

Stucchi®

Quick Couplings for Custom Multiconnections

stucchigroup.com

The Stucchi expertise in Multiconnections

Thanks to close collaboration with OEMs in the fluid-power hydraulic sector and the experience acquired in the segment over decades of activity, Stucchi has developed three series of products that meet the most stringent requirements for hydraulic connections, suitable to be used in multi-connections built by the customer.

- **FAP-ZN | page 3**
  Is the series of flat face quick couplings suitable for fluid power applications with medium operating pressures and medium impulse pressure stresses; available in different sizes from 3/8 up to 1", it allows to cover the most common hydraulic multi-connection needs.

- **FAP-AS | page 11**
  Is the series of flat face quick couplings suitable for fluid power applications with higher operating pressures and heavy impulse pressure stresses; available in 4 sizes from 3/8 up to 1-1/2", it allows to cover the most demanding hydraulic multiconnection configurations.

- **EC6 | page 20**
  Is the 6-pole electrical connector to be used with the multiconnection, to connect electrical signals, consensus/warning signal and controls of the solenoid valves.

Typical applications for multiconnections







FAP - ZN Series

SPECIAL SERIES

Stucchi®



Technical specifications and options

Interchange
Stucchi profile

Sealing description
Nitrile NBR

Connection system
By multicoupling

Available sizes
from 3/8” to 1”

Material /treatment
Carbon steel / Zn-Ni

Available threads
BSP - NPT - SAE

Operating pressure
Up to 350 bar

Locking mechanism
by multicoupling

Flow rate
Up to 378 l/min

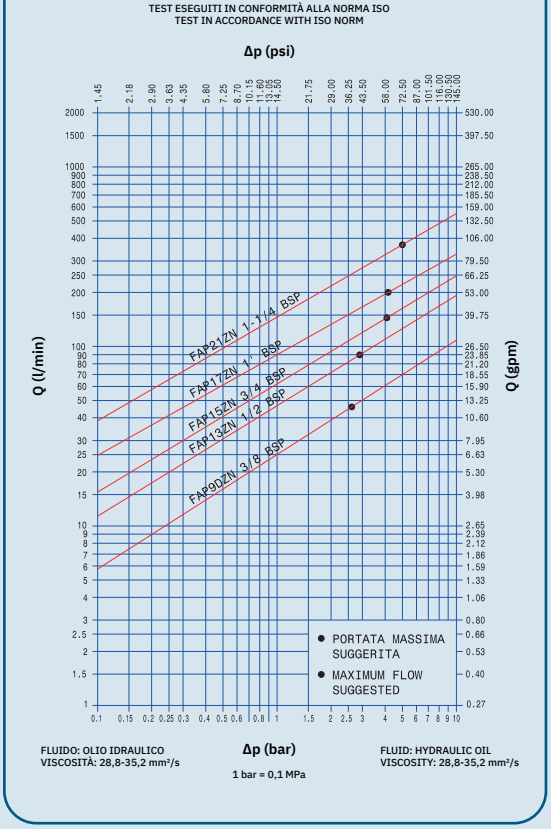
Temperature
-20°C / +100°C

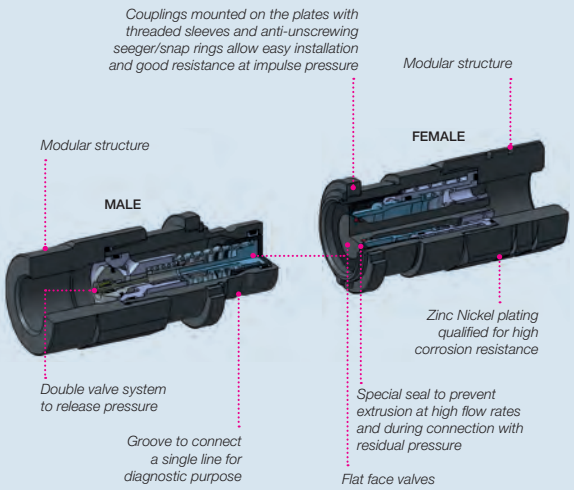
Valving style
Flat face

Connection under pressure
Connection: Both sides
Disconnection: allowed

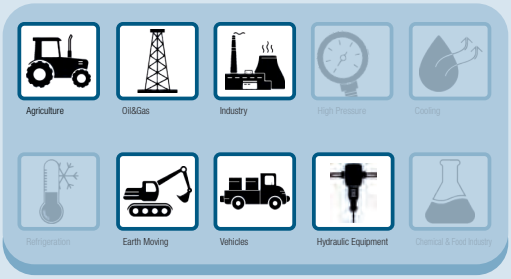
Benefits

- Quick release coupling suitable to be integrated in custom multiconnection.
- Good solution to cover most of hydraulic oil applications - designed for hydraulic fluid power application.
- Flat face is easy to clean, helping to reduce the inclusion of contamination in the hydraulic circuit.
- Minimal fluid loss during connection/disconnection, reducing fluid loss to the environment.
- Minimal air inclusion during connection/disconnection, enhancing correct function of the circuit.
- Internal flow of valve design creates minimal pressure drop, maintaining circuit efficiency in the system.
- Internal pressure release valve system allows an easy connection with high internal residual pressure.
- The modular design allows for broad range of port configurations.
- Couplings without locking balls eliminate the “brinelling” effect.
- Zinc Nickel plating qualified for high corrosion resistance.
- For diagnostic purpose of a single line (example: pressure or flow check for a limited period of time), male FAP-ZN may be connected with a Stucchi “A series” flat face female coupling.
- Compact slim design.
- Safe and simple to use.





MAIN APPLICATIONS



FAP - ZN Series

SPECIAL SERIES

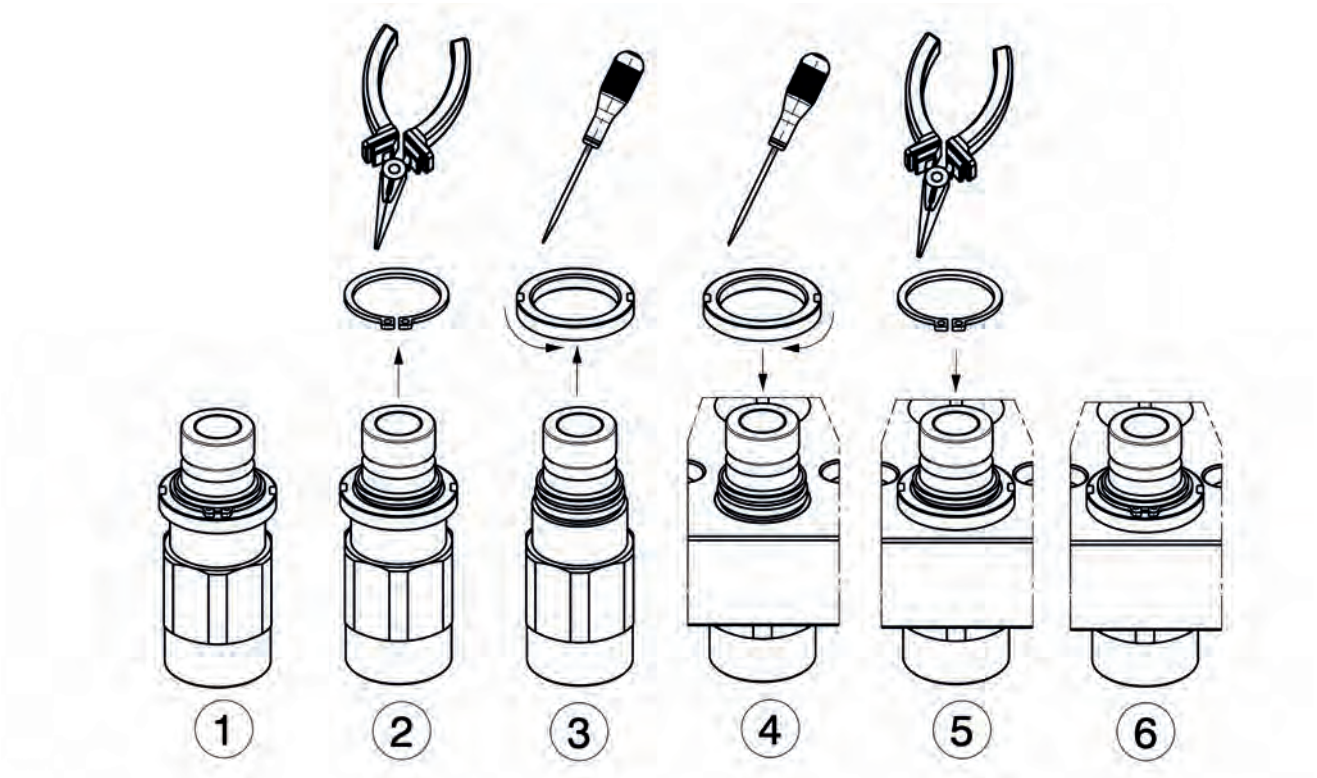
How to use

Preamble:

- FAP ZN has to be assembled in a pre-manufactured multiconnection by following the dimension indication of the “Housing Dimensions” table.
- The multiconnection system must be designed and verified to retain the connection forces, generated by the hydraulic pressure over the hydrostatic pushing area.
- The single coupling repulsion force is calculated with the formula F (N)= (Pressure (MPa) x Hydrostatic Pushing Area (Cm2))x100 + Force to connect (N). For example, the repulsion force of a FAP9DZN set with 200 bar is calculated in this way: 20 MPa (Pressure) x 1.226 cm2 (Hydrostatic pushing area) x 100= 2452 N.
- The total force on the multiconnection is the sum of the single forces given by each coupling under pressure.
- The maximum operating pressure of each coupling must not be higher than the value indicated in the performances table.
- Connection must be made with flexible hoses, avoid using rigid pipes.
- Provide to design an adequate system to allow correct functioning, resistance and precision required in all the forecasted situation.
- Provide an adequate guiding and centering system.
- It is advised to have one plate fixed and one plate with allowed movement to recover the misalignment during connection.
- Provide adequate protection of the parts in disconnected position (cap/parking station).
- The connection and disconnection speed must not exceed the 5mm/sec.
- Product approval is Customer responsibility.

Assembling instructions:

- To assemble the FAP-ZN couplings on the multiconnection take away the seeger ring, unscrew the threaded nut, mount the flexible hose on the threaded port (screwing with the proper torque), insert the coupling in the hole of the multiconnection; screw the threaded nut with a manual torque (an over torque is not necessary!), then assemble the seeger ring to lock the threaded nut (fig. below 1...6). Do not use pipe or rigid hoses. Flexible hoses must not transmit side load on the quick coupling.
- To disassemble the FAP-ZN couplings from the multiconnection take away the seeger ring, unscrew the threaded nut, extract the coupling from the hole of the multiconnection (fig. below vice versa 6 to 4) then proceed to disassemble the flexible hose from the threaded port.
- If the seeger ring get deformed or damaged during assembly, replace it with a new one.
- Before connecting, clean the flat mating surface of coupling and of the plate to avoid inclusion of contamination in the circuit and correct functioning.
- Connect and disconnect according to custom multicoupling working cycle, to verify the correct function of the whole system.
- Test the correct functioning of the couplings.



