VT RoT-lock®

INTERCHANGE > **Stucchi VT RoT-lock profile**

Stucchi®



TECHNICAL FEATURES AND OPTIONS

Interchange
Stucchi profile

Sealing description
Nitrile NBR

Connection system
Screw

Available sizes
3/4", 1"

Material /treatment
Carbon steel /Zinc Nckel

Available threads
BSP - NPT - SAE - ORFS

Operating pressure
Up to 500 bar

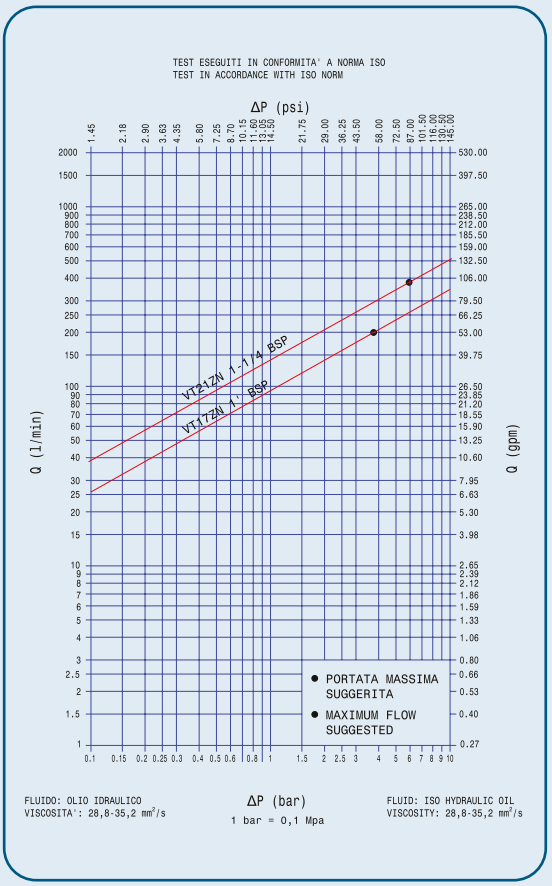
Locking mechanism
Screw to connect + Automatic lock sleeve

Flow rate
Up to 378 l/min

Temperature (°C)
-20°C / +100°C

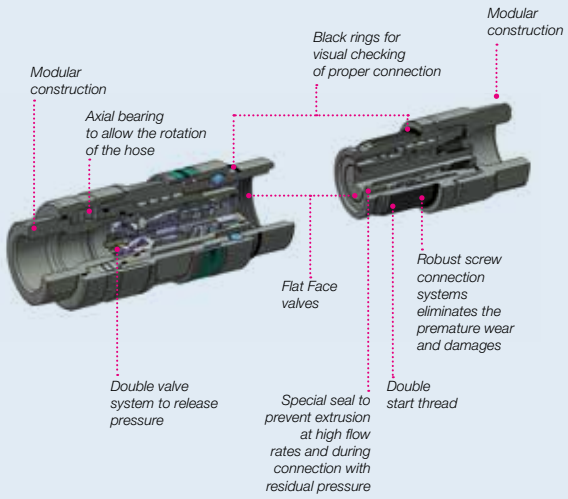
Valving style
Flat face

Connection under pressure
Connection: Both sides
Disconnection: Allowed



BENEFITS

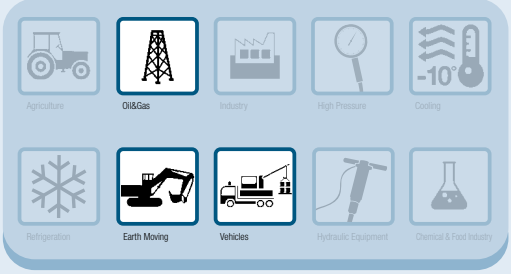
- The automatic lock sleeve integrated in the connection system prevents the accidental disconnection.
- Axial bearing integrated in the male coupling to allow the rotation of the hose avoiding the unscrewing and damaging of the parts.
- Robust screw connection system that eliminates the premature wear and damages, making the product life much longer.
- Double start thread allows to connect and disconnect in half the time compared to single thread coupling.
- Black rings for visual checking of proper connection of the couplings.
- Connection under residual pressure is allowed in both sides, the internal valve system allows an easy connection.
- Flat face is easy to clean, reducing the inclusion of contamination to the hydraulic circuit.
- Minimal fluid loss during disconnection, reducing contamination to the environment.
- Minimal air inclusion during connection/disconnection.
- Internal valve design creates minimal pressure drop, maintaining circuit efficiency in the system.
- The modular design allows flexibility with a wide range of configurations.
- High resistance at impulse pressures.
- 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 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 couplers, 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. The use of tools for the second part of connection can be necessary if there is high residual pressure in the circuit.
- Thread the mating halves until the sleeve lock clicks into position; this activates the safety lock and eliminates accidental disconnection of the coupling.
- The coupling is properly coupled when the two black rings are not exposed.
- To disconnect push the safety locking sleeve towards the male coupling and unthread the connection.
- The lock is disengaged after one complete rotation of the coupler, continue to unthread until both halves disconnect.
- If safety lock sleeve will not push back rotate the male coupling to couple direction until the sleeve will pull back.

