



Quick Coupling Products

Catalogue 3800-DS/UK
March 2004





For your safety!

Under certain circumstances, quick couplings can be subjected to extreme loadings such as vibration and uncontrolled pressure peaks.

Only by using genuine Parker Components and following Parker assembly instructions can you be assured of the reliability and safety of the product and their conformity to the applicable standards.

Failure to follow this rule can adversely affect the functional safety and reliability of products, cause personal injury, property damage, and result in loss of your guarantee rights.

Subject to alteration.

For your safety: see safety guide (pages 62-63).

All dimensions used in this catalogue are in mm otherwise the units are specified. The rated pressure is in Mpa.

If necessary you can also use the conversion table on page 64.

The products described herein, including without limitation, products features, dimensions, specifications and designs are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

For the product availability of Parker components, please refer to price list 3893.

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INDUSTRIAL AND CHEMICAL

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HIGH PRESSURE





















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MOBILE






















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APPENDICES












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Features	Series	Industrial and chemical			High pressure			Mobile		
		60 Series			FEF Series	FEM Series	CM Series	CL Series	3000 Series	IA Series
		Brass	Steel	Stainless steel						
 Picture										
 Standards		ISO 7241-1-B			Interchangeable with similar models	ISO 16028	Interchangeable with similar models	Interchangeable with similar models	Interchangeable with similar models	ISO 7241-1-A
 Material		Brass	Steel	Stainless Steel						
 Size										
	1/8"									
	1/4"									
	3/8"									
	1/2"									
	5/8"									
	3/4"									
	1"									
	1 1/2"									
	2 1/2"									
 Rated pressure* Mpa										
	1/8"	21.0	35.0	35.0						
	1/4"	25.5	35.0	35.0	30	31.5	150	100	70	35
	3/8"	18.5	28.0	35.0	30	25.0			70	28
	1/2"	24.0	28.0	35.0	25	25.0				25
	5/8"				25	25.0				
	3/4"	15.0	17.5	21.0	25	25.0				28
	1"	10.5	14.0	21.0	25	20.0				28
	1 1/2"	10.5	10.5	10.5						
	2 1/2"	8.5	10.5	10.5						
 Temperature range (with NBR seal)		-30°C +110°C			-20°C +100°C	-20°C +100°C	-30°C +110°C	-30°C +110°C	-30°C +110°C	-30°C +110°C
 Seal		NBR or FKM			NBR	NBR	NBR	NBR	NBR or Polyurethane	NBR
 Coupler style										
	Manual									
	Screw-to-connect									
	Push-Pull									
	Push-to-connect									
 Valving										
	Poppet									
	Flat-faced poppet									
	Ball								or	
 Connection possible with pressure on										
	Female body									
	Male tip									
 Locking mechanism										
	Screw type									
	With cam									
	Ball locking mechanism									
 End configuration		BSPP NPTF			BSPP	BSPP metric	BSPP	BSPP	NPTF	BSPP
 Full technical data page		4			12	15	19	21	23	25

*Data shown here are indicative for quick selection purposes only. Please check technical data indicated for each individual series.

	Series	Mobile							
		2000 Series			9400 Series	4000 Series	QHPA Series	MACH 2	MACH System
		Group 2	Group 3	Group 4					
Features									
	Picture								
	Standards	ISO 7241-1-A	ISO 7241-1-A	ISO 7241-1-A	ISO 7241-1-A	ISO 7241-1-A (1/2")	Interchangeable with similar models	ISO 7241-1-A	ISO 7241-1-A
	Material								
	Brass	●	●	●	●	●	●	●	●
	Steel								
	Stainless Steel								
	Size								
	1/8"								
	1/4"						●		
	3/8"			●		●	●		
	1/2"	●	●	●	●	●	●	●	●
	5/8"								
	3/4"						●		
	1"						●		
	1 1/2"								
	2 1/2"								
	Rated pressure* Mpa								
	1/8"								
	1/4"						20		
	3/8"			25		20	45.0		
	1/2"	25	25	25	25	20	40.0	25	25
	5/8"								
	3/4"					20			
	1"					20	31.5		
	1 1/2"						31.5		
	2 1/2"								
	Temperature range (with NBR seal)	-30°C +110°C	-30°C +110°C	-30°C +110°C	-30°C +110°C	-40°C +110°C	-30°C +110°C	-30°C +110°C	-30°C +110°C
	Seal	NBR	NBR	NBR	NBR	NBR	NBR	NBR	NBR
	Coupler Style								
	Manual	●					●	●	●
	Screw-to-connect								
	Push-Pull		●	●	●				
	Push-to-Connect								
	Valving								
	Poppet	●	●	●	●	●	●	●	●
	Flat-faced poppet								
	Ball	or ●		or ●		or ●			
	Connection possible pressure on								
	Female body						●	●	●
	Male tip				●		●	●	●
	Locking mechanism								
	Screw type						●		
	With cam							●	●
	Ball locking mechanism	●	●	●	●	●			
	End configuration	BSPP NPTF metric	BSPP metric	BSPP, NPTF metric UNF	metric UNF	BSPP NPTF	BSPP metric	metric	metric
	Full technical data page	28			38	41	44	48	51

*Data shown here are indicative for quick selection purposes only. Please check technical data indicated for each individual series.

			 max							
ISO 7241-1-B	Brass, steel, stainless steel 303 and 316	1/8", 1/4", 3/8", 1/2", 3/4", 1", 1 1/2", 2 1/2"	35 Mpa	-30°C + 110°C (NBR seal) -20°C + 200°C (FKM seal : Viton™)	NBR (brass, steel, AISI 303 stainless steel), FKM (Viton™, AISI 316 stainless steel)	Manual	Poppet	No	Ball locking mechanism	BSPP, NPTF

Main characteristics

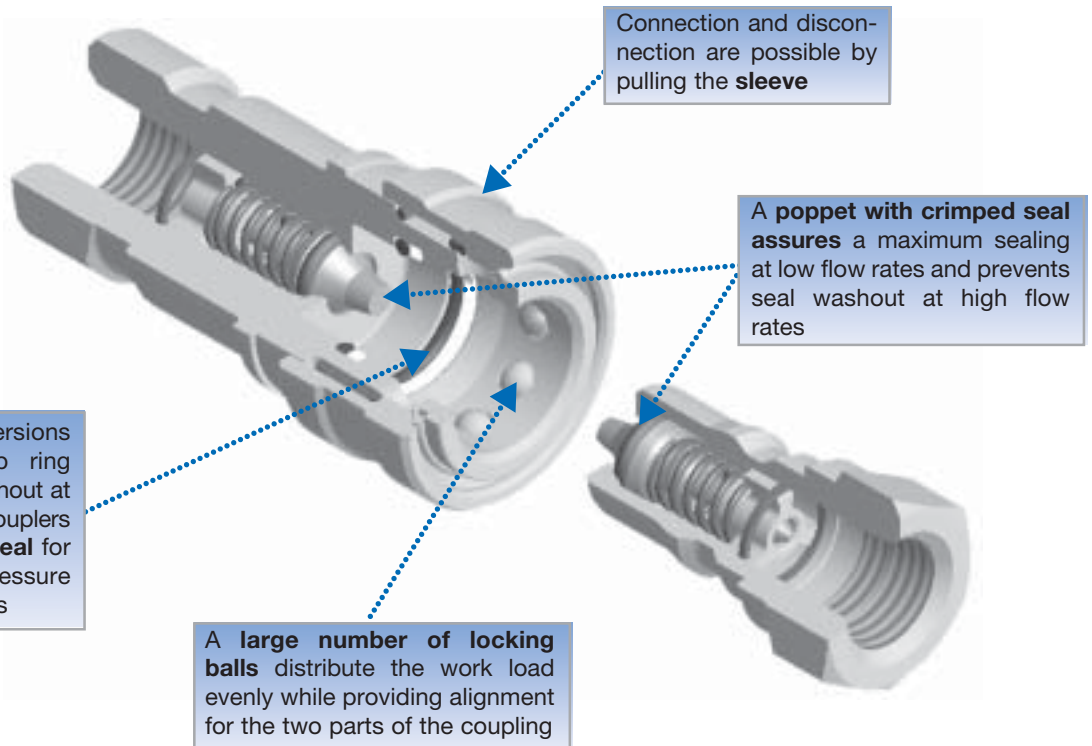
- Meets the requirements of **ISO 7241-1, Series B**
- Can be used for any type of industrial applications because of the broad range of materials, seals and end configurations

Applications

- Semiconductor industry, steel manufacturing
- Pneumatic and hydraulic hand tools
- Food and bottling industry
- Boating, shipbuilding and offshore industry
- Pharmaceutical industry, laboratories
- Transport
- Power generating plants, hydroelectric power stations (filling / connection of mobile filtration equipment)



Technical features



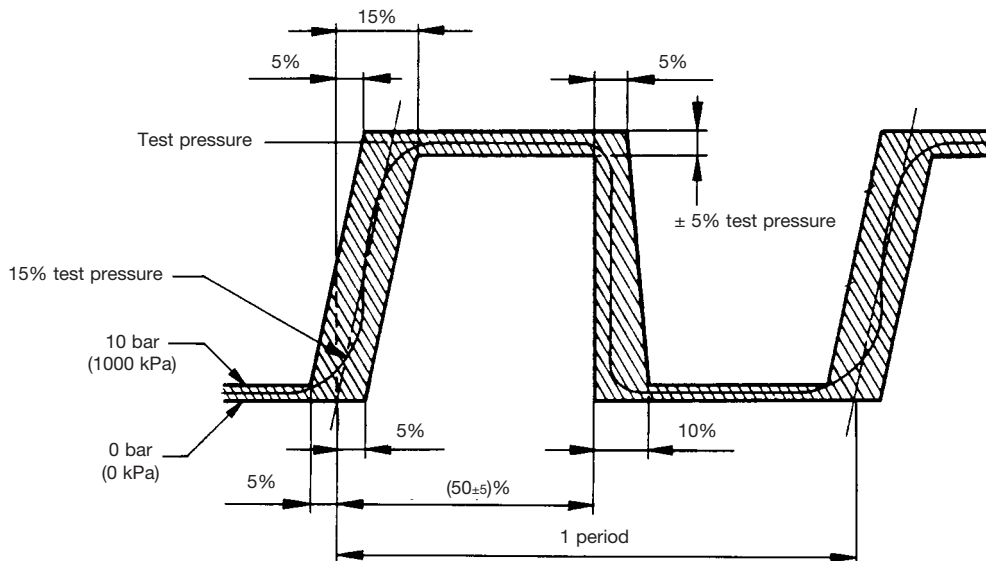
Technical performance data

Low cycle, non-pulsating pressure rating:

Applications with lower cycle time and no severe cyclic pressure fluctuations, essentially steady pressure during an operating cycle. Typical applications include hydraulic jacks, mine roof support systems, and high pressure fluid transfer (pumping water or slurry in oil wells). Minor pump ripple is considered non-pulsating. Impulse tested at rated pressure.

ANSI/ISO Pressure rating:

Dynamic applications with normal to moderate hydraulic shocks such as general industrial equipment, hydraulic presses, agricultural equipment. Impulse tested at a multiple (125 % or 133 %) of rated pressure. A uniform cycle rate of 0.5 to 1.0 Hz is held over 100,000 cycles according to ISO 7241-1 & 2.



Body size inch	Low cycle, non-pulsating pressure rating		
	Steel	Mpa Stainless steel	Brass
1/8"	35.0	35.0	21.0
1/4"	35.0	35.0	25.5
3/8"	28.0	35.0	18.5
1/2"	28.0	35.0	24.0
3/4"	17.5	21.0	15.0
1"	14.0	21.0	10.5
1 1/2"	10.5	10.5	10.5
2 1/2"	10.5	10.5	8.5

Body size inch	ANSI/ISO Pressure rating		
	Steel	Mpa Stainless steel	Brass
1/8"	35.0	14.0	7.0
1/4"	35.0	14.0	7.0
3/8"	28.0	10.5	7.0
1/2"	28.0	10.5	7.0
3/4"	17.5	10.5	7.0
1"	14.0	7.0	7.0
1 1/2"	7.0	7.0	5.5
2 1/2"	7.0	7.0	5.5

* Values shown for stainless steel are valid for both AISI 303 and AISI 316.

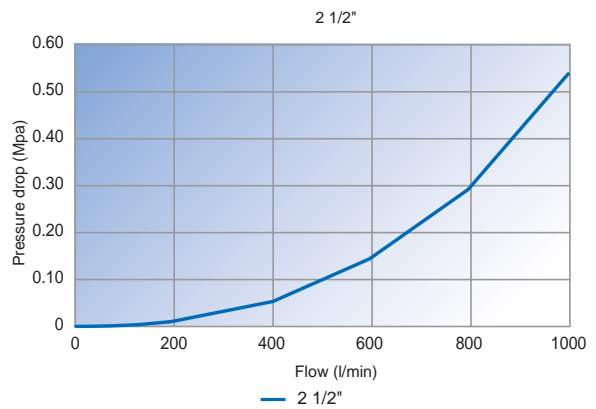
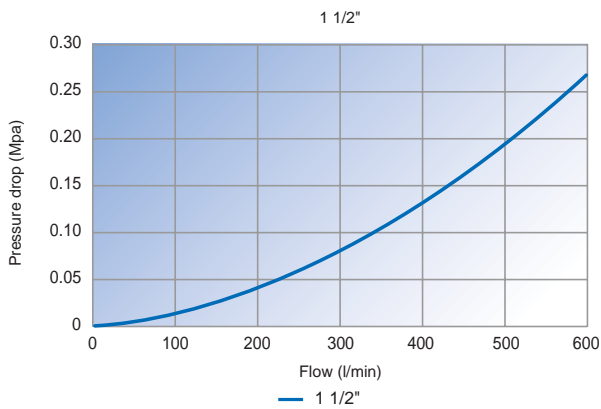
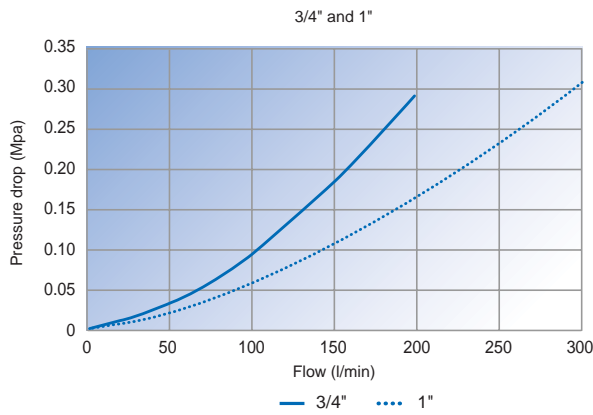
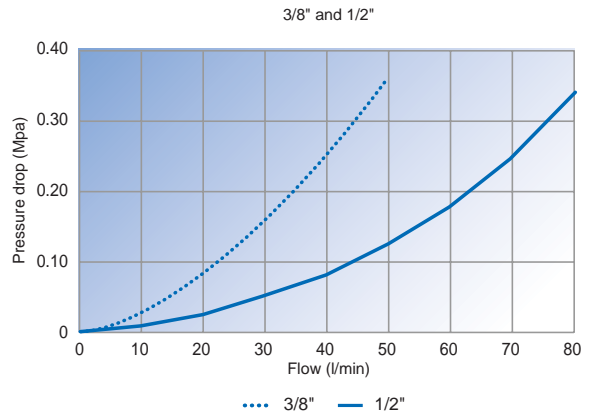
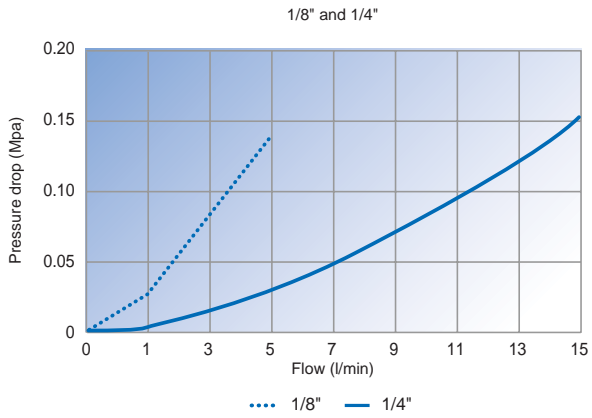
Temperature rating:

	Part number suffix	O-ring compound	Temperature range
Standard	No suffix	NBR (Nitrile)	-30°C +110°C
	Y	FKM (Viton™)	-20°C +200°C
Option	W	EPDM (Ethylene Propylene)	-40°C +150°C
	Z	CR (Neoprene)	-40°C +100°C

Vacuum data: 696 mm Hg both connected and disconnected

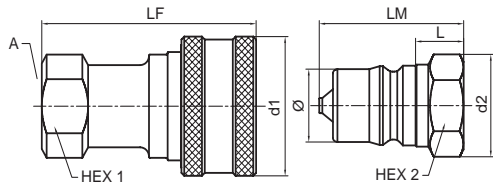
Pressure drop

Tests with oil viscosity 43 cSt at 38°C.



Dimensions and part numbers

STEEL COUPLERS



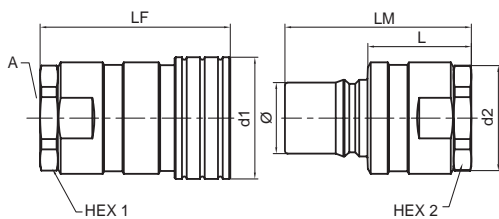
Body size inch	Thread A inch	d1 mm	Hex 1	LF mm	d2 mm	Hex 2	L mm	LM mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
----------------	---------------	-------	-------	-------	-------	-------	------	-------	------	-------------------------	------------------	----------------------	------------------

Female BSPP thread

1/8"	1/8	24.4	14 mm	48.3	16.4	9/16"	10.5	29.5	10.8	H1-62-BSPP	81	H1-63-BSPP	18
1/4"	1/4	29.0	19 mm	61.2	21.9	19 mm	16.6	39.1	14.2	H2-62-BSPP	130	H2-63-BSPP	38
3/8"	3/8	35.6	22 mm	65.6	25.3	22 mm	14.5	44.7	19.1	H3-62-BSPP	241	H3-63-BSPP	68
1/2"	1/2	45.0	1 1/8"	72.3	32.8	30 mm	16.3	49.3	23.5	H4-62-BSPP	360	H4-63-BSPP	122
3/4"	3/4	54.4	1 5/16"	93.2	40.4	1 3/8"	21.9	57.7	31.4	H6-62-BSPP	602	H6-63-BSPP	217
1"	1	64.0	41 mm	106.2	47.2	41 mm	25.2	73.8	37.7	H8-62-BSPP	906	H8-63-BSPP	341

Female NPTF thread

1/8"	1/8-27	24.4	11/16"	48.3	16.5	9/16"	10.5	29.5	10.8	H1-62	81	H1-63	18
1/4"	1/4-18	29.0	13/16"	57.4	19.1	3/4"	12.7	35.3	14.2	H2-62	138	H2-63	36
3/8"	3/8-18	35.6	7/8"	63.2	25.7	7/8"	13.1	38.1	19.1	H3-62	184	H3-63	56
1/2"	1/2-14	45.0	1 1/8"	72.9	33.0	1 1/8"	16.4	44.5	23.5	H4-62	341	H4-63	109
3/4"	3/4-14	54.4	1 5/16"	90.4	40.4	1 3/8"	19.1	54.9	31.4	H6-62	592	H6-63	210
1"	1-11 1/2	64.0	1 5/8"	106.2	47.8	1 5/8"	25.2	65.5	37.7	H8-62	914	H8-63	351



Body size inch	Thread A inch	d1 mm	Hex 1 inch	LF mm	d2 mm	Hex 2 inch	L mm	LM mm	Ø mm	Part number female body	Part number male tip
----------------	---------------	-------	------------	-------	-------	------------	------	-------	------	-------------------------	----------------------

Female BSPP thread

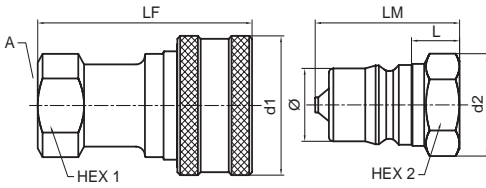
1 1/2"	1 1/4	76.2	2 3/8"	123.4	69.9	2 3/8"	67.5	120.9	44.5	H12-62L-BSPP	H12-63L-BSPP
	1 1/2	76.2	2 3/8"	127.3	69.9	2 3/8"	67.5	124.7	44.5	H12-62N-BSPP	H12-63N-BSPP
2 1/2"	2	101.1	3 3/4"	145.0	104.1	3 3/4"	77.3	142.7	63.2	H2016-62-BSPP	H2016-63-BSPP
	2 1/2	101.1	3 3/4"	170.2	104.1	3 3/4"	102.3	167.9	63.2	H2020-62-BSPP	H2020-63-BSPP
	3	101.1	4"	180.3	104.1	4"	112.7	178.0	63.2	H2024-62-BSPP	H2024-63-BSPP

Female NPTF thread

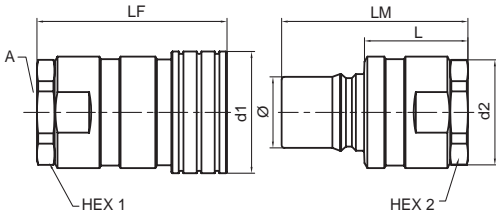
1 1/2"	1 1/4-11 1/2	76.2	2 3/8"	123.4	69.9	2 3/8"	67.3	120.9	44.5	H12-62L	H12-63L
	1 1/2-11 1/2	76.2	2 3/8"	123.4	69.9	2 3/8"	67.3	120.9	44.5	H12-62N	H12-63N
2 1/2"	2-11 1/2	101.1	3 3/4"	141.5	104.1	3 3/4"	73.7	139.2	63.2	H2016-62	H2016-63
	2 1/2-8	101.1	3 3/4"	153.4	104.1	3 3/4"	85.6	151.1	63.2	H2020-62	H2020-63
	3-8	101.1	4"	176.8	104.1	4"	109.0	174.5	63.2	H2024-62	H2024-63

Note : Quick couplings with UNF thread are also available upon request. Please consult us for these configurations.

AISI 303 STAINLESS STEEL COUPLERS



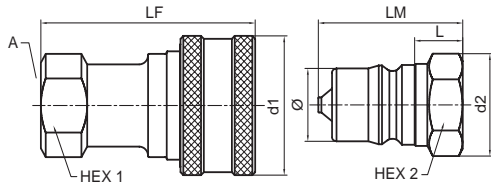
Body size inch	Thread A inch	d1 mm	Hex 1	LF mm	d2 mm	Hex 2	L mm	LM mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Female BSPP thread													
1/8"	1/8	24.0	14 mm	48.3	16.4	17 mm	10.5	29.5	10.8	SH1-62-BSPP	81	SH1-63-BSPP	18
1/4"	1/4	29.0	19 mm	61.2	21.9	19 mm	16.6	39.1	14.2	SH2-62-BSPP	129	SH2-63-BSPP	36
3/8"	3/8	35.6	22 mm	65.6	25.3	22 mm	14.5	44.7	19.1	SH3-62-BSPP	245	SH3-63-BSPP	69
1/2"	1/2	45.0	1 1/8"	72.3	32.8	30 mm	16.3	49.3	23.5	SH4-62-BSPP	360	SH4-63-BSPP	122
3/4"	3/4	54.4	1 5/16"	93.2	40.3	35 mm	19.0	57.7	31.4	SH6-62-BSPP	603	SH6-63-BSPP	217
1"	1	64.0	1 5/8"	106.2	47.8	1 5/8"	25.2	65.5	37.7	SH8-62-BSPP	908	SH8-63-BSPP	345
Female NPTF thread													
1/8"	1/8-27	24.4	11/16"	48.3	16.5	9/16"	10.5	29.5	10.8	SH1-62	83	SH1-63	18
1/4"	1/4-18	29.0	13/16"	57.4	21.9	19 mm	12.7	35.3	14.2	SH2-62	128	SH2-63	37
3/8"	3/8-18	35.6	7/8"	63.2	25.7	7/8"	13.1	38.1	19.1	SH3-62	186	SH3-63	58
1/2"	1/2-14	45.0	1 1/8"	72.9	33.0	1 1/8"	16.4	44.5	23.5	SH4-62	341	SH4-63	109
3/4"	3/4-14	54.4	1 5/16"	90.4	40.4	1 3/8"	19.1	54.9	31.4	SH6-62	595	SH6-63	212
1"	1-11 1/2	64.0	1 5/8"	106.2	47.8	1 5/8"	25.2	65.5	37.7	SH8-62	924	SH8-63	356



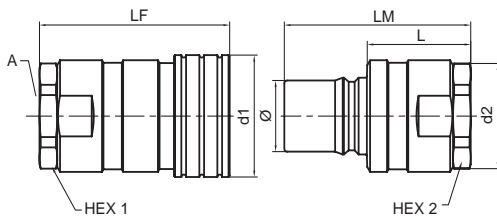
Body size inch	Thread A inch	d1 mm	Hex 1 inch	LF mm	d2 mm	Hex 2 inch	L mm	LM mm	Ø mm	Part number female body	Part number male tip
Female BSPP thread											
1 1/2"	1 1/4	76.2	2 1/2"	123.4	69.9	2 1/2"	67.5	120.9	44.5	SH12-62L-BSPP	SH12-63L-BSP
	1 1/2	76.2	2 1/2"	127.3	69.9	2 1/2"	67.5	124.7	44.5	SH12-62N-BSPP	SH12-63N-BSPP
2 1/2"	2	101.1	3 3/4"	145.0	104.1	3 3/4"	77.3	142.7	63.2	SH2016-62-BSPP	SH2016-63-BSPP
	2 1/2	101.1	3 3/4"	170.2	104.1	3 3/4"	102.3	167.9	63.2	SH2020-62-BSPP	SH2020-63-BSPP
	3	101.1	4"	180.3	110.5	4"	112.7	178.0	63.2	SH2024-62-BSPP	SH2024-63-BSPP
Female NPTF thread											
1 1/2"	1 1/4-11 1/2	76.2	2 1/2"	123.4	69.9	2 1/2"	67.3	120.9	44.5	SH12-62L	SH12-63L
	1 1/2-11 1/2	76.2	2 1/2"	123.4	69.9	2 1/2"	67.3	120.9	44.5	SH12-62N	SH12-63N
2 1/2"	2-11 1/2	101.1	3 3/4"	141.5	104.1	3 3/4"	73.7	139.2	63.2	SH2016-62	SH2016-63
	2 1/2-8	101.1	3 3/4"	153.4	104.1	3 3/4"	85.6	151.1	63.2	SH2020-62	SH2020-63
	3-8	101.1	4"	176.8	110.5	4"	109.0	174.5	63.2	SH2024-62	SH2024-63

Note : Quick couplings with UNF thread are also available upon request. Please consult us for these configurations.