FAP - ZN Series

SPECIAL SERIES

Performances

Size	Series/Size	Max. flow suggested		Hydrostatic pushing area coupled	Spillage*	Force to connect without residual pressure
Inch		l/min	GPM	cm²	ml	N
3/8	FAP9DZN	46	12,19	1,226	0,012	300
1/2	FAP13ZN	90	23,85	1,893	0,020	320
5/8	FAP15ZN	148	39,22	2,404	0,110	320
3/4	FAP17ZN	200	53,00	3,298	0,032	500
1	FAP21ZN	378	100,17	4,335	0,035	520

Size	Series/Size	Max. operating pressure						Burst pressure					
		Coupled		Male		Female		Coupled		Male		Female	
Inch		MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
3/8”	FAP9DZN	35	5075	35	5075	35	5075	120	17400	120	17400	100	14500
1/2	FAP13ZN	33	4785	33	4785	33	4785	120	17400	120	17400	100	14500
5/8	FAP15ZN	33	4785	33	4785	33	4785	120	17400	120	17400	100	14500
3/4	FAP17ZN	33	4785	33	4785	33	4785	120	17400	120	17400	100	14500
1	FAP21ZN	30	4350	30	4350	30	4350	100	14500	100	14500	80	11600

Size	Series/Size	Max. residual pressure during connection						Max. residual pressure during disconnection	
		Male Female to drain		Male Male to drain		Male and Female			
Inch		MPa	psi	MPa	psi	MPa	psi	MPa	psi
3/8	FAP9DZN	25	3625	25	3625	25	3625	25	3625
1/2	FAP13ZN	25	3625	25	3625	20	2900	20	2900
5/8	FAP15ZN	25	3625	25	3625	20	2900	20	2900
3/4	FAP17ZN	25	3625	25	3625	15	2175	15	2175
1	FAP21ZN	25	3625	25	3625	15	2175	15	2175

*Spillage is an indicative value of the fluid loss per couple uncouple cycle without residual pressure.

Different possible configurations:
Other ports available upon request.

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 or system effort effort and wearing of the couplings are reduced.

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

Tests:
The couplings coupled have been tested at max. operating pressure for 200.000 impulses, replacing the seeger ring every 50.000 impulses, in according with ISO norm. The male uncoupled have been tested for 200.000 impulses. The female uncoupled have been tested for 100.000 impulses.

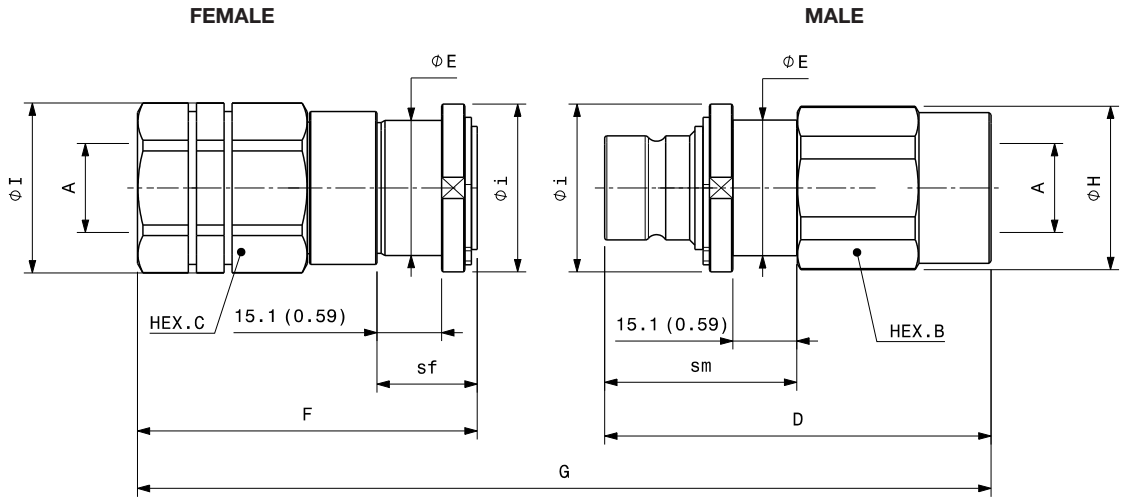
⚠ WARNING

It is recommended to follow all the Stucchi instruction above described for right integration of the Stucchi quick release coupling.
It is Customer responsibility to design, dimension, verify and qualify the complete System.
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).
Excessive speed of connection or disconnection with flowing pressure, even if fleeting or transitory or in frozen condition may lead to have internal valving malfunction, in case of doubt contact Stucchi Technical support.
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 operating 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.
In case of doubt please contact Stucchi Technical Support.
Do not disassemble, misuse, modify or damage the products.
FAP-ZN series is intended to be used with standard hydraulic oils in fluid power application. Do not use the FAP-ZN coupling with different fluids (for example with inflammable, corrosive or dangerous fluids, gases ecc). Replace the seeger ring every 50.000 impulse cycles.
Contact Stucchi Service for support. Do not use the male FAP-ZN groove to connect the A-series female for a continuous service with pressure impulse (this feature is intended to be used only for diagnostic purpose so that for a short and limited time).
We advise to assemble the multiconnection with the female face down to allow water or moisture to be drained easily.
Do not exceed single coupling performance.
Do not connect the multiconnection with dirt or other objects in-between.
When the couplings are disconnected, it is suggested to use the protection cap and parking station.
It is MANDATORY to read and closely follow the instructions. Last updated version always apply at time of installation, see latest written Instructions on Stucchi website (stucchigroup.com) before selecting or using Stucchi products.

FAP - ZN Series

SPECIAL SERIES

Overall dimensions



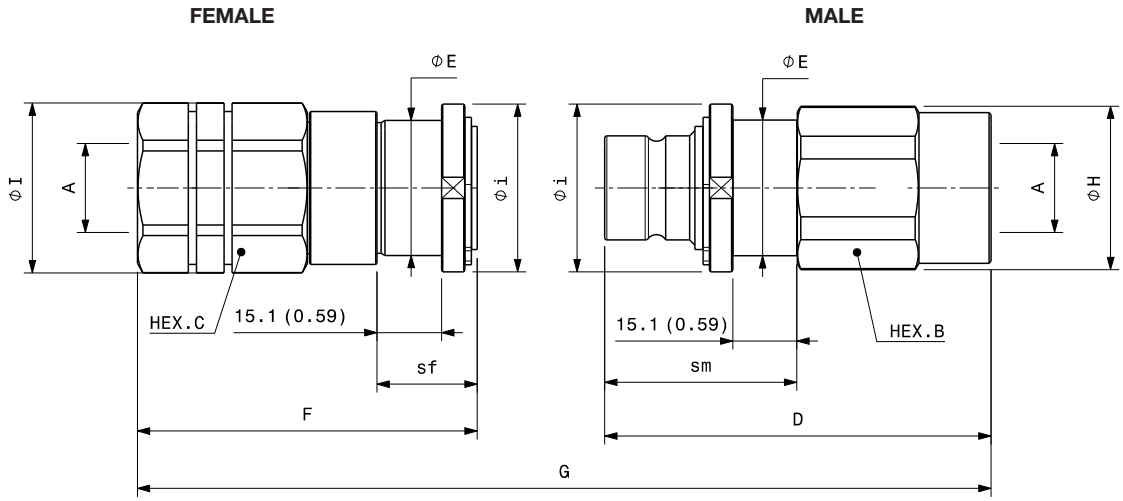
Port description: FEMALE THREAD BSPP (ISO 1179-1)

BODY SIZE	Descriptive code	Item code	Port (A)	Length			Overall length			Length			Hex			Diameter			Diameter			Diameter			Weight	
					mm	in		mm	in		mm	in		mm	in		mm	in		mm	in		mm	in	kg	lb
3/8"	F FAP9DZN 1/4 BSP	Female 811400024	1/4"	F	74,6	2,94	G	141,3	5,6	sf	24,0	0,94	C	30,0	1,18	E	24,8	0,98	I	32,0	1,26	i	32,0	1,26	0,31	0,69
	M FAP9DZN 1/4 BSP	Male 811400025		D	84,5	3,33				sm	42,4	1,67	B	27,0	1,06				H	29,0	1,14				0,26	0,57
3/8"	F FAP9DZN 3/8 BSP	Female 811400004	3/8"	F	66,6	2,62	G	128,8	5,1	sf	24,0	0,94	C	30,0	1,18	E	24,8	0,98	I	32,0	1,26	i	32,0	1,26	0,31	0,69
	M FAP9DZN 3/8 BSP	Male 811400005		D	80,0	3,15				sm	42,4	1,67	B	27,0	1,06				H	29,0	1,14				0,26	0,57
3/8"	F FAP9DZN 1/2 BSP	Female 811400008	1/2"	F	71,6	2,82	G	136,3	5,4	sf	24,0	0,94	C	30,0	1,18	E	25,0	0,98	I	32,0	1,26	i	32,0	1,26	0,31	0,69
	M FAP9DZN 1/2 BSP	Male 811400009		D	82,5	3,25				sm	42,4	1,67	B	27,0	1,06				H	29,0	1,14				0,26	0,56
1/2"	F FAP13ZN 1/2 BSP	Female 811400010	1/2"	F	80,0	3,15	G	150,6	5,9	sf	23,6	0,93	C	36,0	1,42	E	32,0	1,26	I	40,0	1,57	i	39,5	1,55	0,44	0,97
	M FAP13ZN 1/2 BSP	Male 811400011		D	91,0	3,58				sm	45,4	1,79	B	36,0	1,42				H	38,5	1,52				0,44	0,96
1/2"	F FAP13ZN 3/4 BSP	Female 811400012	3/4"	F	87,0	3,43	G	160,0	6,3	sf	23,6	0,93	C	36,0	1,42	E	32,0	1,26	I	40,0	1,57	i	39,5	1,55	0,44	0,96
	M FAP13ZN 3/4 BSP	Male 811400013		D	93,4	3,68				sm	45,4	1,79	B	36,0	1,42				H	38,5	1,52				0,46	1,00
5/8"	F FAP15ZN 3/4 BSP	Female 811400014	3/4"	F	86,8	3,41	G	161,4	6,4	sf	23,6	0,93	C	41,0	1,61	E	34,0	1,34	I	44,8	1,76	i	43,5	1,71	0,42	0,93
	M FAP15ZN 3/4 BSP	Male 811400015		D	95,0	3,74				sm	45,4	1,78	B	36,0	1,42				H	38,5	1,52				0,44	0,97
3/4"	F FAP17ZN 3/4 BSP	Female 811400020	3/4"	F	102,6	4,04	G	184,4	7,3	sf	23,6	0,93	C	46,0	1,81	E	40,0	1,57	I	49,8	1,96	i	49,0	1,93	0,93	2,04
	M FAP17ZN 3/4 BSP	Male 811400021		D	108,5	4,27				sm	51,9	2,04	B	46,0	1,81				H	49,8	1,96				0,76	1,66
3/4"	F FAP17ZN 1 BSP	Female 811400016	1"	F	104,6	4,12	G	186,4	7,3	sf	23,6	0,93	C	46,0	1,81	E	40,0	1,57	I	49,8	1,96	i	49,0	1,93	0,93	2,04
	M FAP17ZN 1 BSP	Male 811400017		D	108,5	4,27				sm	51,9	2,04	B	46,0	1,81				H	49,8	1,96				0,76	1,66
1	F FAP21ZN 1 BSP	Female 811400022	1"	F	111,4	4,39	G	206,6	8,2	sf	23,6	0,93	C	55,0	2,17	E	52,0	2,05	I	59,8	2,35	i	59,0	2,32	1,55	3,40
	M FAP21ZN 1 BSP	Male 811400023		D	125,5	4,94				sm	54,6	2,15	B	55,0	2,17				H	59,8	2,35				1,22	2,68
1	F FAP21ZN 1-1/4 BSP	Female 811400018	1-1/4"	F	112,4	4,42	G	207,6	8,1	sf	23,6	0,93	C	55,0	2,17	E	52,0	2,05	I	59,8	2,35	i	59,0	2,32	1,64	3,61
	M FAP21ZN 1-1/4 BSP	Male 811400019		D	123,5	4,86				sm	54,6	2,15	B	55,0	2,17				H	59,8	2,35				1,32	2,90

