

# APM Neptune series

SPECIAL SERIES



## Technical specifications and options

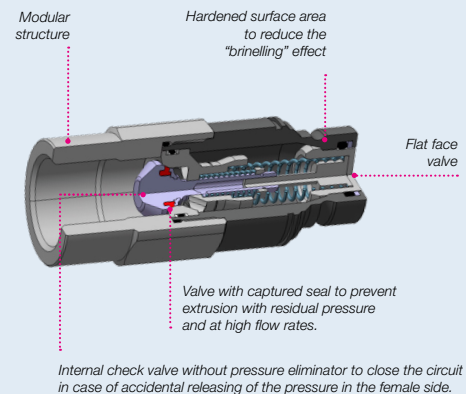
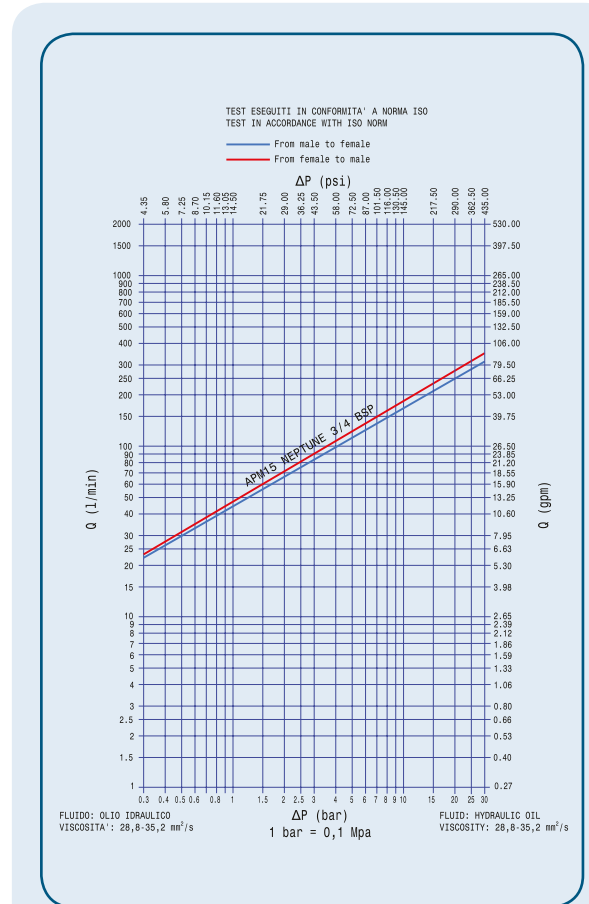
<b>Interchange</b> ISO 16028	<b>Sealing description</b> Nitrile NBR	<b>Connection system</b> Push
<b>Available sizes</b> 5/8"	<b>Material /treatment</b> High strength carbon steel	<b>Available threads</b> BSP - METRIC
<b>Operating pressure</b> Up to 250 bar	<b>Locking mechanism</b> Locking ball system	<b>Flow rate</b> Higher flow capability to follow the evolution of the mkt
<b>Temperature</b> -20°C / +100°C	<b>Valving style</b> Flat Face	<b>Connection under pressure</b> Connection: Both sides (see Benefits) Disconnection: Allowed (see Benefits)

## Benefits

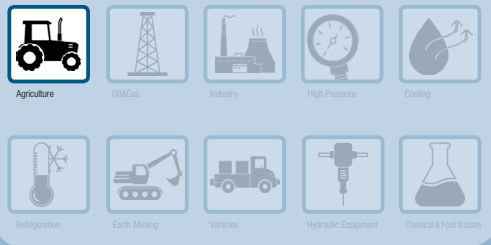
- Male coupling dedicated to be connected with Neptune casting block at the rear of the tractor. Easy to connect and disconnect with residual pressure in both sides.
- The main difference with standard APM is the internal check valve with double function:
  1. Allow connection with residual pressure in the male coupling.
  2. Close the circuit in case of accidental releasing of the pressure in the female side (e.g. accidental movement of the Neptune lever).
 This safety feature avoids the unexpected and dangerous movement of the attachment.
- Flat face is easy to clean, reducing the inclusion of contamination inside the hydraulic circuit.
- Minimal fluid loss during disconnection eliminating environment pollution.
- Minimal air inclusion during connection.
- The modular design allows flexibility with a wide range of configurations.
- Good resistance to pressure impulses and high flow rates.
- 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.
- Release the pressure from female coupling pushing and pulling the lever of Neptune block.
- To connect align the male to the face of the female coupling and push it into the female.
- After connecting move and pull slightly the male coupling to ensure it is properly coupled: After this check the coupling shall not disconnect.
- To disconnect the lower coupling push the lever, to disconnect the upper coupling pull the lever.



