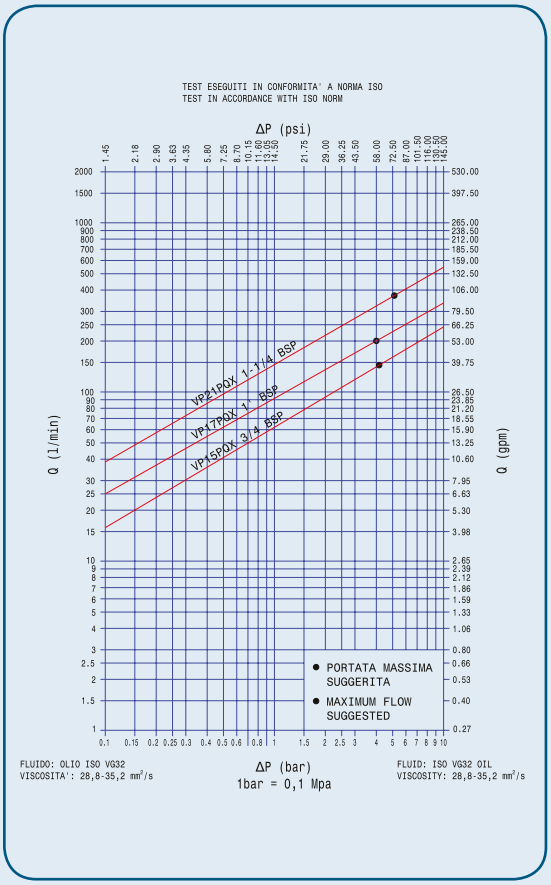
VP-QX
SPECIAL SERIES

Stucchi®



Technical specifications and options

Interchange
Stucchi profile

Sealing description
Nitrile NBR

Connection system
Screw

Available sizes
from 5/8" to 1"

Material /treatment
Carbon steel, QPQ; male piston and female flat face valve in stainless steel; internal parts in carbon steel

Available threads
BSP, BSP ED

Operating pressure
up to 420 bar

Locking mechanism
Screw to connect, Safety sleeve

Flow rate
up to 378 l/min

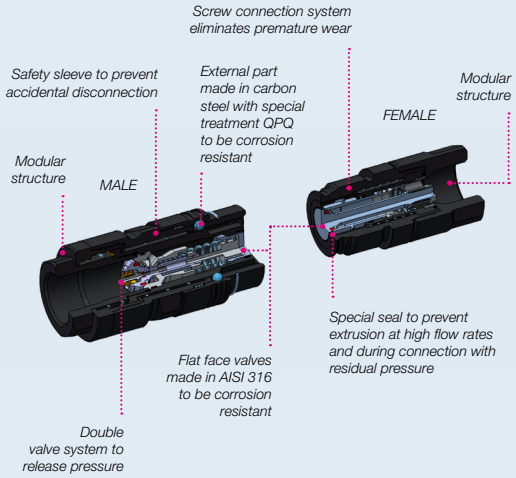
Temperature
-20°C / +100°C

Valving style
Flat face

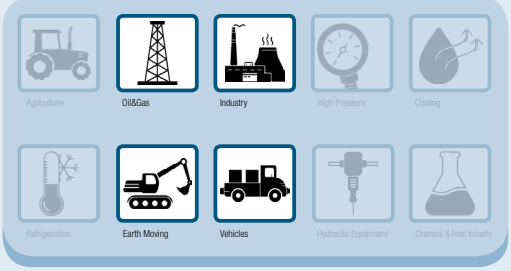
Connection under pressure
Allowed with Easy CUP

