

# PVC-U One flow direction valves

## General characteristics

Compact double type ball valve: all types are realized with the same dimensions of our ball valves VSA and can be disassembled from the network simply by unscrewing the two unions nuts.

VRO allows the passage of the liquid in one direction only. VRO type orientated as a foot valve allows the passage of the liquid acting as a foot valve. As an air release valve

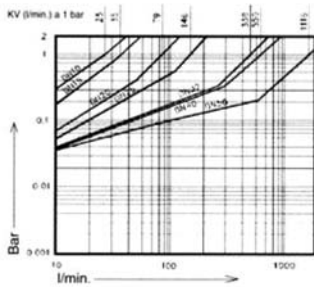
acts releasing the air until the liquid reaches the floating wedge closing the valve and maintaining therefore the liquid under pressure.

Materials chemical resistances according to ISO/TR 10358.

Please consult the supplier about applications and details.

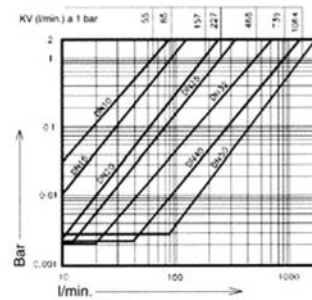
## VRO CHARGE LOSS

The a. m. technical information should be used as a guide. Please consult our Technical dpt for specific questions.

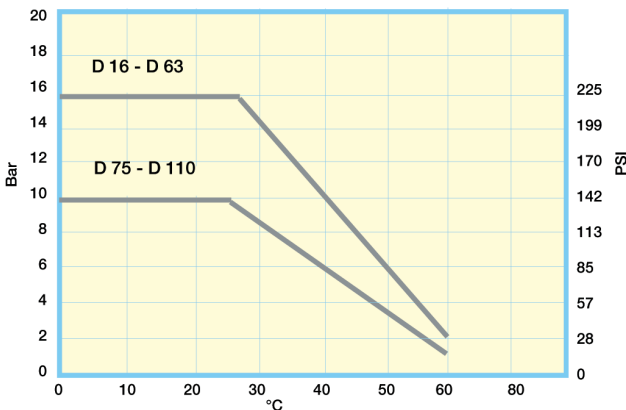


With water at 20°C (valve with spring)

## VRV-VRF CHARGE LOSS



With water at 20°C (valve without spring)



Pressure temperature rating for water an harmless liquid.

## PRESSURE

D	G	VRO mm H <sub>2</sub> O	VRV/VRF mm H <sub>2</sub> O	Weight g
16	3/8"	150	23	4
20	1/2"	150	23	4
25	3/4"	70	25	8
32	1"	32	22	11
40	1 1/4"	40	21	17
50	1 1/2"	38	24	30
63	2"	44	29	56

Min. opening pressure of spring and own weight (water column).

## Installation and use

Be careful during the glueing of the end connector of the pipes; the glue or solvent must absolutely not run into the wedgw or O' ring of the valve. Threaded ends should not be connected with cone-shaped male threads and the use of hemp or similar materials should be carefully avoided. A special attention should be paid to the correct line-up of the installation and to the pipe lenght. Tighten the union nut handtight only.