FAP - ZN Series

SPECIAL SERIES

Overall dimensions



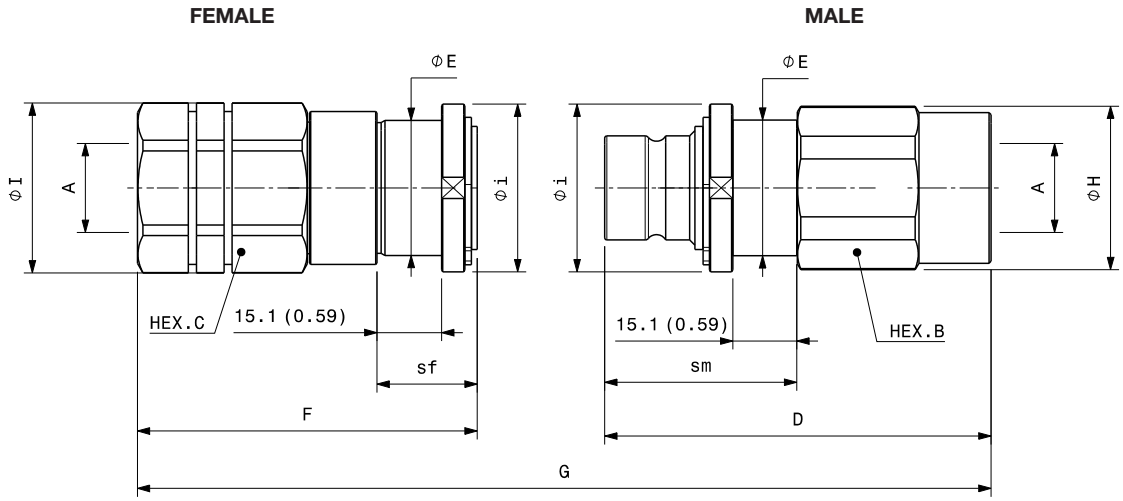
Port description: FEMALE THREAD NPT (ANSI B1.20.1)

BODY SIZE	Descriptive code	Item code	Port (A)	Length			Overall length			Length			Hex			Diameter			Diameter			Diameter			Weight	
					mm	in		mm	in		mm	in		mm	in		mm	in		mm	in		mm	in	kg	lb
3/8"	F FAP9DZN 3/8 NPT	Female 811401004	3/8"	F	66,6	2,62	G	128,8	5,07	sf	24,0	0,94	C	30,0	1,18	E	24,8	0,98	I	32,0	1,26	i	32,0	1,26	0,31	0,69
	M FAP9DZN 3/8 NPT	Male 811401005		D	80,0	3,15				sm	42,4	1,67	B	27,0	1,06				H	29,0	1,14				0,26	0,57
3/8"	F FAP9DZN 1/2 NPT	Female 811401008	1/2"	F	71,6	2,82	G	136,3	5,37	sf	24,0	0,94	C	30,0	1,18	E	25,0	0,98	I	32,0	1,26	i	32,0	1,26	0,31	0,69
	M FAP9DZN 1/2 NPT	Male 811401009		D	82,5	3,25				sm	42,4	1,67	B	27,0	1,06				H	29,0	1,14				0,26	0,56
3/8"	F FAP13ZN 1/2 NPT	Female 811401010	1/2"	F	80,0	3,15	G	153,2	6,03	sf	23,6	0,93	C	36,0	1,42	E	32,0	1,26	I	40,0	1,57	i	39,5	1,55	0,44	0,97
	M FAP13ZN 1/2 NPT	Male 811401011		D	91,0	3,58				sm	45,4	1,79	B	36,0	1,42				H	38,5	1,52				0,44	0,96
1/2"	F FAP13ZN 3/4 NPT	Female 811401012	3/4"	F	87,0	3,43	G	160,1	6,30	sf	23,6	0,93	C	36,0	1,42	E	32,0	1,26	I	40,0	1,57	i	39,5	1,55	0,44	0,96
	M FAP13ZN 3/4 NPT	Male 811401013		D	93,5	3,68				sm	45,4	1,79	B	36,0	1,42				H	38,5	1,52				0,46	1,00
5/8"	F FAP15ZN 3/4 NPT	Female 811401014	3/4"	F	86,8	3,41	G	161,4	6,35	sf	23,6	0,93	C	41,0	1,61	E	34,0	1,34	I	44,8	1,76	i	43,5	1,71	0,42	0,93
	M FAP15ZN 3/4 NPT	Male 811401015		D	95,0	3,74				sm	45,3	1,78	B	36,0	1,42				H	38,5	1,52				0,44	0,97
3/4"	F FAP17ZN 3/4 NPT	Female 811401020	3/4"	F	101,6	4,0	G	180,8	7,11	sf	23,6	0,93	C	46,0	1,81	E	40,0	1,57	I	49,8	1,96	i	49,0	1,93	0,93	2,04
	M FAP17ZN 3/4 NPT	Male 811401021		D	108,5	4,27				sm	51,9	2,04	B	46,0	1,81				H	49,8	1,96				0,76	1,66
3/4"	F FAP17ZN 1 NPT	Female 811401016	1"	F	104,6	4,12	G	186,4	7,34	sf	23,6	0,93	C	46,0	1,81	E	40,0	1,57	I	49,8	1,96	i	49,0	1,93	0,93	2,04
	M FAP17ZN 1 NPT	Male 811401017		D	108,5	4,27				sm	51,9	2,04	B	46,0	1,81				H	49,8	1,96				0,76	1,66
1"	F FAP21ZN 1 NPT	Female 811401022	1"	F	111,4	4,39	G	207,6	8,17	sf	23,6	0,93	C	55,0	2,17	E	52,0	2,05	I	59,8	2,35	i	59,0	2,32	1,64	3,61
	M FAP21ZN 1 NPT	Male 811401023		D	125,5	4,94				sm	54,6	2,15	B	55,0	2,17				H	59,8	2,35				1,32	2,90
1"	F FAP21ZN 1-1/4 NPT	Female 811401018	1-1/4"	F	112,4	4,42	G	206,6	8,13	sf	23,6	0,93	C	55,0	2,17	E	52,0	2,05	I	59,8	2,35	i	59,0	2,32	1,55	3,40
	M FAP21ZN 1-1/4 NPT	Male 811401019		D	123,5	4,86				sm	54,6	2,15	B	55,0	2,17				H	59,8	2,35				1,22	2,68

FAP - ZN Series

SPECIAL SERIES

Overall dimensions



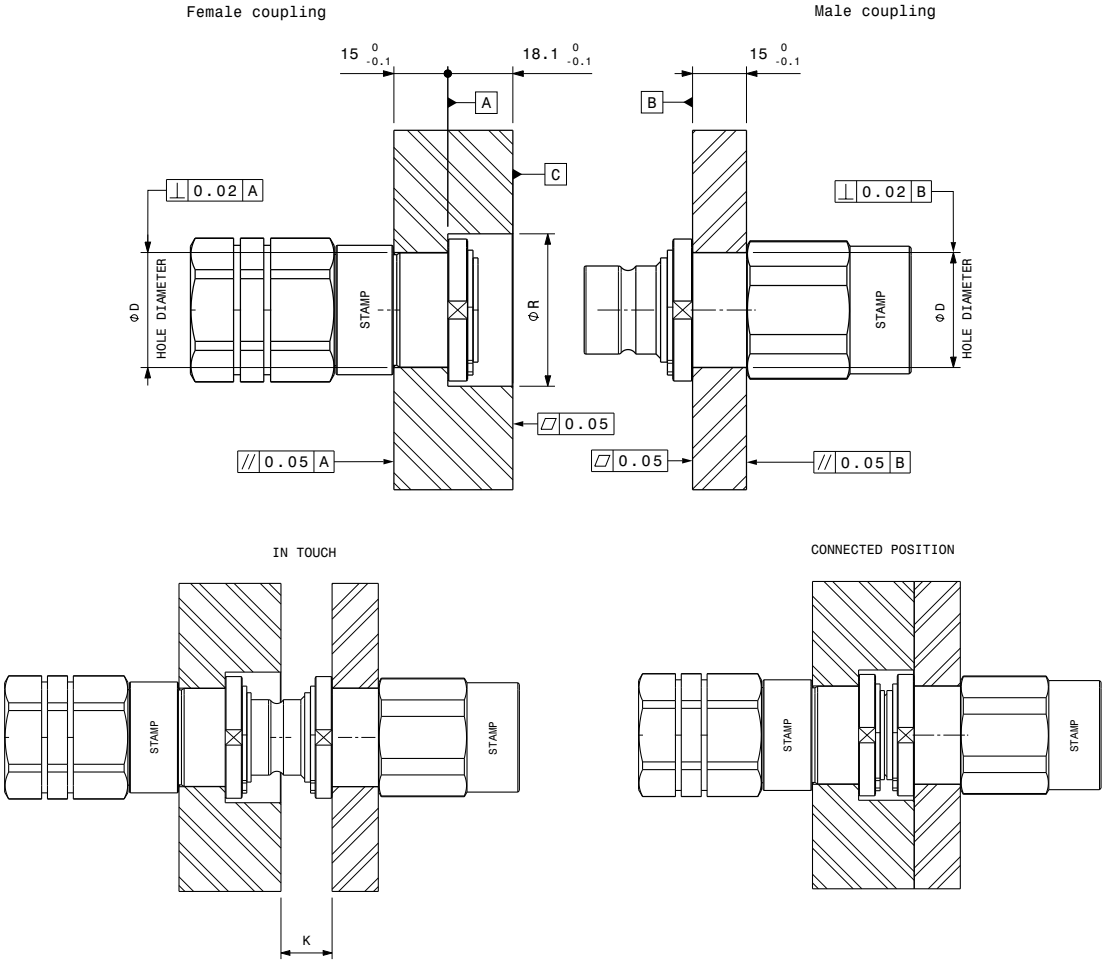
Port description: FEMALE THREAD SAE (ISO 11926-1 & SAEJ1926-1)