AISI 316 STAINLESS STEEL COUPLERS



Body size inch	Thread A inch	d1 mm	Hex 1	LF mm	d2 mm	Hex 2	L mm	LM mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Female BSPP thread													
1/8"	1/8	24.0	11/16"	48.3	16.4	9/16"	10.5	29.5	10.8	SSH1-62Y-BSPP*	74	SSH1-63Y-BSPP*	22
1/4"	1/4	29.0	19 mm	57.0	21.9	19 mm	12.6	39.1	14.2	SSH2-62Y-BSPP*	146	SSH2-63Y-BSPP*	42
3/8"	3/8	35.6	1"	69.9	25.3	7/8"	19.7	44.7	19.1	SSH3-62Y-BSPP*	187	SSH3-63Y-BSPP*	60
1/2"	1/2	45.0	1 1/8"	77.5	33.4	1 1/8"	21.1	44.5	23.5	SSH4-62Y-BSPP*	367	SSH4-63Y-BSPP*	123
3/4"	3/4	54.4	1 5/16"	93.2	40.4	1 3/8"	21.9	57.7	31.4	SSH6-62Y-BSPP*	610	SSH6-63Y-BSPP*	218
1"	1	64.0	1 5/8"	106.2	47.2	1 5/8"	25.2	65.5	37.7	SSH8-62Y-BSPP*	899	SSH8-63Y-BSPP*	340
Female NPTF thread													
1/8"	1/8-27	24.4	11/16"	48.3	16.5	9/16"	10.5	29.5	10.8	SSH1-62Y*	74	SSH1-63Y*	18
1/4"	1/4-18	29.0	13/16"	57.4	19.1	3/4"	12.7	35.3	14.2	SSH2-62Y*	138	SSH2-63Y*	37
3/8"	3/8-18	35.4	7/8"	63.2	25.7	7/8"	13.1	38.1	19.1	SSH3-62Y*	180	SSH3-63Y*	55
1/2"	1/2-14	45.0	1 1/8"	72.9	33.0	1 1/8"	16.4	44.5	23.5	SSH4-62Y*	346	SSH4-63Y*	109
3/4"	3/4-14	54.4	1 5/16"	90.4	40.4	1 3/8"	19.1	54.9	31.4	SSH6-62Y*	592	SSH6-63Y*	210
1"	1-11 1/2	64.0	1 5/8"	106.2	47.8	1 5/8"	25.2	65.5	37.7	SSH8-62Y*	901	SSH8-63Y*	345

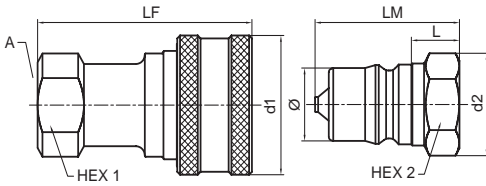


Body size inch	Thread A inch	d1 mm	Hex 1 inch	LF mm	d2 mm	Hex 2 inch	L mm	LM mm	Ø mm	Part number female body	Part number male tip
Female BSPP thread											
1 1/2"	1 1/4	76.2	2 3/8"	123.4	69.9	2 3/8"	67.5	120.9	44.5	SSH12-62LY-BSPP*	SSH12-63LY BSPP*
	1 1/2	76.2	2 3/8"	127.3	69.9	2 3/8"	67.5	124.7	44.5	SSH12-62NY-BSPP*	SSH12-63NY-BSPP*
2 1/2"	2	101.1	3 3/4"	145.0	104.1	3 3/4"	77.3	142.7	63.2	SSH2016-62Y-BSPP*	SSH2016-63Y-BSPP*
	2 1/2	101.1	3 3/4"	170.2	104.1	3 3/4"	102.3	167.9	63.2	SSH2020-62Y-BSPP*	SSH2020-63Y-BSPP*
	3	101.1	4"	180.3	110.5	4"	112.7	178.0	63.2	SSH2024-62Y-BSPP*	SSH2024-63Y-BSPP*
Female NPTF thread											
1 1/2"	1 1/4-11 1/2	76.2	2 3/8"	123.4	69.9	2 3/8"	67.3	120.9	44.5	SSH12-62LY*	SSH12-63LY*
	1 1/2-11 1/2	76.2	2 3/8"	123.4	69.9	2 3/8"	67.3	120.9	44.5	SSH12-62NY*	SSH12-63NY*
2 1/2"	2-11 1/2	101.1	3 3/4"	141.5	104.1	3 3/4"	73.7	139.2	63.2	SSH2016-62Y*	SSH2016-63Y*
	2 1/2-8	101.1	3 3/4"	153.4	104.1	3 3/4"	85.6	151.1	63.2	SSH2020-62Y*	SSH2020-63Y*
	3-8	101.1	4"	176.8	110.5	4"	109.0	174.5	63.2	SSH2024-62Y*	SSH2024-63Y*

* Suffix "Y" designates FKM (Viton™) seal.

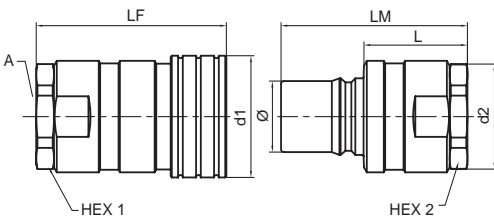
Note : Quick couplings with UNF thread are also available upon request. Please consult us for these configurations.

BRASS COUPLERS



Body size inch	Thread A inch	d1 mm	Hex 1	LF mm	d2 mm	Hex 2	L mm	LM mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Female BSPP thread													
1/8"	1/8	24.4	14 mm	48.3	16.1	14 mm	10.5	32.5	10.8	BH1-60-BSPP	87	BH1-61-BSPP	19
1/4"	1/4	29.0	19 mm	61.2	21.9	19 mm	16.6	39.1	14.2	BH2-60-BSPP	158	BH2-61-BSPP	45
3/8"	3/8	35.6	1"	69.9	25.7	7/8"	19.7	44.7	19.1	BH3-60-BSPP	260	BH3-61-BSPP	74
1/2"	1/2	45.0	1 1/8"	77.5	33.0	1 1/8"	21.1	49.3	23.5	BH4-60-BSPP	383	BH4-61-BSPP	131
3/4"	3/4	54.4	33 mm	90.4	40.3	1 3/8"	21.9	57.7	31.4	BH6-60-BSPP	642	BH6-61-BSPP	235
1"	1	64.0	41 mm	106.2	47.2	41 mm	25.2	73.8	37.7	BH8-60-BSPP	971	BH8-61-BSPP	368

Female NPTF thread													
1/8"	1/8-27	24.4	11/16"	48.3	16.4	9/16"	10.5	29.5	10.8	BH1-60	80	BH1-61	19
1/4"	1/4-18	29.0	13/16"	57.4	22.1	4/3"	12.7	35.3	14.2	BH2-60	145	BH2-61	46
3/8"	3/8-18	35.6	7/8"	63.2	25.7	7/8"	13.1	38.1	19.1	BH3-60	195	BH3-61	62
1/2"	1/2-14	45.0	1 1/8"	72.9	33.0	1 1/8"	16.4	44.5	23.5	BH4-60	365	BH4-61	118
3/4"	3/4-14	54.4	1 5/16"	90.4	40.4	1 3/8"	19.1	54.9	31.4	BH6-60	630	BH6-61	229
1"	1-11 1/2	64.0	1 5/8"	106.2	47.8	1 5/8"	25.2	65.5	37.7	BH8-60	980	BH8-61	378



Body size inch	Thread A inch	d1 mm	Hex 1 inch	LF mm	d2 mm	Hex 2 inch	L mm	LM mm	Ø mm	Part number female body	Part number male tip
Female BSPP thread											
1 1/2"	1 1/4	76.2	2 3/8"	123.4	75.1	2 3/8"	67.5	120.9	44.5	BH12-60L-BSPP	BH12-61L-BSPP
	1 1/2	76.2	2 3/8"	127.3	75.1	2 3/8"	67.5	124.7	44.5	BH12-60N-BSPP	BH12-61N-BSPP
2 1/2"	2	101.1	3 3/4"	145.0	104.1	3 3/4"	77.3	142.7	63.2	BH2016-60-BSPP	BH2016-61-BSPP
	2 1/2	101.1	3 3/4"	170.2	104.1	3 3/4"	102.3	167.9	63.2	BH2020-60-BSPP	BH2020-61-BSPP
	3	101.1	4"	180.3	104.1	4"	112.7	178.0	63.2	BH2024-60-BSPP	BH2024-61-BSPP
Female NPTF thread											
1 1/2"	1 1/4-11 1/2	76.2	2 3/8"	123.4	75.1	2 3/8"	67.3	120.9	44.5	BH12-60L	BH12-61L
	1 1/2-11 1/2	76.2	2 3/8"	123.4	75.1	2 3/8"	67.3	120.9	44.5	BH12-60N	BH12-61N
2 1/2"	2-11 1/2	101.1	3 3/4"	141.5	104.1	3 3/4"	73.7	139.2	63.2	BH2016-60	BH2016-61
	2 1/2-8	101.1	3 3/4"	153.4	104.1	3 3/4"	85.6	151.1	63.2	BH2020-60	BH2020-61
	3-8	101.1	4"	176.8	104.1	4"	109.0	174.5	63.2	BH2024-60	BH2024-61

Note : Quick couplings with UNF thread are also available upon request. Please consult us for these configurations.

Options

Heavy duty nipples:

Parker 60 series heavy duty nipples are recommended for extended life in applications where high cycle rates and pressure surges are encountered. Machined from high tensile steel and specially hardened. To specify a heavy duty nipple, add the prefix **HD** to the steel series part number, thus: **HDH2-63** and contact us.

Sleeve-lock:

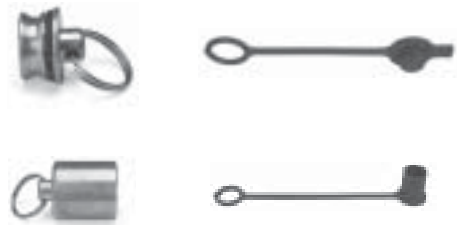
60 series couplers (as well as sleeve type couplers) are available with safety locking sleeves. Please add the suffix **SL** to the part number, e.g. **H3-62SL** and contact us.

Seals:

Other seal materials (Ethylene Propylene – EPDM, Neoprene – CR, Perfluoroelastomer – Kalrez™) are available upon request. Please contact us for further information.

Dust caps and plugs

Body size inch	Plug part number for female body		Cap part number for male tip	
	Aluminium	Rubber	Aluminium	Rubber
1/8"	H1-65	H1-65M	H1-66	H1-66M
1/4"	H2-65	H2-65M	H2-66	H2-66M
3/8"	H3-65	H3-65M	H3-66	H3-66M
1/2"	H4-65	H4-65M	H4-66	H4-66M
3/4"	H6-65	H6-65M	H6-66	H6-66M
1"	H8-65	H8-65M	H8-66	H8-66M
1 1/2"	H12-65	-	H12-66	-














Stainless steel AISI 316 dust plugs and caps are available upon request. Please consult us.

Replacement seals

Body size inch	Body seal		Back-up ring* PTFE
	NBR (Nitrile)	FKM (Viton™)	
1/8"	JT020013N0674	JT020013V0747	H67A-28
1/4"	JT020015N0674	JT020015V0747	H67C-28
3/8"	JT020116N0674	JT020116V0747	4118007
1/2"	JT020213N0674	JT020213V0747	4128002
3/4"	JT020218N0674	JT020218V0747	4148001
1"	JT020222N0674	JT020222V0747	4158001
1 1/2"	JT020224N0674	JT020224V0747	-
	(2 body seals necessary)	(2 body seals necessary)	-
2 1/2"	JT020333N0674	JT020333V0747	-



*Brass 60 series couplers use two O-rings but do not use a back-up ring.

			 max							
Inter-changeable with similar models	Steel	from 1/4" to 1"	30 Mpa	-20°C + 100°C	NBR	Push-to-Connect	Flush-faced poppet	No	Ball locking mechanism with security	BSPP

Main characteristics

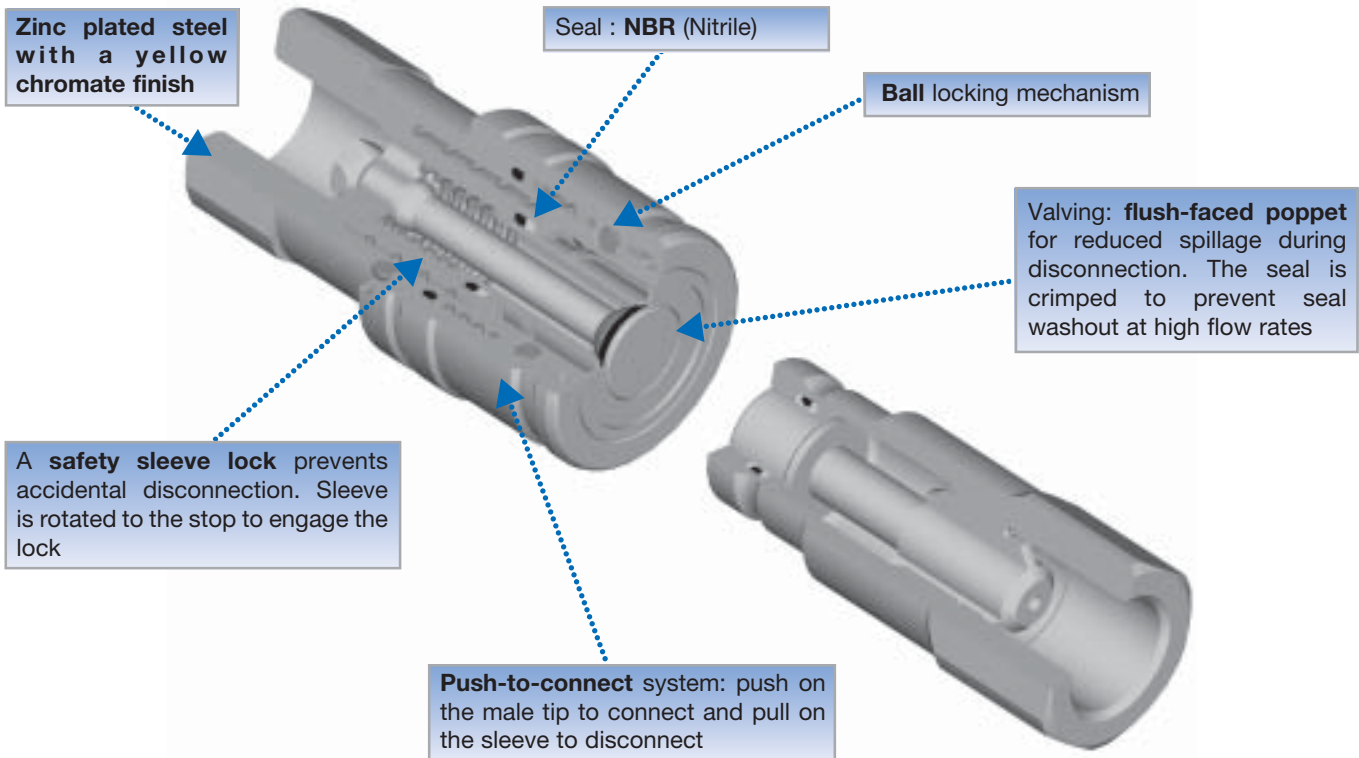
- Dimensions meet the requirement of **ISO 16028**
- Minimal fluid loss during disconnection
- Minimal inclusion of air or external contamination during connection
- Safety system protecting against accidental disconnection
- Minimal pressure drop

Applications

- Industrial applications
- Agriculture
- Road service vehicles, snow ploughs
- Construction: excavators, rock hammers...



Technical features



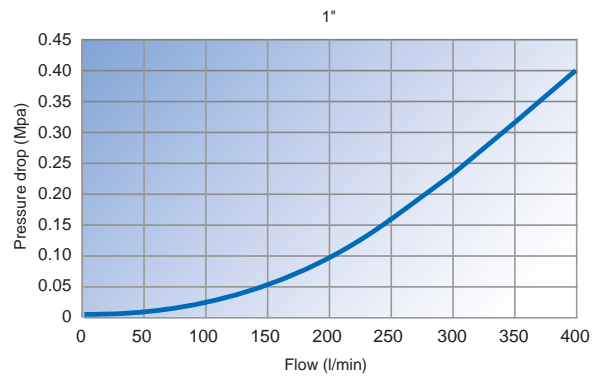
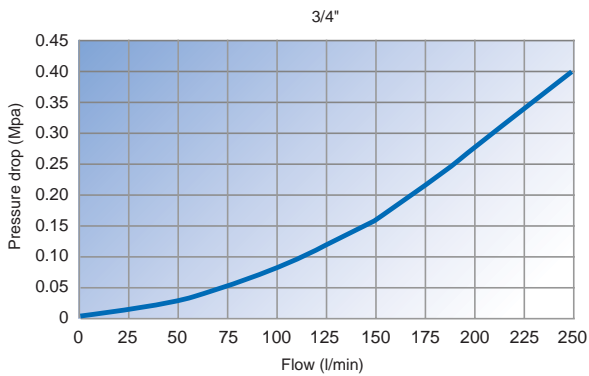
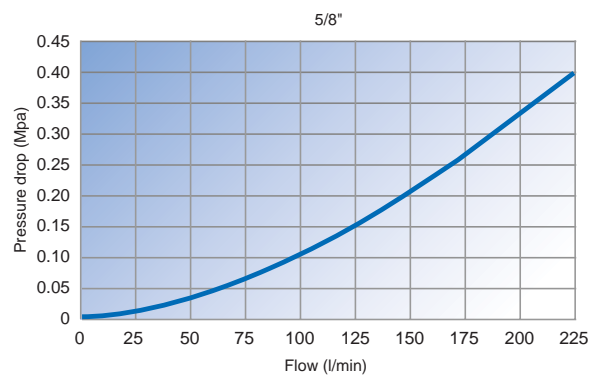
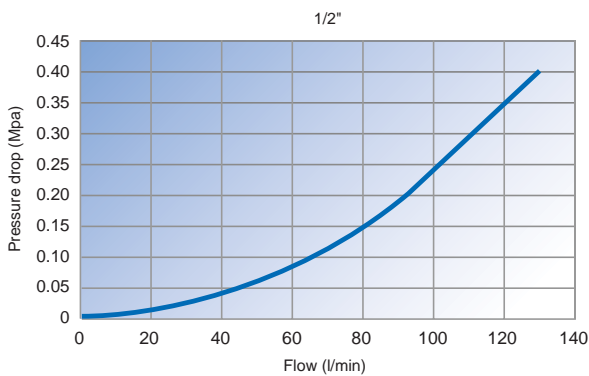
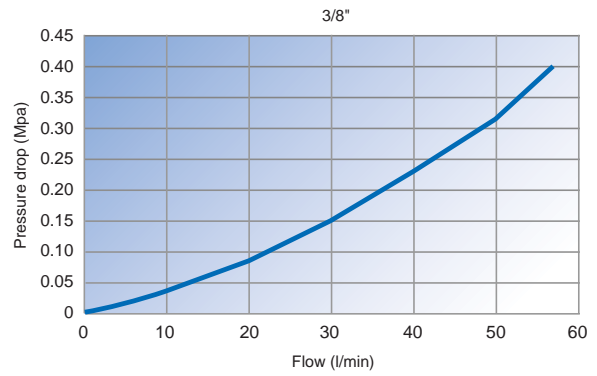
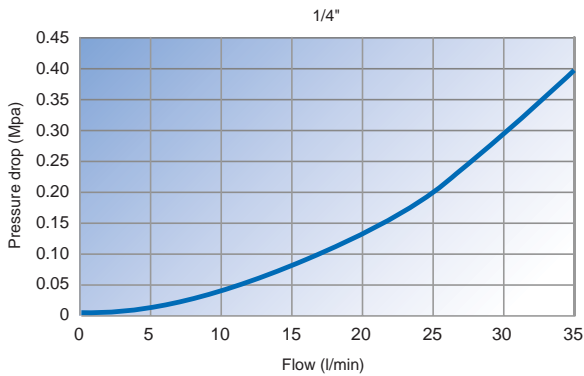
Technical performance data

Body size inch	Temperature range	Max. operating pressure connected* Mpa	Min. burst pressure connected* Mpa
1/4"	-20°C + 100°C	30	120
3/8"		30	120
1/2"		25	100
5/8"		25	100
3/4"		25	100
1"		25	100

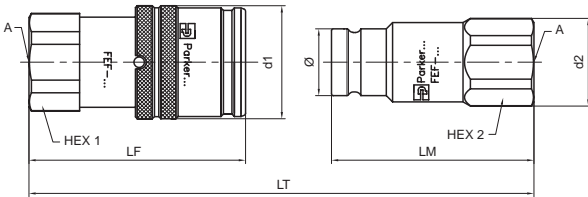
*Warning : the maximum operating pressure and the burst pressure are valid only for the connected position. Do not use the female body disconnected with pressure impulses.

Pressure drop

Tests with oil viscosity 43 cSt at 38° C.



Dimensions and part numbers



Body size inch	Thread A inch	d1 mm	Hex 1 mm	LF mm	d2 mm	Hex 2 mm	LM mm	LT connected mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Female BSPP thread													
1/4"	1/4	29.5	22	48.1	23.8	22	47.9	85.2	16.1	FEF-251-4FB	147	FEF-252-4FB	86
3/8"	3/8	33.5	27	64.2	26.0	24	60.0	108.7	19.7	FEF-371-6FB	247	FEF-372-6FB	121
	1/2	33.5	27	69.2	29.0	27	62.5	116.2	19.7	FEF-371-8FB	249	FEF-372-8FB	128
1/2"	1/2	39.5	32	73.8	33.8	32	68.0	124.6	24.5	FEF-501-8FB	390	FEF-502-8FB	233
	3/4	39.5	36	80.8	38.5	36	70.5	134.1	24.5	FEF-501-12FB	428	FEF-502-12FB	227
5/8"	3/4	43.5	36	78.5	38.5	36	70.5	131.5	27.0	FEF-621-12FB	499	FEF-622-12FB	268
3/4"	1	49.5	45	93.2	47.8	45	82.3	153.7	30.0	FEF-751-16FB	811	FEF-752-16FB	394
1"	1-1/4	56.5	55	106.0	59.8	55	89.8	172.8	36.0	FEF-1001-20FB	1266	FEF-1002-20FB	641

Dust caps and plugs

Plastic

Body size inch	Plug part number for female body	Cap part number for male tip
1/4"	PFE-251-P	CFE-252-P
3/8"	PFE-371-P	CFE-372-P
1/2"	PFE-501-P	CFE-502-P
5/8"	PFE-621-P	CFE-622-P
3/4"	PFE-751-P	CFE-752-P
1"	PFE-1001-P	CFE-1002-P














Automatic dust cap for female body

Plastic

Body size inch	Cap part number for male tip
1/4"	DFE-251-P
3/8"	DFE-371-P
1/2"	DFE-501-P
5/8"	DFE-621-P
3/4"	DFE-751-P
1"	DFE-1001-P



Note : Standard dust caps and plugs are black. Please consult us for other colours

			 max 31.5 Mpa	 -20°C + 100°C						
ISO 16028 and HTMA (for size 3/8")	Steel	from 1/4" to 1"	31.5 Mpa	-20°C + 100°C	NBR	Push-to-Connect	Flush-faced poppet	No	Ball locking mechanism with security	BSPP, metric

Main characteristics

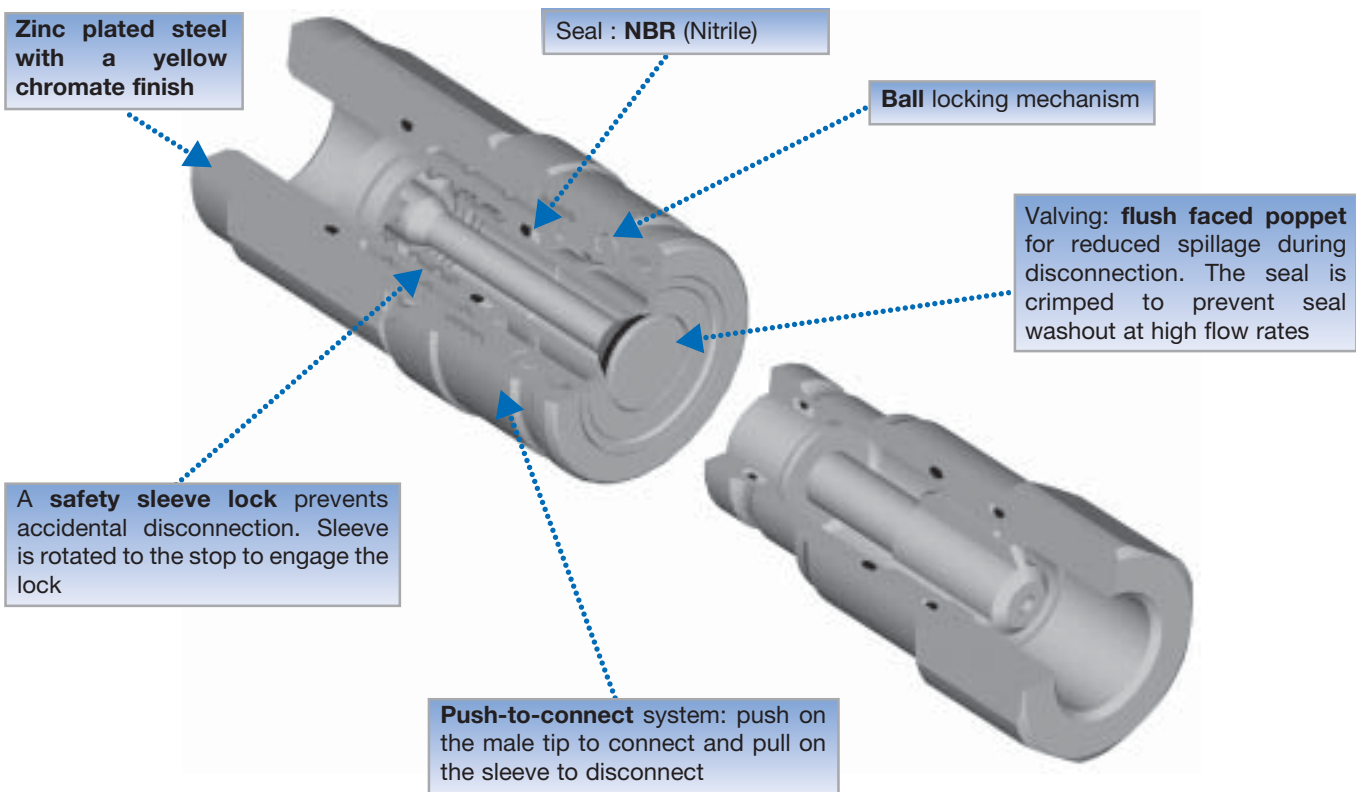
- Meets the requirements of **ISO 16028**
- Minimal fluid loss during disconnection
- Minimal inclusion of air or external agents during connection
- Safety system protecting against accidental disconnection
- Modular construction: broad choice of end configurations
- Minimal pressure drop