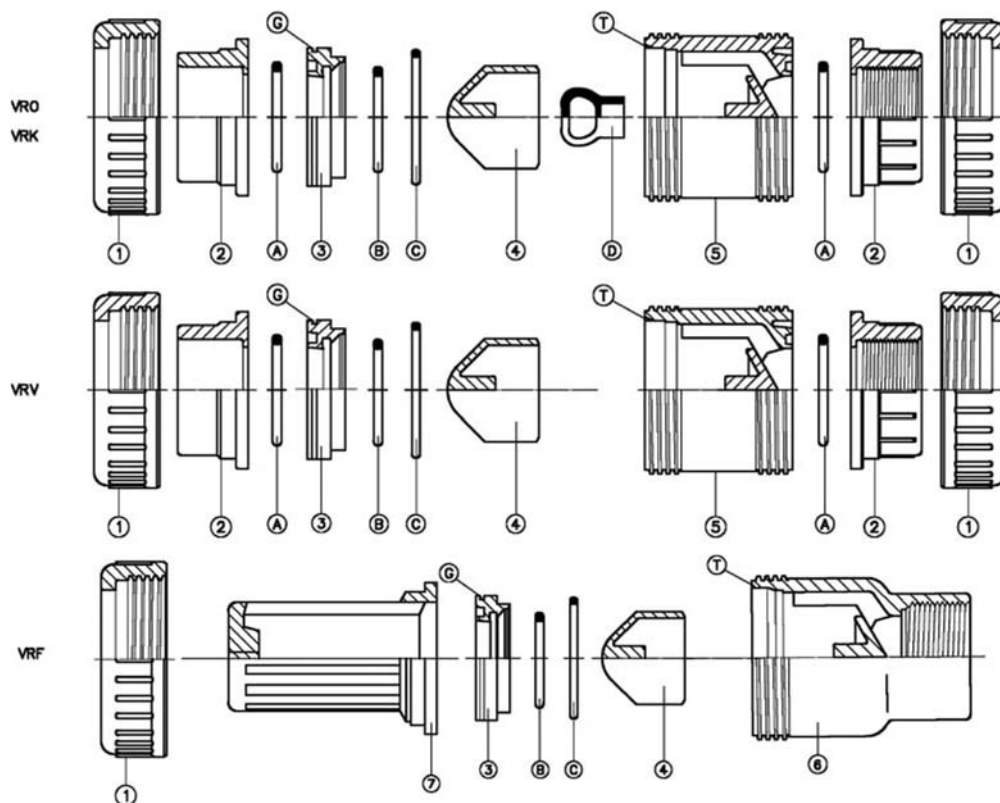
The use of wrench is not allowed. It is important that the

unions are not used to pull the system together. If there is any leakage from the union nuts, please check the correct line-up of the system and the pipe length. An excessive tightening of the unions could finally break them.

Before the valve is cycled, all dirt, sand or other material should be flushed from the system. This is to prevent scarring of the ball and/or seats. It is necessary that all installation and maintenance personnel become familiar with the proper solvent cement and thead joining procedure.



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### PRESSURE

Pos	Components	n°			Material
		VRO	VRV	VRF	
1	Union nut	2	2	1	PVC
2	End connector	2	2	-	PVC
3	Support	1	1	1	PVC
4	Wedge	1	1	1	PVC
5	Body	1	1	-	PVC
6	Threaded body	-	-	1	PVC
7	Screen	-	-	1	PP
A	O-ring body	2	2	1	EPDM
B	O-ring wedge	1	2	1	EPDM
C	O-ring support	1	1	1	EPDM
D	Spring wedge	1	-	-	EPDM

PVC: Polyvinyl chloride

EPDM: Ethylene-propylene (DUTRAL®)

### Disassembling and reassembling in case of maintenance

Unscrewing the union nut (1) it is possible to take out radially from the system the whole central group of the valve.

To reach the internal parts of the valve act as follows:

1 Take out the support (3) from the body (5) levering with a screwdriver between the two gates T of the body and the groove G of the support.