MAIN APPLICATIONS



PERFORMANCES

Size	Series/Size	Max. flow suggested		Spillage*
in		l/min	gpm	ml
3/4	VT17ZN RoT-lock	200	53,00	0,02
1	VT21ZN RoT-lock	378	100,17	0,06

Size	Series/Size	Max. operating pressure						Burst pressure					
		Coupled		Male		Female		Coupled		Male		Female	
in		Mpa	Mpa	Mpa	psi	Mpa	psi	Mpa	psi	Mpa	psi	Mpa	psi
3/4	VT17ZN RoT-lock	50	7250	50	7250	35	5075	125	18130	125	18130	105	15225
1	VT21ZN RoT-lock	47	6815	47	6815	30	4350	120	17400	120	17400	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			
in		MPa	psi	MPa	psi	MPa	psi	MPa	psi
3/4	VT17ZN RoT-lock	25	3625	25	3625	15	2175	15	2175
1	VT21ZN RoT-lock	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).

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.

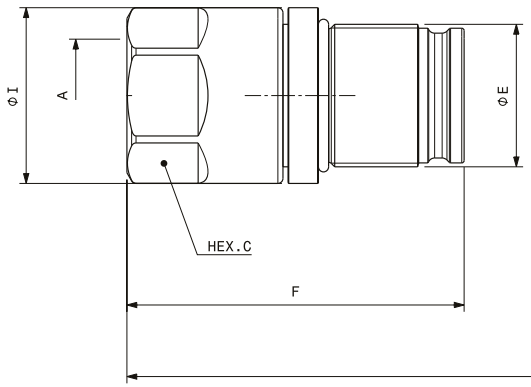
Temperature range:
Standard seals NBR, PUR, POM from -20 °C to +100 °C (from -4°F to 212 °F).
Please read carefully Instructions and warnings for proper selection of the products.

Test performed:
The couplings have been tested in according to ISO norm.
The couplings coupled have been tested at max. operating pressure for 500.000 impulses.
The couplings uncoupled have been tested at max. operating pressure for 100.000 impulses.

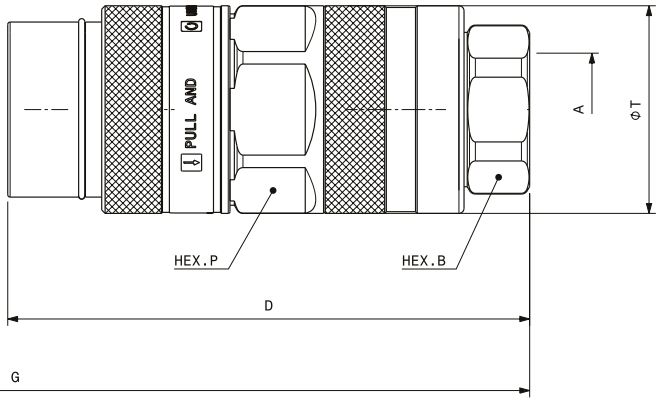
⚠ WARNING

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.
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.