Applications

- Hydraulic applications: excavators, rock hammers, drilling rigs
- Road service vehicles, snow ploughs...
- Difficult working conditions: pressure impulses



Technical features

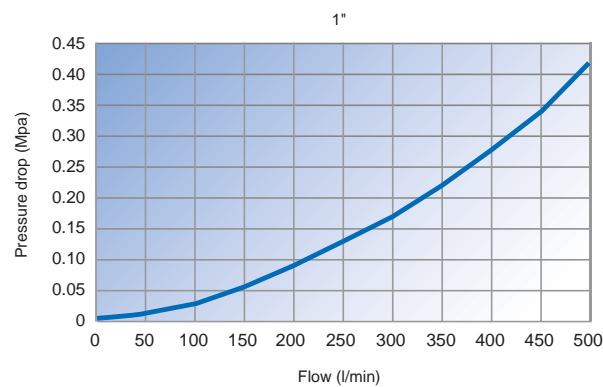
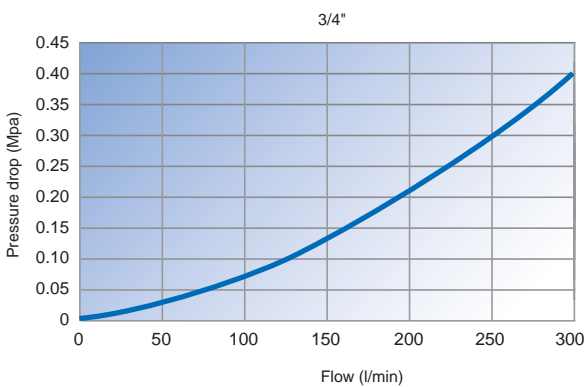
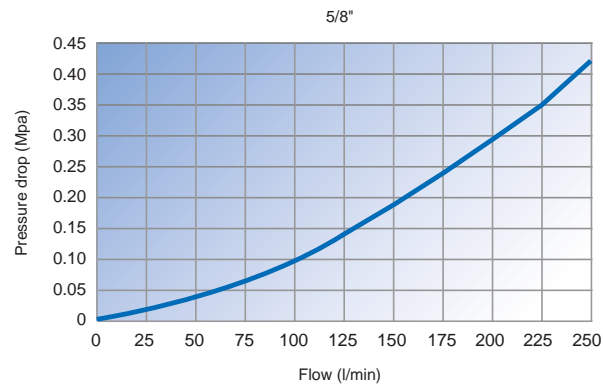
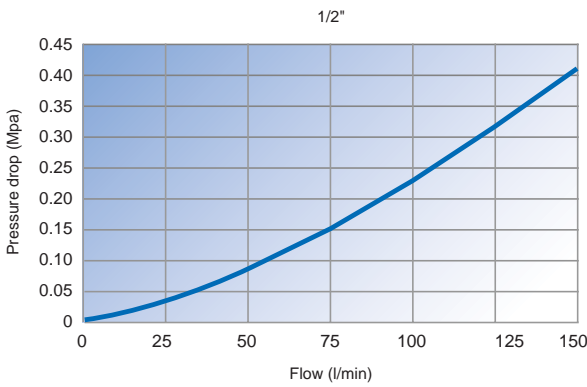
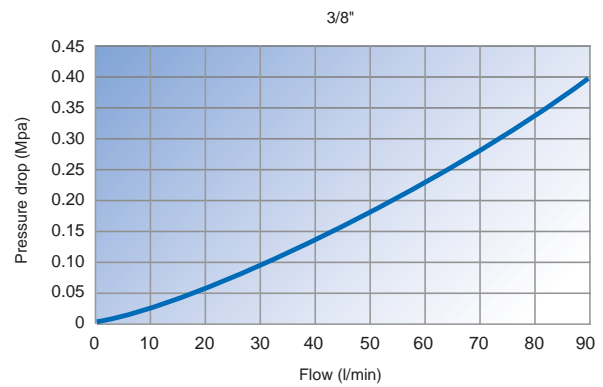
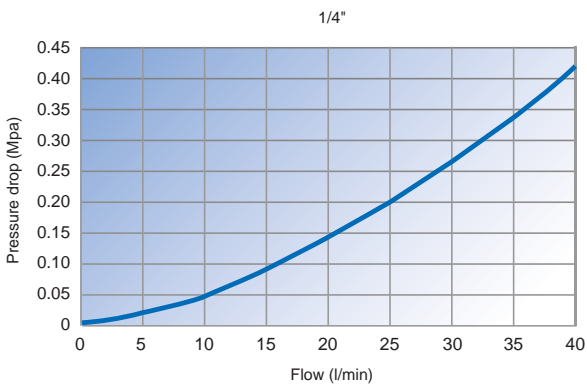


Technical performance data

Body size inch	Temperature range	Max. operating pressure Mpa	Min. burst pressure Mpa
1/4"	-20°C + 100°C	31.5	126
3/8"		25.0	100
1/2"		25.0	100
5/8"		25.0	100
3/4"		25.0	100
1"		20.0	80

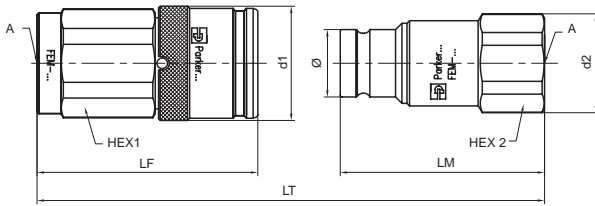
Pressure drop

Tests with oil viscosity 43 cSt at 38° C.



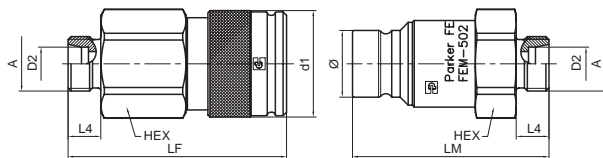
Dimensions and part numbers

Female BSPP thread – DIN 3852



Body size inch	Thread A inch	d1 mm	Hex 1 mm	LF mm	d2 mm	Hex 2 mm	LM mm	LT connected mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Female BSPP thread													
1/4"	1/4	29.5	27	53.1	23.8	22	47.9	90.2	16.1	FEM-251-4FB	193	FEM-252-4FB	86
3/8"	3/8	33.5	30	64.8	29.0	27	60.0	108.8	19.7	FEM-371-6FB	286	FEM-372-6FB	146
	1/2	33.5	30	69.8	29.0	27	62.5	116.3	19.7	FEM-371-8FB	286	FEM-372-8FB	146
1/2"	1/2	39.5	36	76.8	35.0	32	68.0	127.6	24.5	FEM-501-8FB	467	FEM-502-8FB	235
	3/4	39.5	36	83.8	40.0	36	70.5	137.1	24.5	FEM-501-12FB	477	FEM-502-12FB	273
5/8"	3/4	43.5	41	84.0	38.5	36	73.0	139.5	27.0	FEM-621-12FB	640	FEM-622-12FB	299
3/4"	1	49.5	46	98.8	49.8	46	83.7	160.7	30.0	FEM-751-16FB	983	FEM-752-16FB	475
1"	1-1/4	56.5	55	105.8	59.8	55	90.0	172.8	36.0	FEM-1001-20FB	1365	FEM-1002-20FB	706

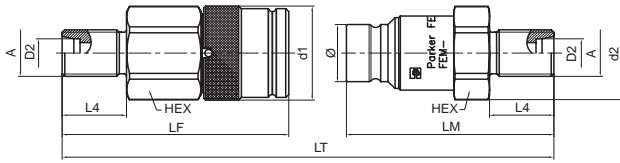
24° cone – DIN 2353



Body size inch	Series	Tube O/D D2	DN mm	Thread A mm	d1 mm	Hex mm	LF mm	d2 mm	LM mm	LT connected mm	L4 mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Male metric thread																
3/8"	L*	10	8	M16X1.5	33.5	30	69.6	32	65.5	119.1	11	19.7	FEM-371-16MCL	270	FEM-372-16MCL	155
	L*	12	10	M18X1.5	33.5	30	67.6	32	65.5	117.1	11	19.7	FEM-371-18MCL	262	FEM-372-18MCL	155
	L*	15	12	M22X1.5	33.5	30	68.6	32	66.5	119.1	12	19.7	FEM-371-22MCL	268	FEM-372-22MCL	161
1/2"	L*	12	10	M18X1.5	39.5	36	79.1	40	71.0	132.9	11	24.5	FEM-501-18MCL	433	FEM-502-18MCL	259
	L*	15	12	M22X1.5	39.5	36	80.1	40	72.0	134.9	12	24.5	FEM-501-22MCL	441	FEM-502-22MCL	265
3/4"	L*	18	16	M26X1.5	49.5	46	101.3	49.8	89.0	168.5	12	30.0	FEM-751-26MCL	979	FEM-752-26MCL	491
	L*	22	20	M30X2	49.5	46	100.3	49.8	89.0	167.4	14	30.0	FEM-751-30MCL	955	FEM-752-30MCL	480

*Light series

24° cone – DIN 2353 - Bulkhead



Body size inch	Series	Tube O/D D2	DN mm	Thread A mm	d1 mm	Hex mm	LF mm	d2 mm	LM mm	LT connected mm	L4 mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Male metric thread																
3/8"	L*	10	8	M16X1.5	33.5	30	84.6	32.0	80.5	149.1	26	19.7	FEM-371-16BMCL	284	FEM-372-16BMCL	169
	L*	12	10	M18X1.5	33.5	30	82.6	32.0	80.5	147.1	26	19.7	FEM-371-18BMCL	279	FEM-372-18BMCL	171
	L*	15	12	M22X1.5	33.5	30	83.6	32.0	81.5	149.1	27	19.7	FEM-371-22BMCL	296	FEM-372-22BMCL	188
1/2"	L*	12	10	M18X1.5	39.5	36	94.1	40.0	86.0	162.9	26	24.5	FEM-501-18BMCL	451	FEM-502-18BMCL	275
	L*	15	12	M22X1.5	39.5	36	95.1	40.0	87.0	164.9	27	24.5	FEM-501-22BMCL	467	FEM-502-22BMCL	292
3/4"	L*	18	16	M26X1.5	49.5	46	116.3	49.8	104.0	198.5	27	30.0	FEM-751-26BMCL	1019	FEM-752-26BMCL	531
	L*	22	20	M30X2	49.5	46	120.3	49.8	109.0	207.5	34	30.0	FEM-751-30BMCL	1015	FEM-752-30BMCL	540

*Light series

Dust caps and plugs

Plastic

Body size inch	Plug part number for female body	Cap part number for male tip
1/4"	PFE-251-P	CFE-252-P
3/8"	PFE-371-P	CFE-372-P
1/2"	PFE-501-P	CFE-502-P
5/8"	PFE-621-P	CFE-622-P
3/4"	PFE-751-P	CFE-752-P
1"	PFE-1001-P	CFE-1002-P










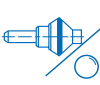
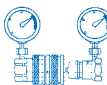


Automatic dust cap for female body

Plastic

Body size inch	Cap part number for male tip
1/4"	DFE-251-P
3/8"	DFE-371-P
1/2"	DFE-501-P
5/8"	DFE-621-P
3/4"	DFE-751-P
1"	DFE-1001-P



Note : Standard dust caps and plugs are black. Please consult us for other colours

			 max							
Inter-changeable with similar models	Steel	1/4"	150 Mpa	-30°C + 110°C	NBR	Manual	Flat-faced poppet	No	Ball locking mechanism with security	BSPP

Main characteristics

- High pressure coupler up to **150 Mpa**
- Interchangeable with similar products
- Reduced spillage
- Maximal security due to a positive locking mechanism
- Robust aluminium dust caps and plugs

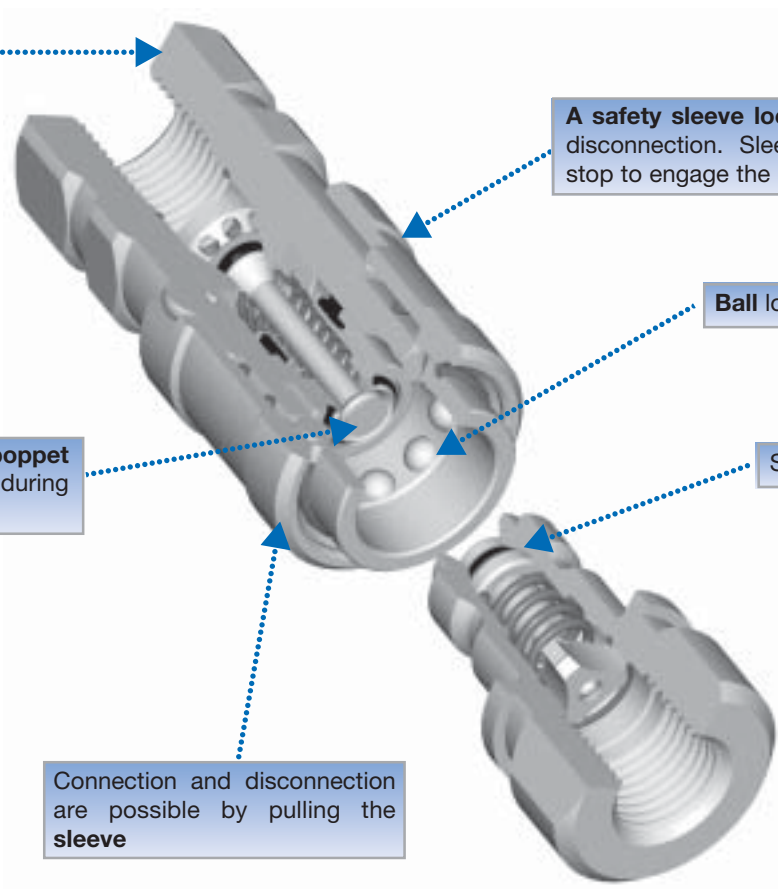
Applications

- Very high pressure hydraulic equipment, clamping devices, torque wrenches, nut runners
- Cable cutters
- Knockout punches



Technical features

High strength steel.
Zinc plated with a black chromate finish



A safety sleeve lock prevents accidental disconnection. Sleeve is rotated to the stop to engage the lock

Ball locking mechanism

Valving: **flat-faced poppet** for reduced spillage during disconnection

Seal : **NBR (Nitrile)**

Connection and disconnection are possible by pulling the **sleeve**

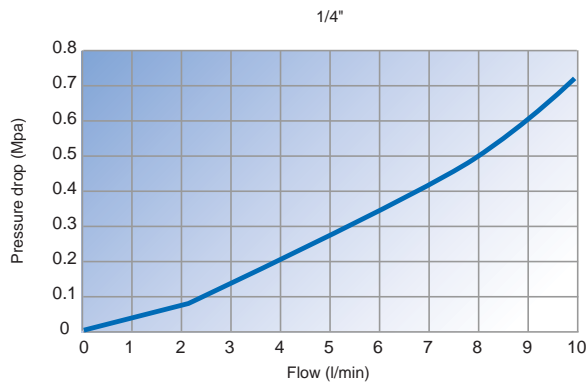
Technical performance data

Body size inch	Temperature range	Max. operating pressure Mpa	Min. burst pressure Mpa	Max. spillage per disconnection* ml
1/4"	-30°C + 110°C	150	>300	0.01

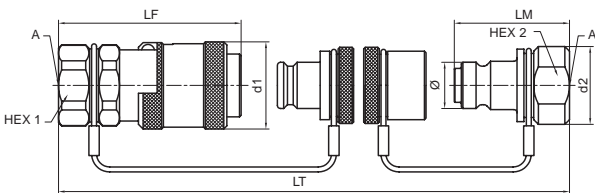
* Test according to ISO 7241-2

Pressure drop

Test with oil viscosity 43 cSt at 38°C.



Dimensions and part numbers











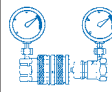


Body size inch	Thread A inch	d1 mm	Hex 1 mm	LF mm	d2 mm	Hex 2 mm	LM mm	LT connected mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Female BSPP thread										Without plug		Without cap	
1/4"	1/4	28	24	58.7	25	22	37	77.2	14.9	CM-251-4FB-TL	175	CM-252-4FB	65
										With plug		With cap	
1/4"	1/4	28	24	58.7	25	22	37	77.2	14.9	CM-251-4FB-TL-P	195	CM-252-4FB-C	80

Note : Other end configurations are possible. Please consult us.

Dust cap and plug

Body size inch	Plug part number for female body	Cap part number for male tip
1/4"	CL-253	CL-254



			 max							
Inter-changeable with similar models	Steel	1/4"	100 Mpa	-30°C + 110°C	NBR	Manual	Flat-faced poppet	No	Ball locking mechanism with security	BSPP

Main characteristics

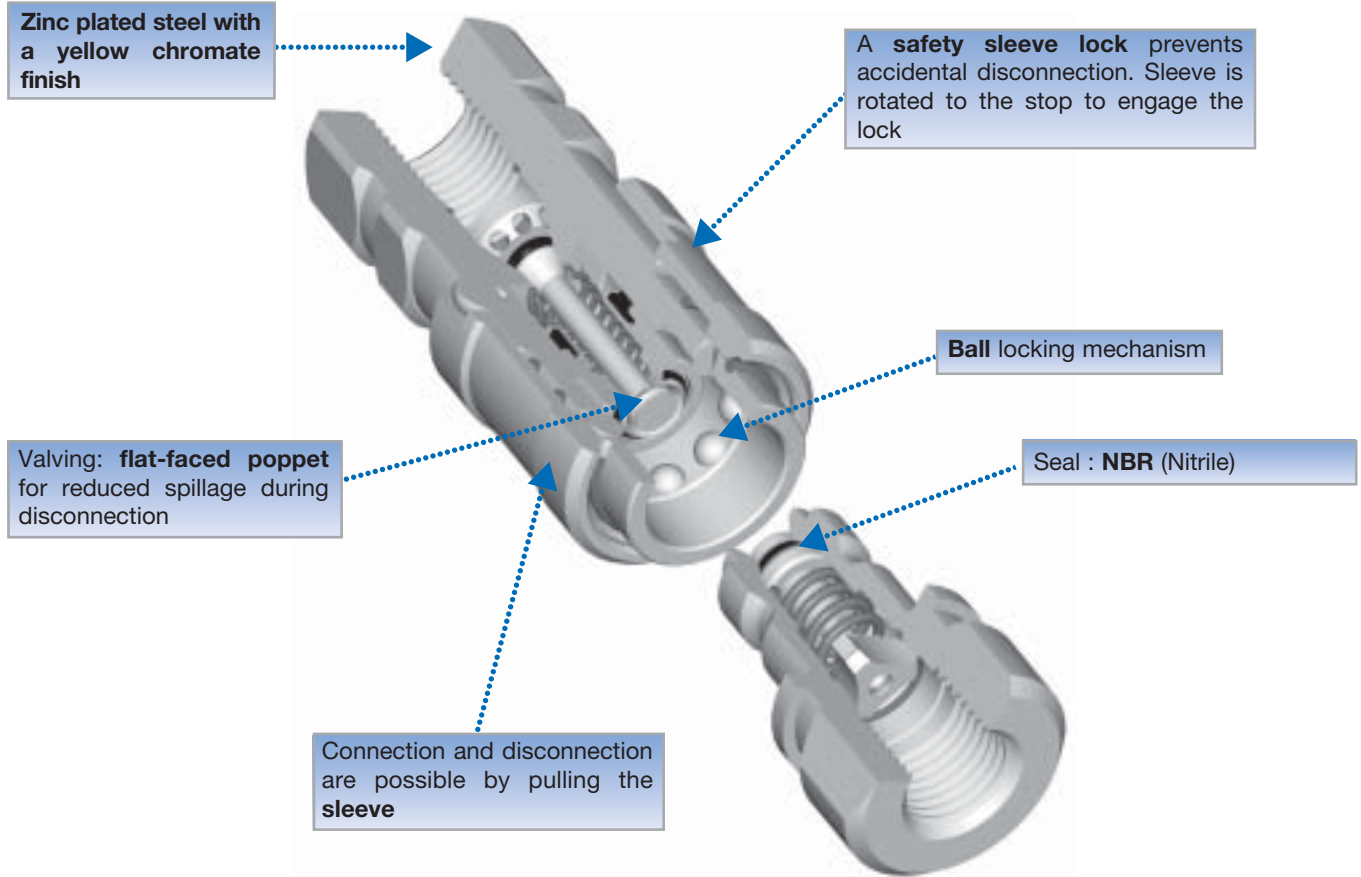
- High pressure coupling up to 100 Mpa
- Interchangeable with similar products
- Reduced spillage
- Maximal security due to a positive locking mechanism

Applications

- Rescue equipment: lifting bags, spreaders, cutters...
- Very high pressure hydraulic equipment: hydraulic jacks, rams, clamping devices, torque wrenches, cable cutters...



Technical features



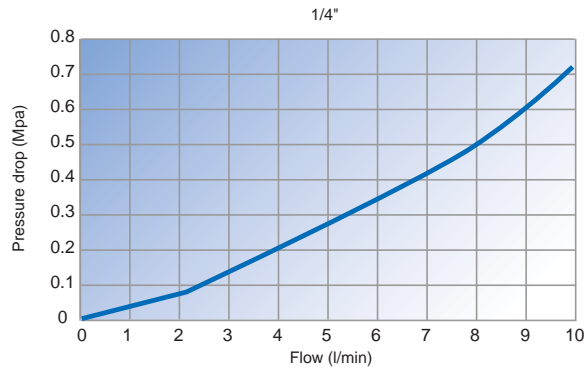
Technical performance data

Body size inch	Temperature range	Max. operating pressure Mpa	Min. burst pressure Mpa	Max. spillage per disconnection* ml
1/4"	-30°C + 110°C	100	>250	0.01

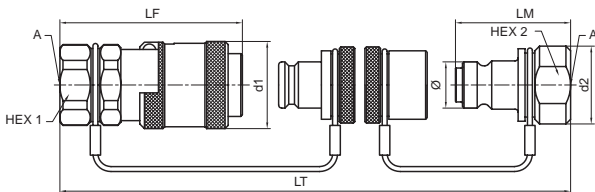
*Test according to ISO 7241-2

Pressure drop

Test with oil viscosity 43 cSt at 38°C.



Dimensions and part numbers










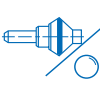
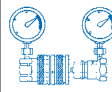


Body size inch	Thread A inch	d1 mm	Hex 1 mm	LF mm	d2 mm	Hex 2 mm	LM mm	LT connected mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Female BSPP thread										Without Plug		Without cap	
1/4"	1/4	28	24	58.7	25	22	37	77.2	14.9	CL-251-4FB-TL	170	CL-252-4FB	60
1/4"	1/4	28	24	58.7	25	22	37	77.2	14.9	CL-251-4FB-TL-P	190	CL-252-4FB-C	75

Note : Other end configurations are possible: 3/8" BSPP and 1/4", 3/8" NPT. Please consult us.

Dust cap and plug

Body size inch	Plug part number for female body	Cap part number for male tip
1/4"	CL-253	CL-254



			 max							
Inter-changeable with similar models	Steel	1/4" & 3/8"	70 Mpa	-30°C + 110°C (NBR seal) -30°C + 80°C (polyurethane seal)	NBR (1/4") Polyurethane (3/8")	Screw-to-connect	Ball or poppet	No	Screw mechanism	NPTF

Main characteristics

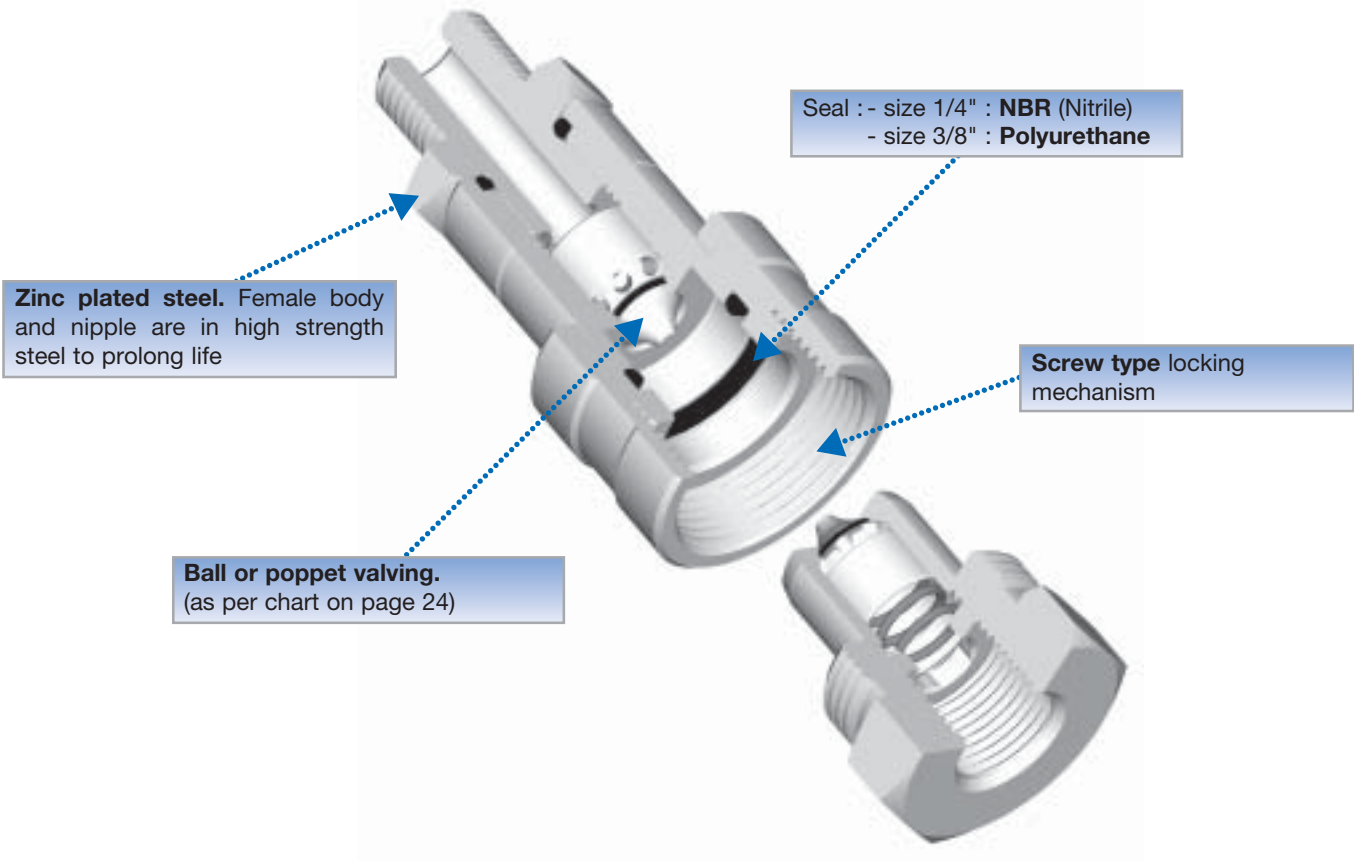
- High pressure coupler up to **70 Mpa**
- Interchangeable with similar products
- Screw locking mechanism
- Ball or poppet valving

Applications

- Portable hydraulic rams
- Hydraulic jacks, rams and clamping devices
- Clamping hand tools
- Rescue equipment



Technical features



It is possible to connect a male tip with a ball valving and a female body with a poppet valving, and vice-versa.

