

APM SERIES

INTERCHANGE > ISO 16028 - NFPA T3.20.15 - HTMA (size 3/8")



Easy CUP



TECHNICAL FEATURES AND OPTIONS

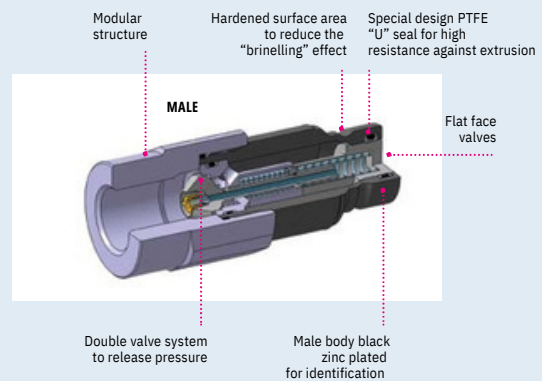
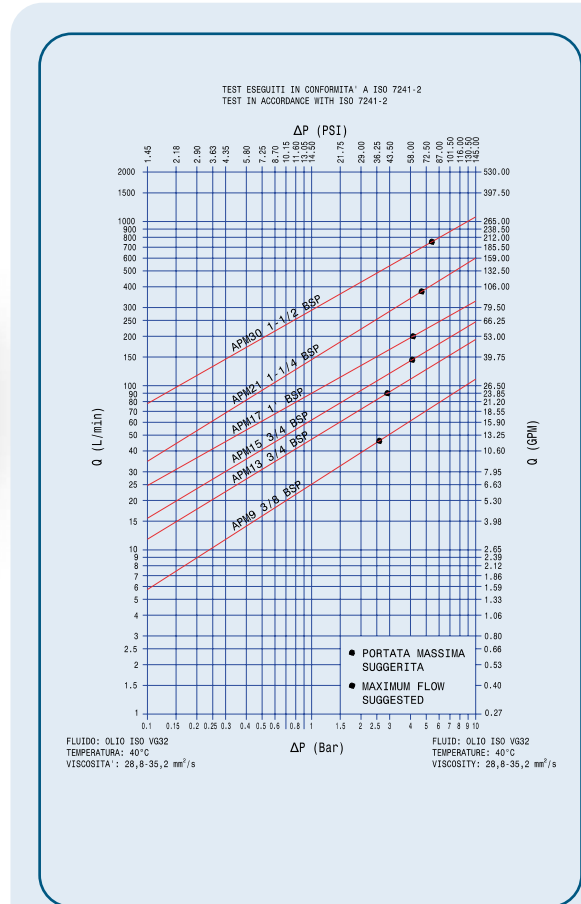
	Interchange ISO 16028 NFPA T3.20.15 HTMA (size 3/8")		Sealing description Nitrile NBR		Connection system Push
	Available sizes From 3/8" to 1-1/2"		Material/treatment Carbon steel /Cr3		Available threads BSP - NPT - SAE
	Operating pressure Up to 350 bar		Locking mechanism Locking ball+ Safety Lock (on female coupling)		Flow rate Up to 750 l/min
	Temperature (°C) -20°C / +100°C		Valving style Flat Face		Connection under pressure Connection: Male side only (see Benefits). Disconnection: Not allowed.

BENEFITS

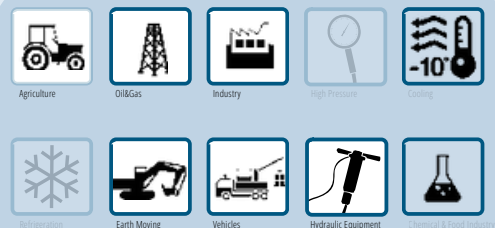
- Easy connection with male side under residual pressure (female side to drain) thanks to the internal valve.
- Flat face is easy to clean, reducing the inclusion of contamination inside the hydraulic circuit.
- Minimal fluid spillage during disconnection, reducing fluid spillage to the environment.
- Minimal air inclusion during connection.
- Internal valve design creates minimal pressure drop, maintaining circuit efficiency in the system.
- Male body black zinc plated for identification
- The modular design allows flexibility with a wide range of configurations.
- Good resistance to pressure impulses.
- Compact slim design.
- Safe and simple to use.

HOW TO USE

- Before to connect, clean the mating surface of the couplings to avoid dirt inclusion in the circuit.
- To connect push the male half towards the female half or vice versa.
- After connection turn the external sleeve to engage safety lock function, to prevent accidental disconnection.
- To disconnect turn the external sleeve until the sleeve lock notch match the safety lock ball and push back the sleeve.