Benefits

- Special Stucchi solution for hydraulic fluid power application where a superior resistance is required in certain corrosive environments
- Products manufactured in carbon steel and treated with special nitriding and oxidation QPQ treatment
- External parts in contact with oil (male and female flat face valve) in stainless steel AISI316 to be corrosion resistant
- Internal components in carbon steel with CR3 zinc plating to be suitable for hydraulic oil media.
- This series combines the benefits of VP-P series with the special design of the surface (QPQ with AISI)
- The internal pressure release valve system allows easy connection/ disconnection with both sides under high residual pressure
- Flat face is easy to clean, reducing the inclusion of contamination inside the hydraulic circuit
- Minimal fluid spillage during disconnection, reducing fluid spillage to the environment
- Minimal air inclusion during connection
- Internal valve design creates minimal pressure drop, maintaining circuit efficiency in the system
- The safety sleeve integrated in the connection system prevents the accidental disconnection
- The modular design allows flexibility with a wide range of configurations
- High resistance to pressure impulses
- Safe and simple to use



MAIN APPLICATIONS



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How to use

- Before to connect, clean the mating surface of the couplings to avoid dirt inclusion in the circuit
- To connect align the female coupling to the male coupling, push the male and twist in one motion to catch the first thread on the female half and continue to thread together (do not push together couplings, screw only)
- The screwing of the threads should be done by hand without the use of the tools for the first part of the connection
- Always connect male and female with the male adaptor fixed on the hose (male adaptor should not rotate during connection)
- The use of tools for the second part of connection can be necessary if there is high residual pressure in the circuit
- Screw the mating halves until the sleeve lock clicks into position. This activates the safety lock and eliminates accidental disconnection of the coupling
- To disconnect push the safety locking sleeve towards the male coupling and unscrew the connection
- The lock is disengaged after one complete rotation of the coupler, continue to unscrew until both halves disconnect
- If the safety lock sleeve will not push back rotate the male coupling to couple direction until the sleeve will push back
- Apply protection cap after disconnection to protect from dust and dirt
- Provide an adaquate maintenance of the parts (washing with clear water, lubricate and grease the QPQ surface) to prolongue the life in corrosive environment

Performances

Size	Series	Max. flow suggested		Connect torque		Disconnect torque		Spillage	Max. operating pressure						Burst pressure					
									Coupled		Male		Female		Coupled		Male		Female	
Inch		l/min	GPM	Nm	Ibf ft	Nm	Ibf ft	ml	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
5/8	15	148	39,22	1,1	0,81	1,0	0,74	0,03	42	6090	42	6090	25	3625	110	15950	110	15950	80	11600
3/4	17	200	53,00	2,0	1,47	1,4	1,03	0,01	42	6090	42	6090	25	3625	100	14500	100	14500	80	11600
1	21	378	100,17	2,2	1,62	1,8	1,33	0,06	42	6090	42	6090	25	3625	95	13780	90	13780	80	11600

Max. residual during connection						Max. residual pressure during Disconnection	
Male, female to drain		Female, male to drain		Male and female			
MPa	psi	MPa	psi	MPa	psi	MPa	psi
25	3625	25	3625	20	2900	20	2900
25	3625	25	3625	15	2175	15	2175
25	3625	25	3625	15	2175	15	2175

* Spillage is an indicative value of the fluid loss during disconnection (according to ISO norm test method).
Connect torque and disconnect torque without residual pressure.
Due to increasing of the internal residual pressure, the torque increases.

Temperature range:
Standard seals NBR, PUR, POM from -20 °C to +100 °C (from -4 °F to +212 °F).
Please read carefully Instructions and warnings for proper selection of the products.

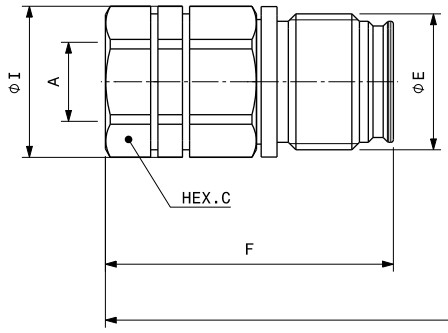
Tests performed:
The couplings have been tested at max. operating pressure for 100.000 impulses according to ISO norm.