## MAIN APPLICATIONS



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## Performances

Size		Series	Max. flow suggested		Connect force		Disconnect force (Breakway 0 bar)		Spillage*	Max. operating pressure				Burst pressure				Max. residual pressure	
										Coupled		Male		Coupled		Male		Male	
Inch	mm (ISO)		l/min	GPM	N	lbf	N	lbf	ml	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
5/8	16,0	APM15	300	79,37	260	58,5	350	78,75	0,01	25	3625	25	3625	100	14500	100	14500	25	3625

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

### 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 cartridge of Neptune block.

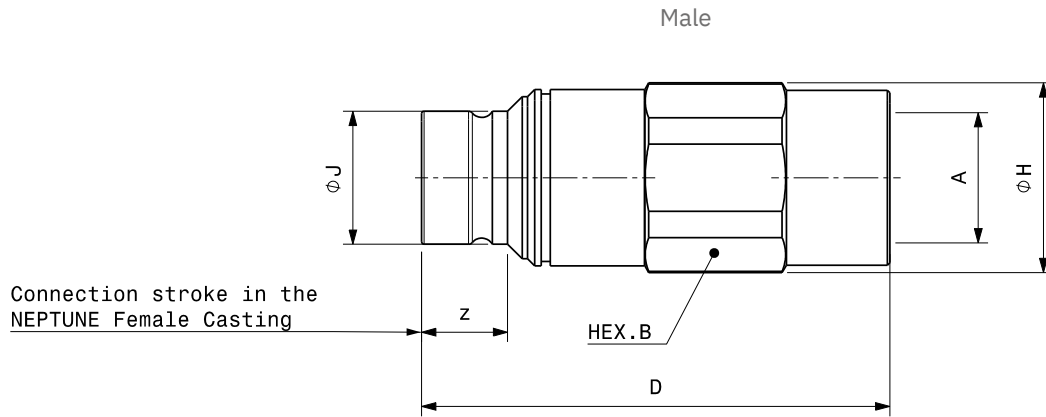
The couplings have been tested at max. operating pressure according to ISO norm test method for 1.000.000 impulses coupled and 100.000 impulses uncoupled.

### Different possible configurations:

Different threads available upon request.



## Overall dimensions

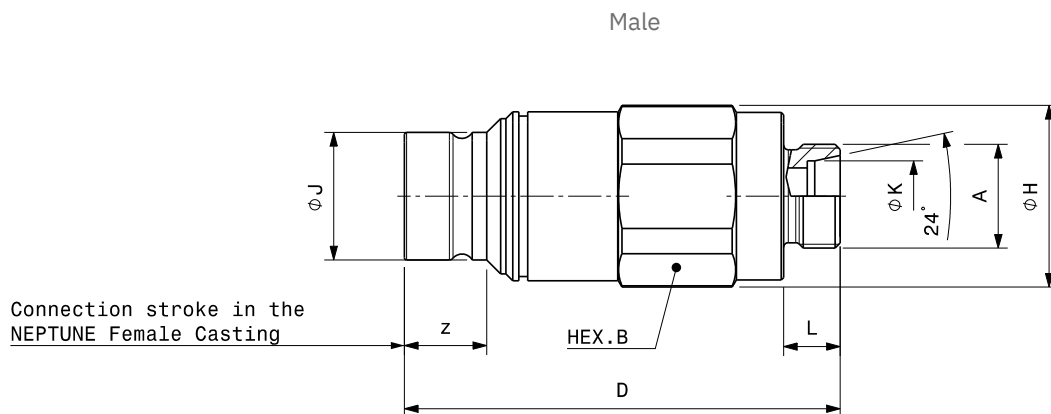


### Port description: FEMALE THREAD BSP (ISO 1179-1)

Size	Descriptive code	Item code	ISO	Port(A)	Stroke Length			Length			Hex		Diameter		Diameter		Weight				
			DN		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	Kg	Ibs			
5/8	M APM15 NEPTUNE 3/4 BSP	Male 91805200043	16	3/4"	Z	17,2	0,68	D	95,0	3,74	B	36,0	1,42	H	38,5	1,52	J	27,0	1,06	0,43	0,95

