

FAP-ZN SERIES

INTERCHANGE > Stucchi profile (only for Stucchi multicouplings)



TECHNICAL FEATURES AND OPTIONS



Interchange

Stucchi profile
(only for Stucchi
multicouplings)



Sealing description

Nitrile NBR



Connection system

By multicoupling



Available sizes

from 3/8"
to 1"



Material /treatment

Carbon steel
/Zi-Ni



Available threads

BSP - NPT - SAE



Operating pressure

Up to 350 bar



Locking mechanism

PIN/CAM



Flow rate

Up to 378 l/min



Temperature (°C)

-20° / +100°



Valving style

Flat face



Connection under pressure

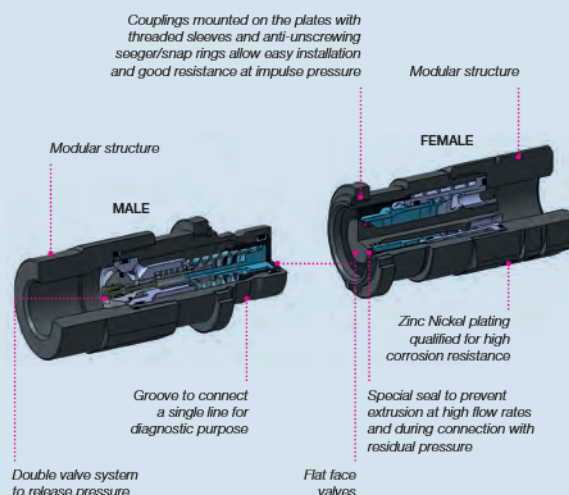
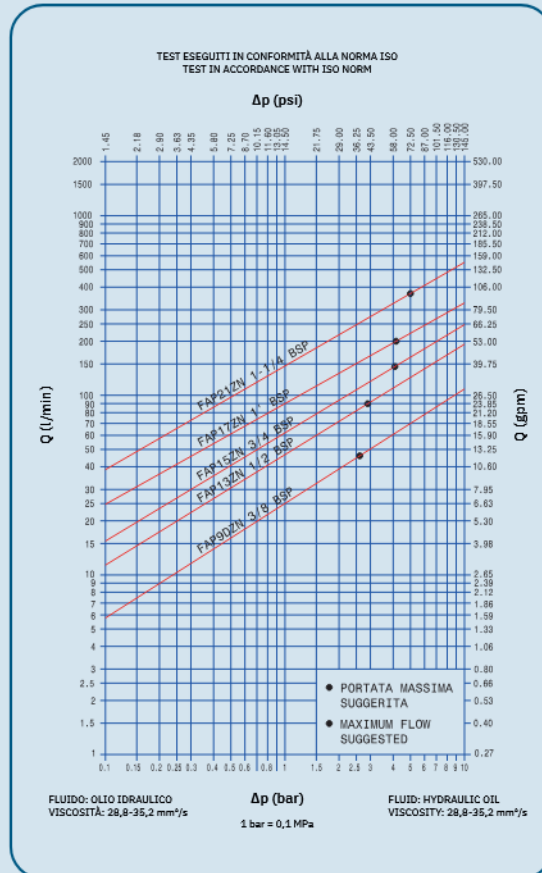
Connection: Both sides.
Disconnection: allowed.

BENEFITS

- 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.

HOW TO USE

- See instructions at page 23.



MAIN APPLICATIONS



Agriculture



Oil/Gas



Industry



High Pressure



Cooling



Refrigeration



Earth Moving



Vehicles



Hydraulic Equipment



Chemical & Food Industry

PERFORMANCE

Size		Series/Size	Max. flow suggested		Hydrostatic pushing area coupled	Spillage*
Inch	mm (ISO)		l/min	gpm	cm ²	ml
3/8	-	FAP9ZN (A/D)	46	12,19	1,226	0,012
1/2	-	FAP13ZN	90	23,85	1,893	0,020
5/8	-	FAP15ZN	148	39,22	2,404	0,110
3/4	-	FAP17ZN	200	53,00	3,298	0,032
1	-	FAP21ZN	378	100,17	4,335	0,035