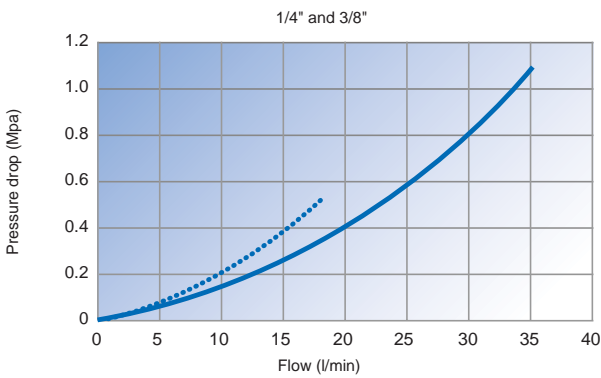
Technical performance data

Body size inch	Temperature range	Max. operating pressure (static) Mpa
1/4"	-30°C +110°C	70
3/8"	-30°C +80°C	70

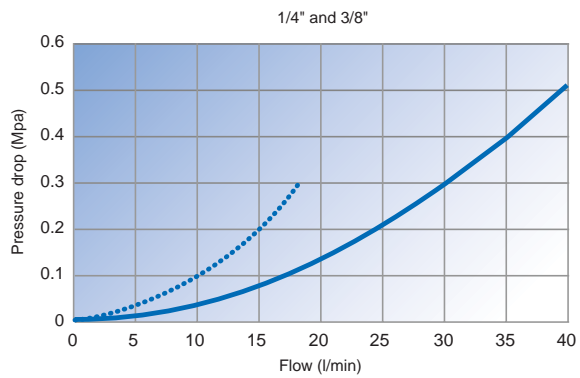
Pressure drop

Test with oil viscosity 43 cSt at 38°C.

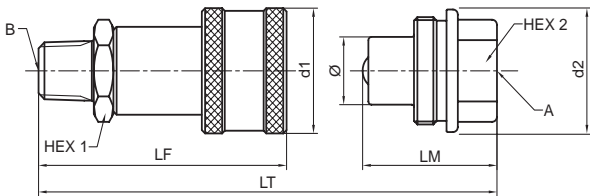
Ball valving



Poppet valving



Dimensions and part numbers



Body size inch	Thread A female	Thread B male	d1 mm	Hex 1	LF mm	d2 mm	Hex 2	LM mm	LT connected mm	Ø mm	Valving Ball Poppet	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
1/4"	1/4	1/4	28.5	22	60.5	28.0	19	32.0	80.0	15.8	● ●	3050-2	115	3010-2	70
	1/4	1/4	29.0	22	60.5	31.0	27	32.0	73.7	15.8	● ●	3050-2P	121	3010-2P	85
3/8"	3/8	3/8	35.0	24	72.0	35.0	32	38.0	85.0	19.0	● ●	3050-3	220	3010-3	115
	3/8	3/8	35.0	1"	73.0	36.8	32	35.1	82.8	19.0	● ●	3050-3P	225	3010-3P	110

Dust caps and plugs









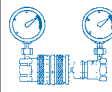




Body size inch	Dust plug part number for female body	Dust cap part number for male tip
1/4"	3005-2	3009-2
3/8"	3005-3	3009-3

Replacement seals



Body size inch	Material	O-ring seal part number
1/4"	NBR (Nitrile)	JT 020114N0552
3/8"	Polyurethane	JT01U28-18.72QE

										
ISO 7241-1-A	Steel	1/4", 3/8", 1/2", 3/4" & 1"	max 35 Mpa	-30°C + 110°C	NBR	Manual	Poppet	No	Ball locking mechanism	BSPP

Main characteristics

- Meets the requirements of **ISO 7241-1-Series A**
- Reference couplings on the agricultural market

Applications

- Used for a wide range of agricultural applications: tractors, accessories...
- Mobile and construction equipment
- In-plant machinery: hydroelectric power stations, hand tools



Technical features

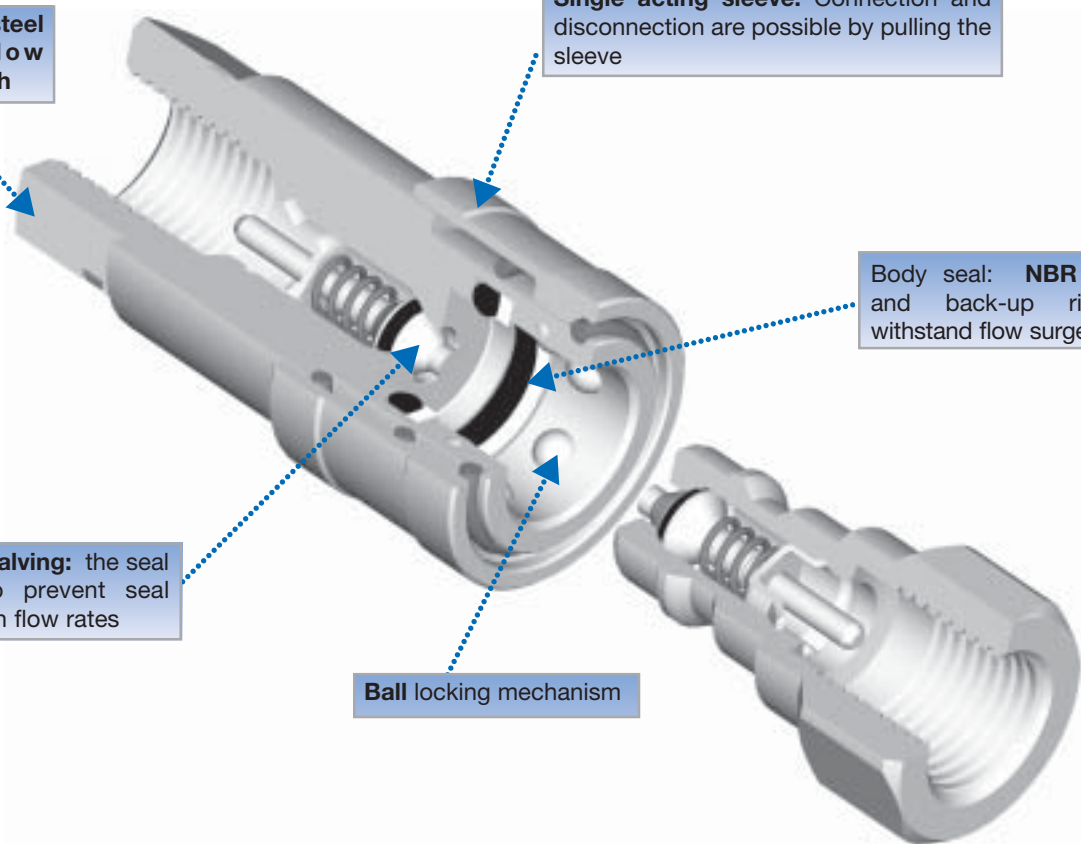
Zinc plated steel with a yellow chromate finish

Single acting sleeve. Connection and disconnection are possible by pulling the sleeve

Body seal: **NBR** (Nitrile) and back-up ring to withstand flow surges

Poppet style valving: the seal is crimped to prevent seal washout at high flow rates

Ball locking mechanism

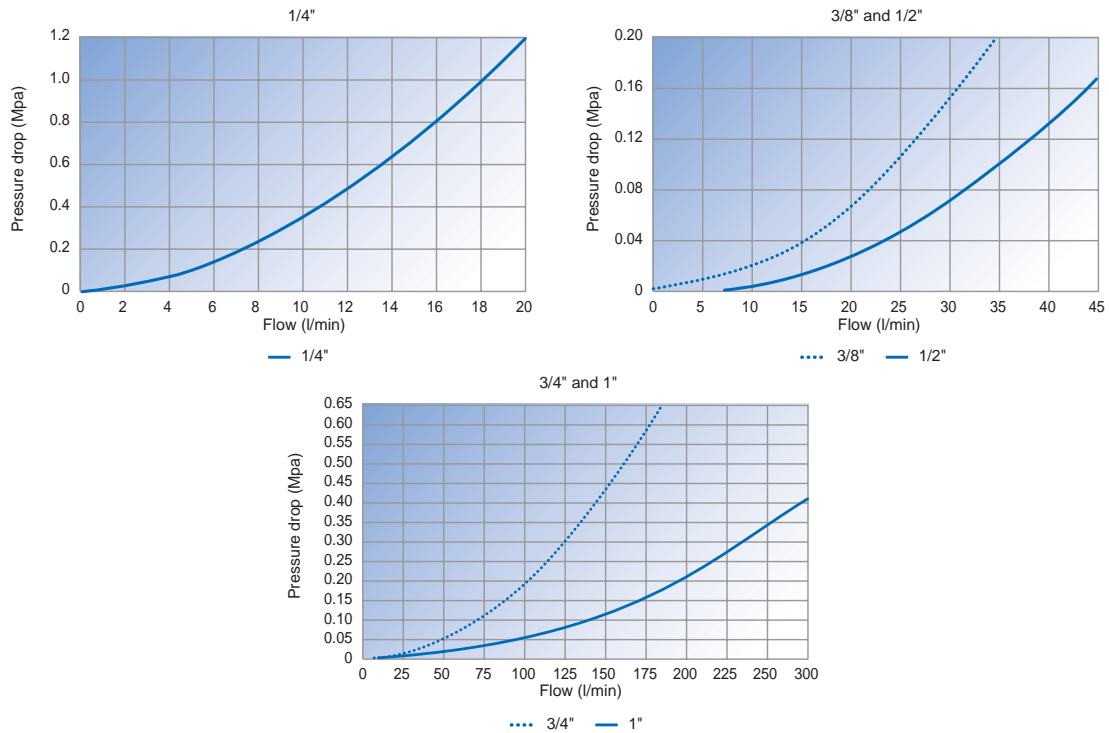


Technical performance data

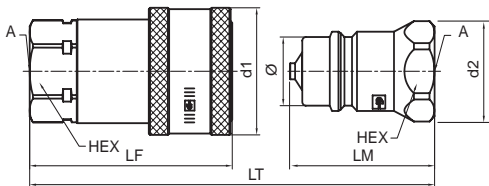
Body size inch	Temperature range	Max. operating pressure Mpa
1/4"	-30°C +110°C	35
3/8"	-30°C +110°C	28
1/2"	-30°C +110°C	25
3/4"	-30°C +110°C	28
1"	-30°C +110°C	28

Pressure drop

Tests with oil viscosity 43 cSt at 38°C.



Dimensions and part numbers



Body size inch	Thread A inch	d1 mm	Hex mm	LF mm	d2 mm	LM mm	LT connected mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Female BSPP thread												
1/4"	1/4	25	19	49.0	21	36.1	69.3	11.8	IA-251-4FB	107	IA-252-4FB	33
3/8"	3/8	32	22	55.1	24	41.7	76.2	17.3	IA-371-6FB	153	IA-372-6FB	52
1/2"	1/2	38	27	63.6	30	41.5	83.0	20.5	IA-501-8FB*	256	IA-502-8FB**	78
3/4"	3/4	48	35	85.6	39	64.5	116.2	29.1	IA-751-12FB	621	IA-752-12FB	210
1"	1	56	41	104.4	46	78.7	141.4	34.3	IA-1001-16FB	942	IA-1002-16FB	320

Former part number: * 4050-29PF
** 5010-29PF

Option

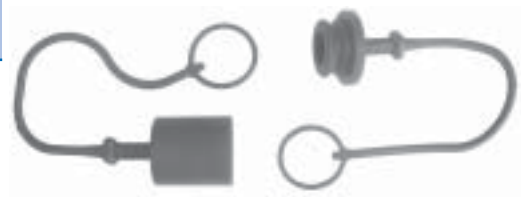
The 1/2" female coupling is available with a double acting sleeve (Push-Pull).
Use part number **4250-29PF**.

The IA-502-8FB male tip should be used with this female coupling.



Dust caps and plugs

Body size inch	Dust plug part number for female body	Dust cap part number for male tip
1/4"	PIA-251-P	CIA-252-P
3/8"	PIA-371-P	CIA-372-P
1/2"	PIA-501-P	CIA-502-P
3/4"	PIA-751-P	CIA-752-P
1"	PIA-1001-P	CIA-1002-P














Note : Standard dust caps and plugs are black. Please consult us for other colours.

Replacement seals

Body size inch	O-ring NBR (Nitrile)	Back-up ring NBR (Nitrile)
1/4"	JT020112N0674	JT080112N0300
3/8"	JT020115N0674	JT080115N0300
1/2"	JT020117N0552	4128F002
3/4"	JT020123N0674	JT080123N0300
1"	JT020126N0674	JT080126N0300



			 max							
ISO 7241-1-A, SAE 1036, ISO 5675	Steel	Groups 2 and 3 : 1/2" Group 4 : 3/8" and 1/2"	25 Mpa	-30°C +110°C	NBR	Manual (Group 2) or "Push-Pull" (Groups 3 and 4)	Ball or poppet	No	Ball locking mechanism	See charts

Main characteristics

- Meets the requirements of ISO 7241-1 Series A, SAE 1036 and ISO 5675
- Modular construction: broad choice of end configurations

Applications

- Used for a wide variety of agricultural applications: tractors, accessories...
- Mobile and construction equipment
- Industrial equipment



Technical features

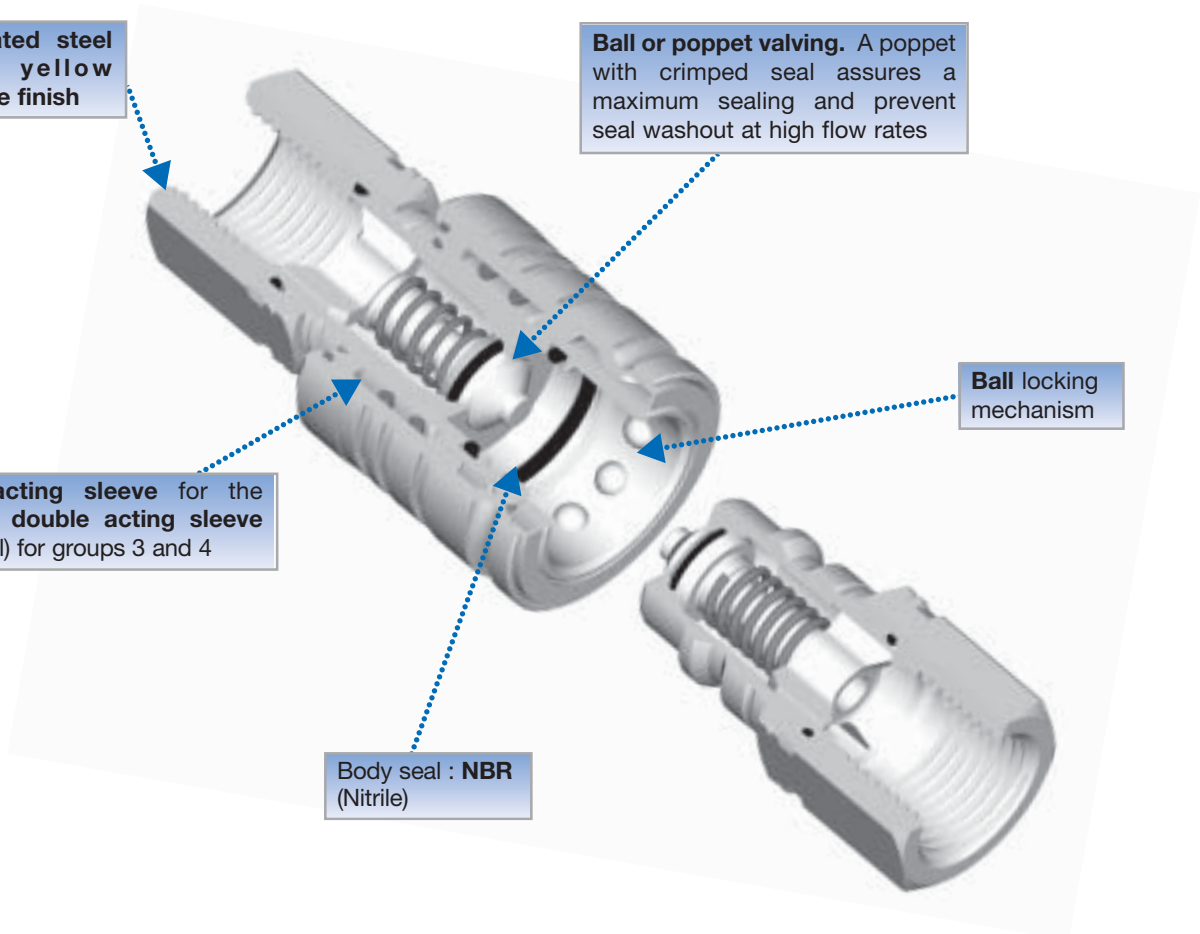
Zinc plated steel with a yellow chromate finish

Ball or poppet valving. A poppet with crimped seal assures a maximum sealing and prevent seal washout at high flow rates

Single acting sleeve for the group 2, double acting sleeve (Push-pull) for groups 3 and 4

Ball locking mechanism

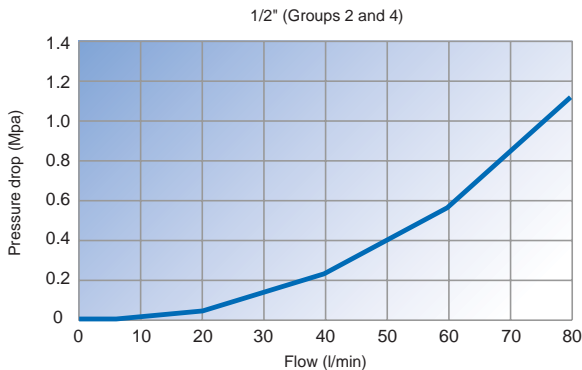
Body seal : NBR (Nitrile)



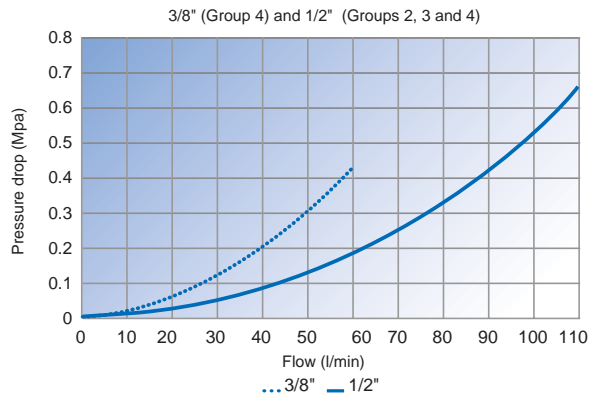
Pressure drop

Tests with oil viscosity 43 cSt at 38°C.

Ball valving



Poppet valving



Technical performance data

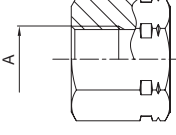
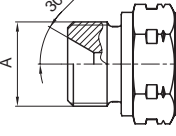
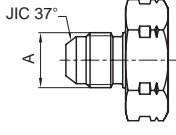
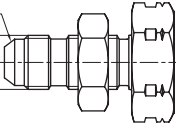
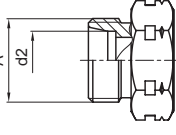
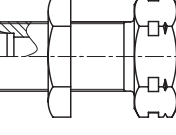
Series	Temperature range	Max. operating pressure Mpa
Group 2	-30°C +110°C	25
Group 3	-30°C +110°C	25
Group 4	-30°C +110°C	25

Selection of the groups

2000 series	Group 2	Group 3	Group 4
Features			
Sleeve	Single acting	Double acting	Double acting
Spring strength	Light	Middle	Strong
Availability	Female body*	Female body*	Female body and male tip
Functioning	Free mounting: from hose to hose	Free mounting: from hose to hose OR Reverse mounting with the male tip being rigid mounted on the equipment. Connection is easily made using a pushing action on the double acting sleeve.	Free mounting: from hose to hose OR Bulkhead mounting on the outside sleeve allowing a push-to-connect and a pull-to-disconnect operation. An automatic breakaway facility prevents damage to the coupler or hose when accidentally disconnected by vigorous pulling, such as when a towed implement becomes unhitched.

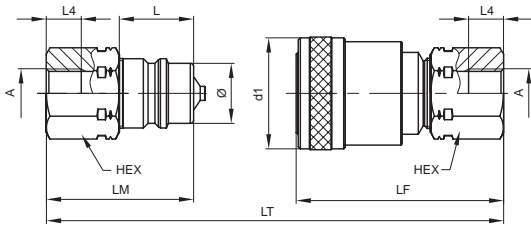
*To be used with Group 4 male tips.

End configurations: availability by group

End configuration				End configuration identification	Group 2		Group 3		Group 4	
					Ball	Poppet	Ball	Poppet	Ball	Poppet
	Body size	Thread A								
	3/8"	3/8 BSPP		G4X3						●
	1/2"	3/8 BSPP 1/2 BSPP 3/4 BSPP 1/2 NPTF M18x1.5 M22x1.5		G4X3 G4X4 G4X6 G0Z4 G8X5 G8X6	●	● ● ● ●		● ●	● ● ●	● ● ● ● ● ●
	Body size	Thread A								
	3/8"	3/8 BSPP		F4B3						●
	1/2"	3/8 BSPP 1/2 BSPP		F4B3 F4B4				● ●		● ●
	Body size	Thread A								
	1/2"	9/16 - 18 3/4 - 16		X5X3 X5X4						● ●
	Body size	Thread A								
	1/2"	9/16 - 18 3/4 - 16 7/8 - 14		T5X3 T5X4 T5X5						● ● ●
	Body size	Tube d2 Series	Thread A							
	For metric tube									
	3/8"	8L	M14x1.5	D6X2						●
		10L	M16x1.5	D6X3						●
		10S	M18x1.5	D7X3						●
	1/2"	8L	M14x1.5	D6X2						●
		10L	M16x1.5	D6X3						●
		12L	M18x1.5	D6X4						●
		15L	M22x1.5	D6X5	●			●		●
		18L	M26x1.5	D6X6	●			●		●
		10S	M18x1.5	D7X3						●
		14S	M22x1.5	D7X5						●
		16S	M24x1.5	D7X6						●
	Body size	Tube d2 Series	Thread A							
	For metric tube									
	3/8"	8L	M14x1.5	E6X2						●
		10L	M16x1.5	E6X3						●
	1/2"	8L	M14x1.5	E6X2						●
		10L	M16x1.5	E6X3						●
		12L	M18x1.5	E6X4						●
		15L	M22x1.5	E6X5	●			●		●
		18L	M26x1.5	E6X6	●			●		●
		10S	M18x1.5	E7X3						●
		12S	M20x1.5	E7X4						●
		16S	M24x1.5	E7X6						●

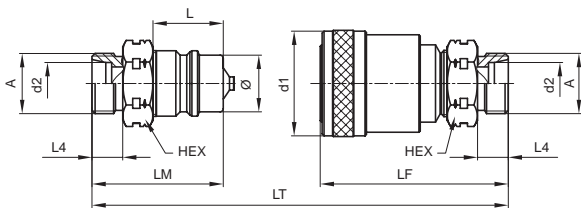
GROUP 2

Female thread – DIN 3852 - Form X



Body size inch	Thread A	d1 mm	Hex mm	LF mm	L mm	LM mm	LT connected mm	L4 mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Female BSPP thread													
1/2"	3/8	38	27	71.0	25.5	50.5	99.5	12.5	20.5	2V54G4X3	245	4V14G4X3	125
	1/2	38	27	73.0	25.5	52.5	104.0	14.5	20.5	2V54G4X4	240	4V14G4X4	110
	3/4	38	32	75.0	25.5	54.5	108.0	16.5	20.5	2V54G4X6	260	4V14G4X6	140
Female NPTF thread													
1/2"	1/2-14	38	27	72.0	25.5	51.5	103.5	15.3	20.5	2V54G0Z4	236	4V14G0Z4	112
Female metric thread													
1/2"	M22x1.5	38	27	72.5	25.5	52.0	102.5	15.5	20.5	2V54G8X6	229	4V14G8X6	105

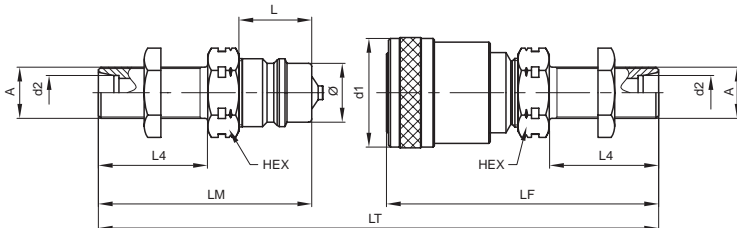
24° cone - DIN 2353



Body size inch	Series	Tube O/D d2	DN mm	Thread A mm	d1 mm	Hex mm	LF mm	L mm	LM mm	LT connected mm	L4 mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Male metric thread																
1/2"	L*	12	10	M18x1.5	38	27	68	25.5	47.5	93.5	11	20.5	2V54D6X4	214	4V14D6X4	87
	L*	15	12	M22x1.5	38	27	68	25.5	47.5	93.5	12	20.5	2V54D6X5	214	4V14D6X5	89

* Light series.

24° cone - DIN 2353 - Bulkhead



Body size inch	Series	Tube O/D d2	DN mm	Thread A mm	d1 mm	Hex mm	LF mm	L mm	LM mm	LT connected mm	L4 mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Male metric thread																
1/2"	L*	12	10	M18x1.5	38	27	95	25.5	74.5	147.5	38	20.5	2V54E6X4	240	4V14E6X4	116

* Light series.

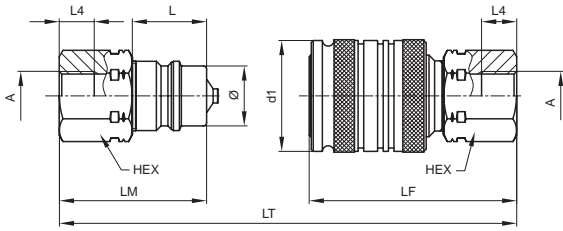
Note : Select "V" or "O" as second digit in part number for valving type identification.

V: poppet type e.g. 2V54G4X4

O: ball type e.g. 2O54G4X4 and check availability page 30.