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

Size	Descriptive code	Item code	ISO	Port(A)	Stroke Length			Length			Hex		Diameter		Diameter		Weight				
			DN		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	Kg	Ibs			
5/8	M APM15 NEPTUNE 3/4 SAE	Male 91805204031	16	1 1/16- 12UN	Z	17,2	0,68	D	95,0	3,74	B	36,0	1,42	H	38,5	1,52	J	27,0	1,06	0,43	0,95



### Port description: MALE THREAD L SERIES -24° CONE (ISO 8434-1 & DIN 2353)

Body Size	Descriptive code	Item code	ISO	Port (A)	Stroke Length			Length			Hex		Diameter		Diameter		Diameter		Length		Weight						
			DN		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	Kg	Lbs			
5/8	M APM15 NEPTUNE L12	Male 91805208007	16	M18x1.5	Z	17,2	0,68	D	92,3	3,63	B	36,0	1,42	H	38,5	1,52	J	27,0	1,06	K	12,2	0,48	L	11,0	0,43	0,42	0,92
5/8	M APM15 NEPTUNE L15	Male 91805208009	16	M22x1.5	Z	17,2	0,68	D	92,3	3,63	B	36,0	1,42	H	38,5	1,52	J	27,0	1,06	K	15,2	0,60	L	12,0	0,47	0,42	0,92
5/8	M APM15 NEPTUNE L18	Male 91805208011	16	M26x1.5	Z	17,2	0,68	D	92,3	3,56	B	36,0	1,42	H	38,5	1,52	J	27,0	1,06	K	18,2	0,72	L	12,0	0,47	0,41	0,90
5/8	M APM15 NEPTUNE L22	Male 91805208013	16	M30x2	Z	17,2	0,68	D	92,3	3,56	B	36,0	1,42	H	38,5	1,52	J	27,0	1,06	K	22,2	0,87	L	14,0	0,55	0,41	0,90

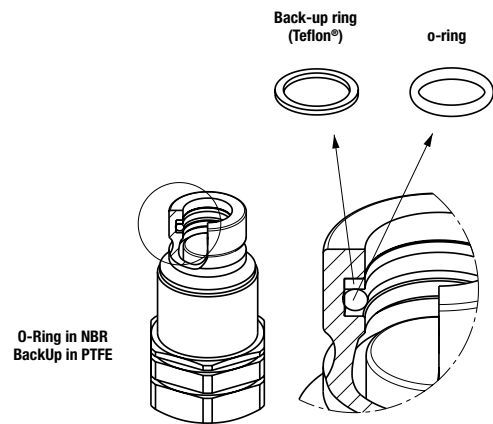
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## Spare kit seal for male

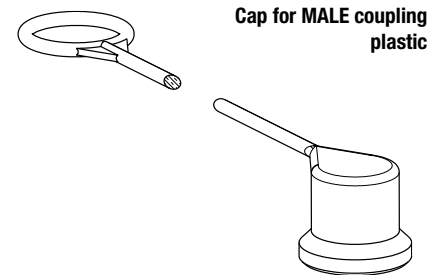
Repair kit/OR+BK		
Body size	Description	Part number
5/8	SPARE KIT OR NBR+BK M FF 58	815700341



## 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).

Protective Cap		
Body size/Description	Part number	Material/Color
	Cap for Female	
5/8" PLASTIC CAP M FF58 RED	815100011	Plastic/Red



## Dedicated packaging

The Item code refers to a single product; it is necessary to order in pairs, sold in a box.



### ⚠ WARNING

Stucchi APM Neptune male couplings are intended to be used for connecting hydraulic circuit of agricultural implements with tractor. 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 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 read and closely follow the instructions. Last updated version always apply at time of installation, see latest written Instructions on Stucchi website (www.stucchi.it) before selecting or using Stucchi products.**