Internal Pressure for Connection and Disconnection by hand.

NOMINAL BODY SIZE	bar	psi	NOMINAL BODY SIZE	bar	psi
1/4"	10	145	3/4"	3,2	45
3/8" & 1/2"	6,3	90	1"	2,5	35

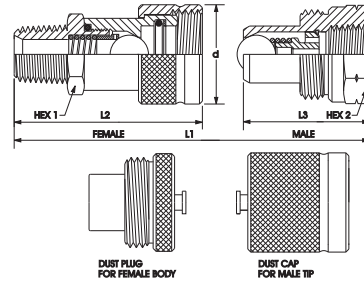
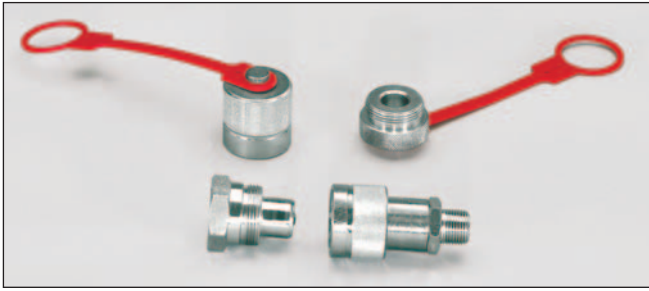
CROSS REFERENCE CHART

All standards specify the dimensions of Male Tips. Female Bodies are not dimensioned and are designed to accept Male Tips.

RYCO PART NO			PARKER/PIONEER PART NO		SAFeway PART NO		
FEMALE	MALE	COMPLETE	FEMALE	MALE	FEMALE	MALE	COMPLETE
1/4" INDUSTRIAL/AGRICULTURAL							
R80-04F	R80-04M	R80-04FM	4050-2P	4010-2P			
R94-04F	R94-04M	R94-04FM	4050-2	4010-2	S45-2	S41-2	S40-2
3/8" INDUSTRIAL/AGRICULTURAL							
R80-06F	R80-06M	R80-06FM	4050-3P*	4010-3P*			
R94-06F	R94-06M	R94-06FM	4050-3	4010-3	S45-3	S41-3	S40-3
1/4" ISO A CONFORMS TO ISO 7241-1 SERIES A							
R85-04F	R85-04M	R85-04FM	6601-4-4	6602-4-4	S565-2	S561-2	S56-2
3/8" ISO A CONFORMS TO ISO 7241-1 SERIES A							
R85-06F	R85-06M	R85-06FM	6601-6-6	6602-6-6	S565-3	S561-3	S56-3
1/2" ISO A CONFORMS TO ISO 7241-1 SERIES A, ISO 5675, AS2393, SAE J1036							
R81-08F	R81-08M	R81-08FM	6601-8-10*	6602-8-10*	S25-4P*	S71-4P*	S20-4P*
R81-08P	R81-08M	R81-08PM			S45-4P*	S71-4P*	S40-4P*
R85-08P	R85-08M	R85-08PM	6601-8-10	6602-8-10	S565-4	S561-4	S56-4
R86-12F	R86-12M	R86-12FM	6608-8-10	6610-8-10	S25-15P	S71-15P	S20-15P
R86-12P	R86-12M	R86-12PM			S45-15P	S71-15P	S40-15P
R91-08F	R91-08M	R91-08FM	4050-4*	8010-4*	S25-4*	S71-4*	S20-4*
R91-08P	R91-08M	R91-08PM	4250-4*	8010-4*	S45-4*	S71-4*	S40-4*
R94-08F	R94-08M	R94-08FM	4050-4	8010-4	S25-4	S71-4	S20-4
R94-08P	R94-08M	R94-08PM	4250-4	8010-4	S45-4	S71-4	S40-4
R96-12P	R96-12M	R96-12PM	4050-15	8010-15	S45-15	S71-15	S40-15
3/4" ISO A CONFORMS TO ISO 7241-1 SERIES A, ISO 5675							
R82-12F	R82-12M	R82-12FM	6601-12-12*	6602-12-12*	S565-6*	S561-6*	S56-6*
R85-12F	R85-12M	R85-12FM	6601-12-12	6602-12-12	S565-6	S561-6	S56-6
1" ISO A CONFORMS TO ISO 7241-1 SERIES A							
R82-16F	R82-16M	R82-16FM	6601-16-16*	6602-16-16*	S565-8*	S561-8*	S56-8*
R85-16F	R85-16M	R85-16FM	6601-16-16	6602-16-16	S565-8	S561-8	S56-8