GROUP 3

Female thread – DIN 3852 - Form X



Body size inch	Thread A	d1 mm	Hex mm	LF mm	L mm	LM mm	LT connected mm	L4 mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
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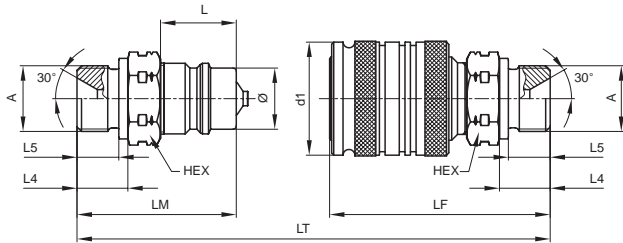
Female BSPP thread

1/2"	3/8	38	27	71.0	25.5	50.5	99.5	12.5	20.5	3V54G4X3	297	4V14G4X3	125
	1/2	38	27	73.0	25.5	52.5	104.0	14.5	20.5	3V54G4X4	275	4V14G4X4	110

Female metric thread

1/2"	M22X1.5	38	27	72.5	25.5	52.0	102.5	15.5	20.5	3V54G8X6	263	4V14G8X6	105
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Male thread – DIN 3852 - Form B

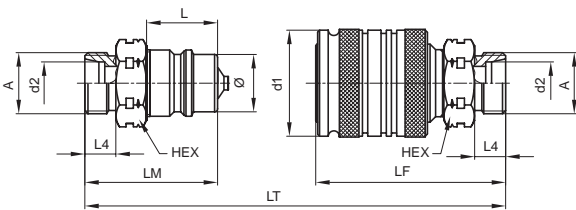


Body size inch	Thread A inch	d1 mm	Hex mm	LF mm	L mm	LM mm	LT connected mm	L4 mm	L5 mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
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Male BSPP thread

1/2"	3/8	38	27	71.6	25.5	51.1	100.7	14.5	12	20.5	3V54F4B3	277	4V14F4B3	114
	1/2	38	27	74.0	25.5	53.5	105.5	17.0	14	20.5	3V54F4B4	263	4V14F4B4	102

24° cone - DIN 2353



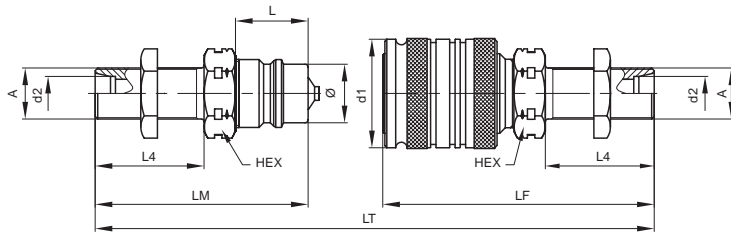
Body size inch	Series	Tube O/D d2	DN mm	Thread A mm	d1 mm	Hex mm	LF mm	L mm	LM mm	LT connected mm	L4 mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
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Male metric thread

1/2"	L*	12	10	M18x1.5	38	27	68	25.5	47.5	93.5	11	20.5	3V54D6X4	249	4V14D6X4	87
	L*	15	12	M22x1.5	38	27	68	25.5	47.5	93.5	12	20.5	3V54D6X5	249	4V14D6X5	89

* Light series

24° cone - DIN 2353 - Bulkhead

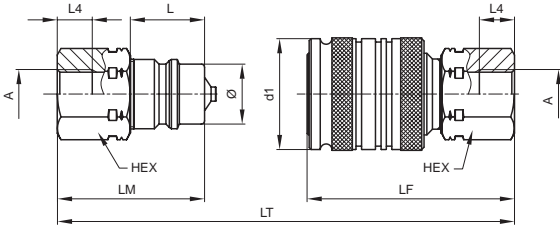


Body size inch	Series	Tube O/D d2	DN mm	Thread mm	A mm	d1 mm	Hex mm	LF mm	L mm	LM mm	LT connected mm	L4 mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Male metric thread																	
1/2"	L*	12	10	M18x1.5	38	27	83	25.5	62.5	123.5	26	20.5	3V54E6X4	276	4V14E6X4	116	
	L*	15	12	M22x1.5	38	27	83	25.5	62.5	123.5	27	20.5	3V54E6X5	300	4V14E6X5	140	

* Light series

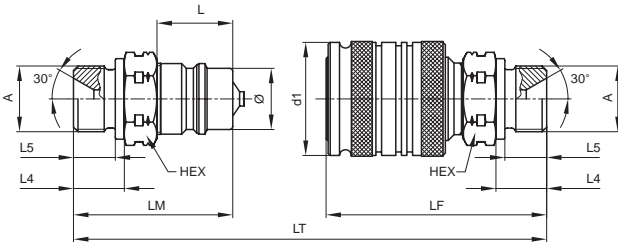
GROUP 4

Female thread – DIN 3852 Form X



Body size inch	Thread A	d1 mm	Hex mm	LF mm	L mm	LM mm	LT connected mm	L4 mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Female BSPP thread													
3/8"	3/8	30	24	63.5	19.0	46.0	92.0	12.5	17.3	4V53G4X3	165	4V13G4X3	80
1/2"	3/8	38	27	71.0	25.5	50.5	99.5	12.5	20.5	4V54G4X3	283	4V14G4X3	125
	1/2	38	27	73.0	25.5	52.5	104.0	14.5	20.5	4V54G4X4	275	4V14G4X4	110
	3/4	38	30	75.0	25.5	54.5	108.0	16.5	20.5	4V54G4X6	297	4V14G4X6	140
Female metric thread													
1/2"	M18x1.5	38	27	69.5	25.5	49.0	96.5	12.5	20.5	4V54G8X5	273	4V14G8X5	113
	M22x1.5	38	27	72.5	25.5	52.0	102.5	15.5	20.5	4V54G8X6	265	4V14G8X6	105
Female NPTF thread													
1/2"	1/2-14	38	27	72.0	25.5	51.5	102.0	15.3	20.5	4V54G0Z4	273	4V14G0Z4	112

Male thread – DIN 3852 Form B



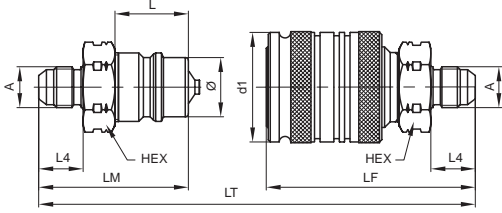
Body size inch	Thread A inch	d1 mm	Hex mm	LF mm	L mm	LM mm	LT connected mm	L4 mm	L5 mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Male BSPP thread														
3/8"	3/8	30	22	65.8	19.0	48.0	96.0	14.5	12	17.3	4V53F4B3	155	4V13F4B3	69
1/2"	3/8	38	27	71.6	25.5	51.1	104.5	14.5	12	20.5	4V54F4B3	277	4V14F4B3	114
	1/2	38	27	74.0	25.5	53.5	105.5	17.0	14	20.5	4V54F4B4	265	4V14F4B4	102

Note : Select "V" or "O" as second digit in part number for valving type identification.

V: poppet type e.g. 4V54G4X4

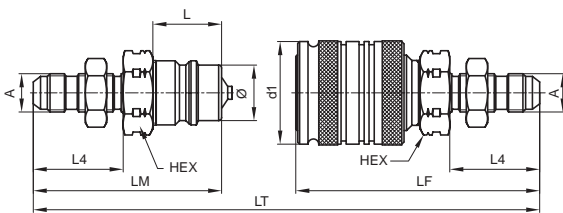
O: ball type e.g. 4O54G4X4 and check availability page 30.

JIC 37° – SAE J514



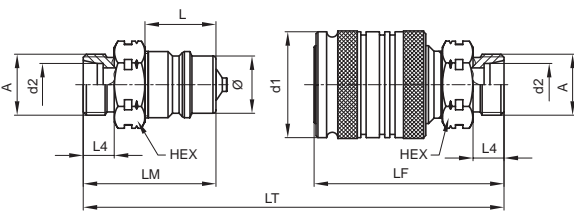
Body size inch	Tube O/D d2	Thread A inch	d1 mm	Hex mm	LF mm	L mm	LM mm	LT connected mm	L4 mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Male UNF thread														
1/2"	10	9/16-18	38	27	71	25.5	50.5	99.5	14.0	20.5	4V54X5X3	279	4V14X5X3	120
	12	3/4-16	38	27	74	25.5	53.2	105.5	16.7	20.5	4V54X5X4	259	4V14X5X4	95

JIC 37° - SAE J514 - Bulkhead



Body size inch	Tube O/D d2	Thread A inch	d1 mm	Hex mm	LF mm	L mm	LM mm	LT connected mm	L4 mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Male UNF thread														
1/2"	10	9/16-18	38	27	90.2	25.5	69.8	138.0	33.0	20.5	4V54T5X3	275	4V14T5X3	114
	12	3/4-16	38	27	94.6	25.5	74.1	146.7	37.6	20.5	4V54T5X4	300	4V14T5X4	137
	16	7/8-14	38	27	98.0	25.5	77.5	153.5	41.0	20.5	4V54T5X5	329	4V14T5X5	172

24° cone - DIN 2353



Body size inch	Series	Tube O/D d2	DN mm	Thread A mm	d1 mm	Hex mm	LF mm	L mm	LM mm	LT connected mm	L4 mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Male metric thread																
3/8"	L*	8	6	M14x1.5	30	22	61	19.0	43.4	86.8	10	17.3	4V53D6X2	142	4V13D6X2	56
	L*	10	8	M16x1.5	30	22	62	19.0	44.4	89.0	11	17.3	4V53D6X3	143	4V13D6X3	58
	S**	10	7	M18x1.5	30	22	63	19.0	45.5	91.5	12	17.3	4V53D7X3	150	4V13D7X3	65
1/2"	L*	8	6	M14x1.5	38	27	67	25.5	46.5	91.5	10	20.5	4V54D6X2	244	4V14D6X2	84
	L*	10	8	M16x1.5	38	27	68	25.5	47.5	93.5	11	20.5	4V54D6X3	247	4V14D6X3	86
	L*	12	10	M18x1.5	38	27	68	25.5	47.5	93.5	11	20.5	4V54D6X4	245	4V14D6X4	87
	L*	15	12	M22x1.5	38	27	68	25.5	47.5	93.5	12	20.5	4V54D6X5	250	4V14D6X5	89
	L*	18	15	M26x1.5	38	30	71	25.5	50.5	99.5	12	20.5	4V54D6X6	276	4V14D6X6	116
	S**	10	7	M18x1.5	38	27	69	25.5	48.5	96.5	12	20.5	4V54D7X3	252	4V14D7X3	92
	S**	14	10	M22x1.5	38	30	73	25.5	52.5	103.5	14	20.5	4V54D7X5	275	4V14D7X5	115
S**	16	12	M24x1.5	38	27	71	25.5	50.5	99.5	14	20.5	4V54D7X6	261	4V14D7X6	101	

* Light series.

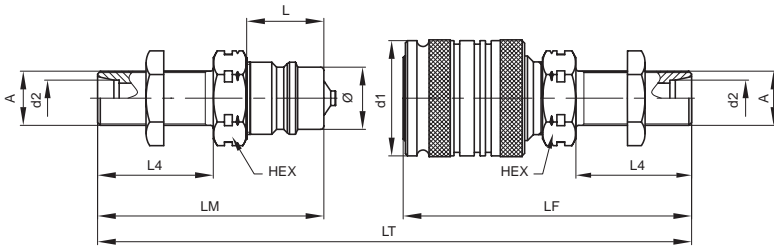
** Heavy series.

Note : Select "V" or "O" as second digit in part number for valving type identification.

V: poppet type e.g. 4V54G4X4

O: ball type e.g. 4O54G4X4 and check availability page 30.

24° cone - DIN 2353 - Bulkhead



Body size inch	Series	Tube O/D d2	DN mm	Thread mm	A mm	d1 mm	Hex mm	LF mm	L mm	LM mm	LT mm	connected mm	L4 mm	Ø mm	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Male metric thread																		
3/8"	L*	8	6	M14x1.5	30	22	76	19.0	58.5	117.5	25	17.3	4V53E6X2	163	4V13E6X2	75		
	L*	10	8	M16x1.5	30	22	77	19.0	59.5	119.5	26	17.3	4V53E6X3	170	4V13E6X3	84		
1/2"	L*	8	6	M14x1.5	38	27	83	25.5	62.5	123.5	26	20.5	4V54E6X2	266	4V14E6X2	105		
	L*	10	8	M16x1.5	38	27	83	25.5	62.5	123.5	26	20.5	4V54E6X3	273	4V14E6X3	111		
	L*	12	10	M18x1.5	38	27	83	25.5	62.5	123.5	26	20.5	4V54E6X4	277	4V14E6X4	116		
	L*	15	12	M22x1.5	38	27	83	25.5	62.5	123.5	27	20.5	4V54E6X5	300	4V14E6X5	140		
	L*	18	15	M26x1.5	38	27	84	25.5	63.5	125.5	27	20.5	4V54E6X6	340	4V14E6X6	177		
	S**	10	7	M18x1.5	38	27	84	25.5	63.5	125.5	27	20.5	4V54E7X3	304	4V14E7X3	140		
	S**	12	8	M20x1.5	38	27	87	25.5	66.5	131.5	27	20.5	4V54E7X4	312	4V14E7X4	150		
S**	16	12	M24x1.5	38	27	85	25.5	64.5	127.5	29	20.5	4V54E7X6	320	4V14E7X6	159			

* Light series.

** Heavy series.

Note : Select "V" or "O" as second digit in part number for valving type identification.

V: poppet type e.g. 4V54G4X4

O: ball type e.g. 4O54G4X4 and check availability page 30.

Dust caps and plugs

Plastic



Rubber



Steel



Body size inch	Dust plug part number for female body	Dust cap part number for male tip
Plastic		
3/8"	5025-3PR	5029-3PR
1/2"	5025-4P*	5029-4P*
Rubber		
1/2"	5205-4M	5209-4M
Steel		
1/2"	5005-4	5009-4

* Colour code

B = blue

O = orange

G = green

Y = yellow

R = red

BL = black

Automatic dust cap for female body

Plastic

Body size inch	Cap part number for female body
1/2"	DFE-501-P



Note : Standard dust cap is black. Please consult us for other colours.

Permanent protective cap for female body

Rubber

Body size inch	Dust cap part number for female body
1/2"	DCP4-SD



High strength rubber: resistant to deformation, exposure to elements, UV.

Two combined functions:

- Protection
- Oil spillage collection.

The modular concept accommodates multiple coupler configurations. Please consult us.

Note : protective caps of the 9400 series (page 40) are also suitable for the 2000 series (body size 1/2").

Replacement body seal

Body size inch	Part number NBR (Nitrile)
3/8"	JT060044N0552
1/2"	JT020117N0552



ISO 7241-1-A and ISO 5675	Steel	1/2"	max 25 Mpa	-30°C to +110°C	NBR	"Push-Pull"	Poppet	Yes in the male tip up to 25 Mpa	Ball locking mechanism	Metric, UNF

Main characteristics

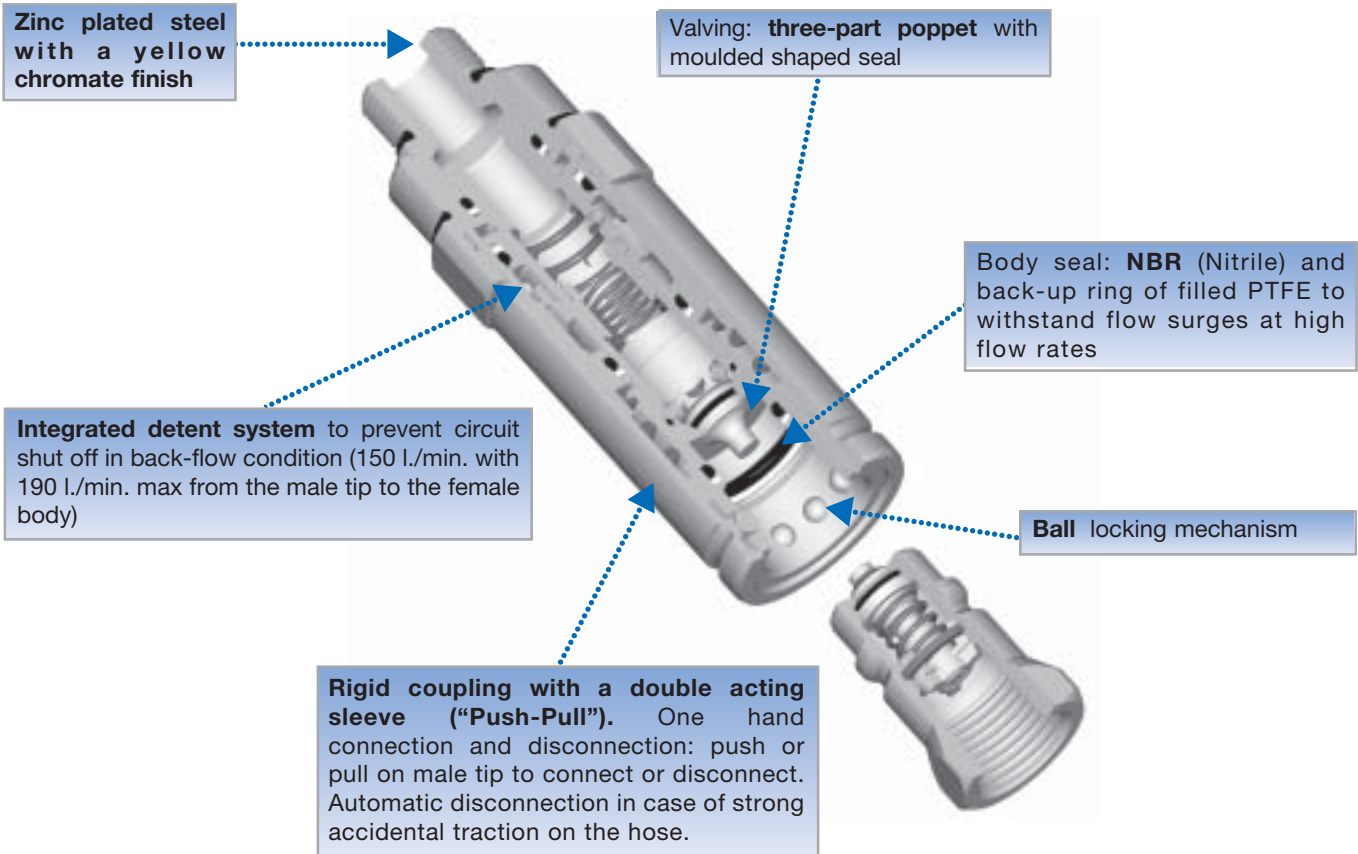
- Rigid coupler which meets the requirements of ISO 7241-1 Series A and ISO 5675
- This coupler is a reference for the most important manufacturers of agricultural equipments
- Must be used with a male tip which meets the requirements of ISO 7241-1-A
- Optional: connect under max. operating pressure on the female side (please contact us)

Applications

- Medium and high power tractors: direct mounting on the directional valve or rigid piping



Technical features



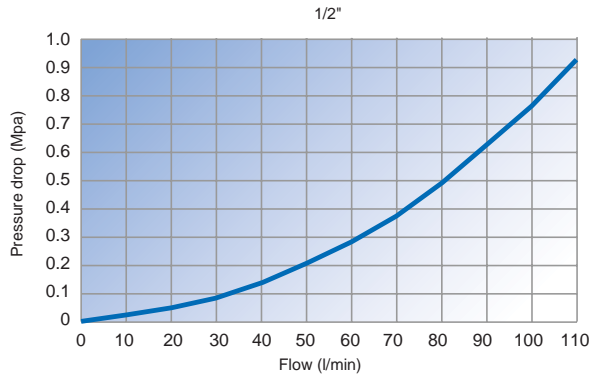
Technical performance data

Body size inch	Temperature range	Max. operating pressure Mpa	Min. burst pressure* Mpa
1/2"	-30°C + 110°C	25	129

*According to ISO 5675

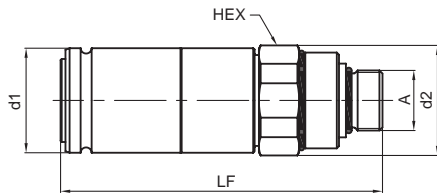
Pressure drop

Tests with oil viscosity 43 cSt at 38°C.



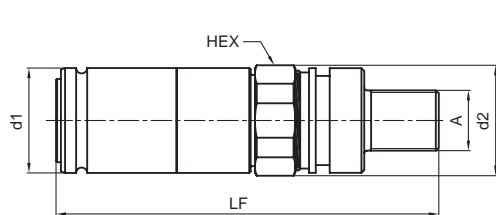
Dimensions and part numbers

Male thread to ISO 6149-2



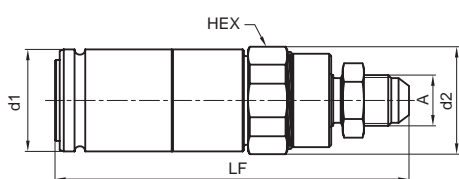
Body size inch	Thread A mm	d1 mm	Hex mm	LF mm	d2 mm	Part number	Weight gr./piece
Male metric thread							
1/2"	M22x1.5	38	38	117	40	9404-F8H6S2	585

Din 2353 15L - Bulkhead



Body size inch	Thread A mm	d1 mm	Hex mm	LF mm	d2 mm	Part number	Weight gr./piece
Male metric thread							
1/2"	M22x1.5	38	38	138.6	40	9404-E6X5S2	680

JIC 37° - SAE J514 - Bulkhead

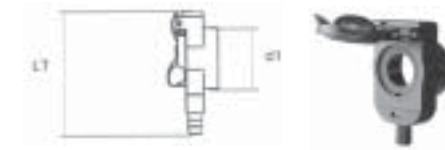


Body size inch	Thread A mm	d1 mm	Hex mm	LF mm	d2 mm	Part number	Weight gr./piece
Male UNF thread							
1/2"	3/4-16	38	38	132	40	9404-T5X4S2	615
	7/8-14	38	38	136	40	9404-T5X5S2	640

Dust caps

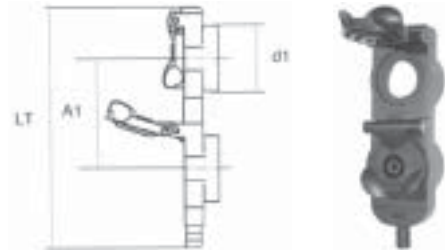
Single dust cap

Body size inch	LT mm	d1 mm	Dust cap part number
1/2"	85	43	DCP-500*



Double dust cap

Body size inch	LT mm	d1 mm	A1 mm	Dust cap part number
1/2"	140	43	55	DCP-555*
	157	43	72	DCP-572*
	167	43	82	DCP-582*



*** Warning:** Coloured plugs are not included in the single and double dust caps but have to be ordered separately.

Coloured plugs

Colour	Part number
Red	9809-018-R
Yellow	9809-018-J
Black	9809-018-N
Green	9809-018-V
Blue	9809-018-B



Note : these dust caps are also suitable for the 1/2" 2000 series.

Replacement seals

Body size inch	O-ring part number NBR (Nitrile)	Back-up ring part number filled PTFE
1/2"	JT020117N0552	4128F002C



ISO 7241-1-A (1/2" only)	Steel	1/4", 3/8" 1/2", 3/4" 1"	max 20 Mpa	-40°C + 110°C	NBR	Manual	Ball or poppet	No	Ball locking mechanism	NPTF, BSPP

Main characteristics

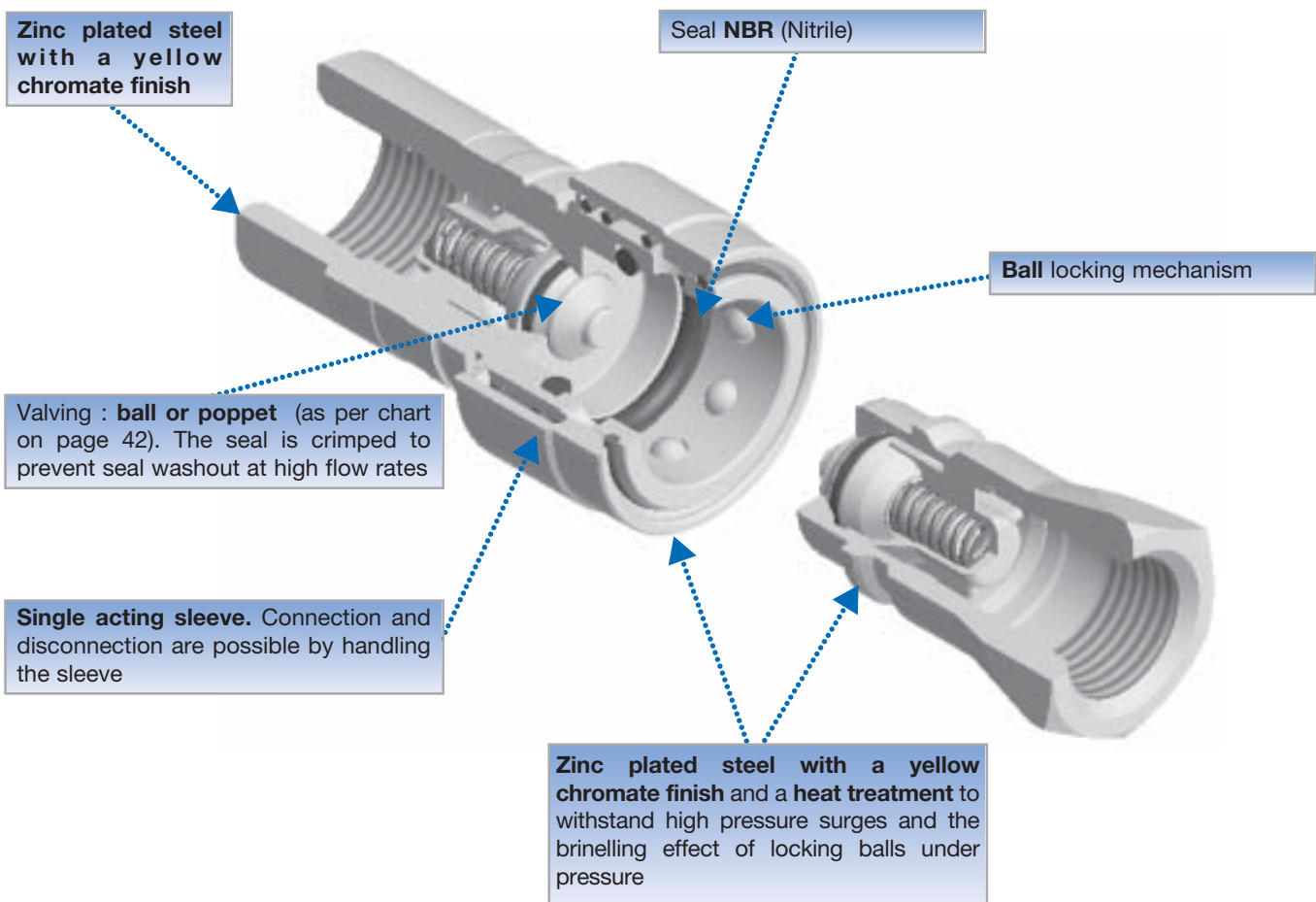
- The 1/2" body size meets the requirements of ISO 7241-1 Series A
- Famous coupling widely held on the market

Applications

- Used for a wide range of forestry and agricultural equipment: tractors, agricultural machinery...
- Construction and mobile equipment
- In-plant machinery



Technical features

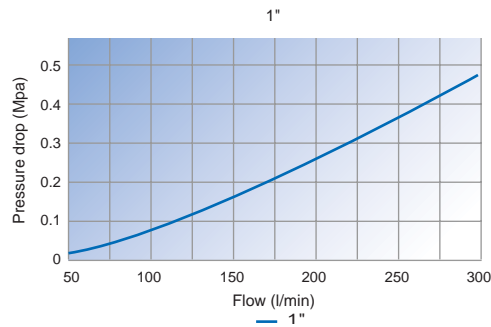
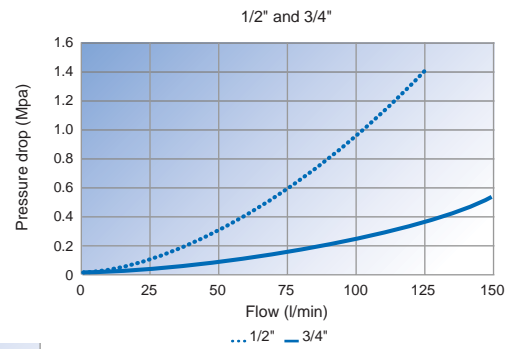
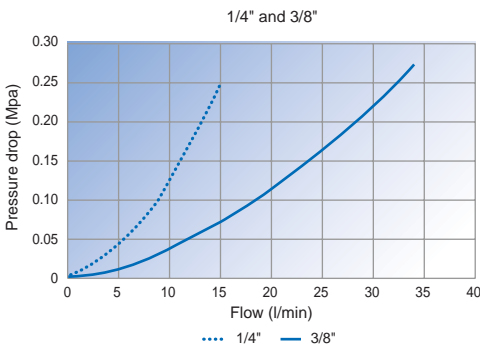


Technical performance data

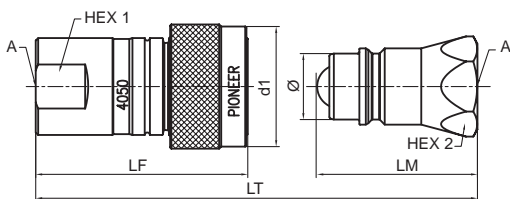
Body size inch	Temperature range	Max. operating pressure Mpa
1/4"	-40°C +110°C	20
3/8"	-40°C +110°C	20
1/2"	-40°C +110°C	20
3/4"	-40°C +110°C	20
1"	-40°C +110°C	20

Pressure drop

Tests with oil viscosity 43 cSt at 38°C.