FEMALE



MALE



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

BODY SIZE	Description	Part Number	PORT (A)	E	Overall Length mm	Overall Length in		Length mm	Length in		Wrench Flat mm	Wrench Flat in		Wrench Flat mm	Wrench Flat in		Diameter mm	Diameter in	Weight kg	Weight lb
3/4"	F VT17ZN 1 BSP	Female 812400000	1"	Rd 42	G	210,3	8,28	F	99,4	3,91	C	46,0	1,81				I	51,8	2,04	0,96	2,12
	M VT17ZN 1 BSP	Male 812400001						D	153,9	6,06	B	46,0	1,81	P	55,0	2,17	T	61,2	2,41	2,18	4,81
1"	F VT21ZN 1 BSP	Female 812400014	1"	Rd 55	G	227,0	8,94	F	105,0	4,13	C	55,0	2,17		-	-	I	69,5	2,74	1,60	0,72
	M VT21ZN 1 BSP	Male 812400015						D	165,5	6,52	B	55,0	2,17	P	75,0	2,95	T	78,2	3,08	3,55	1,61

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

BODY SIZE	Description	Part Number	PORT (A)	E	Overall Length mm	Overall Length in		Length mm	Length in		Wrench Flat mm	Wrench Flat in		Wrench Flat mm	Wrench Flat in		Diameter mm	Diameter in	Weight kg	Weight lb
3/4"	F VT17ZN 1 NPT	Female 812401000	1	Rd 42	G	210,3	8,28	F	99,4	3,9	C	46,0	1,81	-	-	-	I	51,8	2,0	0,96	2,12
	M VT17ZN 1 NPT	Male 812401001						D	153,9	6,06	B	46,0	1,81	P	55,0	2,2	T	61,2	2,4	2,18	4,81
1"	F VT21ZN 1 NPT	Female 812401014	1	Rd 55	G	227,0	8,94	F	105,0	4,13	C	55,0	2,17		-	-	I	69,5	2,74	1,60	0,72
	M VT21ZN 1 NPT	Male 812401015						D	165,5	6,52	B	55,0	2,17	P	75,0	2,95	T	78,2	3,08	3,55	1,61

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

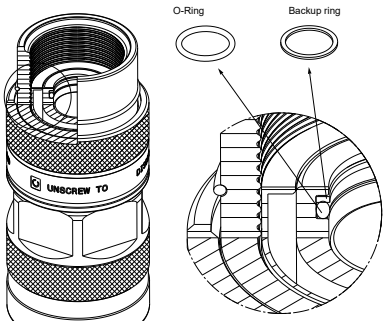
BODY SIZE	Description	Part Number	PORT (A)	E	Overall Length mm	Overall Length in		Length mm	Length in		Wrench Flat mm	Wrench Flat in		Wrench Flat mm	Wrench Flat in		Diameter mm	Diameter in	Weight kg	Weight lb
3/4"	F VT17ZN 1 SAE	Female 812404000	1	Rd 42	G	210,3	8,28	F	99,4	3,9	C	46,0	1,81	-	-	-	I	51,8	2	0,96	2,12
	M VT17ZN 1 SAE	Male 812404001						D	153,9	6,06	B	46,0	1,81	P	55	2,17	T	61,2	2,4	2,18	4,81
1"	F VT21ZN 1 SAE	Female 812404014	1	Rd 55	G	227,0	8,94	F	105,0	4,13	C	55,0	2,17		-	-	I	69,5	2,74	1,60	0,72
	M VT21ZN 1 SAE	Male 812404015						D	165,5	6,52	B	55,0	2,17	P	75,0	2,95	T	78,2	3,08	3,55	1,61



SPARE KIT SEAL FOR MALE

Repair kit / OR+BK+EXTERNAL OR		
Body Size	Description	Part Number
3/4”	M VT17ZN	815701335
1”	M VT21ZN	815701234

For VT17 the Repait Kit consists of a single seal.

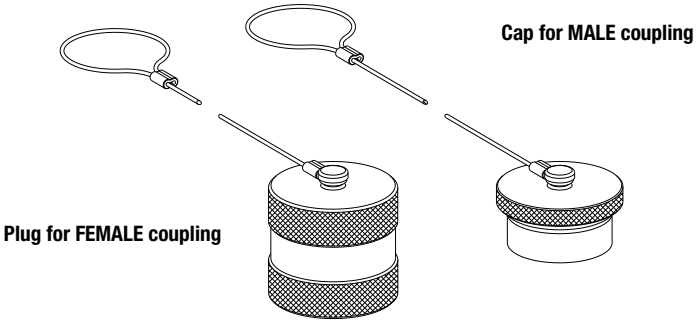


PROTECTIVE CAPS FOR VEP-P SERIES

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.

Available upon request:

- Aluminum with lanyard in different colors.
- Plastic with lanyard in black color.



Protective Cap				
Body Size/Description		Part Number		Material/Color
		Plug for Female	Cap for Male	
3/4”	VT17ZN	816105400	816105401	Aluminum/Natural
1”	VT21ZN	816105414	816105415	Aluminum/Natural

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