RYCO PART NO			AEROQUIP PART NO			FASTER PART NO	
FEMALE	MALE	COMPLETE	FEMALE	MALE	COMPLETE	FEMALE	MALE
1/4" INDUSTRIAL/AGRICULTURAL							
R80-04F	R80-04M	R80-04FM	FD42-1001-04-04*	FD42-1002-04-04*	FD42-100-04-04*	NV14GAS	NV14GASM
1/4" INDUSTRIAL/AGRICULTURAL							
R80-06F	R80-06M	R80-06FM				NV38GASF	NV38GASM
1/4" ISO A CONFORMS TO ISO 7241-1 SERIES A							
R85-04F	R85-04M	R85-04FM	5601-4-4S	5602-4-4S	5600-4-4S	ANV14NPTF	ANV14NPTM
3/8" ISO A CONFORMS TO ISO 7241-1 SERIES A							
R85-06F	R85-06M	R85-06FM	5601-6-6S	5602-6-6S	5600-6-6S	ANV38NPTF	ANV38NPTM
1/2" ISO A CONFORMS TO ISO 7241-1 SERIES A, ISO 5675, AS2393, SAE J1036							
R81-08F	R81-08M	R81-08FM				ANV12GASF	ANV12GASM
R81-08P	R81-08M	R81-08PM	5601-8-10S*	5602-8-10S*	5600-8-10S*	PV12GASF	NV12GASM
R85-08P	R85-08M	R85-08PM	5601-8-10S	5602-8-10S	5600-8-10S	ANV12NPTF	ANV12NPTM
R86-12P	R86-12M	R86-12PM	5608-8-10S	5610-8-10S	5606-8-10S		
R91-08P	R91-08M	R91-08PM				PS12GASF	NS12GASM
R94-08P	R94-08M	R94-08PM				PS12NPTF	NS12NPTM
3/4" ISO A CONFORMS TO ISO 7241-1 SERIES A, ISO 5675							
R82-12F	R82-12M	R82-12FM	5601-12-12S*	5602-12-12S*	5600-12-12S*	ANV34GASF	ANV34GASM
R85-12F	R85-12M	R85-12FM	5601-12-12S	5602-12-12S	5600-12-12S	ANV34NPTF	ANV34NPTM
1" ISO A CONFORMS TO ISO 7241-1 SERIES A							
R82-16F	R82-16M	R82-16FM	5601-16-16S*	5602-16-16S*	5600-16-16S*	ANV1GASF	ANV1GASM
R85-16F	R85-16M	R85-16FM	5601-16-16S	5602-16-16S	5600-16-16S	ANV1NPTF	ANV1NPTM

*Indicates; for Cross Referenced coupling, RYCO Coupling is BSPP threadform, Competitor's Coupling is NPT threadform.



RECOMMENDED FOR:

Designed for use in high pressure applications on portable cylinders, rams, pumps, and hydraulic rescue equipment where low flow rates and pressures up to 700 BAR/10,000 psi are involved. Heavy Duty Silver colour plating.

FEATURES:

- Threaded Sleeve on Female Body engages thread on Male Tip. When sleeve is screwed completely up, the two coupling halves are secured together, and the ball check valves open. Can connect and disconnect with residual pressure in lines.
- Precision ball type check valves.
- Metal Threaded Dust Caps, and Dust Plugs, complete with plastic retaining loop are available.
- Female Body is male threaded to screw directly into cylinder or ram.
- Male Tip is female threaded to screw directly onto male threaded hose fitting.

TECHNICAL DATA

- **Female Body and Male Tip:**
Steel, zinc plated and passivated (CrVI free) for corrosion resistance.
- **Seals:**
Nitrile (Buna N) O Rings. Back Up Washer prevents extrusion of O Ring at high pressures.
- **Operating Temperature Range:**
From -20°C to +125°C (-4°F to +257°F).
- **Working Pressure:**
See chart below.
- **Pressure Drop and Nominal Flow Rates:**
See pages 326 and 328.
- **Fluid Compatibility:**
Mineral/petroleum based hydraulic oils.
- **Cross Reference:**
R100-06 cross reference see below.