MAIN APPLICATIONS



FLAT FACE

PERFORMANCES

Size		Series/Size	Max. flow suggested		Connect force		Disconnect force		Spillage*
in	mm (ISO)		l/min	gpm	N	lbf	N	lbf	ml
3/8	10,	APM9	46	12,19	165	37,13	40	9,00	0,0
1/2	0	APM1	90	23,85	190	42,75	70	15,75	2
5/8	12,	3	148	39,22	160	36,00	50	11,25	0,0
3/4	5	APM1	200	53,00	260	58,50	80	18,00	1
1	16,	5	378	100,17	300	67,50	90	20,25	0,0
1	0	APM1	750	198,75	440	99,00	80	18,00	3
1/2	19,	7							0,1
	0	APM2							8
									0,1
									8
									0,4
									0

Size	Series/Size	Max. operating pressure				Burst pressure			
		MPa		psi		MPa		psi	
3/8	APM9	35	5075	35	5075	100	14500	120	17400
1/2	APM1	33	4785	33	4785	100	14500	120	17400
5/8	3	33	4785	33	4785	100	14500	120	17400
3/4	APM1	33	4785	33	4785	100	14500	120	17400
1	5	30	4350	30	4350	80	11600	100	14500
1	APM1	27	3915	27	3915	80	11600	100	14500
1/2	7								
	APM2								

* Spillage is an indicative value of the fluid loss during disconnection (according to ISO norm test method).

Theoretical calculation of connect force with residual pressure:
 $F_p(N) = F_i + (P_m \times 5)$
 F_i = Connection force without residual pressure (N)
 P_m = Residual pressure in the male coupling (MPa)

EXAMPLE

To connect the male coupling APM13 with 20 Mpa of residual pressure, it is necessary the following force:
 $F_p = F_i + (P_m \times 5) = 190 + (20 \times 5) = 290 \text{ N}$

Different possible configurations:
 Different threads available upon request.

Temperature range:

Seals in NBR (Nitrile): 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:

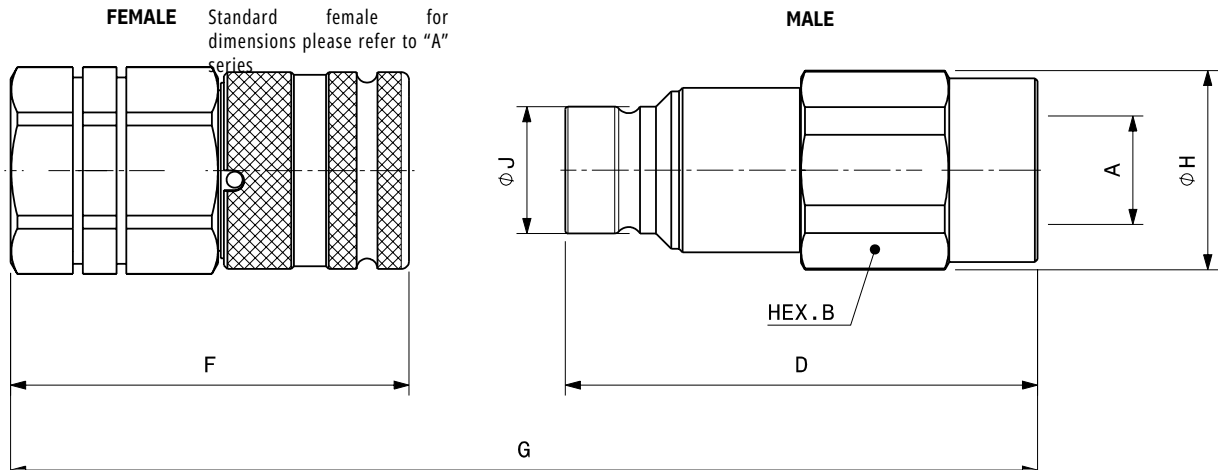
Tested with female couplings "A" series.

The couplings have been tested at max. operating pressure for 100.000 impulses according to ISO norm test method.