BODY SIZE	Descriptive code	Item code	Port (A)	Length			Overall length			Length			Hex			Diameter			Diameter			Diameter			Weight	
					mm	in		mm	in		mm	in		mm	in		mm	in		mm	in		mm	in	kg	lb
3/8"	F FAP9DZN 1/4 SAE	Female 811404022	1/4"	F	74,6	2,94	G	141,3	5,56	sf	24,0	0,94	C	30,0	1,18	E	24,8	0,98	I	32,0	1,26	i	32,0	1,26	0,31	0,69
	M FAP9DZN 1/4 SAE	Male 811404023		D	84,5	3,33				sm	42,4	1,67	B	27,0	1,06				H	29,0	1,14				0,26	0,57
3/8"	F FAP9DZN 3/8 SAE	Female 811404026	3/8"	F	66,6	2,62	G	130,10	5,12	sf	24,0	0,94	C	30,0	1,18	E	24,8	0,98	I	32,0	1,26	i	32,0	1,26	0,31	0,69
	M FAP9DZN 3/8 SAE	Male 811404027		D	81,3	3,2				sm	42,4	1,67	B	27,0	1,06				H	29,0	1,14				0,26	0,57
3/8"	F FAP9DZN 1/2 SAE	Female 811404004	1/2"	F	71,6	2,82	G	136,3	5,37	sf	24,0	0,94	C	30,0	1,18	E	25,0	0,98	I	32,0	1,26	i	32,0	1,26	0,31	0,69
	M FAP9DZN 1/2 SAE	Male 811404005		D	82,5	3,25				sm	42,4	1,67	B	27,0	1,06				H	29,0	1,14				0,26	0,56
3/8"	F FAP9DZN 5/8 SAE	Female 811404008	5/8"	F	73,6	2,90	G	141,3	5,56	sf	24,0	0,94	C	30,0	1,18	E	25,0	0,98	I	32,0	1,26	i	32,0	1,26	0,21	0,46
	M FAP9DZN 5/8 SAE	Male 811404009		D	85,5	3,37				sm	42,4	1,67	B	30,0	1,18				H	32,0	1,26				0,26	0,56
1/2"	F FAP13ZN 1/2 SAE	Female 811404028	1/2"	F	80,0	3,15	G	149,0	5,86	sf	23,6	0,93	C	36,0	1,42	E	32,0	0,98	I	40,0	1,57	i	39,5	1,55	0,44	0,97
	M FAP13ZN 1/2 SAE	Male 811404029		D	89,4	3,51				sm	45,4	1,79	B	36,0	1,42				H	38,5	1,52				0,44	0,96
1/2"	F FAP13ZN 5/8 SAE	Female 811404010	5/8"	F	82,0	3,23	G	152,6	6,01	sf	23,6	0,93	C	36,0	1,42	E	32,0	1,26	I	40,0	1,57	i	39,5	1,55	0,44	0,98
	M FAP13ZN 5/8 SAE	Male 811404011		D	91,0	3,58				sm	45,4	1,79	B	36,0	1,42				H	38,5	1,52				0,40	0,88
1/2"	F FAP13ZN 3/4 SAE	Female 811404012	3/4"	F	87,0	3,43	G	160,1	6,30	sf	23,6	0,93	C	36,0	1,42	E	32,0	1,26	I	40,0	1,57	i	39,5	1,55	0,44	0,98
	M FAP13ZN 3/4 SAE	Male 811404013		D	93,5	3,68				sm	45,4	1,78	B	36,0	1,42				H	38,5	1,52				0,40	0,88
5/8"	F FAP15ZN 3/4 SAE	Female 811404014	3/4"	F	86,8	3,41	G	161,4	6,35	sf	23,6	0,93	C	41,0	1,61	E	34,0	1,34	I	44,8	1,76	i	43,5	1,71	0,42	0,93
	M FAP15ZN 3/4 SAE	Male 811404015		D	95,0	3,74				sm	45,3	1,78	B	36,0	1,42				H	38,5	1,52				0,44	0,97
3/4"	F FAP17ZN 3/4 SAE	Female 811404030	3/4"	F	104,6	4,11	G	186,4	7,33	sf	23,6	0,93	C	46,0	1,81	E	40,0	1,57	I	49,8	1,96	i	49,0	1,93	0,93	2,04
	M FAP17ZN 3/4 SAE	Male 811404031		D	108,5	4,27				sm	51,9	2,04	B	46,0	1,81				H	49,8	1,52				0,76	1,66
3/4"	F FAP17ZN 1 SAE	Female 811404016	1"	F	104,6	4,12	G	186,4	7,34	sf	23,6	0,93	C	46,0	1,81	E	40,0	1,57	I	49,8	1,96	i	49,0	1,93	0,94	2,06
	M FAP17ZN 1 SAE	Male 811404017		D	108,5	4,27				sm	51,9	2,04	B	46,0	1,81				H	49,8	1,96				0,77	1,69
1"	F FAP21ZN 1 SAE	Female 811404032	1"	F	111,4	4,39	G	207,6	8,17	sf	23,6	0,93	C	55,0	2,17	E	52,0	2,05	I	59,8	2,35	i	59,0	2,32	1,64	3,61
	M FAP21ZN 1 SAE	Male 811404033		D	125,5	4,94				sm	54,6	2,15	B	55,0	2,17				H	59,8	2,35				1,32	2,90
1"	F FAP21ZN 1-1/4 SAE	Female 811404018	1-1/4"	F	112,4	4,42	G	206,6	8,13	sf	23,6	0,93	C	55,0	2,17	E	52,0	2,05	I	59,8	2,35	i	59,0	2,32	1,55	3,40
	M FAP21ZN 1-1/4 SAE	Male 811404019		D	123,5	4,86				sm	54,6	2,15	B	55,0	2,17				H	59,8	2,35				1,22	2,68

FAP - ZN Series

SPECIAL SERIES

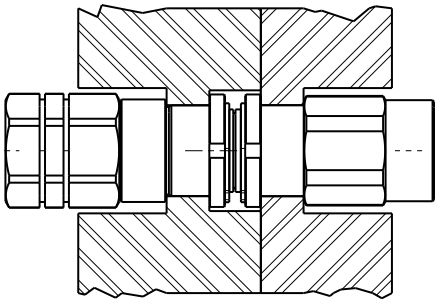
Housing dimensions



Size	Series	Hole diameter - D		Counterbore diameter - R		Coupling distance in touch position - K	
		Max tolerance +0,05/+0,02 mm		Max tolerance +0/+0,2 mm			
in		mm	in	mm	in	mm	in
3/8	FAP9DZN	25	0,98	33,8	1,33	15,40	0,61
1/2	FAP13ZN	32	1,26	42,4	1,67	16,60	0,65
5/8	FAP15ZN	34	1,34	45,8	1,80	17,00	0,67
3/4	FAP17ZN	40	1,57	50,5	1,99	20,30	0,80
1	FAP21ZN	52	2,05	66	2,60	22,10	0,87

- Counterbore depth may be varied, but the final distance between male and female must be always like indicated 18,1 mm -0,1/+0.
- Plate thickness may be increased to increase the resistance; the important is to keep the same assembly dimension as shown in the table.(*)
- Coupling-hole interaxis must be referred to centering system and must be in the order of +0,02/-0,02 mm tolerance to avoid misalignment during connection.
- Centering system must to lead in before to start the connection of the coupling, to allow the system to be already centered during connection: please refer to dimension K in the table - at this stage (coupling “in touch”), it is advised to have at least 15 mm of complete guide-lead in before connection (measured on the cylindrical part of the guide, so excluded the conical chamfer or radius).
- Max allowed misalignment between male and female coupling (given by the centering system) must be in the order of +/- 0,05 mm during connection phase.
- After connection, plane C and B must be in contact - not having the contact could lead to have pressure drop increase and valve damage (max. allowed distance between plane C and B after connection is 0,5 mm).
- Dimensions above are intended to be referred after surface treatment of the plate.

*SOLUTION WITH REINFORCED PLATES



FAP - ZN Series

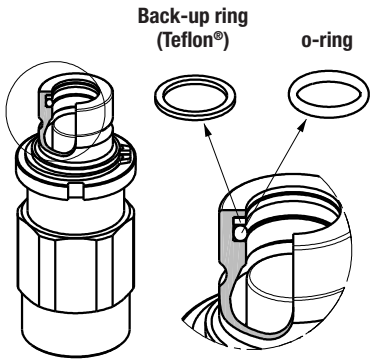
SPECIAL SERIES



Spare Kit Seal for Male

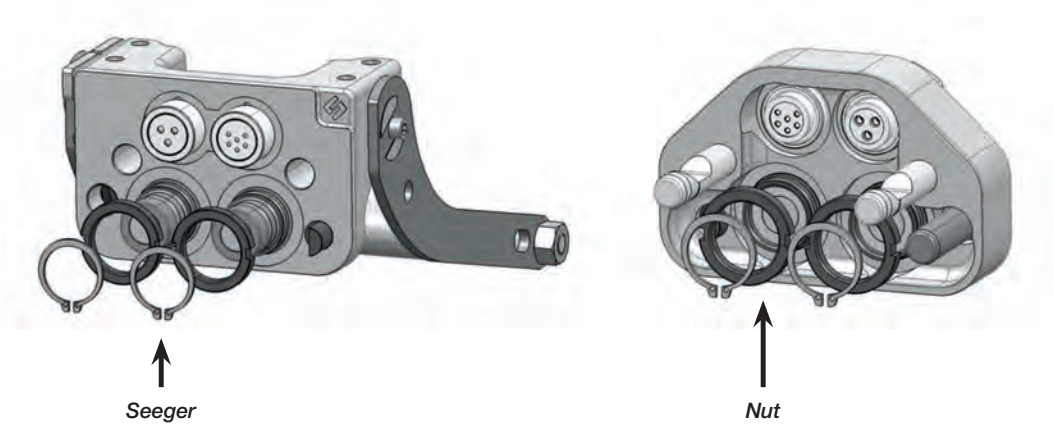
Repair kit/OR+BK		
Body size	Description	Part number
3/8”	M FAP9ZN	815701096
1/2”	M FAP13ZN	815700339
5/8”	M FAP15ZN	815700341
3/4”	M FAP17ZN	815700655
1”	M FAP21ZN	815700345