PART NUMBERS AND SPECIFICATIONS

THREAD SIZE	NOM. BODY SIZE	RYCO PART NUMBER					MAXIMUM WORKING PRESSURE	
		FEMALE BODY	MALE TIP	COMPLETE COUPLING	DUST PLUG FOR FEMALE	DUST CAP FOR MALE	bar	psi
1/4 NPTF	3/8	R100-04F	R100-04M	R100-04FM	R100-06DP	R100-06DC	700	10000
3/8 NPTF	3/8	R100-06F	R100-06M	R100-06FM	R100-06DP	R100-06DC	700	10000

DIMENSIONS IN mm

THREAD SIZE	NOM. BODY SIZE	d DIAMETER OF SLEEVE	DIAMETER MALE TIP	HEX 1	HEX2	L1 LENGTH COUPLED TOGETHER	L2 LENGTH FEMALE BODY	L3 LENGTH MALE TIP
1/4 NPTF	3/8	35	19	24	32	89	74	40,5
3/8 NPTF	3/8	35	19	24	32	87	72	40,5

CROSS REFERENCE CHART	FEMALE BODY	MALE TIP	COMPLETE COUPLING	MALE & FEMALE WITH DUST CAP & PLUG	DUST PLUG	DUST CAP
RYCO	PART NO R100-06F	PART NO R100-06M	PART NO R100-06FM	PART NO R100-06FMPC	PART NO R100-06DP	PART NO R100-06DC
ENERPAC	CR-400	CH-604		C-604	CD-411	CD-411
POWERTEAM	9796	9798		9795	9797	9799
PARKER/PIONEER	3050-3	3010-3			3005-3	3009-3
SAFEWAY	S35-3P	S31-3P	S30-3P		S34-3	S39-3
FASTER	PWM1/38NPTF	PWM-38NPTM	PWM-38NPT			

SPARE PARTS

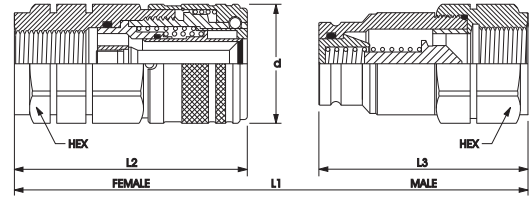
PART NO	DESCRIPTION	SUITS
R100D-06TO	5 ea O Ring and Teflon Back Up Washer	R100-06F, R100-04F

R100-04FMPC

is complete 1/4" Male and Female Coupling, with Dust Plug and Dust Cap.

R100-06FMPC

is complete 3/8" Male and Female Coupling, with Dust Plug and Dust Cap.



RECOMMENDED FOR:

Wherever hydraulic oil spillage is a safety, or environmental hazard, either in plant or in the field. Flat Face Valve design minimises fluid loss on disconnection for a cleaner, safer environment. Recommended for quick changeover of hydraulic hand tools in "cherry picker" platforms, and in the mining, road construction and maintenance fields, as well as many industrial applications.

FEATURES:

- Heavy Duty Plating.
- High flow rates with low pressure loss.
- Low fluid spillage and air inclusion during connection and disconnection.
- Easily cleaned exterior surfaces reduce possibility of contamination of hydraulic system.
- Easy, one-handed automatic push-to-connect operation when either half of coupling is solid mounted. Sleeve does not have to be retracted to enable connection. Connects against 17,2 bar/250 PSI static pressure.
- Rotating Sleeve Lock safety feature (simply rotate the retracting sleeve) guards against unintentional disconnection. Cannot be disconnected unless pin and recess on sleeve are aligned.
- To disconnect, rotate the sleeve to align pin and recess on sleeve. Pull back the sleeve and the halves pop apart.

TECHNICAL DATA

- **Connection and disconnection:**
Connects against 17,2 bar/250 psi static pressure.
- **Female Body and Male Tip:**
Steel, zinc plated and passivated (CrVI free) for corrosion resistance.
- **Operating Temperature Range:**
From -20°C to +125°C (-4°F to +257°F).
- **Working Pressure:**
See chart below.
- **Pressure Drop and Nominal Flow Rates:**
See pages 327 and 328.
- **Fluid Compatibility:**
Mineral/petroleum based hydraulic oils.
- **Specifications:**
All sizes comply with ISO 16028.
3/8" Nominal Body size also conforms to HTMA dimensions (Hydraulic Tool Manufacturers Association), and Specification ANSI/NFPA T3.20.15-1991.
- **Cross Reference:**
RYCO R110 Series cross reference with the following Series: Parker FEM, Snaptite 74, Aeroquip FD 89, Faster FFI/FFN, Safeway FF/FE 491/495.
RYCO R110 Series will cross reference with other couplings manufactured to comply with ISO 16028.