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). Connection with residual pressure (pressure trapped in the circuit) allowed with female to drain. Do not use the male 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. 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.**

OVERALL DIMENSIONS



FLAT FACE

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

B	Descriptive Code	Item Code	IS	PORT (A)	Overall Length	Leng	Hex	Diameter	Diameter	Weight						
OD			O		mm in	th in	mm in	mm in	mm in	kg lb						
3/8"	M APM9 3/8 BSP	805200001	10,	3/8"	G (F+D)-	(F+D)-0,	D 80,	3,1 B 27,	1,0 H 29,	1,1 J 19,	0,7 0,2	0,4				
3/8"	M APM9 1/2 BSP	805200003	0	1/2"	G 16	630	D 0	5 B 0	6 H 0	4 J 7	8 0	3				
1/2"	M APM13 1/2 BSP	805200005	10,	1/2"	G (F+D)-	(F+D)-0,	D 82,	3,2 B 27,	1,0 H 29,	1,1 J 19,	0,7 0,2	0,4				
1/2"	M APM13 3/4 BSP	805200007	0	3/4"	G 16	630	D 5	5 B 0	6 H 0	4 J 7	8 0	3				
5/8"	M APM15 3/4 BSP	805200009	12,	3/4"	G (F+D)-	(F+D)-0,	D 91,	3,5 B 36,	1,4 H 38,	1,1 J 24,	0,9 0,4	0,9				
3/4"	M APM17 1 BSP	805200011	5	1"	G 17,3	681	D 0	8 B 0	2 H 5	4 J 5	6 1	0				
1"	M APM21 1-1/4 BSP	805200017	12,	1"	G (F+D)-	(F+D)-0,	D 93,	3,6 B 36,	1,4 H 38,	1,5 J 24,	0,9 0,4	0,8				
1-	M APM30 1-1/2 BSP	805200015	5	1/4"	G 17,3	681	D 5	8 B 0	2 H 5	2 J 5	6 0	9				
1/2"	Ma		16,	1	(F+D)-	(F+D)-0,	95,	3,7	36,	1,4	38,	1,5	27,	1,0	0,4	0,9
	le		0	1/2"	17,6	693	0	4	0	2	5	2	0	6	3	4

Port description: FEMALE THREAD NPT (ANSI B.1.20.1)

B	Descriptive Code	Item Code	IS	PORT (A)	Overall Length	Leng	Hex	Diameter	Diameter	Weight						
OD			O		(F+D)-	(F+D)-0,	mm in	mm in	mm in	kg lb						
3/8"	M APM9 3/8 NPT	805201001	0	3/8"	G 23	906	D 5	6	7	0	1	8	6	5	5	
3/8"	M APM9 1/2 NPT	805201003	0	1/2"	G 16	630	D 0	5	7	0	1	8	6	5	5	
1/2"	M APM13 1/2 NPT	805201005	10,	1/2"	G (F+D)-	(F+D)-0,	D 82,	3,2 B 27,	1,0 H 29,	1,1 J 19,	0,7 0,2	0,4				
1/2"	M APM13 3/4 NPT	805201007	0	3/4"	G 16	630	D 5	5 B 0	6 H 0	4 J 7	8 1	5				
5/8"	M APM15 3/4 NPT	805201009	12,	3/4"	G (F+D)-	(F+D)-0,	D 91,	3,5 B 36,	1,4 H 38,	1,1 J 24,	0,9 0,4	0,9				
3/4"	M APM17 1 NPT	805201011	5	1"	G 17,3	681	D 0	8 B 0	2 H 5	4 J 5	6 3	5				
1"	M APM21 1-1/4 NPT	805201017	12,	1"	G (F+D)-	(F+D)-0,	D 93,	3,6 B 36,	1,4 H 38,	1,5 J 24,	0,9 0,4	0,9				
1-	M APM30 1-1/2 NPT	805201015	5	1/4"	G 17,3	681	D 5	8 B 0	2 H 5	2 J 5	6 2	1				
1/2"	Ma		16,	1	(F+D)-	(F+D)-0,	95,	3,7	36,	1,4	38,	1,5	27,	1,0	0,4	0,9
	le		0	1/2"	17,6	693	0	4	0	2	5	2	0	6	4	6

Port description: FEMALE THREAD SAE (ISO 11926-1 & SAE J1926-1)