Dimensions and part numbers



Body size inch	Thread A inch	d1 mm	Hex 1	LF mm	Hex 2	LM mm	LT connected mm	Ø mm	Valving Ball Poppet	Part number female body	Weight gr./piece	Part number male tip	Weight gr./piece
Female NPTF thread													
1/4"	1/4-18	27.0	7/8"	55.4	3/4"	35.3	73.4	14.2	●	4050-2P	110	4010-2P	35
3/8"	3/8-18	33.8	15/16"	58.7	15/16"	38.1	79.0	19.0	●	4050-3P	230	4010-3P	75
1/2"	3/4-14	38.6	1.1/8"	68.3	1.1/4"	54.4	100.8	20.5	●	4050-5	320	8010-5	115
3/4"	3/4-14	48.3	1.3/8"	88.9	1.5/16"	46.0	120.1	26.8	●	4150-5	455	4110-5	130
1"	1-11 1/2	52.8	1.5/8"	97.5	1.5/8"	70.9	135.3	31.3	●	4050-6P	860	4010-6P	280
Female BSPP thread													
1/4"	1/4	27.0	19 mm	49.2	19 mm	33.2	62.3	14.2	●	4050-27	125	4010-27	35
3/8"	3/8	34.0	24 mm	58.4	24 mm	40.2	75.2	19.0	●	4050-28	230	4010-28	75

Dust caps and plugs

Rubber



Rubber with steel chain



Plastic



Steel



Body size inch	Dust plug part number for female body	Dust cap part number for male tip
Rubber		
1/4"	5205-2M*	5209-2M*
3/8"	5205-3	5209-3
1/2"	5205-4M*	5209-4M*
3/4"	5205-5	5209-5
1"	5205-6	5209-6
Plastic		
1/2"	5015-4P**	5019-4P**
Steel		
1/2"	5005-4	5009-4

* Designates all-rubber dust caps and plugs

** Colour code – By ordering, add after the part number the letter corresponding to the colour you wish:












B = blue G = green R = red
O = orange Y = yellow

Example: yellow dust cap = 5019-4PY

Replacement seals

Body size inch	Part number NBR (Nitrile)
1/4"	JT020113N0552
3/8"	JT020116N0552
1/2"	JT020211N0552
3/4"	JT020215N0674
1"	JT020218N0552



			 max							
Inter-changeable with similar models	Steel	3/8", 1/2", 3/4" & 1"	45 Mpa	-30°C +110°C	NBR	Screw-to connect	Poppet	Yes up to 5 Mpa	Screw type	BSP, metric

Main characteristics

- High pressure coupler up to 45 Mpa
- Interchangeable with similar products
- Connection with pressure up to 5 Mpa is possible

Applications

- Agricultural and mobile equipment
- Rock hammers
- Forestry equipment
- Snow groomers



Technical features

Red silicon seal:

- Visual check for correct connection
- Prevents accidental disconnection
- Prevents external contamination entering the system

Zinc plated steel with a yellow chromate finish

Three-part poppet style valving with a moulded shaped seal to prevent seal washout at high flow rates

Locking: **screw type**. Self-locking thread prevents sleeve from being loosened by vibration

The **sleeve** is mounted on the male tip to protect the sealing area

Body seal: : **NBR** (Nitrile). with a PTFE back-up ring to withstand flow surges



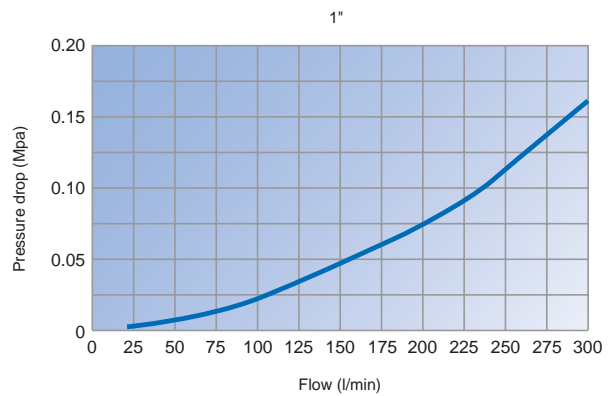
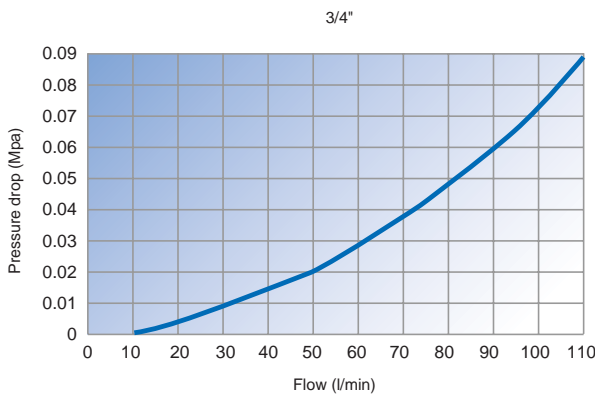
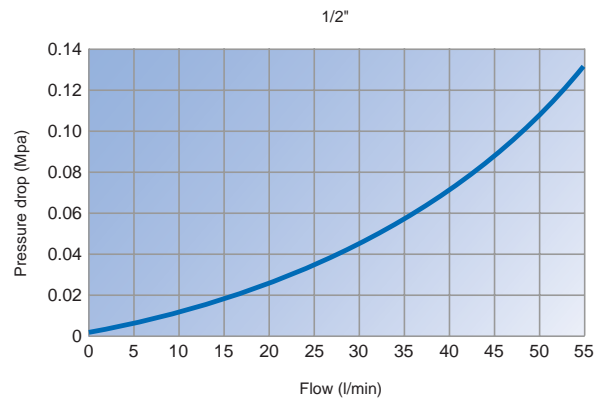
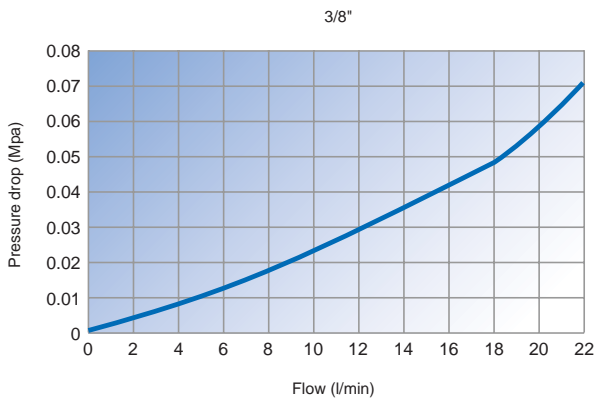
Be careful ! On the QHPA quick couplings, the sleeve is mounted on the male tip and not on the female body !

Technical performance data

Body size inch	Temperature range	Max. operating pressure Mpa
2 3/8"	-30°C +110°C	45.0
3 1/2"	-30°C +110°C	40.0
6 3/4"	-30°C +110°C	31.5
8 1"	-30°C +110°C	31.5

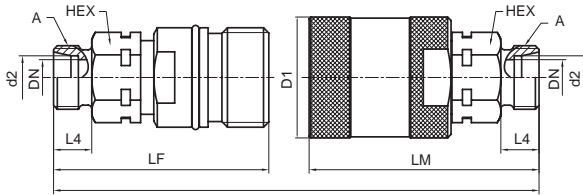
Pressure drop

Test with oil, viscosity 43 cSt at 38°C.



Dimensions and part numbers

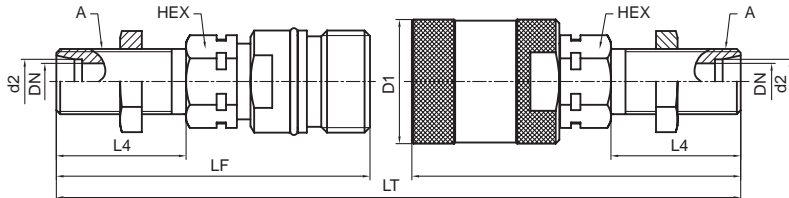
24° cone - DIN 2353



Body size inch	Series	Tube O/D d2	DN mm	Thread A mm	d1 mm	Hex mm	LF mm	LM mm	LT connected mm	L4 mm	Part number male tip	Weight gr./piece	Part number female body	Weight gr./piece
Male metric thread														
2 3/8"	L*	8	6	M14x1.5	34	22	53.6	58.0	86.8	10	QHPA13-D6X2	190	QHPA53-D6X2	132
	L*	10	8	M16x1.5	34	22	54.6	59.0	88.8	11	QHPA13-D6X3	185	QHPA53-D6X3	131
	S**	10	6	M18x1.5	34	22	55.6	60.0	90.8	12	QHPA13-D7X3A	192	QHPA53-D7X3A	137
	S**	12	8	M20x1.5	34	22	55.6	60.0	90.8	12	QHPA13-D7X4A	194	QHPA53-D7X4A	139
3 1/2"	L*	12	10	M18x1.5	42	27	62.2	71.4	103.3	11	QHPA14-D6X4	325	QHPA54-D6X4	250
	L*	15	12	M22x1.5	42	27	63.2	72.4	105.3	12	QHPA14-D6X5	333	QHPA54-D6X5	255
	S**	14	10	M22x1.5	42	27	65.1	74.4	109.3	14	QHPA14-D7X5A	346	QHPA54-D7X5A	266
	S**	16	12	M24x1.5	42	27	65.1	74.4	109.3	14	QHPA14-D7X6A	343	QHPA54-D7X6A	264
6 3/4"	L*	18	16	M26x1.5	55	41	91.0	89.1	144.3	12	QHPA16-D6X6	775	QHPA56-D6X6	664
	L*	22	20	M30x2	55	41	93.0	91.1	148.3	14	QHPA16-D6X7	774	QHPA56-D6X7	661
	S**	20	16	M30x2	55	41	95.0	93.2	152.4	16	QHPA16-D7X7A	794	QHPA56-D7X7A	680
	S**	25	20	M36x2	55	41	97.0	95.2	156.4	18	QHPA16-D7X8A	800	QHPA56-D7X8A	695
8 1"	S**	30	25	M42x2	80	55	138.9	118.9	205.8	20	QHPA18-D7X9A	2170	QHPA58-D7X9A	2200
	S**	38	32	M52x2	80	55	140.9	120.9	209.8	22	QHPA18-D7X10A	2150	QHPA58-D7X10A	2202

* Light series.
** Heavy series.

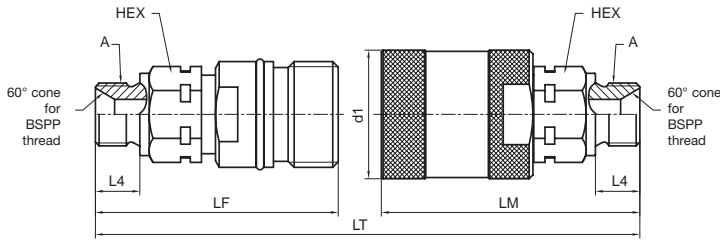
24° cone - DIN 2353 - Bulkhead



Body size inch	Series	Tube O/D d2	DN mm	Thread A mm	d1 mm	Hex mm	LF mm	LM mm	LT connected mm	L4 mm	Part number male tip	Weight gr./piece	Part number female body	Weight gr./piece
Male metric thread														
2 3/8"	L*	8	6	M14x1.5	34	22	69.6	74.0	118.8	25	QHPA13-E6X2	210	QHPA53-E6X2	155
	L*	10	8	M16x1.5	34	22	69.6	74.0	118.8	26	QHPA13-E6X3	214	QHPA53-E6X3	155
	S**	10	6	M18x1.5	34	22	71.6	75.0	121.7	27	QHPA13-E7X3A	230	QHPA53-E7X3A	175
	S**	12	8	M20x1.5	34	22	71.6	75.0	121.7	27	QHPA13-E7X4A	240	QHPA53-E7X4A	185
3 1/2"	L*	12	10	M18x1.5	42	27	76.1	85.4	131.3	25	QHPA14-E6X4	280	QHPA54-E6X4	280
	L*	15	12	M22x1.5	42	27	78.1	87.4	135.3	27	QHPA14-E6X5	385	QHPA54-E6X5	308
	S**	16	12	M24x1.5	42	27	78.1	87.4	135.3	27	QHPA14-E7X6A	397	QHPA54-E7X6A	321
6 3/4"	L*	18	16	M26x1.5	55	41	113.0	111.1	188.3	34	QHPA16-E6X6	865	QHPA56-E6X6	755
	S**	20	16	M30x2	55	41	115.0	113.1	192.3	36	QHPA16-E7X7A	802	QHPA56-E7X7A	801
	S**	25	20	M36x2	55	41	117.0	115.1	196.3	38	QHPA16-E7X8A	966	QHPA56-E7X8A	850
8 1"	S**	30	25	M42x2	80	55	158.0	138.0	244.0	40	QHPA18-E7X9A	2341	QHPA58-E7X9A	2377
	S**	38	32	M52x2	80	55	158.0	138.0	244.0	40	QHPA18-E7X10A	2350	QHPA58-E7X10A	2483

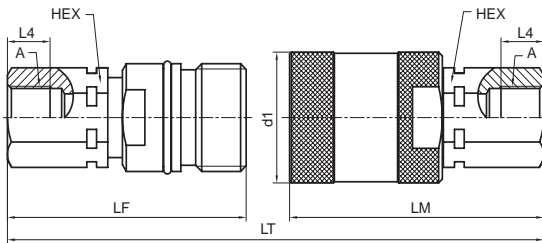
* Light series.
** Heavy series.

Male thread - DIN 3852 - Form A



Body size inch	DN mm	Thread A inch	d1 mm	Hex mm	LF mm	LM mm	LT connected mm	L4 mm	Part number male tip	Weight gr./piece	Part number female body	Weight gr./piece	
Male BSPP thread													
2	3/8"	8	3/8	34	22	58.1	62.5	95.8	12	QHPA13-F4A3	197	QHPA53-F4A3	141
3	1/2"	12	1/2	42	27	68.3	77.5	115.5	14	QHPA14-F4A4	350	QHPA54-F4A4	271

Female BSPP thread



Body size inch	DN mm	Thread A inch	d1 mm	Hex mm	LF mm	LM mm	LT connected mm	L4 mm	Part number male tip	Weight gr./piece	Part number female body	Weight gr./piece	
Female BSPP thread													
2	3/8"	8	3/8	34	22	53.1	57.5	85.8	11.4	QHPA13-G4X3	189	QHPA53-G4X3	134
3	1/2"	12	1/2	42	27	61.2	70.4	101.3	15.0	QHPA14-G4X4	335	QHPA54-G4X4	260
6	3/4"	16	3/4	55	41	87.0	85.2	136.4	16.5	QHPA16-G4X6	779	QHPA56-G4X6	665
		20	1	55	41	95.4	93.6	153.2	19.0	QHPA16-G4X8	727	QHPA56-G4X8	615

Dust caps and plugs

Polyethylene












Body size inch	Dust plug part number for female body	Dust cap part number for male tip	
2	3/8"	QHPA53-DP	QHPA13-DC
3	1/2"	QHPA54-DP	QHPA14-DC
6	3/4"	QHPA56-DP	QHPA16-DC
8	1"	QHPA58-DP	QHPA18-DC



Replacement seals

Body size inch	O-ring NBR (Nitrile)	Back-up ring PTFE	External seal silicone
3/8"	JT020017N0674	QHPA23-6	JT060022S0604
1/2"	JT090231N0674	QHPA24-6	JT060056S0604
3/4"	JT020126N0674	JT080126N0300	JT020223S0604
1"	JT020138N0674	QHPA28-6	JT020230S0604



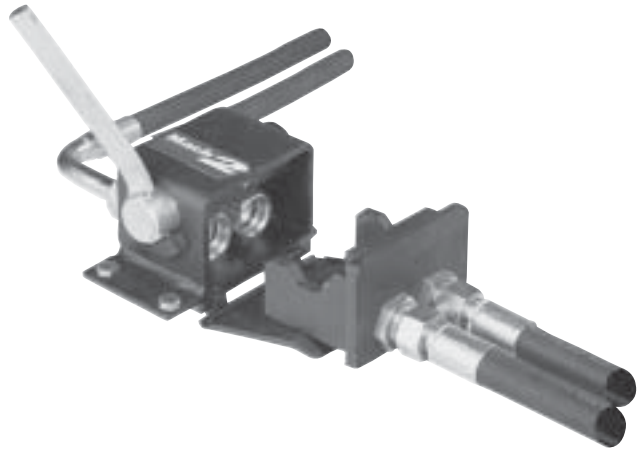
			 max 25 Mpa	 -30°C +110°C		 Manual	 Poppet	 Yes	 Cam mechanism	 DIN 2353 -15L
ISO 7241-1-A	Steel	1/2"	25 Mpa	-30°C +110°C	NBR	Manual	Poppet	Yes	Cam mechanism	DIN 2353 -15L

Main characteristics

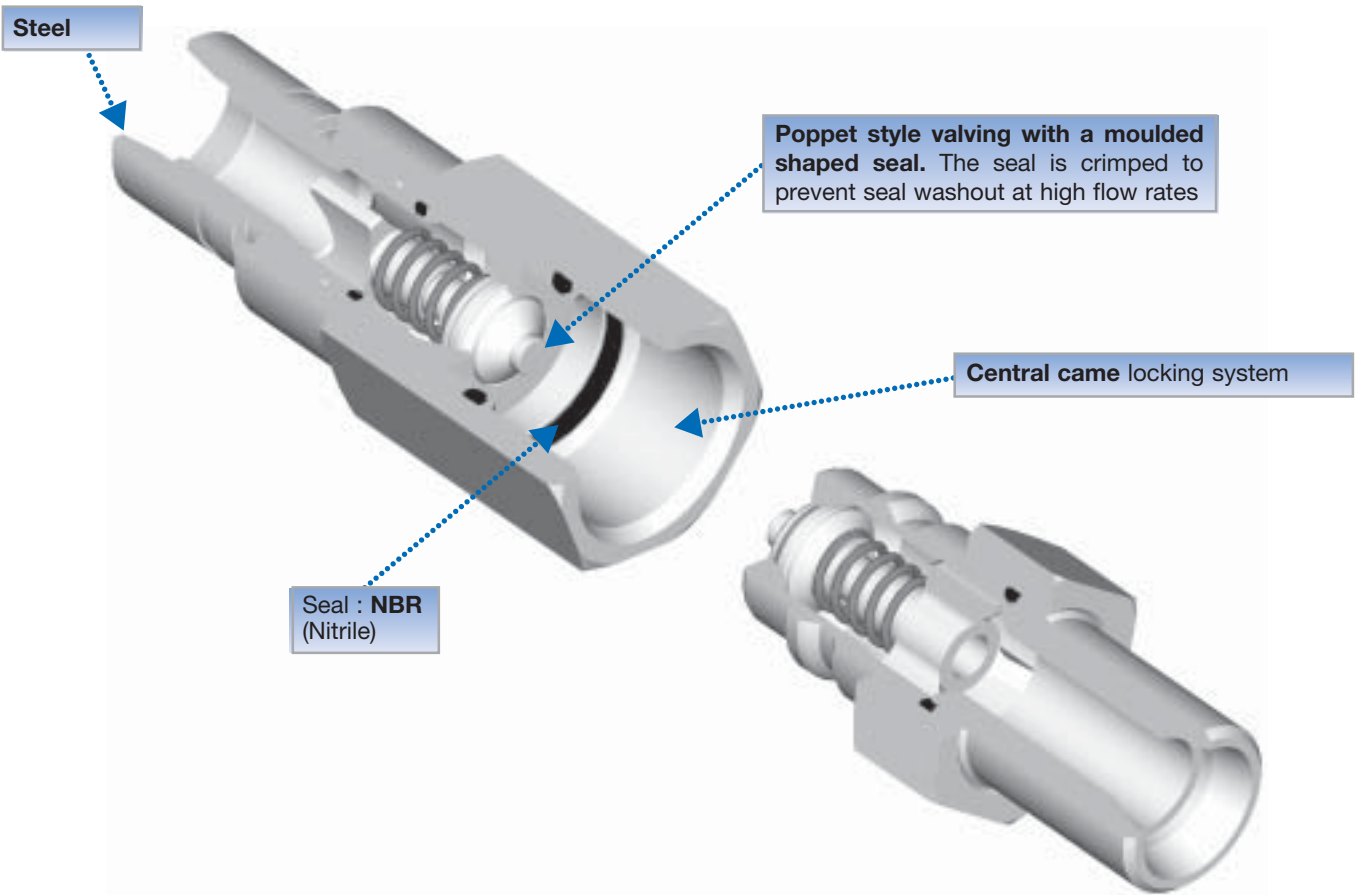
- Meets the requirements of **ISO 7241-1 Series A**
- Possibility of connecting 2 hydraulic lines simultaneously
- No coupling misconnection or accidental disconnection
- Possibility of connecting under pressure up to 25 Mpa in one hydraulic line only

Applications

- Agricultural applications: front loaders, hedge cutters...
- Road service vehicles: road service lorries, road sweepers, snowploughs...
- Industrial applications: easy and fast connection and disconnection of implements or tooling



Technical features

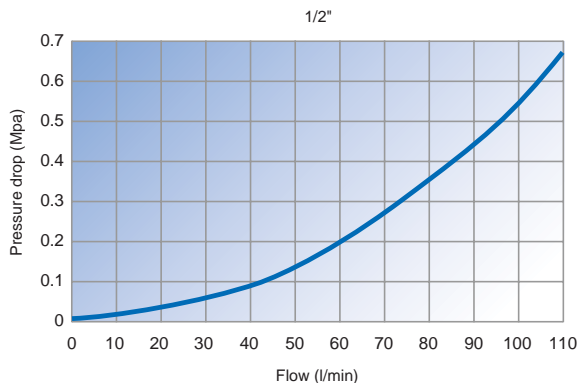


Technical performance data

Body size inch	Temperature range	Max. operating pressure Mpa	Min. burst pressure Mpa
1/2"	-30°C +110°C	25	96

Pressure drop

Tests with oil viscosity 43 cSt at 38°C.



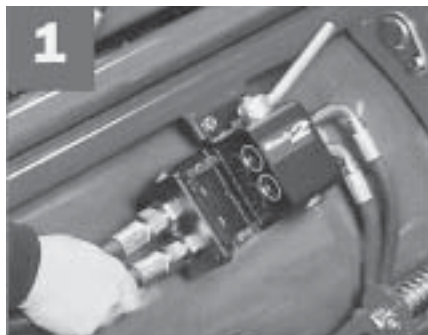
Functioning

Mechanical attachment: 2 mounting holes Ø 8.5 mm



Functioning:

Locating



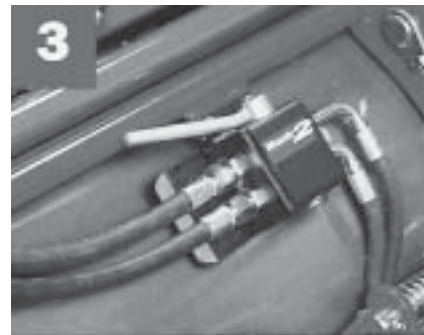
Using one hand, the plug is pushed to open the dust cover and then is introduced into the connecting box.

Locking



Just move the handle with the other hand.

It is connected



The MACH 2 is connected and locked.

Dimensions and part numbers

Plug :

Description : Complete unit including the connecting plug and 2 male tips, which meet the requirements of ISO 7241-1-A.

Number of hydraulic lines	End configuration	Part number	Weight gr./piece
2	DIN2353-15L (M22x1.5)	MACH2-IA-P	1203



Connecting box:

Description : Complete unit including the base connector unit, its dust cover, a lever acting as a central locking device and 2 female bodies, which meet the requirements of ISO 7241-1-A.











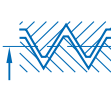
Number of hydraulic lines	End configuration	Part number	Weight gr./piece
2	DIN2353-15L (M22x1.5)	MACH2-IA-B	2723



Note : Other types of MACH 2 with non-spill connections are also available upon request. Please consult us for further information.