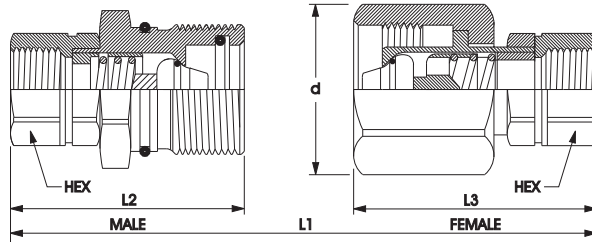
PART NUMBERS AND SPECIFICATIONS

DIMENSIONS IN mm

NOM. BODY SIZE	FEMALE THREAD SIZE BSP	RYCO PART NUMBER			MAXIMUM WORKING PRESSURE		DIAMETER OF SLEEVE	L1 LENGTH COUPLED TOGETHER	L2 LENGTH FEMALE BODY	L3 LENGTH MALE TIP	SPANNER HEX SIZE
		FEMALE BODY	MALE TIP	COMPLETE COUPLING	bar	psi					
1/4	1/4	R110-0404F	R110-0404M	R110-0404FM	400	5800	28	100	59	52	22
3/8	3/8	R110-0606F	R110-0606M	R110-0606FM	350	5100	32	118	74	61	30
3/8	1/2	R110-0608F	R110-0608M	R110-0608FM	350	5100	32	118	74	61	30
1/2	1/2	R110-0808F	R110-0808M	R110-0808FM	350	5100	38	143	87	73	36
1/2	3/4	R110-0812F	R110-0812M	R110-0812FM	350	5100	38	143	87	73	36
3/4	3/4	R110-1212F	R110-1212M	R110-1212FM	350	5100	48	154	95	81	41
3/4	1	R110-1216F	R110-1216M	R110-1216FM	350	5100	48	154	95	81	41
1	1.1/4	R110-1620F	R110-1620M	R110-1620FM	350	5100	55	177	110	90	55

PART NO	DESCRIPTION
R110D-04MTO	5ea O Ring and Back Up Washer, suits R110-0404M
R100D-06MTO	5ea O Ring and Back Up Washer, suits R110-0606M & R110-0608M
R110D-08MTO	5ea O Ring and Back Up Washer, suits R110-0808M & R110-0812M
R110D-12MTO	5ea O Ring and Back Up Washer, suits R110-1212M & R110-1216M
R110-06MC	DUST CAP, suits R110-0606M and R110-0608M
R110-06FC	DUST CAP, suits R110-0606F and R110-0608F
R110-08MC	DUST CAP, suits R110-0808M and R110-0812M
R110-08FC	DUST CAP, suits R110-0808F and R110-0812F





RECOMMENDED FOR:

High pressure applications involving pressure impulses requiring Heavy Duty hydraulic quick release couplings. Rugged thread-to-connect operation allows higher working pressures, and improved performance under pressure impinging conditions. Threaded nut on Female Body engages thread on Male Tip. When nut is screwed completely up, the two coupling halves are secured together, and the Poppet Check Valves open to allow flow.

FEATURES:

- Poppet Check Valves with rubber poppet seal. Check Valves automatically close on disconnection, and open on connection.
- An external O Ring on Male Tip seals inside swivel nut on Female Body to exclude dust and foreign matter from threads.
- Soft Plastic Dust Caps and Dust Plugs are available.

TECHNICAL DATA

- **Connection and disconnection:**
Possible with trapped circuit pressure of up to 103 bar (1500 psi), provided that pump is turned off and circuit is not being supplied with pressure and flow.
- **Female Body and Male Tip:**
Steel, zinc plated and passivated (CrVI free) for corrosion resistance.
- **Seals:**
Nitrile (Buna N) O Ring female body seal. Back Up Washer prevents extrusion of O Ring at high pressure.
- **Operating Temperature Range:**
From -20°C to +125°C (-4°F to +257°F).
- **Working Pressure:**
See chart below.
- **Pressure Drop and Nominal Flow Rates:**
See pages 327 and 328.
- **Fluid Compatibility:**
Mineral/petroleum based hydraulic oils.

PART NUMBERS AND SPECIFICATIONS

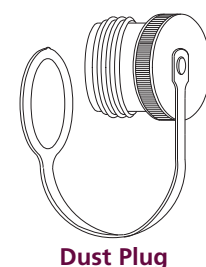
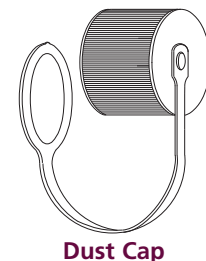
DIMENSIONS IN mm