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	FAP9ZN (A/D)	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		Female Male to drain		Male and Female		MPa		psi	
Inch		MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
3/8	FAP9ZN (A/D)	25	3625	25	3625	25	3625	25	3625	25	3625
1/2	FAP13ZN	25	3625	25	3625	20	2900	20	2900	20	2900
5/8	FAP15ZN	25	3625	25	3625	20	2900	20	2900	20	2900
3/4	FAP17ZN	25	3625	25	3625	15	2175	15	2175	15	2175
1	FAP21ZN	25	3625	25	3625	15	2175	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 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:

In according with ISO norm, the couplings coupled have been tested at max. operating pressure for 200.000 impulse cycles replacing the seeger ring every 50.000 cycles.

The female and male uncoupled have been tested for 100.000 impulse cycles.

! WARNING

A defect, a wrong choice or an improper use of products, can cause injury to persons, animals and objects.

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 and/or pressure 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.

FAP-ZN series is intended to be used only on Stucchi Multiconnections. Do not use the FAP-ZN coupling on a Custom-made multiconnection or other device different than a Stucchi Multiconnection.

Do not disassemble, misuse, modify or damage the products.

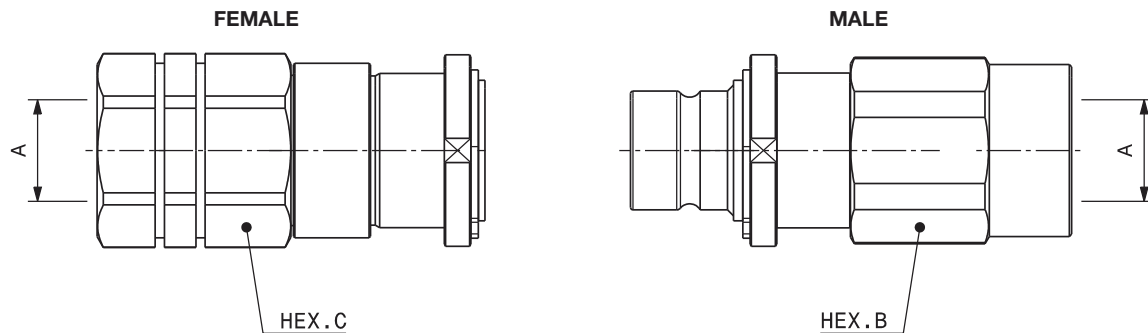
FAP-ZN series is intended to be used with standard hydraulic oils in fluid power application. Do not use the FAP-ZN coupling with different fluids (for example with inflammable, corrosive or dangerous fluids, gases ecc). Replace the seeger ring every 50.000 impulse cycles.

For dimension "FAP9ZN 3/8": there are two versions of FAP9ZN: "A" and "D". The version is depending on the type of multiconnection in use. Please verify if the multiconnection you are using requires FAP9ZN "A" or "D" type consulting the single datasheet in case of need of spare parts. 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&limited time).

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.

SPECIFICATIONS

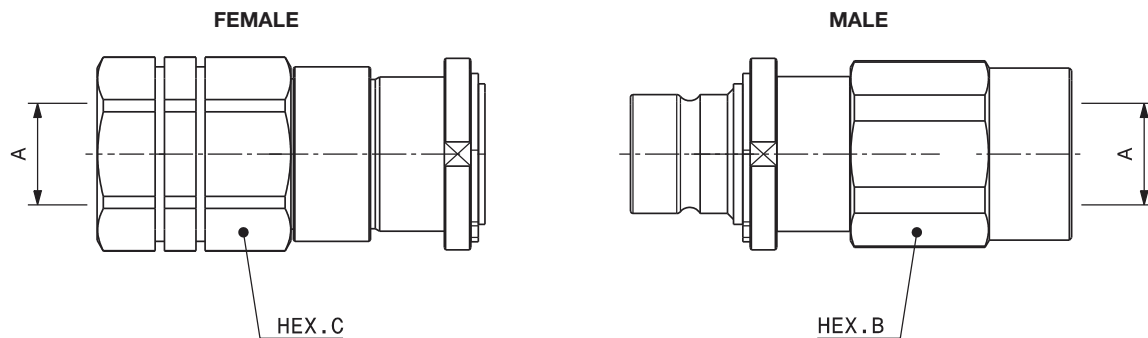


Port description: FEMALE THREAD BSPP (ISO 1179-1)