Connection and disconnection with residual pressure in both couplings is recommended for occasional operations only.
For ordinary operations it is suggested to release pressure in one side before to connect and disconnect in way that operator effort and wearing of the couplings are reduced.

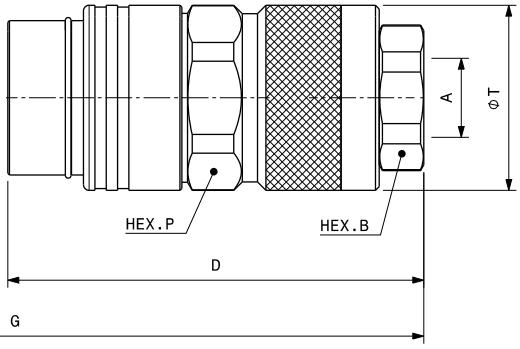
Different possible configurations:
Different threads available upon request.

Overall dimensions

Female



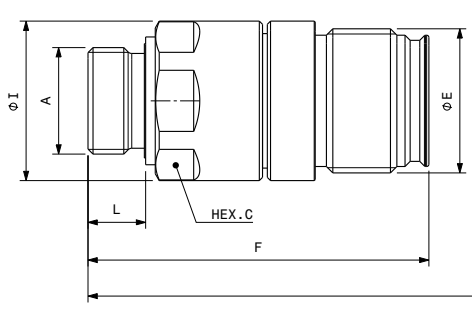
Male



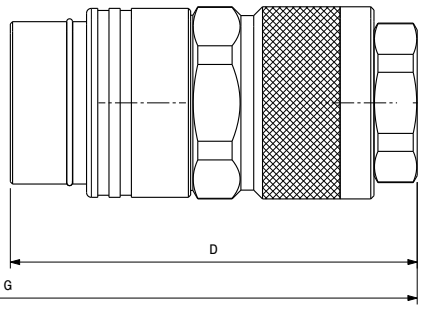
Port description: FEMALE BSPP THREAD (DIN 3852)

Body size	Descriptive code	Item code	Port (A)	E	Overall length			Length			Hex			Hex			Diameter			Weight	
						mm	inch		mm	inch		mm	inch		mm	inch		mm	inch	Kg	Ibs
5/8	F VP15PQX 3/4 BSP	803800048	3/4”	M39x3	G	170,8	6,72	F	83,4	3,28	C	41	1,61	-	-	-	I	44,8	1,76	0,580	1,279
	M VP15PQX 3/4 BSP	803800049						D	110	4,33	B	38,5	1,52	P	48	1,89	T	52,0	2,05	1,131	2,493
3/4	F VP17PQX 1 BSP	803800052	1”	M45x3	G	198,9	7,83	F	98	3,86	C	46	1,81	-	-	-	I	49,8	1,96	0,940	2,072
	M VP17PQX 1 BSP	803800053						D	127,1	5,00	B	49,8	1,96	P	55	2,17	T	60,0	2,36	1,687	3,719
1	F VP21PQX 1-1/4 BSP	803800056	1-1/4”	M55x3	G	214,8	8,46	F	105	4,13	C	55	2,17	-	-	-	I	59,8	2,35	1,410	3,109
	M VP21PQX 1-1/4 BSP	803800057						D	137	5,39	B	55	2,17	P	70	2,76	T	76,0	2,99	2,535	5,589

Female



Male

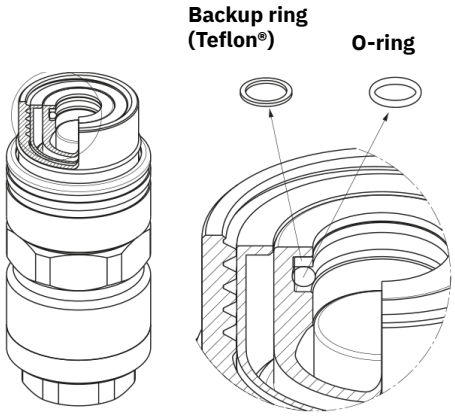


Port description: MALE BSPP THREAD ED type (DIN 3852)