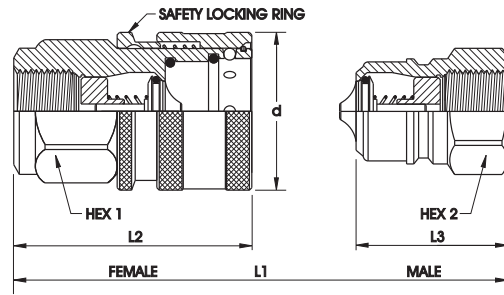
FEMALE THREAD SIZE BSPF	NOM. BODY SIZE	RYCO PART NUMBER			MAXIMUM WORKING PRESSURE		DIAMETER OF SLEEVE	L1 LENGTH COUPLED TOGETHER	L2 LENGTH MALE BODY	L3 LENGTH FEMALE TIP	SPANNER HEX SIZE
		FEMALE BODY	MALE TIP	COMPLETE COUPLING	bar	psi					
1/2	1/2	R120-08F	R120-08M	R120-08FM	400	5800	42	102	66	63	30
3/4	1	R120-12F	R120-12M	R120-12FM	300	4350	55 A/F	153	100	87	41
1	1	R120-16F	R120-16M	R120-16FM	300	4350	55 A/F	153	100	87	41

NOTE: R120-08F Sleeve is Round.
R120-12F and R120-16F Sleeve is Hex.

DUST CAPS AND PLUGS; SPARES

PART NO	DESCRIPTION
R120-08DP	DUST CAP, suits R120-08F
R120-08DC	DUST CAP, suits R120-08M
R120-16DP	DUST CAP, suits R120-12F and R120-16F
R120-16DC	DUST CAP, suits R120-12M AND R120-16M
R120D-08SK	5ea. O Ring Dust Seals, O Ring, Back Up Washer, suits R120-08M
R120D-16SK	5ea. O Ring Dust Seals, O Ring, Back Up Washer, suits R120-12M and R120-16M





RECOMMENDED FOR:

RYCO R130 High Flow Quick Release Couplings are general purpose steel hydraulic couplings, recommended for use in applications where high flow and low pressure drop are important. Typical applications are mobile plant including tip trucks; industrial equipment; test rigs and power packs; logging and mining; greasing equipment; oil processing; and steel production.

FEATURES:

- Double O Rings in Female Body seal against Male Tip for extra fluid security.
- Single Acting Sleeve is manually retracted to connect or disconnect.
- Safety Locking Ring safety feature (move the Safety Locking Ring forward until it meets the Sleeve, then rotate clockwise approximately 60°. This helps prevent the Coupling from being disconnected unintentionally).
- Poppet Check Valves feature rubber poppet seal for improved sealing when disconnected.
- Check Valves automatically close on disconnection and open on connection.

TECHNICAL DATA

- **Female Body and Male Tip:**
Steel, zinc plated and passivated (CrVI free) for corrosion resistance.
- **Seals:**
Two Nitrile (Buna N) O Rings.
Back Up Washer -06 and -08 sizes.
- **Operating Temperature Range:**
From -20°C to +125°C (-4°F to +257°F).
- **Working Pressure:**
See chart below.
- **Pressure Drop and Nominal Flow Rates:**
See pages 327 and 328.
- **Fluid Compatibility:**
Mineral/petroleum based hydraulic oils.
- **Cross Reference:**
TEMA 3800, 5000, 7500 and 10000 series.
CEJN 525 series
See table below.

PART NUMBERS AND SPECIFICATIONS

DIMENSIONS IN mm

FEMALE THREAD SIZE BSPP	NOM BODY SIZE	RYCO PART NUMBER			MAXIMUM WORKING PRESSURE		DIAMETER OF SLEEVE	L1 LENGTH COUPLED TOGETHER	L2 LENGTH FEMALE BODY	L3 LENGTH MALE TIP	SPANNER HEX SIZE	
		FEMALE BODY	MALE TIP	COMPLETE COUPLING	bar	psi					1	2
3/8	3/8	R130-06F	R130-06M	R130-06FM	350	5100	35	81,5	64	40,5	30	22
1/2	1/2	R130-08F	R130-08M	R130-08FM	300	4350	40	83	66,5	41,5	36	27
3/4	3/4	R130-12F	R130-12M	R130-12FM	280	4060	52	112	85	56	42	36
1	1	R130-16F	R130-16M	R130-16FM	250	3630	65	126	99	63	55	46