O-Ring in Nitrile
BackUp in Teflon®



Repair Kit/Nut + Seeger

Repair kit/Nut + Seeger	
Part Number	Description
815701001	SET OF 10 SEEGER+NUT FAP9DZN
815701002	SET OF 10 SEEGER+NUT FAP13ZN
815701003	SET OF 5 SEEGER+NUT FAP15ZN
815701004	SET OF 5 SEEGER+NUT FAP17ZN
815701005	SET OF 5 SEEGER+NUT FAP21ZN



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FAP - AS Series

SPECIAL SERIES



Technical specifications and options

Interchange
Stucchi profile

Sealing description
Nitrile NBR

Connection system
By multicoupling

Available sizes
3/8", 1/2", 1", 1-1/2"

Material /treatment
Carbon steel / QPQ / Zn-Ni

Available threads
BSP - NPT - SAE

Operating pressure
Up to 420 bar

Locking mechanism
by multicoupling

Flow rate
Up to 750 l/min

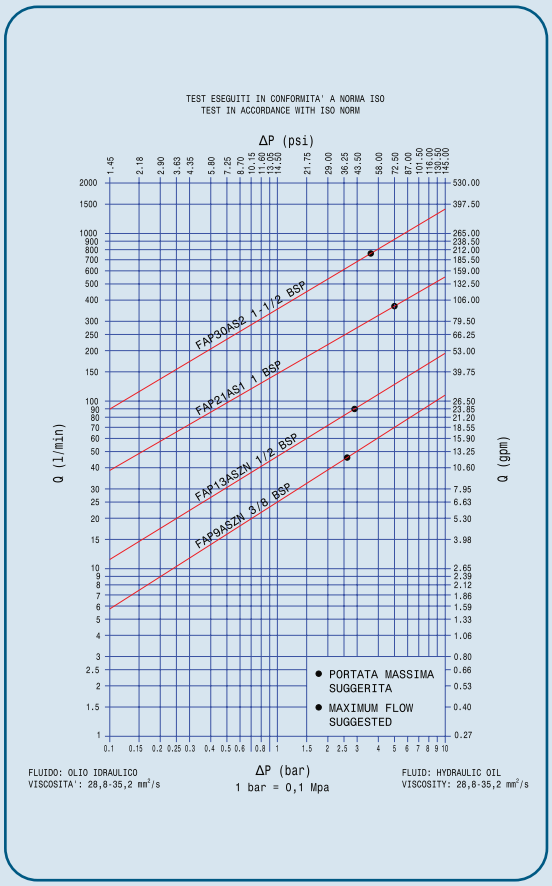
Temperature
-20°C / +100°C

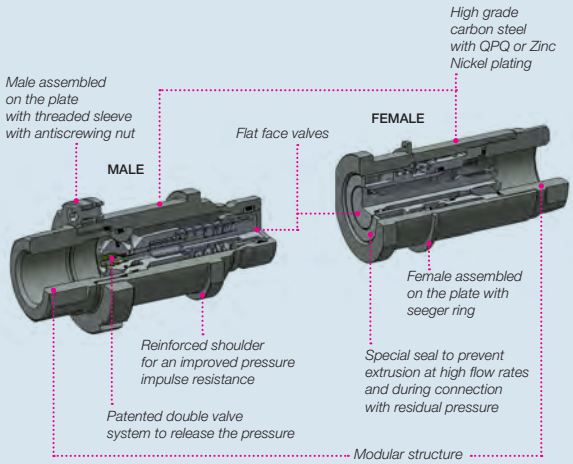
Valving style
Flat face

Connection under pressure
Connection: Both sides
Disconnection: allowed

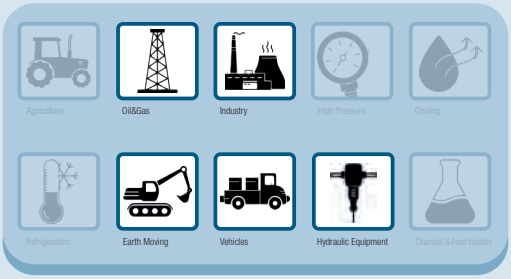
Benefits

- Quick release coupling suitable to be integrated in Custom multiconnection
- Robust design, ideal to be used in Custom made automatic multiconnection systems
- Good solution to cover most of heavy duty hydraulic oil applications - designed for hydraulic fluid power application with high impulse pressure
- Flat face is easy to clean, helping to reduce the inclusion of contamination in the hydraulic circuit.
- Minimal fluid loss during connection / disconnection, reducing fluid loss to the environment.
- Minimal air inclusion during connection / disconnection, enhancing correct function of the circuit.
- Internal flow of valve design creates minimal pressure drop, maintaining circuit efficiency in the system.
- Internal pressure release valve system allows an easy connection with high internal residual pressure.
- The modular design allows for broad range of port configurations.
- Couplings without locking balls eliminate the “brinelling” effect.
- Compact slim design.
- Safe and simple to use.





MAIN APPLICATIONS



How to use

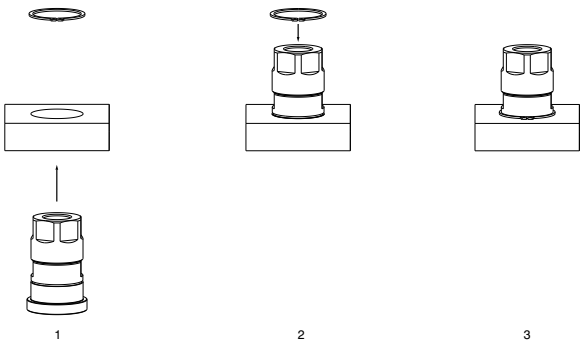
Preamble:

- FAP AS has to be assembled in a pre-manufactured multiconnection by following the dimension indication of the “Housing Dimensions” table.
- The multiconnection system must be designed and verified to retain the connection forces, generated by the hydraulic pressure over the hydrostatic pushing area.
- The single coupling repulsion force is calculated with the formula F (N)= (Pressure (MPa) x Hydrostatic Pushing Area cm^2 x100 + Force to connect (N). For example, the repulsion force of a FAP9ASN set with 200 bar is calculated in this way: 20 MPa (Pressure) x 1.226 cm2 (Hydrostatic pushing area) x 100= 2452N.
- The total force on the multiconnection is the sum of the single forces given by each coupling under pressure.
- The maximum operating pressure of each coupling must not be higher than the value indicated in the performances table.
- Connection must be made with flexible hoses, avoid using rigid pipes.
- Provide to design an adequate system to allow correct functioning, resistance and precision required in all the forecasted situation.
- Provide an adequate guiding and centering system.
- It is advised to have one plate fixed and one plate with allowed movement to recover the misalignment during connection.
- Provide adequate protection of the parts in disconnected position (cap/parking station).
- The connection and disconnection speed must not exceed the 5mm/sec; the operation must to be made smoothly.
- Product approval is Customer responsibility.

Assembling instructions:

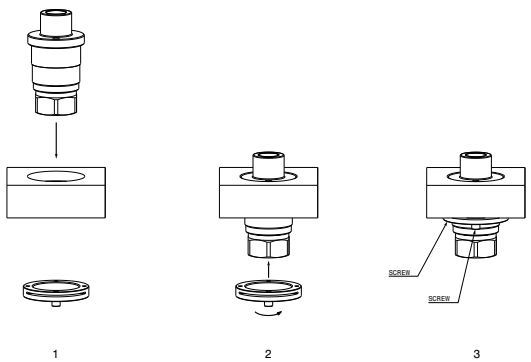
FAP AS female instruction

- To assemble female FAP-AS insert the coupling in the multiconnection hole (see Fig 1) then assemble the seeger ring on the back side of the couplings in order to lock the female couplings on the plates (Fig 2 and 3); then mount the flexible hoses on threaded port by screwing with proper torque.
- To disassemble make the same with reverse process (Fig 3-2-1).



FAP AS male instruction

- To assemble male FAP-AS insert the coupling in the multiconnection hole (see Fig 1) then assemble the threaded ring on the back side of the couplings in order to lock the male couplings on the plates (Fig 2); lock the threaded ring with a torque of 100 Nm then screw the little nut with 9 Nm to lock the thread (Fig3). After that, then mount the flexible hoses on threaded port by screwing with proper torque.
- To disassemble make the same with reverse process (Fig 3-2-1).



- Before connecting clean the mating surface of the male and female coupling, to avoid inclusion of contamination in the circuit.
- Connect and disconnect the multiconnection according to Custom multicoupling working cycle to verify the correct function of the whole system.

FAP - AS Series

SPECIAL SERIES

Performances

Size	Series	Max. flow suggested		Hydrostatic pushing area coupled	Spillage*	Force to connect without residual pressure	Max. operating pressure					
							Coupled		Male		Female	
Inch		l/min	GPM	cm^2	ml	N	MPa	psi	MPa	psi	MPa	psi
3/8	FAP9ASZN	46	12,19	1,226	0,012	300	42	6090	42	6090	35	5075
1/2	FAP13ASZN	90	23,55	1,893	0,02	320	42	6090	42	6090	35	5075
1	FAP21AS1	378	100,17	5,1	0,06	520	42	6090	42	6090	30	4350
1-1/2	FAP30AS2	750	198,13	13,53	0,2	760	42	6090	42	6090	27	3915

Burst pressure						Max. residual during connection						Max. residual pressure during disconnection	
Coupled		Male		Female		Male Female to drain		Female Male to drain		Male and Female			
MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
120	17400	120	17400	100	14500	25	3625	25	3625	25	3625	25	3625
120	17400	120	17400	100	14500	25	3625	25	3625	20	2900	20	2900
150	21750	150	21750	100	14500	25	3625	25	3625	15	2175	15	2175
140	20300	140	20300	80	11600	25	3625	25	3625	2,5	362	2,5	362

*Spillage is an indicative value of the fluid loss per couple uncouple cycle without residual pressure.

Different possible configurations:
Other ports available upon request.

FAP9AS and FAP13AS are provided with Zinc Nickel surface plating.

FAP21AS1 and FAP30AS2 are provided with QPQ treatment and Zinc Nickel plating.

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 or system effort and wearing of the couplings are reduced.

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

Tests:
The couplings coupled have been tested at max. operating pressure for 200.000 impulses, in according with ISO norm. The male uncoupled have been tested for 200.000 impulses. The female uncoupled have been tested for 100.000 impulses.