Spare parts

Part	Part number
Female body seal	JT020117N0552
Female body	LV54D6X5MLXC
Male tip	LV14E6X5MLX

			 max							
ISO 7241-1-A	Steel	1/2"	25 Mpa	-30°C +110°C	NBR	Manual	Poppet	Yes	Ball and cam locking mechanism	DIN 2353

Main characteristics

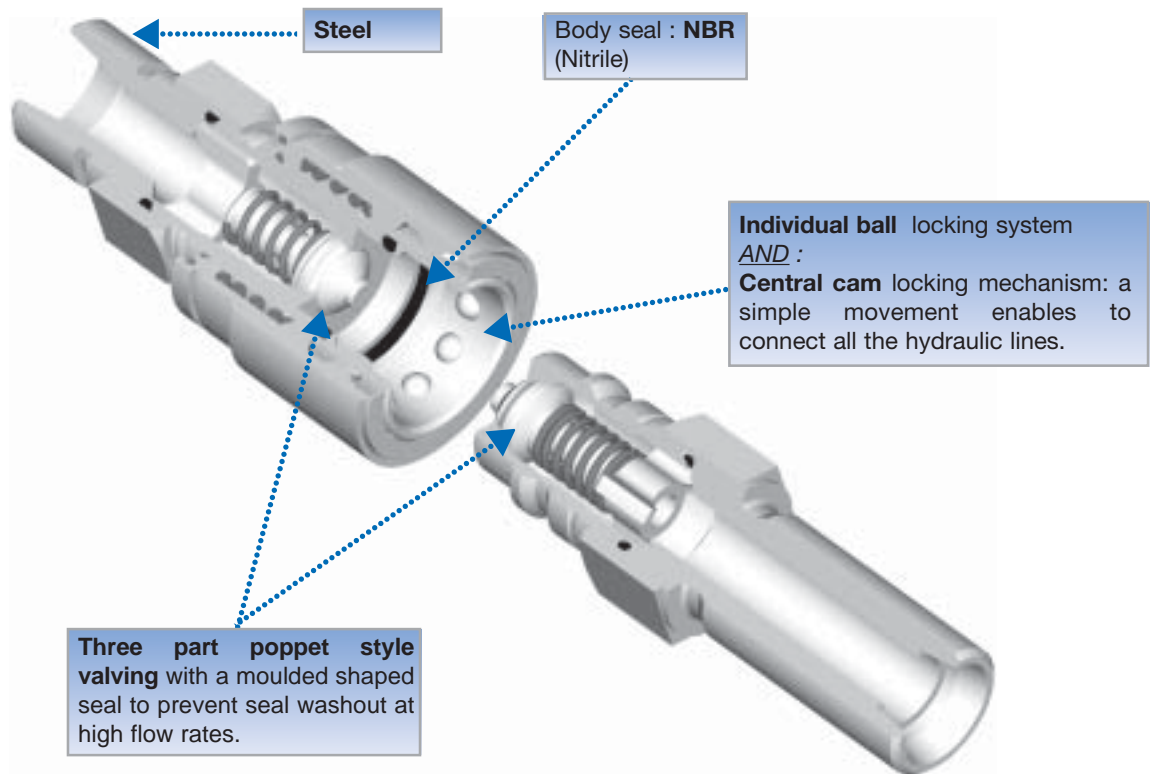
- Meets the requirements of **ISO 7241-1 Series A**
- Possible to connect 4, 5, 6 or 7 hydraulic lines simultaneously
- No coupling misconnection or accidental disconnection
- Using a standard interface will still allow end users to connect their standard quick coupling equipped implements
- In the version with seven lines (MACH 7), the base connector is equipped with an electrical connector as standard feature, which is an option on the MACH 4, 5 and 6.
- Possible to connect with two lines under 20 Mpa, if other lines are not under pressure

Applications

- Agricultural applications: front loaders, hedge cutters...
- Road service vehicles: road systems lorries, road sweepers, snowploughs...
- Industrial applications: easy and fast connection and disconnection of implements or tooling



Technical features



Technical performance data

Body size inch	Temperature range	Max. operating pressure (Mpa)	Burst pressure (Mpa)		
			Connected	female body	male tip
1/2"	-30°C +110°C	25	85	130	80

Pressure drop

Tests with oil viscosity 43 cSt at 38°C.

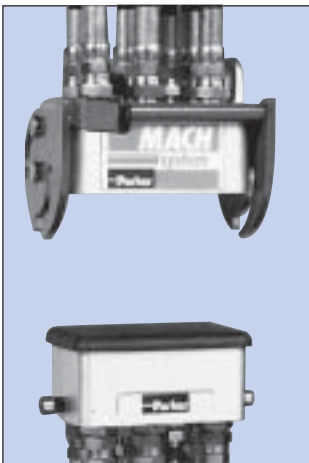


Functioning

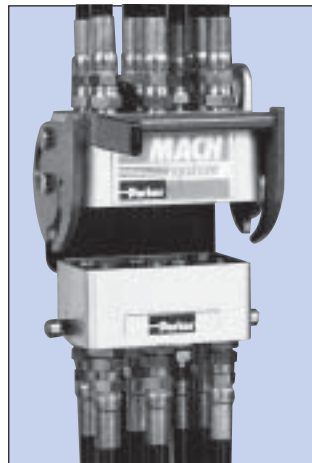
Base unit: Mounted with 4 screws M8x1.25 mm.



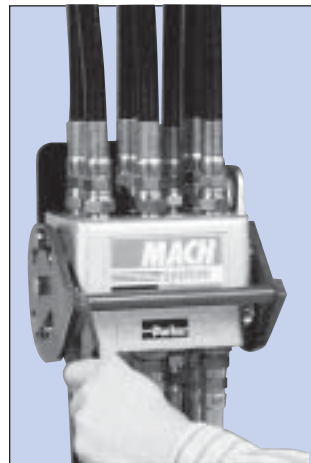
Functioning:



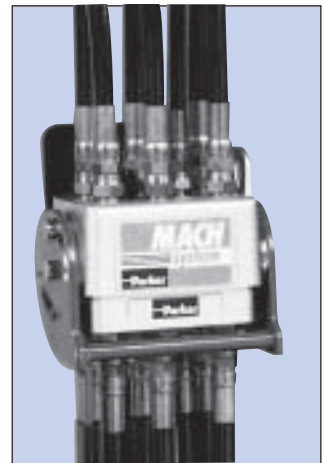
The dust cover is lifted and the top connector put on the base connector. The centring is automatically realised.



When it is disconnected, the automatic dust cover assures a complete dust and moisture protection of the base connector.



Push down in only one action. It is locked with little effort.



Dimensions and part numbers

Top connectors:

Description : This top connector unit includes the top casting with 4 to 7 female quick couplings and the complete cam locking system. In the most common version with 7 lines, the top connector is also equipped with a 6-line female electrical connector as a standard feature.



Number of hydraulic lines	Number of threads DIN 2353		Part number without electrical connector	Part number with electrical connector
	15L (M22x1.5)	12L (M18x1.5)		
4	4	0	MACH4/715LT	MACH4/715LTE
5	5	0	MACH5/715LT	MACH5/715LTE
6	6	0	MACH6/715LT	MACH6/715LTE
7	6	1	-	MACH7T

Base connector:

Description : This base connector unit includes the base casting and automatic protective cover, 4 to 7 male quick couplings and the positioning pins. Also included are an adaptor and a plastic hose to drain oil. In the most common version with 7 lines, the base connector is also equipped with a 6 way male electrical connector as a standard feature.



Number of hydraulic lines	Number of threads DIN 2353		Part number without electrical connector	Part number with electrical connector
	15L (M22x1.5)	12L (M18x1.5)		
4	4	0	MACH4/715LB	MACH4/715LBE
5	5	0	MACH5/715LB	MACH5/715LBE
6	6	0	MACH6/715LB	MACH6/715LBE
7	6	1	-	MACH7B

Accessories

Oil drain kit:

Description : This kit includes the removable tank to contain oil spillage and a holding fixture.

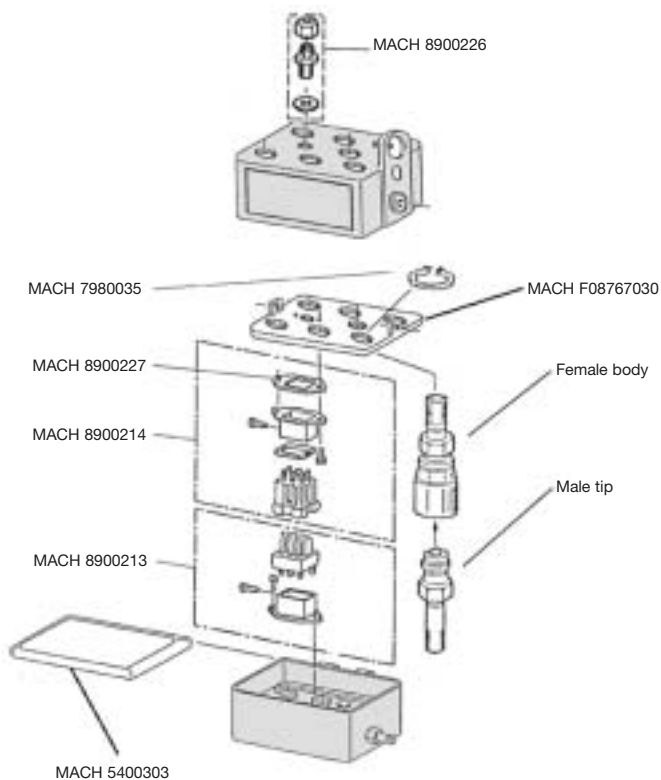
Part number
MACH A



Spare parts

Part	Part number
Electrical socket	MACH 8900214
Washer	MACH 8900227
Grommet	MACH 8900226
Electrical plug	MACH 8900213
Snap ring	MACH 7980035
Counter plate	MACH F08767030
Cover	MACH 5400303

Part	End configuration	Part number
Female body	DIN 2353-15L	3V54D6X5MCH
Male tip	DIN 2353-15L	4V14E6X5MCHA
Female body	DIN 2353-12L	3V54D6X4MCH
Male tip	DIN 2353-12L	4V14E6X4MCHA



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Fluid compatibility chart

The following seal compound and body material compatibility chart is provided as an aid in selecting a specific synthetic rubber compound or body material for a particular application.

Shown here is a list of the seal materials available, with their temperature ranges and the corresponding Parker seal code. Operating and environmental conditions must be considered when making the selection of a quick coupling.

Code used in the part number	Seal material	Temperature range
Without	NBR : Nitrile	-40 + 110°C
W	EPDM : Ethylene Propylene	-50 + 150°C
Y	FKM : Viton™	-25 + 200°C
Z	CR : Neoprene	-50 + 150°C

To indicate a special material just add the appropriate code letter as a suffix to the part number of the coupler. It is not necessary to use the code "STD" as the standard NBR (Nitrile Butadienne Rubber) seal will be used.

For recommendations for media not listed here, please contact your Parker representative.

Note : This chart is intended as a guide only and is not to be considered as a recommendation to use Parker quick couplings in a specific application or with a specific fluid. Other factors that must be considered include but are not limited to: fluid and ambient temperature, system pressure, both operating and peaks, frequency of connection and disconnection, and applicable standards or regulations.

Codes: 1 = satisfactory 2 = fair 3 = not recommended 4 = insufficient data available

Media	Body material				Seal material			
	Brass	Steel	316 S.S.	303 S.S.	NBR (Nitrile)	EPDM (EP)	FKM (Viton™)	CR (Neoprene)
3M FC -75	4	4	4	4	1	1	2	1
Acetamide	4	4	1	2	1	1	3	1
Acetic acid (5%)	3	3	1	1	2	1	1	1
Acetone	1	2	1	1	3	1	3	3
Acetophenone	2	2	2	1	3	1	3	3
Acetyl acetone	2	2	2	2	3	1	3	3
Acetyl chloride	4	2	2	2	3	3	1	3
Acetylene	3	2	1	1	1	1	1	2
Air (100 °C)	1	2	1	1	1	1	1	1
Air (150 °C)	1	2	1	1	2	2	1	2
Air (200 °C)	1	2	1	1	3	3	1	3
Aluminium acetate	4	4	4	4	2	1	3	2
Aluminium bromide	4	4	4	4	1	1	1	1
Aluminium chloride (10%)	3	3	3	3	1	1	1	1
Aluminium chloride (100%)	3	2	2	2	1	1	1	1
Aluminium fluoride	3	3	3	3	1	1	1	1
Aluminium nitrate	3	3	2	2	1	1	1	1
Aluminium salts	4	4	4	4	1	1	1	1
Aluminium sulphate	2	3	2	3	1	1	1	1
Alums (NH3, Cr, K)	4	4	4	4	1	1	3	1
Ammonia (anhydrous)	3	2	1	1	2	1	3	1
Ammonia (cold, gas)	3	2	4	1	1	1	3	1
Ammonia (hot, gas)	3	2	4	1	3	2	3	2
Ammonium carbonate	3	2	3	3	3	1	1	1
Ammonium chloride	3	3	2	3	1	1	1	1
Ammonium hydroxide	3	3	1	2	3	1	3	1
Ammonium nitrate	3	3	1	1	1	1	4	1
Ammonium persulfate solution	3	3	1	2	3	1	4	4
Ammonium phosphate (Mono-, Di-, Tri-basic)	3	3	3	2	1	1	4	1
Ammonium salts	4	4	4	4	1	1	3	1
Ammonium sulphate	3	3	2	3	1	1	3	1
Amyl borate	4	4	4	4	1	3	1	1
Amyl chloride	4	2	1	1	4	3	1	3
Amyl chlmononaphtalene	4	4	4	4	3	3	1	3

Appendices
Fluid compatibility chart

Media	Body material				Seal material			
	Brass	Steel	316 S.S.	303 S.S.	NBR (Nitrile)	EPDM (EP)	FKM (Viton™)	CR (Neoprene)
Amyl naphthalene	4	4	4	4	3	3	1	3
Animal oil (lard oil)	2	2	2	2	1	2	1	2
Aroclor 1248	2	3	3	3	3	2	1	3
Aroclor 1254	2	3	3	3	3	2	1	3
Aroclor	2	3	3	3	1	4	1	1
Aromatic fuel -50%	4	4	4	4	2	3	1	3
Arsenic acid	3	3	1	1	1	1	1	1
Asphalt	3	3	1	1	2	3	1	2
ASTM oil, n° 1	1	1	1	1	1	3	1	1
ASTM oil, n° 2	1	1	1	1	1	3	1	2
ASTM oil, n° 3	1	1	1	1	1	3	1	3
ASTM oil, n° 4	1	1	1	1	2	3	1	3
ASTM reference fuel A	3	2	1	1	1	3	1	2
ASTM reference fuel B	3	2	1	1	1	3	1	3
ASTM reference fuel C	3	2	1	1	2	3	1	3
Automotive brake fluid	4	4	4	4	3	1	3	2
Barium chloride	3	3	2	3	1	1	1	1
Barium hydroxide	3	2	2	3	1	1	1	1
Barium salts	4	4	4	4	1	1	1	1
Barium sulphide	3	2	3	3	1	1	1	1
Beer	3	3	1	1	1	1	1	1
Beet sugar liquors	3	3	1	1	1	1	1	2
Benzaldehyde	3	3	2	3	3	1	3	3
Benzene	3	2	3	3	3	3	1	3
Benzenesulfonic acid (10%)	3	3	3	3	3	3	1	2
Benzine	4	4	4	4	1	3	1	2
Benzoic acid	3	3	3	3	3	3	1	3
Benzyl alcohol	4	3	1	2	3	2	1	2
Benzyl chloride	3	3	2	3	3	3	1	3
Bleach liquor	4	4	4	4	3	1	1	2
Borax	3	2	3	3	2	1	1	3
Bordeaux mixture	4	4	4	4	2	1	1	2
Boric acid	3	3	2	3	1	1	1	1
Brake fluid (non-petroleum)	1	1	4	4	3	1	3	2
Brine (sodium chloride)	3	3	1	1	1	1	1	1
Bromine	4	4	4	4	3	3	1	3
Bromine water	4	4	4	4	3	2	1	3
Bunker oil	4	4	4	4	1	3	1	3
Butadiene (monomer)	3	2	1	2	3	3	1	3
Butane	3	1	1	1	1	3	1	1
Butane (2.2 & 2.3-dimethyl)	4	4	4	4	1	3	1	2
Butanol (butyl alcohol)	2	1	1	1	1	2	1	1
Butter (animal fat)	2	3	1	2	1	1	1	2
Butyl butyrate	4	4	4	4	3	1	1	3
Butyl stearate	4	4	4	4	2	3	1	3
Calcine liquors	4	4	4	4	1	1	1	4
Calcium acetate	4	4	4	4	2	1	3	2
Calcium bisulphite	3	3	2	3	2	1	2	2
Calcium carbonate	3	2	3	2	1	1	1	1
Calcium chloride	3	3	2	3	1	1	1	1
Calcium hydroxide	3	3	2	3	1	1	1	1
Calcium hypochlorite	3	3	2	3	2	1	1	2
Calcium salts	4	4	4	4	1	1	1	1
Calcium sulphide	3	3	2	2	1	1	1	1
Caliche liquors	4	4	4	4	1	1	1	1
Cane sugar liquors	4	2	1	1	1	1	1	1
Carbon bisulphide	4	4	4	4	3	3	1	3
Carbon dioxide	1	2	1	1	1	1	1	1
Carbon disulfide	2	2	2	2	3	3	1	3
Carbon monoxide	1	1	1	1	1	1	1	2
Carbon tetrachloride	2	3	1	3	2	3	1	3

Appendices Fluid compatibility chart

Media	Body material				Seal material			
	Brass	Steel	316 S.S.	303 S.S.	NBR (Nitrile)	EPDM (EP)	FKM (Viton™)	CR (Neoprene)
Carbon acid	3	3	1	2	2	1	1	1
Castor oil	1	1	1	1	1	2	1	1
Cellugard	4	4	4	4	1	1	1	1
Cellulube (now fyrquel)	4	4	4	4	3	1	1	3
China wood oil (Tung oil)	2	2	1	1	1	3	1	2
Chlorinated salt brine	4	4	4	4	3	3	1	3
Chlorinated solvents	4	4	4	4	3	3	1	3
Chlorobenzene	3	3	2	3	3	3	1	3
Chlorobutadiene	4	4	4	4	3	3	1	3
Chloroform	3	2	2	1	3	3	1	3
Chlorophenol	4	4	4	4	3	3	1	3
Coconut oil	4	4	4	4	1	3	1	3
Copper chloride	4	4	4	4	1	1	1	2
Copper salts	4	4	4	4	1	1	1	1
Copper sulphate	3	3	2	3	1	1	1	1
Corn oil	2	1	1	1	1	3	1	3
Cottonseed oil	3	2	1	2	1	3	1	3
Creosols	3	2	1	2	3	3	1	3
Creosote	3	3	2	1	1	3	1	2
Cresylic acid	4	2	1	2	3	3	1	3
Crude oil	3	2	1	1	2	3	1	3
Cutting oil	4	1	1	1	1	3	1	2
Decane	4	4	4	4	1	3	1	3
Denatured alcohol	4	4	4	4	1	1	1	1
Detergent (water solution)	3	3	1	1	1	1	1	2
Diesel fuel	1	1	1	1	1	3	1	3
Diethylene glycol	3	1	1	1	1	1	1	1
Dimethyl formamide	4	4	1	1	2	1	3	3
Dow chemical HD50-4	4	4	4	4	4	1	3	2
Dow corning 200, 510, 550	4	4	4	4	2	1	1	1
Dowtherm A, E	3	1	2	2	3	3	1	3
Ethanol	1	3	3	3	3	1	3	1
Ethyl chloride	2	3	1	3	1	3	1	3
Ethyl hexanol	4	4	4	4	1	1	1	1
Ethylene dichloride	3	3	1	2	3	3	1	3
Ethylene glycol	3	2	1	2	1	1	1	1
Fatty acids	3	3	1	2	2	3	1	2
Freon 11	1	4	4	4	2	3	2	3
Freon 12	1	1	3	1	2	3	1	1
Freon 22	1	3	1	1	3	3	3	1
Fuel oil	3	1	1	1	1	3	1	2
Gallic acid	3	3	2	2	2	2	1	2
Gas, liquid, propane (LPG)	1	1	1	1	1	3	1	2
Gas, natural	2	1	1	1	1	3	1	1
Gasoline / petrol	1	2	1	1	1	3	1	3
Gelatine	3	3	1	1	1	1	1	1
Glucose	1	1	1	1	1	1	1	1
Glycerine (glycerol)	2	1	1	1	1	1	1	1
Glycols	3	2	2	2	1	1	1	1
Green sulphate liquor	3	3	3	3	2	1	1	2
Gulf – FR fluid emulsion	4	4	4	4	1	3	1	2
Gulf – FR fluid G	4	4	4	4	1	1	1	1
Gulf – FR fluid P	4	4	4	4	3	2	2	3
Helium	1	1	1	1	1	1	1	1
Heptane	1	1	1	1	1	3	1	2
Hydraulic oil (petroleum base)	1	1	1	1	1	3	1	1
Hydraulic oil (water base)	4	1	1	1	2	1	3	2
Hydrazine	4	3	1	1	2	1	3	2
Hydrogen gas	1	1	1	1	1	1	1	1
Hydrolube	4	4	4	4	1	1	1	2
Iso octane	1	1	1	1	1	3	1	2

Appendices

Fluid compatibility chart

Media	Body material				Seal material			
	Brass	Steel	316 S.S.	303 S.S.	NBR (Nitrile)	EPDM (EP)	FKM (Viton™)	CR (Neoprene)
Isobutyl alcohol	1	1	2	1	2	1	1	2
Isopropyl alcohol	1	1	2	1	2	1	1	2
Isopropyl ether	1	1	1	1	2	3	3	3
JP3 and JP	1	1	1	1	1	3	1	3
Kerosene	1	1	1	1	1	3	1	2
Lard (animal fat)	1	1	1	1	1	2	1	2
Linseed oil	3	1	1	1	1	3	1	3
Lubricating oil SAE 10, 20, 30, 40,50	1	1	1	1	1	3	1	2
Magnesium salts	4	4	4	4	1	1	1	1
Magnesium sulphate	3	3	2	2	1	1	1	1
Mercury	3	3	1	1	1	1	1	1
Methane	1	3	1	1	1	3	1	2
Methanol	1	1	1	1	1	1	3	1
Methyl bromide	4	1	1	1	2	3	1	3
Methyl chloride (wet)	1	3	1	3	3	3	1	3
Methyl chloride (dry)	2	3	1	1	3	3	1	3
Methyl ether	4	4	4	4	1	3	1	3
Methyl ethyl ketone (MEK)	1	1	1	1	3	1	3	3
MIL-F81912 (JP-9)	1	1	1	1	3	3	1	3
MIL-H-5606	1	1	1	1	1	3	1	2
MIL-H-6083	1	1	1	1	1	3	1	1
MIL-H-7083	1	1	1	1	1	1	2	2
MIL-H-8446 (MLO-8515)	2	1	1	1	2	3	1	1
MIL-L-2104 & 2104B	1	1	1	1	1	3	1	2
MIL-L-7808	3	2	1	1	2	3	1	3
Milk	2	1	1	1	1	1	1	1
Mineral oils	1	1	1	1	1	3	1	2
MLO-7277 and MLO-7557	2	1	1	1	3	3	1	3
Mobile HF	1	1	1	1	1	3	1	2
Monomethyl hydrazine	4	4	4	4	2	1	4	2
Naphtha (coal or petroleum)	2	1	2	2	2	3	1	3
Naphthalene	2	1	2	2	3	3	1	3
Naphthenic acid	2	1	2	2	2	3	1	3
Neatsfoot oil	4	4	4	4	1	2	1	3
Nickel acetate	3	2	1	1	2	1	3	2
Nickel chloride	3	3	2	2	1	1	1	2
Nickel salts	4	4	4	4	1	1	1	2
Nickel sulphate	3	3	1	1	1	1	1	1
Nitrogen	1	1	1	1	1	1	1	1
Nitrous oxide	2	2	2	1	1	4	4	4
Octyl alcohol	1	1	1	1	2	3	1	2
Olive oil	2	1	1	1	1	2	1	2
Ortho-dichlorobenzene	2	2	2	2	3	3	1	3
Oxalic acid	3	3	2	1	2	1	1	2
Oxygen (100-200 °C)	1	1	1	1	3	3	2	3
Oxygen (cold)	1	1	1	1	2	1	1	1
Ozone	3	3	1	1	3	1	1	3
Palmitic acid	1	2	1	1	1	2	1	2
Para-dichlorobenzene	2	1	1	2	3	3	1	3
Parker O-Lube	1	1	1	1	1	3	1	1
Peanut oil	2	1	1	1	1	3	1	3
Pentane (2-3 methyl & 2-4 dimethyl)	2	2	2	2	1	3	1	2
Perchloric acid - 2N	3	3	2	2	3	2	1	2
Perchloroethylene	3	2	2	2	2	3	1	3
Petrolatum	1	1	1	1	1	3	1	2
Petroleum oil (below 120 °C)	1	1	1	1	1	3	1	2
Phenol	1	1	1	1	3	3	1	3
Phosphoric acid (3 molar)	3	3	2	2	1	1	1	2
Phosphoric acid (concentrated)	3	3	2	2	3	1	1	3
Phosphorous trichloride	3	3	1	1	3	1	1	3
Picric acid (molten)	3	3	2	2	2	2	1	2

Appendices Fluid compatibility chart

Media	Body material				Seal material			
	Brass	Steel	316 S.S.	303 S.S.	NBR (Nitrile)	EPDM (EP)	FKM (Viton™)	CR (Neoprene)
Picric acid (water solution)	3	3	2	2	1	1	1	1
Pine oil	2	2	1	2	1	3	1	3
Plating solutions (chrome)	1	3	1	1	4	1	1	3
Plating solutions (other)	4	1	1	1	1	1	1	3
Pneumatic service	1	1	1	1	1	1	1	1
Potassium acetate	2	1	2	2	2	1	3	2
Potassium chloride	3	3	1	2	1	1	1	1
Potassium cyanide	3	2	2	2	1	1	1	1
Potassium dichromate	3	1	2	2	1	1	1	1
Potassium hydroxide (50%)	3	2	1	2	2	1	3	2
Potassium nitrate	2	1	1	1	1	1	1	1
Potassium salts	4	4	4	4	1	1	1	1
Potassium sulphate	3	2	1	1	1	1	1	1
PRL - high temp. hydr. oil	4	4	4	4	2	3	1	2
Producer gas	2	1	1	1	1	3	1	2
Propane	1	1	1	1	1	3	1	2
Propyl acetate	3	1	1	1	3	2	3	3
Propyl alcohol	1	1	1	1	1	1	1	1
Propylene	1	1	1	1	3	3	1	3
Pydraul 10E	3	1	1	1	3	1	3	3
Pydraul A-200 (C series)	3	1	1	1	3	3	1	3
Pydraul (3 series)	3	1	1	1	3	1	1	3
Pyrogard 42, 43, 53, 55 (phosphate ester)	4	4	4	4	3	1	1	3
Pyrogard D	4	4	4	4	1	3	3	2
Sea water (salt water)	2	3	1	1	1	1	1	2
Shell irus 905	4	4	4	4	1	3	1	2
Silicone greases	1	1	1	1	1	1	1	1
Silver nitrate	3	3	1	2	2	1	1	1
Skydrol 500 (type 2)	3	1	1	1	3	1	3	3
Skydrol 7000 (type 2)	3	1	1	1	3	1	2	3
Soap solutions	3	3	1	1	1	1	1	2
Sodium acetate	1	1	1	1	2	1	3	2
Sodium bicarbonate	2	2	1	1	1	1	1	1
Sodium bisulphate or bisulphite	3	3	2	1	1	1	1	1
Sodium borate	3	2	2	2	1	1	1	1
Sodium carbonate	4	1	1	1	1	1	1	1
Sodium chloride	3	2	2	2	1	1	1	1
Sodium cyanide	3	1	1	1	1	1	4	1
Sodium hydroxide	3	2	1	2	2	1	2	2
Sodium hydroxide (50%)	3	3	1	2	2	1	2	2
Sodium metaphosphate	2	1	2	2	1	1	1	2
Sodium nitrate	3	2	1	1	2	1	4	2
Sodium perborate	3	3	1	1	2	1	1	2
Sodium peroxide	3	1	2	2	2	1	1	2
Sodium phosphates	1	3	2	1	1	1	1	2
Sodium salts	4	4	4	4	1	1	1	2
Sodium sulphate	3	2	1	1	1	1	1	1
Sodium sulphite & sulphide	3	3	2	3	1	1	1	1
Sodium thiosulphate	3	3	1	2	2	1	1	1
Soybean oil	2	1	1	1	1	3	1	3
Stannous chloride (15 %)	3	3	2	3	1	1	1	1
Steam (below 200 °C)	1	3	1	1	3	1	3	3
Stoddard solvents	2	1	1	1	1	3	1	2
Sucrose solutions	1	1	1	1	1	1	1	2
Sulphur	2	1	1	1	3	1	1	1
Sulphur liquors	1	1	1	1	2	2	1	2
Sulphur (molten)	3	3	1	1	3	3	1	3
Sulphur dioxide (dry)	3	1	1	3	3	1	3	3
Sulphur trioxide (dry)	2	2	2	3	3	2	1	3
Sunsafe	3	1	1	1	1	3	1	2
Tannic acid (10%)	1	3	2	3	1	1	1	2