CROSS REFERENCE CHART

RYCO PART NO	TEMA PART NO
R130-06F	3810
R130-06M	3820
R130-08F	5010
R130-08M	5020

RYCO PART NO	TEMA PART NO
R130-12F	7510
R130-12M	7520
R130-16F	10010
R130-16M	10020



SPARE PARTS

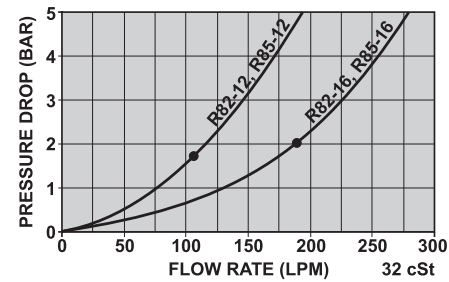
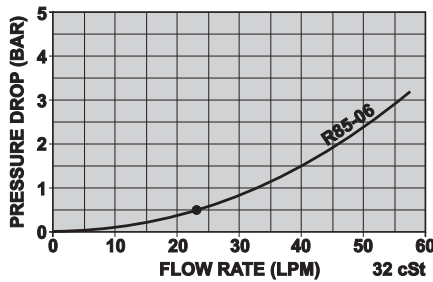
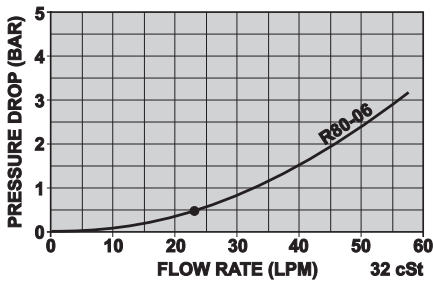
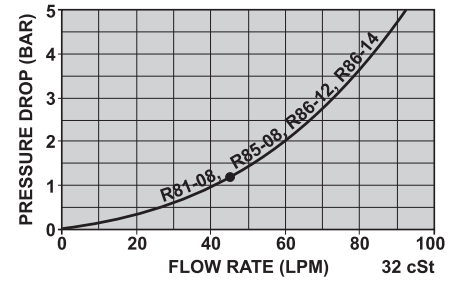
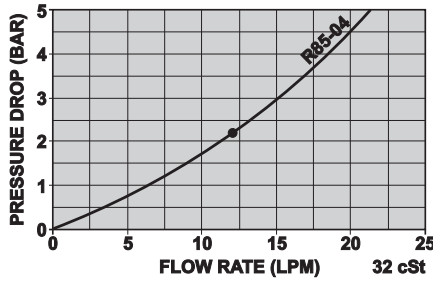
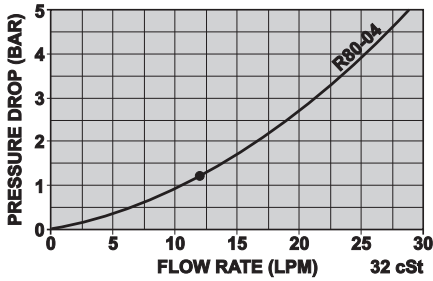
PART NO	DESCRIPTION
R130D-06SK	5 ea. SEAL KIT, suits R130-06F (O Rings and Back Up Washer)
R130D-08SK	5 ea. SEAL KIT, suits R130-08F (O Rings and Back Up Washer)
R130D-12SK	5 ea. SEAL KIT, suits R130-12F (2 different size O Rings)
R130D-16SK	5 ea. SEAL KIT, suits R130-16F (2 same size O Rings)



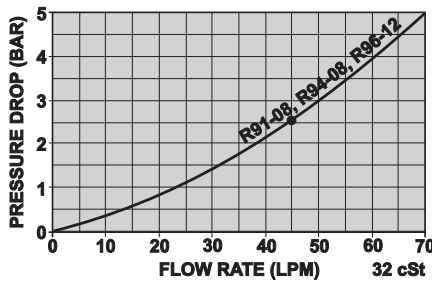
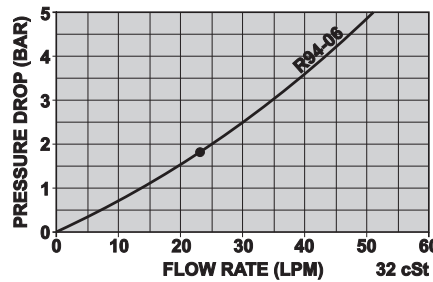
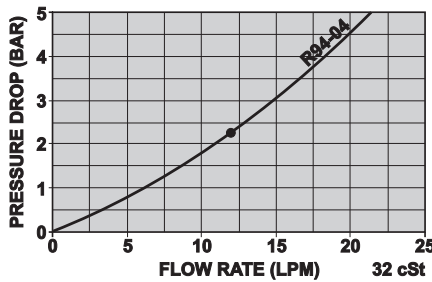
NOTE:

The point marked on the Flow Rate curve is the **Nominal Flow Rate** value based on maximum flow velocity of oil through the coupling of 9 metres per second. It is the preferred **Maximum Flow Rate** for maximum life of seals. See page 328 more information.