Body size	Descriptive code	Item code	Port (A)	E	Overall length			Length			Hex			Diameter			Weight	
						mm	inch		mm	inch		mm	inch		mm	inch	Kg	Ibs
5/8	F VP15PQXED 3/4 BSP EST	803800050	3/4”	M39x3	G	F+D-18,5	F+D-0,85	F	85,9	3,38	C	41	1,61	I	44,8	1,76	1,053	2,321
3/4	F VP17PQXED 1 BSP EST	803800054	1”	M45x3	G	F+D-22,6	F+D-0,89	F	106,4	4,19	C	46	1,81	I	49,8	1,96	0,940	2,072
1	F VP21PQXED 1-1/4 BSP EST	803800058	1-1/4”	M55x3	G	F+D-27,2	F+D-1,07	F	114	4,49	C	55	2,17	I	59,8	2,35	1,465	3,230

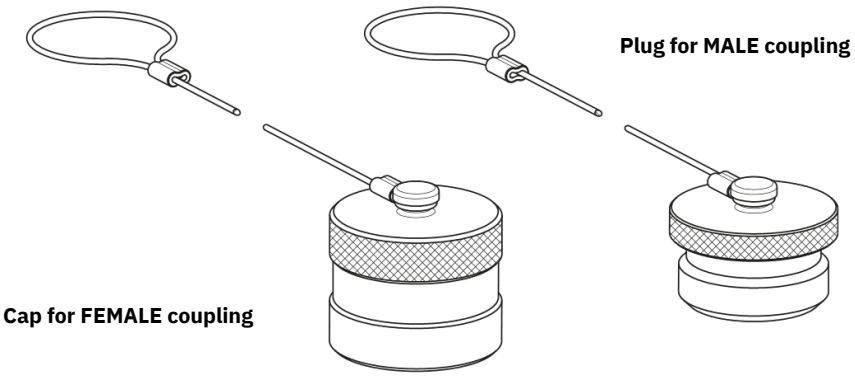
Spare kit seal for male

Repair kit/OR+BK		
Body size	Description	Part number
5/8	SPARE KIT OR NBR+BK M FF 58	815700341
3/4	SPARE KIT OR NBR+BK M FF 34	815700655
1	SPARE KIT OR NBR+BK M FF 100	815700345



Protective caps

Repair kit/OR+BK				
Body size	Description	Cap part number		Material/Color
		Cap for Female	Plug for Male	
5/8	STEEL CAP/PLUG VP-QX15 QPQ	815303098	815303099	carbon steel with QPQ
3/4	STEEL CAP/PLUG VP-QX17 QPQ	815303100	815303101	carbon steel with QPQ
1	STEEL CAP/PLUG VP-QX21 QPQ	815303102	815303103	carbon steel with QPQ



WARNING

A defect, a wrong choice or an improper use of products, can cause injury to persons, animals and objects.
Connect under pressure products are suitable to be connected under residual (static) pressure.
Never connect or disconnect with dynamic pressure (e.g. pump on).
Do not use the female coupling disconnected with high impulse pressure.
Do not couple-uncouple with flow in the circuit.
Do not couple-uncouple when the temperature inside of the circuit is higher than 80 °C (176 °F).
Check the maximum allowable working pressure of the port in use.
It is important to limit contamination in the circuit to avoid compromising the function of the internal valves.
Make sure that the medium used is compatible with seal and material as indicated for each series.
Provide an adequate maintenance of the parts to prolongue the life of the product in corrosive environment (wash with clear water then lubricate and grease the QPQ surface).
In case of doubt please contact Stucchi Technical Support.
The interchangeability is mentioned under the assumption that the manufacturer of the considered products has not changed any dimension.
It is mandatory to carefully read and closely follow the instructions before selecting or using any Stucchi products.
Always refer to the version uploaded in the Instructions and warning section of stucchigroup.com website for the latest release.
For specific, product-related, instructions, please contact Stucchi technical service.