Body size	Descriptive Code	Item Code	Port (A)	A or D type	Hex	Weight			
						mm	in	kg	lb
3/8"	F FAP9DZN 1/4 BSP	Female 811400024	1/4"	D	C	30,0	1,18	0,31	0,69
	M FAP9DZN 1/4 BSP	Male 811400025			B	27,0	1,06	0,26	0,57
3/8"	F FAP9AZN 1/4 BSP	Female 811400026	1/4"	A	C	30,0	1,18	0,32	0,70
	M FAP9AZN 1/4 BSP	Male 811400027			B	27,0	1,06	0,22	0,49
3/8"	F FAP9AZN 3/8 BSP	Female 811400002	3/8"	A	C	30,0	1,18	0,26	0,56
	M FAP9AZN 3/8 BSP	Male 811400003			B	27,0	1,06	0,22	0,49
3/8"	F FAP9DZN 3/8 BSP	Female 811400004	3/8"	D	C	30,0	1,18	0,27	0,59
	M FAP9DZN 3/8 BSP	Male 811400005			B	27,0	1,06	0,23	0,51
3/8"	F FAP9AZN 1/2 BSP	Female 811400006	1/2"	A	C	30,0	1,18	0,28	0,61
	M FAP9AZN 1/2 BSP	Male 811400007			B	27,0	1,06	0,22	0,49
3/8"	F FAP9DZN 1/2 BSP	Female 811400008	1/2"	D	C	30,0	1,18	0,26	0,57
	M FAP9DZN 1/2 BSP	Male 811400009			B	27,0	1,06	0,21	0,46
3/8"	M FAP9DZNSD 1/2 BSP	Male 811400031*	1/2"	-	B	29,0	1,14	0,22	0,49
1/2"	F FAP13ZN 1/2 BSP	Female 811400010	1/2"		C	36,0	1,42	0,44	0,98
	M FAP13ZN 1/2 BSP	Male 811400011			B	36,0	1,42	0,44	0,96
1/2"	F FAP13ZN 3/4 BSP	Female 811400012	3/4"		C	36,0	1,42	0,47	1,03
	M FAP13ZN 3/4 BSP	Male 811400013			B	36,0	1,42	0,44	0,97
5/8"	F FAP15ZN 3/4 BSP	Female 811400014	3/4"		C	41,0	1,61	0,59	1,30
	M FAP15ZN 3/4 BSP	Male 811400015			B	36,0	1,42	0,46	1,00
3/4"	F FAP17ZN 3/4 BSP	Female 811400020	3/4"		C	46,0	1,81	1,00	2,20
	M FAP17ZN 3/4 BSP	Male 811400021			B	46,0	1,81	0,84	1,85
3/4"	F FAP17ZN 1 BSP	Female 811400016	1"		C	46,0	1,81	0,93	2,05
	M FAP17ZN 1 BSP	Male 811400017			B	46,0	1,81	0,76	1,66
1"	F FAP21ZN 1 BSP	Female 811400022	1"		C	55,0	2,17	1,69	3,72
	M FAP21ZN 1 BSP	Male 811400023			B	55,0	2,17	1,39	3,06
1"	F FAP21ZN 1-1/4 BSP	Female 811400018	1-1/4"		C	55,0	2,17	1,53	3,38
	M FAP21ZN 1-1/4 BSP	Male 811400019			B	55,0	2,17	1,22	2,69