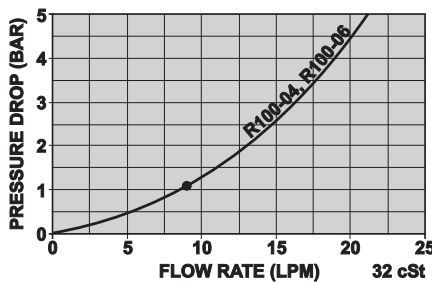
R80, R81, R82, R85 & R86 SERIES - POPPET CHECK VALVES



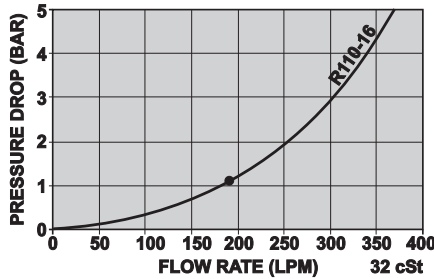
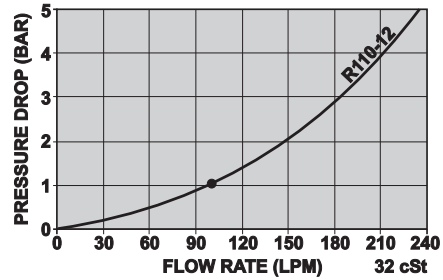
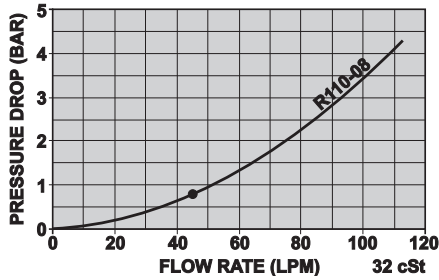
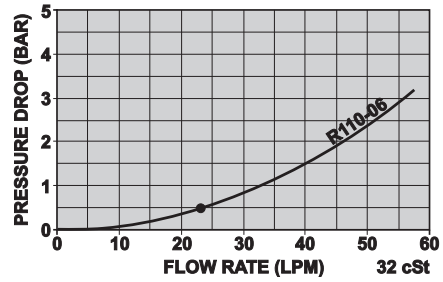
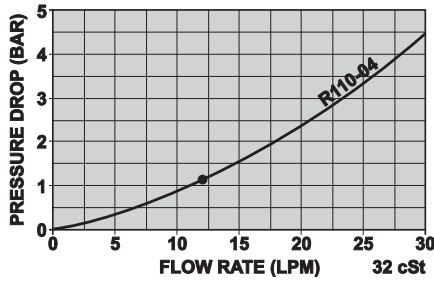
R91, R94 & R96 SERIES - BALL CHECK VALVES



R100 SERIES - 10,000 psi SCREW TOGETHER QUICK RELEASE COUPLINGS

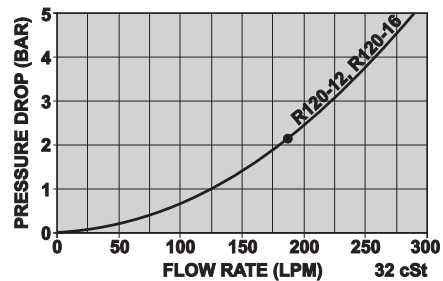
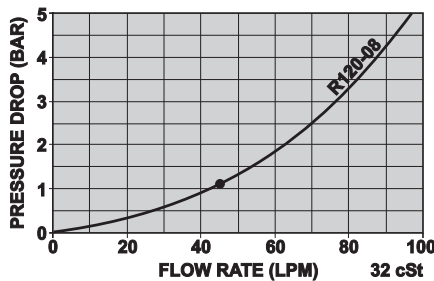