Appendices
Fluid compatibility chart

Media	Body material				Seal material			
	Brass	Steel	316 S.S.	303 S.S.	NBR (Nitrile)	EPDM (EP)	FKM (Viton™)	CR (Neoprene)
Tar (bituminous)	2	1	1	1	2	3	1	3
Tartaric acid	2	3	3	2	1	2	1	2
Terpineol	4	4	4	4	2	3	1	3
Tertiary butyl alcohol	1	1	1	1	2	2	1	2
Tetrachloroethane	4	2	1	2	3	3	1	3
Tetrachloroethylene	3	2	2	4	3	3	1	3
Tetraethyl lead	1	1	1	1	2	3	1	2
Tetraethyl lead (blend)	1	1	1	1	2	3	1	3
Titanium tetrachloride	2	1	2	3	2	3	1	3
Toluene	1	1	1	1	3	3	1	3
Transformer oil	1	1	1	1	1	3	1	2
Transmission fluid (type A)	1	1	1	1	1	3	1	2
Trichloroethane	4	2	1	4	3	3	1	3
Trichloroethylene	3	2	2	2	3	3	1	3
Tricresyl phosphate	4	1	2	2	3	1	2	3
Turbine oil #15 (MIL-L-7808A)	4	2	1	1	2	3	1	3
Turpentine	3	2	1	1	1	3	1	3
Varnish	1	1	1	1	2	3	1	3
Water	1	3	1	1	1	1	2	2
Whiskey	1	3	1	1	1	1	1	1
Wine	1	3	1	1	1	1	1	1
Wood oil	4	2	1	1	1	3	1	2
Xylene	1	2	1	1	3	3	1	3
Zinc sulphate	3	3	2	2	1	1	1	1

SAFETY GUIDE FOR SELECTING AND USING QUICK ACTION COUPLINGS AND RELATED ACCESSORIES



DANGER: failure or improper selection or improper use of quick action couplings or related accessories can cause death, personal injury and property damage. Possible consequences of failure or improper selection or improper use of quick action couplings or related accessories include but are not limited to:

- Couplings or parts thrown off a high speed
- High velocity fluid discharge
- Contact with suddenly moving or falling objects that are to be held in position or moved by the conveyed fluid
- Dangerously whipping hose
- Explosion or burning of the conveyed fluid
- Contact with conveyed fluids that may be hot, cold, toxic, or otherwise injurious
- Sparking or explosion while paint or flammable

Before selecting or using any Parker quick action couplings or related accessories, it is important that you read and follow the following instructions.

1.0 GENERAL INSTRUCTIONS

1.1 Scope: this safety guide provides instructions for selecting and using (including installing connecting, disconnecting, and maintaining) quick action couplings and related accessories (including caps, plugs, blow guns). This safety guide is a supplement to and is to be used with the specific Parker publications for the specific quick action couplings and related accessories that are being considered for use.

1.2 Fail-Safe: quick action couplings or the hose they are attached to can fail without warning for many reasons. Design all systems and equipment in a fail-safe mode, so that failure of the quick action coupling or hose will not endanger persons or property.

1.3 Distribution : provide a copy of this safety guide to each person who is responsible for selecting or using quick action coupling products. Do not select or use quick action couplings without thoroughly reading and understanding this safety guide as well as the specific Parker publications for the products considered or selected.

1.4 User responsibility: due to the wide variety of operating conditions and uses for quick action couplings, Parker and its distributors do not represent or warrant that any particular quick action coupling is suitable for any specific end use system. This safety guide does not analyse all technical parameters that must be considered in selecting a product. The user, through its own analysis and testing, is solely responsible for:

- Making the final selection of the quick action couplings.
- Assuring that the user's requirements are met and that the use presents no health or safety hazards.
- Providing all appropriate health and safety warnings on the equipment on which the quick action couplings are used.

1.5 Additional questions: call the appropriate Parker customer service department if you have any questions or require any additional information. For the telephone numbers of the appropriate customer service department, see the Parker publication for the product being considered or used.

2.0 QUICK ACTION COUPLINGS SELECTION INSTRUCTIONS

2.1 Pressure: quick action couplings selection must be made so that the published rated pressure of the coupling is equal to or greater than the maximum system pressure. Pressure surges in the system higher than the rated pressure of the coupling will shorten the quick action coupling's life. Do not confuse burst pressure or other pressure values with rated pressure and do not use burst pressure or other pressure values for this purpose.

2.2 Fluid compatibility: quick action couplings selection must assure compatibility of the body and seal materials with the fluid media used. See the fluid compatibility chart.

2.3 Temperature: be certain that fluid and ambient temperatures, both steady and transient, do not exceed the limitations of the quick action couplings. Use caution and hand protection when connecting or disconnecting quick action couplings that are heated or cooled by the media they are conducting or by their environment.

2.4 Size: transmission or power by means of pressurized liquid varies with pressure and rate of flow. The size of the quick action couplings and other components of the system must be adequate to keep pressure losses to a minimum and avoid damage due to heat generation or excessive fluid velocity.

2.5 Pressurised connection or disconnection: if connecting or disconnecting under pressure is a requirement, use only quick action couplings designed for that purpose. The rated operating pressure of a quick action coupling may not be the pressure at which it may be safely connected or disconnected.

2.6 Environment: care must be taken to ensure that quick action couplings are either compatible with or protected from the environment (that is, surrounding conditions) to which they are exposed. Environmental conditions including but not limited to ultraviolet radiation, ozone, moisture, water, salt water, chemicals, and air pollutants can cause degradation and premature failure.

2.7 Locking means: ball locking quick action couplings can unintentionally disconnect if they are dragged over obstructions on the end of a hose or if the sleeve is bumped or moved enough to cause disconnection. Sleeves designed with flanges to provide better

gripping for oily or gloved hands are especially susceptible to accidental disconnection and should not be used where these conditions exist. Sleeve lock or union (threaded) sleeve designs should be considered where there is a potential for accidental uncoupling.

2.8 Mechanical loads: external forces can significantly reduce quick action couplings' life or cause failure. Mechanical loads which must be considered include excessive tensile or side loads, and vibration. Unusual applications may require special testing prior to quick action couplings selection.

2.9 Specifications and standards: when selecting quick action couplings, government, industry, and Parker specifications must be reviewed and followed as applicable.

2.10 Vacuum: not all quick action couplings are suitable or recommended for vacuum service. Quick action couplings used for vacuum applications must be selected to ensure that the quick action couplings will withstand the vacuum and pressure of the system.

2.11 Fire resistant fluids: some fire resistant fluids require seals other than the standard NBR (nitrile) used in many quick action couplings.

2.12 Radiant heat: quick action couplings can be heated to destruction or loss of sealing without contact by such nearby items as hot manifolds or molten metal. The same heat source may then initiate a fire. This can occur despite the presence of cool air around the quick action couplings.

2.13 Welding and brazing: heating of plated parts, including quick action couplings and port adapters, above 450 °F (232 °C) such as during welding, brazing, or soldering may emit deadly gases and may cause coupling seal damage.

3.0 QUICK ACTION COUPLINGS INSTALLATION INSTRUCTIONS

3.1 Pre-installation inspection: before installing a quick action coupling, visually inspect it and check for correct style, body material, seal material, and catalogue number. Before final installation, coupling halves should be connected and disconnected with a sample of the mating half with which they will be used.

3.2 Quick action coupling halves from other manufacturers: if a quick action coupling assembly is made up of one Parker half and one half from another manufacturer, the lowest pressure rating of the two halves should not be exceeded.

3.3 Fitting installation: use a thread sealant, when assembling taper pipe thread joints in quick action couplings. Be sure the sealant is compatible with the system fluid or gas. To avoid system contamination, use a liquid or paste type sealant rather than a tape style. Use the flats provided to hold the quick action coupling when installing fittings. Do not use pipe wrenches or a vice on other parts of the coupling to hold it when installing or a removing fittings as damage or loosening of threaded joints in the coupling assembly could result. Do not apply excessive torque to taper pipe threads because cracking or splitting of the female component can result.

3.4 Caps and plugs: use dust caps and plugs when quick action couplings are not coupled to exclude dirt and contamination and to protect critical surfaces from damage.

3.5 Coupling location: locate quick action couplings where they can be reached for connection or disconnection without exposing the operator to slipping, falling, getting sprayed, or coming in contact with hot or moving parts.

3.6 Hose whips: use a hose whip (a short length of hose between the tool and the coupling half) instead of rigidly mounting a coupling half on hand tools or other devices. This reduces the potential for coupling damage if the tool is dropped and provides some isolation from mechanical vibration which could cause uncoupling.

4.0 QUICK ACTION COUPLINGS MAINTENANCE INSTRUCTIONS

4.1 Even with proper selection and installation, quick action coupling life may be significantly reduced without a continuing maintenance program. Frequency should be determined by the severity of the application and risk potential. A maintenance program must be established and followed by the user and must include the following as a minimum:

4.2 Visual inspection of quick action couplings: any of the following conditions require immediate shut down and replacement of the quick action coupling:

- Cracked, damaged, or corroded quick action couplings parts.
- Leaks at the fitting, valve or mating seal.
- Broken coupling mounting hardware, especially breakaway clamps.

4.3 Visual inspection all other:

- Leaking seals or port connections.
- Excess dirt build-up on the coupling locking means or on the interface area of either coupling half.
- Defective clamps, guards, and shields.
- System fluid level, fluid type and any entrapment.

4.4 Functional test: operate the system at maximum operating pressure and check for possible malfunctions and freedom from leaks. Personnel must avoid potential hazardous areas while testing and using the system.

4.5 Replacement intervals: specific replacement intervals must be considered based on previous service life, government or industry recommendations, or when failures could result in unacceptable downtime, damage or injury risk. See instruction 1.2 above.

Dimensions

Size of the unit	Tube O/D mm	Tube O/D inch	Dimensions
4	6	1/4	In (") x 25.4 = mm mm ÷ 25.4 = In (")
5	8	5/16	
6	10	3/8	
8	12	1/2	
10	16	5/8	
12	20	3/4	
16	25	1	
20	32	1 1/4	
24	40	1 1/2	
32	50	2	

Weight

Weight
Weight in LB x 453.59 = Weight in grams Weight in grams ÷ 453.59 = Weight in LB

Flow rate

l/min	UK GPM	US GPM	Flow rate
1	0.2	0.26	l/min x 0.219976 = gal/min (UK) l/min x 0.264218 = gal/min (US)
15	3.3	3.96	
30	6.6	7.93	
45	9.9	11.89	
100	22.0	26.42	
250	55.0	66.05	
500	110.0	132.11	
1000	220.0	264.22	

Pressure

Bar	Mpa	PSI	Pressure
1	0.1	14.5	bar x 14.5038 = PSI 1 Mpa = 10 bars
6	0.6	87.0	
10	1.0	145.0	
15	1.5	217.5	
20	2.0	290.0	
30	3.0	435.0	
50	5.0	725.0	
100	10.0	1 450.5	
200	20.0	2 900.5	
250	25.0	3 625.0	
500	50.0	7 252.0	
700	70.0	10 152.5	
1000	100.0	14 503.5	
1500	150.0	21 755.0	

Material

Designations used in the catalogue	NF. EN 10088-3	
	Numerical	Symbolical
AISI 302	1.4301	X5 Cr Ni 18-10
AISI 303	1.4305	X8 Cr Ni S 18-9
AISI 316	1.4401	X5 Cr Ni Mo 17-12-2
AISI 316 L	1.4404	X2 Cr Ni Mo 17-12-2
AISI 316 L	1.4435	X2 Cr Ni Mo 18-14-3

Temperature

°F → °C	°F → °C	°C → °F	°C → °F
-40 -40.0	+105 +40.6	-40 -40	+105 +221
-35 -37.2	+110 +43.3	-35 -31	+110 +230
-30 -34.4	+115 +46.1	-30 -22	+115 +239
-25 -31.7	+120 +48.9	-25 -13	+120 +248
-20 -28.9	+125 +51.7	-20 -4	+125 +257
-15 -26.1	+130 +54.4	-17.8 0	+130 +266
-10 -23.3	+135 +57.2	-15 +5	+135 +275
-5 -20.6	+140 +60.0	-10 +14	+140 +284
0 -17.8	+145 +62.8	-5 +23	+145 +293
+5 -15.0	+150 +65.6	0 +32	+150 +302
+10 -12.2	+155 +68.3	+5 +41	+155 +311
+15 -9.4	+160 +71.1	+10 +50	+160 +320
+20 -6.7	+165 +73.9	+15 +59	+165 +329
+25 -3.9	+170 +76.7	+20 +68	+170 +338
+30 -1.1	+175 +79.4	+25 +77	+175 +347
+32 0.0	+180 +82.2	+30 +86	+180 +356
+35 +1.7	+185 +85.0	+35 +95	+185 +365
+40 +4.4	+190 +87.8	+40 +104	+190 +374
+45 +7.2	+195 +90.6	+45 +113	+195 +383
+50 +10.0	+200 +93.3	+50 +122	+200 +392
+55 +12.8	+205 +96.1	+55 +131	+205 +401
+60 +15.6	+210 +98.9	+60 +140	+210 +410
+65 +18.3	+215 +101.7	+65 +149	+215 +419
+70 +21.1	+220 +104.4	+70 +158	+220 +428
+75 +23.9	+225 +107.2	+75 +167	+225 +437
+80 +26.7	+230 +110.0	+80 +176	+230 +446
+85 +29.4	+235 +112.8	+85 +185	+235 +455
+90 +32.2	+240 +115.6	+90 +194	+240 +464
+95 +35.0	+245 +118.3	+95 +203	+245 +473
+100 +37.8	+250 +121.1	+100 +212	+250 +482

Temperature
(°C x 1.8) + 32 = °F
(°F - 32) ÷ 1.8 = °C

Assembly torque

BSPP thread (ISO 1179-1 / DIN 3852-T2)

O-Ring with Retaining Ring

Thread G	Series	Tube O/D mm	Assembly torque Nm +10% -0
G 1/8A	L	6	18
G 1/4A	L	8	35
	L	10	35
G 3/8A	L	12	70
G 1/2A	L	15	90
	L	18	90
G 3/4A	L	22	180
G 1A	L	28	310
G 1 1/4A	L	35	450
G 1 1/2A	L	42	540
G 1/4A	S	6	55
	S	8	55
G 3/8A	S	10	80
	S	12	80
G 1/2A	S	14	115
	S	16	115
G 3/4A	S	20	180
G 1A	S	25	310
G 1 1/4A	S	30	450
G 1 1/2A	S	38	540

Note : Lubricate threads before assembly. Tightening torques are for steel fittings assembled in steel components.

Metric thread (ISO 6149 / DIN 3852 -T3)

Series	Thread mm	Assembly torque Nm +10% -0
L	M8x1	8
L	M10x1	15
L	M12x1.5	25
L	M14x1.5	35
L	M16x1.5	40
L	M18x1.5	45
L	M22x1.5	60
L	M27x2	100
L	M33x2	160
L	M42x2	210
L	M48x2	260
L	M60x2	315
S	M8x1	10
S	M10x1	20
S	M12x1.5	35
S	M14x1.5	45
S	M16x1.5	55
S	M18x1.5	70
S	M22x1.5	100
S	M27x2	170
S	M33x2	310
S	M42x2	330
S	M48x2	420
S	M60x2	500

Note : Lubricate threads before assembly. Tightening torques are for steel fittings assembled in steel components.

NPTF thread

Thread inch	TFFT*
1/8-27	2 - 3
1/4-18	2 - 3
3/8-18	2 - 3
1/2-14	2 - 3
3/4-14	2 - 3
1-11 1/2	1.5 - 2.5
1 1/4-11 1/2	1.5 - 2.5
1 1/2-11 1/2	1.5 - 2.5
2-11 1/2	1.5 - 2.5

* Turn From Finger Tight: The proper method of assembling tapered threaded connectors is to assemble them finger tight and then wrench tighten further to the specified number of turns from finger tight (TFFT). Assembly Turns From Finger Tight values for steel, stainless steel and brass fittings.

UNF thread (SAE J 1926/1, ISO 11926)

Size of the unit	Thread inch	Assembly torque Nm +10% -0
2	5/16-24 UNF - 2B	10
3	3/8-24 UNF - 2B	19
4	7/16-20 UNF - 2B	25
5	1/2-20 UNF - 2B	30
6	9/16-18 UNF - 2B	37
8	3/4-16 UNF - 2B	65
10	7/8-14 UNF - 2B	122
12	1 1/16-12 UN - 2B	150
14	1 3/16-12 UN - 2B	197
16	1 5/16-12 UN - 2B	217
20	1 5/8-12 UN - 2B	305
24	1 7/8-12 UN - 2B	340
32	2 1/2-12 UN - 2B	440

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3009-2	24	4V14E6X4MCHA	54	5019-4PG	43	BH2-61-BSPP	10	FEM-1001-20FB	17
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3V54F4B4	32	4V14T5X5	35	5029-4PY	36	CFE-1002-P	14, 18	FEM-372-22MCL	17
3V54G4X3	32	4V14X5X3	35	5205-2M	43	CFE-252-P	14, 18	FEM-372-6FB	17
3V54G4X4	32	4V14X5X4	35	5205-3	43	CFE-372-P	14, 18	FEM-372-8FB	17
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4050-3P	42	4V54D6X5	35	9404-F8H6S2	39	CL-252-4FB	22	FEM-502-22MCL	17
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H1-66	11	IA-752-12FB	26	MACH6/715LTE	53	QHPA54-D6X5	46	SH8-62-BSPP	08
H1-66M	11	JT01U28-18.72QE	24	MACH7B	53	QHPA54-D7X5A	46	SH8-63	08
H2016-62	07	JT020013N0674	11	MACH7T	53	QHPA54-D7X6A	46	SH8-63-BSPP	08
H2016-62-BSPP	07	JT020013V0747	11	PFE-1001-P	14,18	QHPA54-DP	47	SSH12-62LY	09
H2016-63	07	JT020015N0674	11	PFE-251-P	14,18	QHPA54-E6X4	46	SSH12-62LY-BSPP	09
H2016-63-BSPP	07	JT020015V0747	11	PFE-371-P	14,18	QHPA54-E6X5	46	SSH12-62NY	09
H2020-62	07	JT020017N0674	47	PFE-501-P	14,18	QHPA54-E7X6A	46	SSH12-62NY-BSPP	09
H2020-62-BSPP	07	JT020112N0674	27	PFE-621-P	14,18	QHPA54-F4A4	47	SSH12-63LY	09
H2020-63	07	JT020113N0552	43	PFE-751-P	14,18	QHPA54-G4X4	47	SSH12-63LY-BSPP	09
H2020-63-BSPP	07	JT020114N0552	24	PIA-1001-P	27	QHPA56-D6X6	46	SSH12-63NY	09
H2024-62	07	JT020115N0674	27	PIA-251-P	27	QHPA56-D6X7	46	SSH12-63NY-BSPP	09
H2024-62-BSPP	07	JT020116N0552	43	PIA-371-P	27	QHPA56-D7X7A	46	SSH1-62Y	09
H2024-63	07	JT020116N0674	11	PIA-501-P	27	QHPA56-D7X8A	46	SSH1-62Y-BSPP	09
H2024-63-BSPP	07	JT020116V0747	11	PIA-751-P	27	QHPA56-DP	47	SSH1-63Y	09
H2-62	07	JT020117N0552	27, 37	QHPA13-D6X2	46	QHPA56-E6X6	46	SSH1-63Y-BSPP	09
H2-62-BSPP	07		40, 50	QHPA13-D6X3	46	QHPA56-E7X7A	46	SSH2016-62Y	09
H2-63	07	JT020123N0674	27	QHPA13-D7X3A	46	QHPA56-E7X8A	46	SSH2016-62Y-BSPP	09
H2-63-BSPP	07	JT020126N0674	27, 47	QHPA13-D7X4A	46	QHPA56-G4X6	47	SSH2016-63Y	09
H2-65	11	JT020138N0674	47	QHPA13-DC	47	QHPA56-G4X8	47	SSH2016-63Y-BSPP	09
H2-65M	11	JT020211N0552	43	QHPA13-E6X2	46	QHPA58-D7X10A	46	SSH2020-62Y	09
H2-66	11	JT020213N0674	11	QHPA13-E6X3	46	QHPA58-D7X9A	46	SSH2020-62Y-BSPP	09
H2-66M	11	JT020213V0747	11	QHPA13-E7X3A	46	QHPA58-DP	47	SSH2020-63Y	09
H3-62	07	JT020215N0674	43	QHPA13-E7X4A	46	QHPA58-E7X10A	46	SSH2020-63Y-BSPP	09
H3-62-BSPP	07	JT020218N0552	43	QHPA13-F4A3	47	QHPA58-E7X9A	46	SSH2024-62Y	09
H3-63	07	JT020218N0674	11	QHPA13-G4X3	47	SH12-62L	08	SSH2024-62Y-BSPP	09
H3-63-BSPP	07	JT020218V0747	11	QHPA14-D6X4	46	SH12-62L-BSPP	08	SSH2024-63Y	09
H3-65	11	JT020222N0674	11	QHPA14-D6X5	46	SH12-62N	08	SSH2024-63Y-BSPP	09
H3-65M	11	JT020222V0747	11	QHPA14-D7X5A	46	SH12-62N-BSPP	08	SSH2-62Y	09
H3-66	11	JT020223S0604	47	QHPA14-D7X6A	46	SH12-63L	08	SSH2-62Y-BSPP	09
H3-66M	11	JT020224N0674	11	QHPA14-DC	47	SH12-63L-BSPP	08	SSH2-63Y	09
H4-62	07	JT020224V0747	11	QHPA14-E6X4	46	SH12-63N	08	SSH2-63Y-BSPP	09
H4-62-BSPP	07	JT020230S0604	47	QHPA14-E6X5	46	SH12-63N-BSPP	08	SSH3-62Y	09
H4-63	07	JT020333N0674	11	QHPA14-E7X6A	46	SH1-62	08	SSH3-62Y-BSPP	09
H4-63-BSPP	07	JT020333V0747	11	QHPA14-F4A4	47	SH1-62-BSPP	08	SSH3-63Y	09
H4-65	11	JT060022S0604	47	QHPA14-G4X4	47	SH1-63	08	SSH3-63Y-BSPP	09
H4-65M	11	JT060044N0552	37	QHPA16-D6X6	46	SH1-63-BSPP	08	SSH4-62Y	09
H4-66	11	JT060056S0604	47	QHPA16-D6X7	46	SH2016-62	08	SSH4-62Y-BSPP	09
H4-66M	11	JT080112N0300	27	QHPA16-D7X7A	46	SH2016-62-BSPP	08	SSH4-63Y	09
H6-62	07	JT080115N0300	27	QHPA16-D7X8A	46	SH2016-63	08	SSH4-63Y-BSPP	09
H6-62-BSPP	07	JT080123N0300	27	QHPA16-DC	47	SH2016-63-BSPP	08	SSH6-62Y	09
H6-63	07	JT080126N0300	27, 47	QHPA16-E6X6	46	SH2020-62	08	SSH6-62Y-BSPP	09
H6-63-BSPP	07	JT090231N0674	47	QHPA16-E7X7A	46	SH2020-62-BSPP	08	SSH6-63Y	09
H6-65	11	LV14E6X5MLX	50	QHPA16-E7X8A	46	SH2020-63	08	SSH6-63Y-BSPP	09
H6-65M	11	LV54D6X5MLXC	50	QHPA16-G4X6	47	SH2020-63-BSPP	08	SSH8-62Y	09
H6-66	11	MACH 5400303	54	QHPA16-G4X8	47	SH2024-62	08	SSH8-62Y-BSPP	09
H6-66M	11	MACH 7980035	54	QHPA18-D7X10A	46	SH2024-62-BSPP	08	SSH8-63Y	09
H67A-28	11	MACH 8900213	54	QHPA18-D7X9A	46	SH2024-63	08	SSH8-63Y-BSPP	09
H67C-28	11	MACH 8900214	54	QHPA18-DC	47	SH2024-63-BSPP	08		
H8-62	07	MACH 8900226	54	QHPA18-E7X10A	46	SH2-62	08		
H8-62-BSPP	07	MACH 8900227	54	QHPA18-E7X9A	46	SH2-62-BSPP	08		
H8-63	07	MACH A	54	QHPA23-6	47	SH2-63	08		
H8-63-BSPP	07	MACH F08767030	54	QHPA24-6	47	SH2-63-BSPP	08		
H8-65	11	MACH2-IA-B	50	QHPA28-6	47	SH3-62	08		
H8-65M	11	MACH2-IA-P	50	QHPA53-D6X2	46	SH3-62-BSPP	08		
H8-66	11	MACH4/715LB	53	QHPA53-D6X3	46	SH3-63	08		
H8-66M	11	MACH4/715LBE	53	QHPA53-D7X3A	46	SH3-63-BSPP	08		
IA-1001-16FB	26	MACH4/715LT	53	QHPA53-D7X4A	46	SH4-62	08		
IA-1002-16FB	26	MACH4/715LTE	53	QHPA53-DP	47	SH4-62-BSPP	08		



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