* to be used with Multi GR10 10A-2EC V03

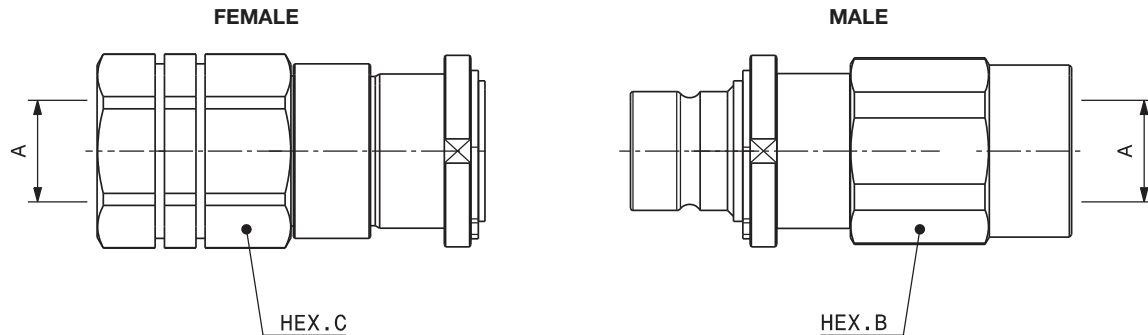
SPECIFICATIONS



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

Body size	Descriptive Code	Item Code	Port (A)	A or D type	Hex	Weight			
						mm	in	kg	lb
3/8"	F FAP9AZN 3/8 NPT	Female 811401002	3/8"	A	C	30,0	1,18	0,27	0,59
	M FAP9AZN 3/8 NPT	Male 811401003			B	27,0	1,06	0,23	0,50
3/8"	F FAP9DZN 3/8 NPT	Female 811401004	3/8"	D	C	30,0	1,18	0,27	0,59
	M FAP9DZN 3/8 NPT	Male 811401005			B	27,0	1,06	0,23	0,50
3/8"	F FAP9AZN 1/2 NPT	Female 811401006	1/2"	A	C	30,0	1,18	0,28	0,62
	M FAP9AZN 1/2 NPT	Male 811401007			B	27,0	1,06	0,23	0,50
3/8"	F FAP9DZN 1/2 NPT	Female 811401008	1/2"	D	C	30,0	1,18	0,27	0,58
	M FAP9DZN 1/2 NPT	Male 811401009			B	27,0	1,06	0,23	0,50
1/2"	F FAP13ZN 1/2 NPT	Female 811401010	1/2"		C	36,0	1,42	0,47	1,04
	M FAP13ZN 1/2 NPT	Male 811401011			B	36,0	1,42	0,44	0,97
1/2"	F FAP13ZN 3/4 NPT	Female 811401012	3/4"		C	36,0	1,42	0,49	1,08
	M FAP13ZN 3/4 NPT	Male 811401013			B	36,0	1,42	0,45	0,99
5/8"	F FAP15ZN 3/4 NPT	Female 811401014	3/4"		C	41,0	1,61	0,62	1,36
	M FAP15ZN 3/4 NPT	Male 811401015			B	36,0	1,42	0,46	1,02
3/4"	F FAP17ZN 3/4 NPT	Female 811401020	3/4"		C	46,0	1,81	0,99	2,18
	M FAP17ZN 3/4 NPT	Male 811401021			B	46,0	1,81	0,75	1,66
3/4"	F FAP17ZN 1 NPT	Female 811401016	1"		C	46,0	1,81	0,98	2,16
	M FAP17ZN 1 NPT	Male 811401017			B	46,0	1,81	0,77	1,69
1"	F FAP21ZN 1 NPT	Female 811401022	1"		C	55,0	2,17	1,70	3,75
	M FAP21ZN 1 NPT	Male 811401023			B	55,0	2,17	1,40	3,09
1"	F FAP21ZN 1-1/4 NPT	Female 811401018	1-1/4"		C	55,0	2,17	1,63	3,59
	M FAP21ZN 1-1/4 NPT	Male 811401019			B	55,0	2,17	1,26	2,78