R110 SERIES - FLAT FACE VALVE QUICK RELEASE COUPLINGS

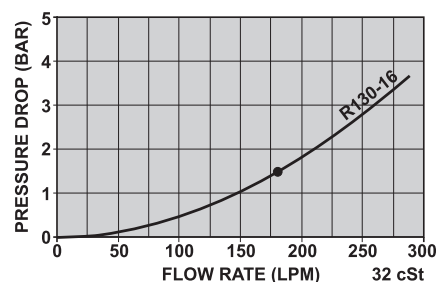
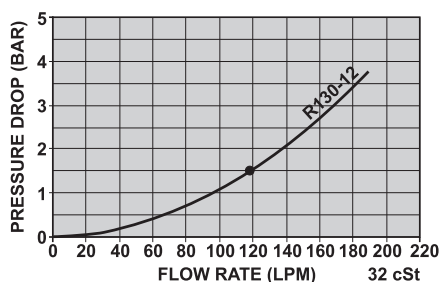
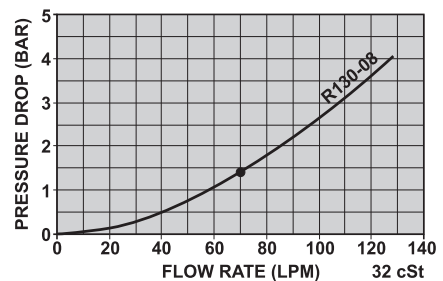
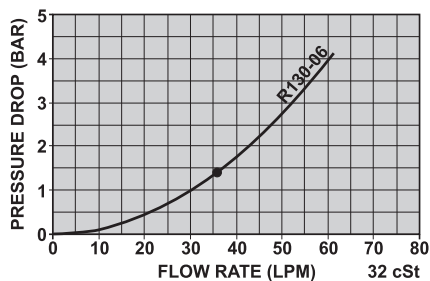


NOTE: Dash numbers for the R110 Series in these graphs refers to the Nominal Body Size of the Coupling, see page 323.

R120 SERIES - THREAD TO CONNECT HEAVY DUTY QUICK RELEASE COUPLINGS



R130 SERIES - HIGH FLOW QUICK RELEASE COUPLINGS



NOTES:

- Nominal Flow Rate** values are based on maximum flow velocity of oil through the coupling of 9 metres per second. **It is the preferred Maximum Flow Rate for maximum life of seals.**
- Flow Rate For 2,0 bar Pressure Drop** values may be used in some applications; but they may reduce seal life. Contact RYCO Hydraulics Technical Department for more information.
- The data applies to oil of 32 centistoke viscosity, as specified in ISO 7241/2 Test Methods for Quick-action Couplings. For oils of viscosity other than 32 centistokes, the change in flow rate and pressure drop is NOT LINEAR. Contact RYCO Hydraulics Technical Department for more information. See page 391 for graph of Viscosity Change with Temperature for popular mineral oil based hydraulic oils.
- To convert Litres per Minute to Gallons per Minute:
for Imperial Gallons per Minute, divide Litres per Minute by 4.54
for US Gallons per Minute, divide Litres per Minute by 3.78

PART NUMBER	NOMINAL BODY SIZE	NOMINAL FLOW RATE	PRESSURE DROP AT NOMINAL FLOW RATE		FLOW RATE FOR 2,0 bar PRESSURE DROP
			bar	psi	
FOR OIL WITH 32 CENTISTOKE VISCOSITY					
	inch	litres per minute	bar	psi	litres per minute
R80 SERIES POPPET CHECK VALVES					
R80-04	1/4	12	1,3	18	17
R80-06	3/8	23	0,5	8	46
R81-08	1/2	45	1,3	18	59
R82-12	3/4	106	1,8	26	116
R82-16	1	189	2,0	30	184
R85-04	1/4	12	2,3	33	11
R85-06	3/8	23	0,5	8	46
R85-08	1/2	45	1,3	18	59
R85-12	3/4	106	1,8	26	116
R85-16	1	189	2,0	30	184
R86-12	1/2	45	1,3	18	59
R86-14	1/2	45	1,3	18	59
R90 SERIES BALL CHECK VALVES					
R91-08	1/2	30	1,3	18	40
R94-04	1/4	11	2,0	29	29
R94-06	3/8	21	1,6	23	25
R94-08	1/2	30	1,3	18	40
R96-12	1/2	30	1,3	18	40
R100 SERIES 10,000 psi SCREW TOGETHER					
R100-04	3/8	8,6	1,1	16	13
R100-06	3/8	8,6	1,1	16	13
R110 SERIES FLAT FACE VALVES					
R110-04	1/4	12	1,3	19	18
R110-06	3/8	23	0,5	8	46
R110-08	1/2	45	0,9	13	75
R110-12	3/4	100	1,1	16	147
R110-16	1	189	1,2	17	252
R120 SERIES HEAVY DUTY SCREW TOGETHER					
R120-08	1/2	45	1,1	16	63
R120-12	1	189	2,1	31	184
R120-16	1	189	2,1	31	184
R130 SERIES HIGH FLOW POPPET CHECK VALVES					
R130-06	3/8	36	1,4	20	42
R130-08	1/2	70	1,4	20	85
R130-12	3/4	118	1,5	22	135
R130-16	1	180	1,5	22	210