B	Descriptive Code	Item Code	IS	PORT (A)	Overall Length	Leng	Hex	Diameter	Diameter	Weight						
OD			O		(F+D)-	(F+D)-0,	mm in	mm in	mm in	kg lb						
3/8"	M APM9 1/2 SAE	805204001	0	3/4-	G 23	906	D 5	6	7	0	1	8	6	5	5	
1/2"	M APM13 5/8 SAE	805204003	0	16UNF	G 16	630	D 0	5	7	0	1	8	6	5	5	
1/2"	M APM13 3/4 SAE	805204005	12,	7/8-	G 28,6	126	D 9	8	0	6	4	0	24,	4	0	9
5/8"	M APM15 3/4 SAE	805204007	5	14UNF 1-	G 17,3	681	D 0	8 B 0	2 H 5	4 J 5	6 1	1				
3/4"	M APM17 1 SAE	805204009	12,	1/16-	G (F+D)-	(F+D)-0,	D 93,	3,6 B 36,	1,4 H 38,	1,5 J 24,	0,9 0,4	0,8				
1"	M APM21 1-1/4 SAE	805204017	5	12UN 1-	G 17,3	681	D 5	8 B 0	2 H 5	2 J 5	6 0	8				
1-	M APM30 1-1/2 SAE	805204015	16,	1/16-	G (F+D)-	(F+D)-0,	D 95,	3,7 B 36,	1,4 H 38,	1,5 J 27,	1,0 0,4	0,9				
1/2"	le		0	12UN 1-	17,6	693	0	4	0	2	5	2	0	6	3	4
	Ma		19,	5/16-	(F+D)-	(F+D)-0,	108	4,2	46,	1,8	49,	1,9	30,	1,1	0,7	1,6
	le		0	12UN 1-	22	866	,5	7	0	1	8	6	0	8	6	6
	Ma		25,	5/8-	(F+D)-	(F+D)-0,	123	4,8	55,	2,1	59,	2,3	36,	1,4	1,1	2,6
	le		0-	12UN 1-	23	906	,5	6	0	7	8	5	0	2	9	1
	Ma			7/8-	(F+D)-	(F+D)-1	146	5,7	70	2,7	75	2,9	57	2,2	2,5	5,6

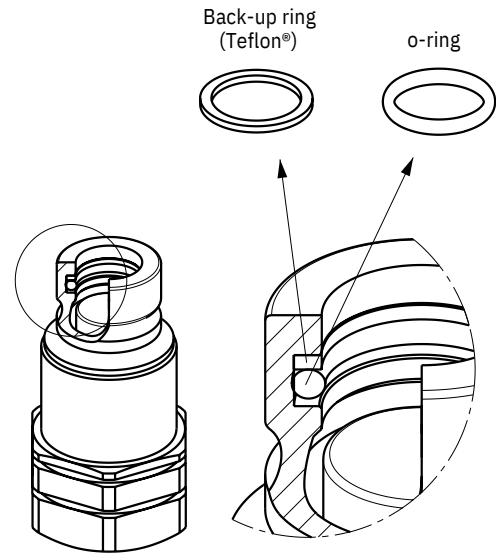
To calculate G see measure F in the leaflet A series



SPARE KIT SEAL FOR MALE

Repair kit / OR+BK			
Body Size	Description		Part Number
3/8"	M	APM9	815700337
1/2"	M	APM13	815700339
5/8"	M	APM15	815700341
3/4"	M	APM17	815700655
1"	M	APM21	815700345
1 1/2"	M	APM30	815700697*

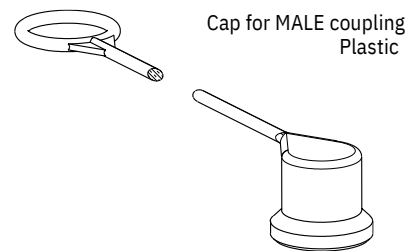
* OR + O-Ring holder



O-Ring in NBR
BackUp in PTFE

PROTECTIVE CAPS FOR APM SERIES

Protective caps are always recommended to protect the couplings from damage, dirt inclusion and will increase the product life. This is particularly important in mobile applications where exposure to weather and aggregate materials are common. The protection caps for APM couplings are manufactured in plastic with connection lanyard (standard color red, other colors available upon request).



		Protective Cap			
Body Size	Port size	Description	Part number		Material/Color
				Cap for Male	
3/8"	3/8"	M APM9	815100025		Plastic/Red
3/8"	1/2"	M APM9	815100027		d
1/2"	1/2"	M APM13	815100029		Plastic/Red
1/2"	3/4"	M APM13	815100031		d
5/8"	3/4"	M APM15	815100011		Plastic/Red
3/4"	1" 1-	M APM17	815100013		d
1" 1-	1/4"	M APM21	815100015		Plastic/Red
1/2"	1-1/4"	M APM30	815100017		d