SPECIFICATIONS



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

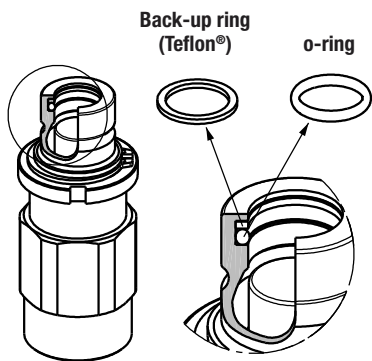
Body size	Descriptive Code	Item Code	Port (A)	A or D type	Hex	Weight			
						mm	in	kg	lb
3/8"	F FAP9AZN 1/4 SAE	Female 811404020	7/16-UNF	A	C	27,0	1,06	0,32	0,70
	M FAP9AZN 1/4 SAE	Male 811404021			B	30,0	1,18	0,26	0,57
3/8"	F FAP9DZN 1/4 SAE	Female 811404022	7/16-UNF	D	C	27,0	1,06	0,32	0,70
	M FAP9DZN 1/4 SAE	Male 811404023			B	30,0	1,18	0,26	0,58
3/8"	F FAP9AZN 3/8 SAE	Female 811404024	9/16-18UNF	A	C	27,0	1,06	0,26	0,57
	M FAP9AZN 3/8 SAE	Male 811404025			B	30,0	1,18	0,23	0,51
3/8"	F FAP9DZN 3/8 SAE	Female 811404026	9/16-18UNF	D	C	27,0	1,06	0,27	0,60
	M FAP9DZN 3/8 SAE	Male 811404027			B	30,0	1,18	0,24	0,53
3/8"	F FAP9AZN 1/2 SAE	Female 811404002	3/4-16UNF	A	C	27,0	1,06	0,28	0,62
	M FAP9AZN 1/2 SAE	Male 811404003			B	30,0	1,18	0,23	0,50
3/8"	F FAP9DZN 1/2 SAE	Female 811404004	3/4-16UNF	D	C	27,0	1,06	0,28	0,62
	M FAP9DZN 1/2 SAE	Male 811404005			B	30,0	1,18	0,23	0,50
3/8"	F FAP9AZN 5/8 SAE	Female 811404006	7/8-14UNF	A	C	27,0	1,06	0,27	0,60
	M FAP9AZN 5/8 SAE	Male 811404007			B	30,0	1,18	0,26	0,58
3/8"	F FAP9DZN 5/8 SAE	Female 811404008	7/8-14UNF	D	C	27,0	1,06	0,27	0,60
	M FAP9DZN 5/8 SAE	Male 811404009			B	30,0	1,18	0,23	0,50
1/2"	F FAP13ZN 1/2 SAE	Female 811404028	3/4-16UNF		C	36,0	1,42	0,45	1,00
	M FAP13ZN 1/2 SAE	Male 811404029			B	36,0	1,42	0,44	0,96
1/2"	F FAP13ZN 5/8 SAE	Female 811404010	7/8-14UNF		C	36,0	1,42	0,47	1,04
	M FAP13ZN 5/8 SAE	Male 811404011			B	36,0	1,42	0,45	0,99
1/2"	F FAP13ZN 3/4 SAE	Female 811404012	1-1/16-12UN		C	36,0	1,42	0,47	1,03
	M FAP13ZN 3/4 SAE	Male 811404013			B	36,0	1,42	0,43	0,95
5/8"	F FAP15ZN 3/4 SAE	Female 811404014	1-1/16-12UN		C	41,0	1,61	0,60	1,32
	M FAP15ZN 3/4 SAE	Male 811404015			B	36,0	1,42	0,43	0,95
3/4"	F FAP17 3/4 SAE	Female 811404030	1-1/16-12UN		C	46,0	1,81	1,01	2,23
	M FAP17ZN 3/4 SAE	Male 811404031			B	46,0	1,81	0,84	1,84
3/4"	F FAP17ZN 1 SAE	Female 811404016	1-5/16-12UN		C	46,0	1,81	0,96	2,11
	M FAP17ZN 1 SAE	Male 811404017			B	46,0	1,81	0,75	1,66
1"	F FAP21ZN 1 SAE	Female 811404032	1-5/16-12UN		C	55,0	2,17	1,67	3,69
	M FAP21ZN 1 SAE	Male 811404033			B	55,0	2,17	1,38	3,05
1"	F FAP21ZN 1-1/4 SAE	Female 811404018	1-5/8-12UN		C	55,0	2,17	1,58	3,47
	M FAP21ZN 1-1/4 SAE	Male 811404019			B	55,0	2,17	1,27	2,80



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
815701000	SET OF 10 SEEGER+NUT FAP9AZN
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