⚠ WARNING

Is recommended to follow all the Stucchi instruction above described for right integration of the Stucchi quick release coupling.
It is Customer responsibility to design, dimension, verify and qualify the complete System.
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.
Excessive speed of connection or disconnection with flowing pressure, even if fleeting or transitory or in frozen condition may lead to have internal valving malfunction, in case of doubt contact Stucchi Technical support.
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.
In case of doubt please contact Stucchi Technical Support.
Do not to modify, disassemble or damage the coupling or part of it.
Stucchi FAP-AS is intended to be used for hydraulic oil applications: do not use the products for dangerous, inflammable or explosive fluids.
We advise to assemble the multiconnection with the female face down in order to allow water or moisture to be drained easily.
Do not exceed single coupling performance .
Do not connect the multiconnection with dirt or other objects inbetween.
When the multicoupling is disconnected, it is suggested to use the protection cover for the fixed and the mobile half.
It is MANDATORY to read and closely follow the instructions. Last updated version always applies at time of installation, see latest Instructions and warnings section on Stucchi website before selecting or using Stucchi products. In case of doubt please contact Stucchi Technical Support.

FAP - AS Series

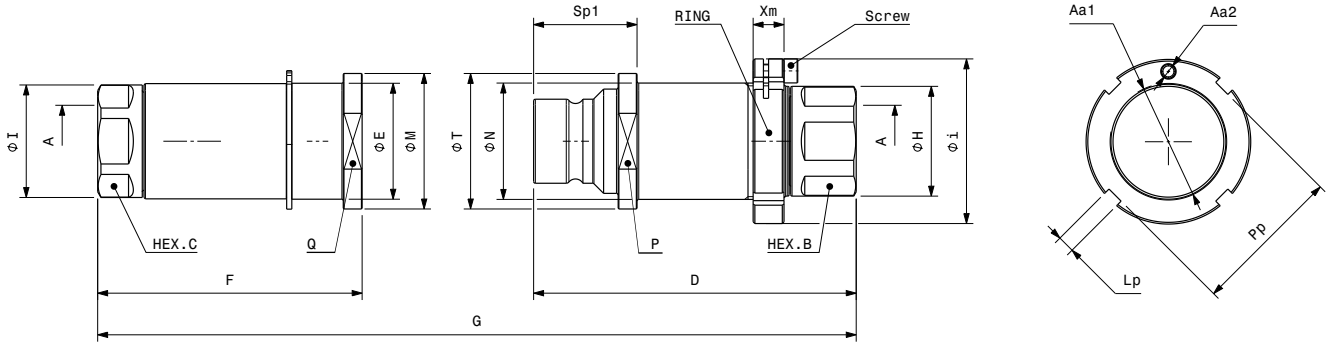
SPECIAL SERIES

Overall dimensions



FEMALE

MALE



*Seeger ring and threaded nut has to be purchased separately - see the codes in the table

Port description: FEMALE THREAD BSPP (ISO 1179-1)

Size	Descriptive code	Item code	Port (A)	Length			Overall length			Hex 1			Hex 2			Diameter			Diameter			Diameter			Weight	
					mm	in		mm	in		mm	in		mm	in		mm	in		mm	in		mm	in	kg	lb
3/8"	F FAP9ASZN 3/8 BSP	Female 807100060	3/8"	F	65,1	2,56	G	136,1	5,36	Q	30,0	1,18	HEX. C	24,0	0,94	M	32,0	1,26	E	27,8	1,09	I	27,0	1,06	0,23	0,49
	M FAP9ASZN 3/8 BSP	Male 807100061		D	86,5	3,40				P	30,0	1,18	HEX. B	24,0	0,94	T	32,0	1,26	N	25,9	1,02	H	24,9	0,98	0,23	0,51
1/2"	F FAP13ASZN 1/2 BSP	Female 807100062	1/2"	F	77,1	3,04	G	153,6	6,05	Q	36,0	1,42	HEX. C	30,0	1,18	M	39,5	1,56	E	33,8	1,33	I	32,8	1,29	0,39	0,86
	M FAP13ASZN 1/2 BSP	Male 807100063		D	94,1	3,70				P	36,0	1,42	HEX. B	30,0	1,18	T	39,5	1,56	N	33,9	1,34	H	32,0	1,26	0,41	0,90

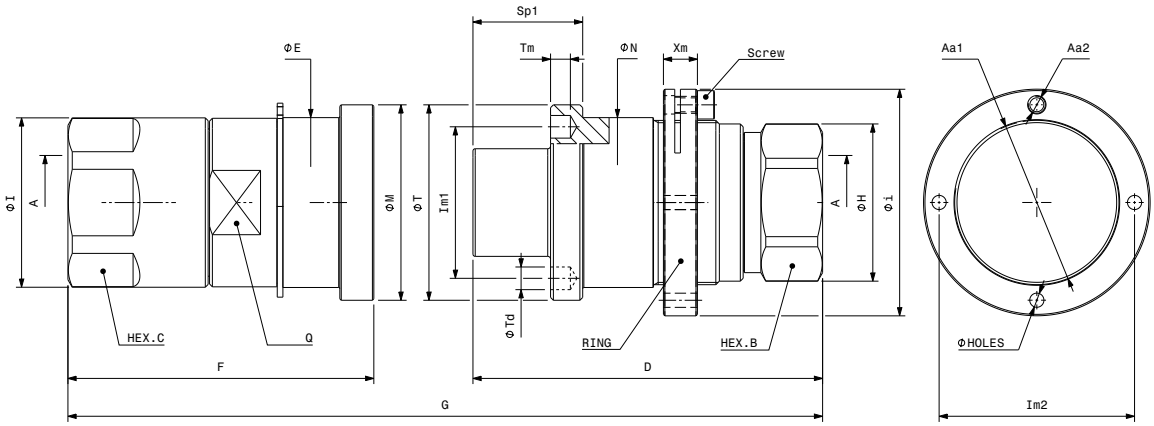
Size	*Locking rings codes	Diameter		Diameter		Length			Length			Length			Length			Screw			Screw		
			mm		mm		mm			mm			mm			mm			mm			mm	
3/8"	Seeger 815701315	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Threaded nut 815701316	Aa1	M26X1	Aa2	M4	Pp	36,0	1,41	Lp	5,0	1,97	Xm	9,0	0,35	Sp1	27,1	1,07	M4x8	HEX 3	HEX 0,12	i	40,0	1,56
1/2"	Seeger 815701317	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Threaded nut 815701318	Aa1	M34X1,25	Aa2	M4	Pp	44,0	1,73	Lp	5,0	1,97	Xm	9,0	0,35	Sp1	30,2	1,19	M4x8	HEX 3	HEX 0,12	i	48,0	1,89

FAP - AS Series

SPECIAL SERIES

Overall dimensions





*Seeger ring and threaded nut has to be purchased separately - see the codes in the table.

Port description: FEMALE THREAD BSPP (ISO 1179-1)

Size	Descriptive code	Item code	Port (A)	Length			Overall length			Hex 1			Hex 2			Diameter			Diameter			Diameter		
					mm	in		mm	in		mm	in		mm	in		mm	in		mm	in		mm	in
1"	F FAP21AS1 1 BSP	Female 807100054	1"	F	108,0	4,25	G	204,7	8,06	Q	55,0	2,17	HEX C	55,0	2,17	M	69,0	2,72	E	59,97	2,36	I	59,5	2,34
	M FAP21AS1 1 BSP	Male 807100055		D	123,5	4,86				-	-	-	HEX B	50,0	1,97	T	69,0	2,72	N	59,97	2,36	H	55,5	2,19
1-1/2"	F FAP30AS2 1-1/2 BSP	Female 807100058	1-1/2"	F	160,5	6,32	G	279,1	10,99	Q	85,0	3,35	HEX C	65,0	2,56	M	99,0	3,90	E	89,97	3,54	I	89,5	3,52
	M FAP30AS2 1-1/2 BSP	Male 807100059		D	158,2	6,23				-	-	-	HEX B	65,0	2,56	T	99,0	3,90	N	79,97	3,15	H	69,8	2,75

Diameter			Length			Length			Weight	
	mm	in		mm	in		mm	in	kg	lb
-	-	-	-	-	-	-	-	-	1,83	4,03
Td	8,0	0,31	Sp1	38,8	1,53	Tm	7,0	0,28	1,54	3,34
-	-	-	-	-	-	-	-	-	5,56	12,26
Td	8,0	0,31	Sp1	56,1	2,09	Tm	7,0	0,28	3,63	8,00

Size	*Locking rings codes	Diameter		Diameter		Length			Diameter			Diameter			Screw			Diameter		
			mm		mm		mm	in		mm	in		mm	in		mm	in		mm	in
1"	Seeger 815701154	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Threaded nut 815701155	Aa1	M58x1,5	Aa2	M6	Xm	12,0	0,47	Im2	69,0	2,72	Ø Holes	5,0	0,20	M6x10	HEX 5	HEX 0,19	i	80,0	3,15
1-1/2"	Seeger 815701156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Threaded nut 815701157	Aa1	M78x2	Aa2	M6	Xm	12,0	0,47	Im2	89,0	3,50	Ø Holes	5,0	0,20	M6x10	HEX 5	HEX 0,19	i	100,0	3,94

FAP - AS Series

SPECIAL SERIES

Port description: FEMALE THREAD NPT (ANSI B1.20.1)

Size	Descriptive code	Item code	Port (A)	Length			Overall length			Diameter			Hex 2			Diameter			Diameter			Diameter		
					mm	in		mm	in		mm	in		mm	in		mm	in		mm	in		mm	in
1"	F FAP21AS1 1-1/4 NPT	Female 807101002	1-1/4"	F	110,0	4,25	G	206,7	8,14	Q	55,0	2,17	HEX C	55,0	2,17	M	69,0	2,72	E	59,97	2,36	I	59,5	2,34
	M FAP21AS1 1-1/4 NPT	Male 807101003		D	123,5	4,86				-	-	-	HEX B	50,0	1,97	T	69,0	2,72	N	59,97	2,36	H	55,5	2,19
1-1/2"	F FAP30AS2 1-1/2 NPT	Female 807101006	1-1/2"	F	160,5	6,32	G	279,1	10,99	Q	85,0	3,35	HEX C	65,0	2,56	M	99,0	3,90	E	89,97	3,54	I	89,5	3,52
	M FAP30AS2 1-1/2 NPT	Male 807101007		D	158,2	6,23				-	-	-	HEX B	65,0	2,56	T	99,0	3,90	N	79,97	3,15	H	69,8	2,75

Diameter			Length			Length			Weight	
	mm	in		mm	in		mm	in	kg	lb
-	-	-	-	-	-	-	-	-	1,72	3,79
Td	8,0	0,31	Sp1	38,8	1,53	Tm	7,0	0,28	1,42	3,79
-	-	-	-	-	-	-	-	-	5,40	11,91
Td	8,0	0,31	Sp1	56,1	2,09	Tm	7,0	0,28	3,60	7,94

Size	*Locking rings codes		Diameter	Diameter		Length			Diameter			Diameter			Screw			Diameter		
			mm		in		mm	in		mm	in		mm	in		mm	in		mm	in
1"	Seeger	815701154	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Threaded nut	815701155	Aa1	M58x1,5	Aa2	M6	Xm	12,0	0,47	Im2	69,0	2,72	Ø Holes	5,0	0,20	M6x10	HEX 5	HEX 0,19	i	80,0	3,15
1-1/2"	Seeger	815701156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Threaded nut	815701157	Aa1	M78x2	Aa2	M6	Xm	12,0	0,47	Im2	89,0	3,50	Ø Holes	5,0	0,20	M6x10	HEX 5	HEX 0,19	i	100,0	3,94

Port description: FEMALE THREAD SAE (ISO 11926-1 & SAEJ1926-1)

Size	Descriptive code	Item code	Port (A)	Length			Overall length			Hex 1			Hex 2			Diameter			Diameter			Diameter		
					mm	in		mm	in		mm	in		mm	in		mm	in		mm	in		mm	in
1"	F FAP21AS1 1-1/4 SAE	Female 807104012	1-1/4"	F	110,0	4,25	G	206,7	8,14	Q	55,0	2,17	HEX C	55,0	2,17	M	69,0	2,72	E	59,97	2,36	I	59,5	2,34
	M FAP21AS1 1-1/4 SAE	Male 807104013		D	123,5	4,86				-	-	-	HEX B	52,0**	1,97	T	69,0	2,72	N	59,97	2,36	H	55,5	2,19
1-1/2"	F FAP30AS2 1-1/2 SAE	Female 807104010	1-1/2"	F	160,5	6,32	G	279,1	10,99	Q	85,0	3,35	HEX C	65,0	2,56	M	99,0	3,90	E	89,97	3,54	I	89,5	3,52
	M FAP30AS2 1-1/2 SAE	Male 807104011		D	158,2	6,23				-	-	-	HEX B	65,0	2,56	T	99,0	3,90	N	79,97	3,15	H	69,8	2,75

Diameter			Length			Length			Weight	
	mm	in		mm	in		mm	in	kg	lb
-	-	-	-	-	-	-	-	-	1,72	3,79
Td	8,0	0,31	Sp1	38,8	1,53	Tm	7,0	0,28	1,42	3,13
-	-	-	-	-	-	-	-	-	5,40	11,91
Td	8,0	0,31	Sp1	56,1	2,09	Tm	7,0	0,28	3,58	7,89

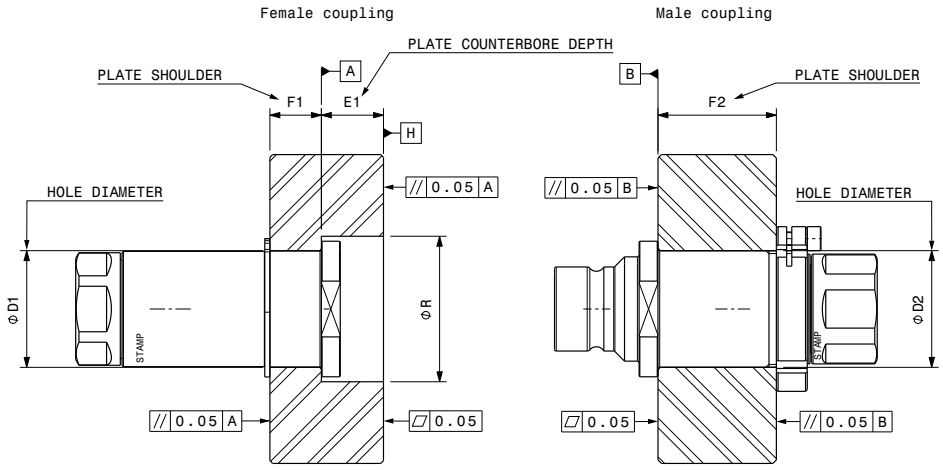
** HEX B = 2 Wrench flat

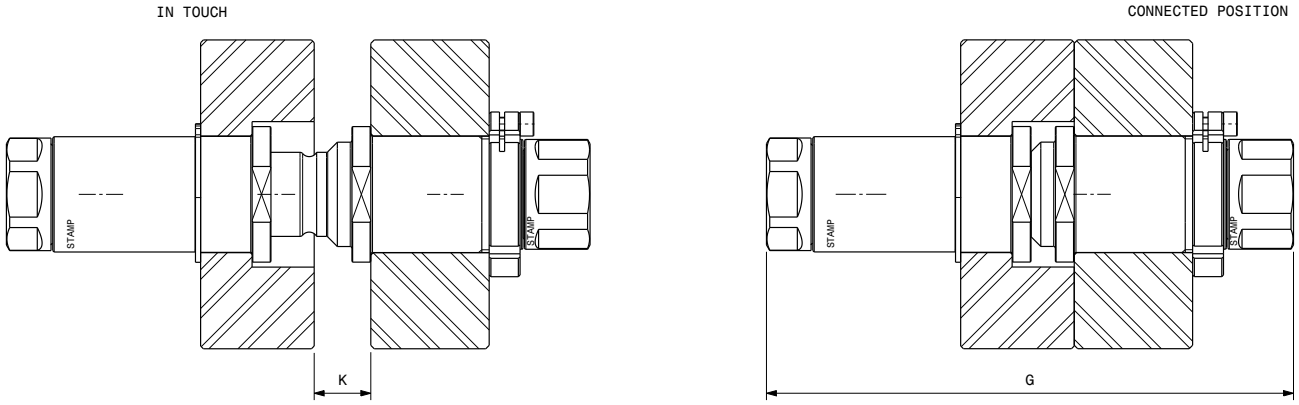
Size	*Locking rings codes		Diameter	Diameter		Length			Diameter			Diameter			Screw			Diameter		
			mm		in		mm	in		mm	in		mm	in		mm	in		mm	in
1"	Seeger	815701154	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Threaded nut	815701155	Aa1	M58x1,5	Aa2	M6	Xm	12,0	0,47	Im2	69,0	2,72	Ø Holes	5,0	0,20	M6x10	HEX 5	HEX 0,19	i	80,0	3,15
1-1/2"	Seeger	815701156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Threaded nut	815701157	Aa1	M78x2	Aa2	M6	Xm	12,0	0,47	Im2	89,0	3,50	Ø Holes	5,0	0,20	M6x10	HEX 5	HEX 0,19	i	100,0	3,94

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Holes dimensions



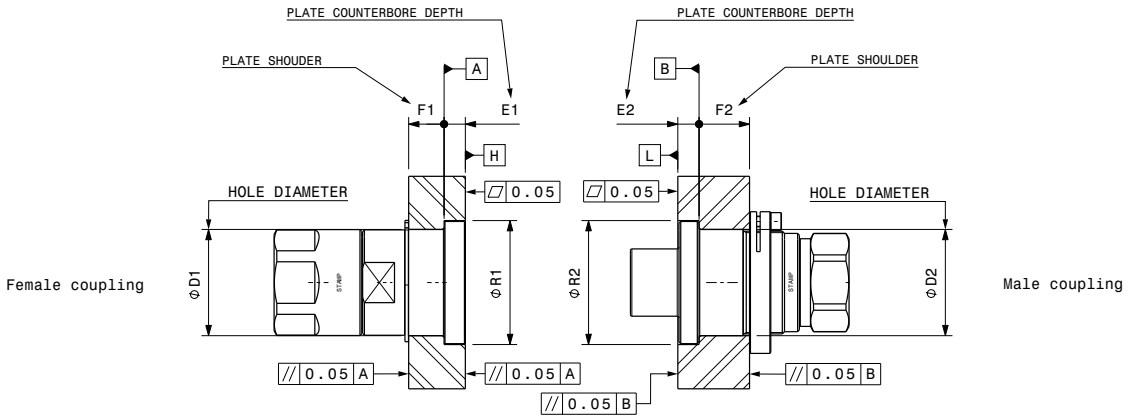


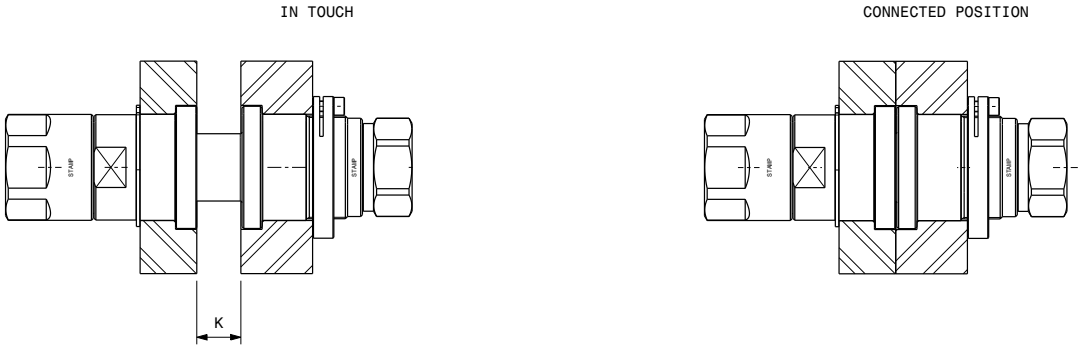
Size	Descriptive code		Length			Length			Coupling distance in touch position			Diameter			Diameter		
			Max tolerance -0,1/+0,0 mm			Max tolerance +0/+0,1 mm						Max tolerance +0,05/+0,02 mm			Max tolerance -0,0/+0,2 mm		
			mm		in	mm		in	mm		in	mm		in	mm		in
3/8”	Female F FAP9ASZN	F1	15,0		0,59	E1	18,0	0,71	K	15,4	0,61	D1	28,0	1,10	R	33,8	1,33
	Male M FAP9ASZN	F2	34,5		1,36	-	-	-				D2	26,0	1,02			
1/2”	Female F FAP13ASZN	F1	15,0		0,59	E1	18,0	0,71	K	16,5	0,65	D1	34,0	1,34	R	42,4	1,67
	Male M FAP13ASZN	F2	34,5		1,36	-	-	-				D2	34,0	1,34			

FAP - AS Series

SPECIAL SERIES

Holes dimensions





Size	Descriptive code		Length			Length			Coupling distance in touch position		
			Max tolerance -0,1/+0,0 mm			Max tolerance +0/+0,1 mm					
in				mm	in		mm	in		mm	in
1"	Female	F FAP21AS1	F1	20,0	1,46	E1	12,0	0,47	K	24,9	0,98
	Male	M FAP21AS1	F2	28,5	1,46	E2	12,0	0,47			
1-1/2"	Female	F FAP30AS2	F1	32,6	1,28	E1	16,4	0,65	K	34,9	1,37
	Male	M FAP30AS2	F2	32,6	1,28	E2	16,4	0,65			

Diameter			Diameter		
Max tolerance +0.05/+0.02 mm			Max tolerance -0,0/+0,02 mm		
	mm	in		mm	in
D1	60,0	2,36	R1	70,0	2,76
D2	60,0	2,36	R2	70,0	2,76
D1	90,0	3,54	R1	100,0	3,94
D2	80,0	3,15	R2	100,0	3,94

- Counterbore depth may be varied, but the final distance between male and female must be always like indicated .
- Plate thickness may be increased to increase the resistance; the important is to keep the same assembly dimension as shown in the table.
- Coupling-hole interaxis must be referred to centering-system and must be in the order of +0,02/-0,02 mm tolerance to avoid misalignment during connection.
- Centering system must to lead in before to start the connection of the coupling, to allow the system to be already centered during connection: please refer to dimension K in the table - at this stage (coupling “in touch”), it is advised to have at least 15 mm of complete system-lead in before connection (measured on the cylindrical part of the guides, so excluded the conical chamfer or radius) .
- Max allowed misalignment between male and female coupling (given by the centering system) must be in the order of +/- 0,05 mm during connection phase.
- After connection, plane H-B (for FAP9-13AS) and A-B (for FAP21-30AS) must be in contact - not having the contact could lead to have pressure drop increase and valve damage. (Max. allowed distance between plane H-B and A-B after connection is 0.5 mm).
- Dimensions above are intended to be referred after surface treatment of the plate.

FAP - AS Series

SPECIAL SERIES

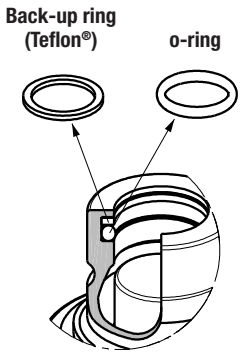


Spare Kit Seal for Male

Repair kit/OR+BK		
Body size	Description	Part number
3/8”	M FAP9AS	815701096
1/2”	M FAP13AS	815700339
1”	M FAP21AS1	815701159 *
1-1/2”	M FAP30AS2	815701171

O-Ring in Nitrile
BackUp in Teflon®

* seal in polyurethan in one piece

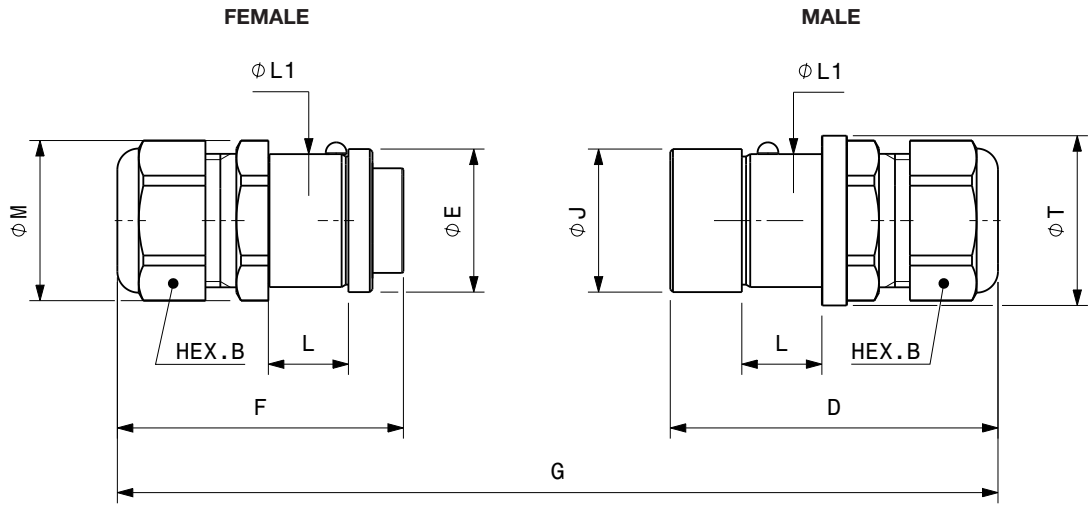


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In addition to the couplings for fluid energy transmission, it is possible to fit in the multicouplings the electrical connectors for the electric energy transmission.

They are suitable for all very low tension (max 24 V, 12 A service to 15 A max each contact) electronic devices such as instrumentation, signals, solenoid valves, etc.

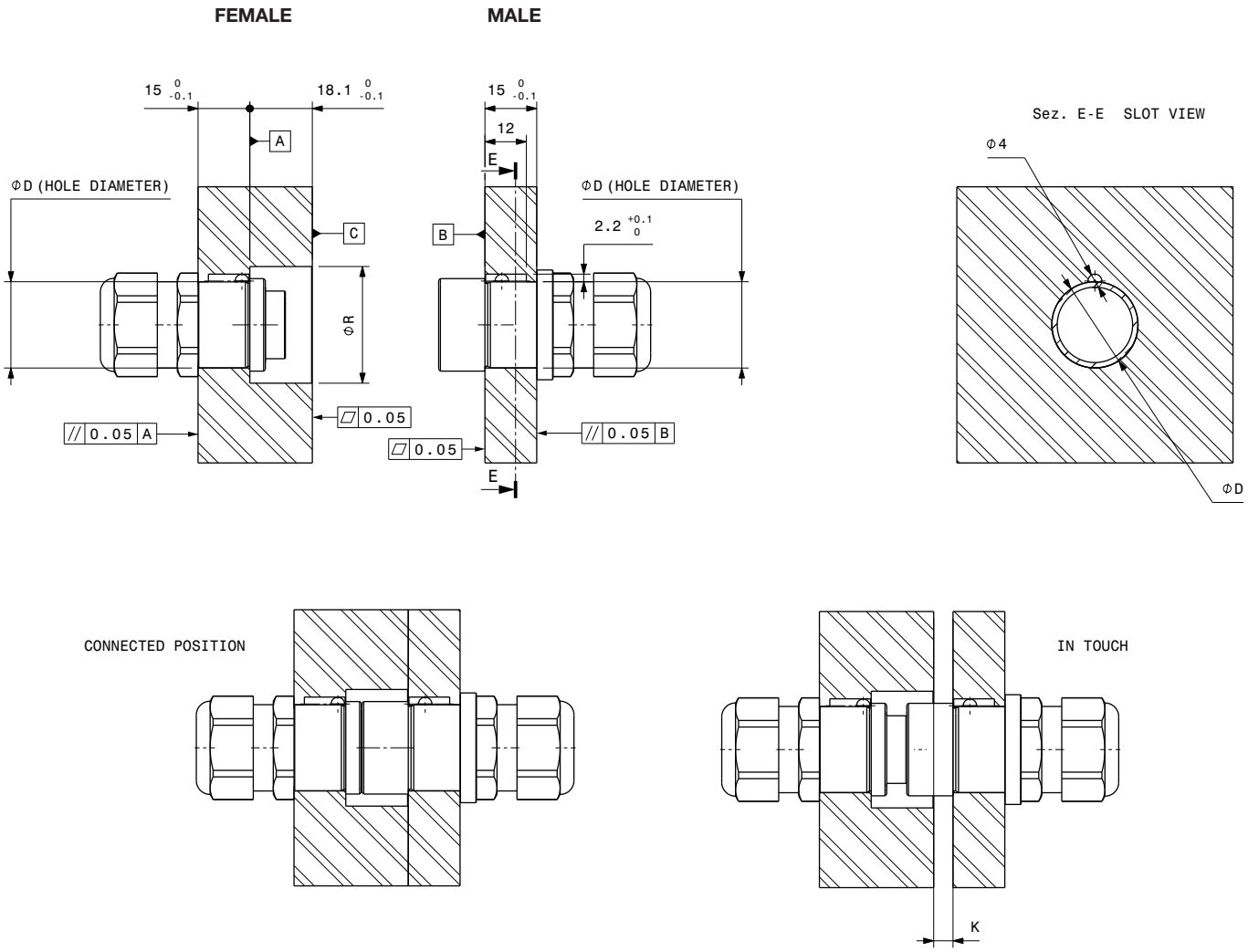


EC Dimension

Descriptive code	Item code	Number of pins	Overall Length		Length		Length		Diameter		Diameter		Length		Hex		Spring force	
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	N	lbf
F EC6	Female 806422000	6	G 109,4	4,31	F 53,6	2,11	L 15	0,59	M 30,0	1,18	E 26,8	1,06	L1 24,9	0,98	B 27	1,06	20	4,5
M EC6D	Male 806422007	6			D 61,4	2,42			T 31,8	1,25	J 26,8	1,06						

⚠ WARNING

A defect, a wrong choice or an improper use of products, can cause injury to persons, animals and objects.
Do not pull the cable assembly during the use in order to avoid damages of the electrical connector.
Do not weld the electrical connector pins, they are intended to be assembled by crimping with proper tool.
Do not use the electrical connector with high voltage or high amperage.
Do not connect or disconnect with power in the lines! Always shut off the power prior to connect&disconnect.
Do not touch with hand, finger or tools the pins. Do not shortcircuit, misuse or modify the parts.
Avoid liquids, dirts, particles or other objects touching the pins: shortcircuits may happen!
Do not disassemble, misuse, modify or damage the products.
It is MANDATORY to read and closely follow the instructions. Last updated version always apply at time of installation, see latest written Instructions on Stucchi website (stucchigroup.com) before selecting or using Stucchi products.



EC housing dimensions

Descriptive code	Item code		Number of pins	Diameter			Diameter			Diameter		
				Max tolerance +0,04/+0,01 mm			Max tolerance +0/+0,2 mm					
					mm	in		mm	in		mm	in
F EC6	Female	806422000	6	D	25	0,98	R	33,8	1,33	K	5,6	0,22
M EC6D	Male	806422007	6									

Counterbore depth may be varied, but the final distance between male and female must be always like indicated 18,1 mm -0,1/+0.
Connector-hole interaxis must to be referred to centering-pin and must to be in the order of +0,02/-0,02 mm tolerance to avoid misalignment during connection.

Centering pin must to lead in before to start the connection of the connector, to allow the system to be already centered during connection: please refer to dimension K in the table - at this stage (connector “in touch”), it is advised to have at least 15 mm of complete pin-lead in before connection (measured on the cylindrical part of the pin, so excluded the conical chamfer or radius) . Max allowed misaligment between the male and female EC (given by the centering system) has to be in the order of +/- 0,05 mm during connection phase.

Dimensions above are intended to be referred after surface treatment of the plate.

After connection, plane C and B must to be in contact - not having the contact could lead to have malfunction and damages.
For technical features, instruction of assembly and further information please refer to dedicated “Electrical connectors” datasheet in the Multicouplings Catalog. (The dimension above indicated are valid for the electrical connector part number in the table only.)

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