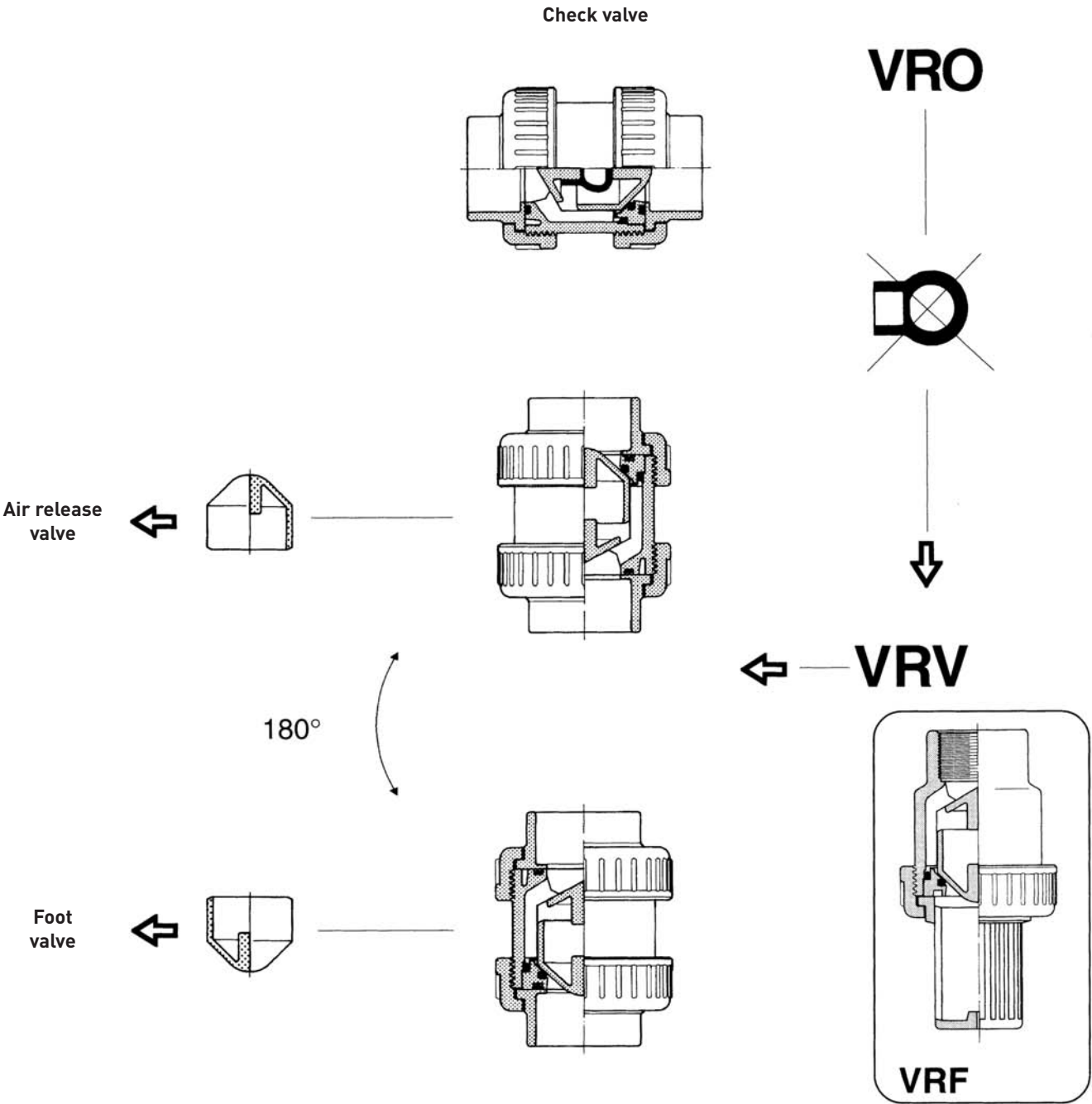
2 After disassembling the support (3) and taking out the O-ring C that has stayed inside the body (5), it is possible to reach all the parts of the valve and check the O-rings and in case substitute them.

To assemble the valve act in the opposite way being careful to set the O-ring properly and greased it with silicon grease.

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**New**

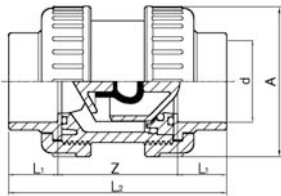
The VRO type has an internal rubber spring. Taking out the internal spring and orientating the valve in the right way, it is become either a foot valve or an air release. The valve VR range has the same dimensions as the ball valves VSA, allowing this way a unique way of fixing to the wall thanks to the same type of clamping (cf. STF).





## Double union check valve PVC-U With solvent cement sockets Inch BS

• (\*)Body and dimensions = 3"



d [inch]	d [mm]	PN	EPDM Code	SP	GP	kg	A [mm]	X [mm]	H1 [mm]	Z [mm]	H2 [mm]
3/8		16	<b>VRO21L160</b>	32	-	0.110	50	42	14	48	76
1/2		16	<b>VRO21L200</b>	32	-	0.110	50	42	16	48	80
3/4		16	<b>VRO21L250</b>	32	-	0.175	59	48	19	53	91
1		16	<b>VRO21L320</b>	20	-	0.245	68	54	22	58	102
1 1/4		16	<b>VRO21L400</b>	15	-	0.375	80	62	26	68	120
1 1/2		16	<b>VRO21L500</b>	6	-	0.580	94	72	31	78	140
2		10	<b>VRO21L630</b>	4	-	1.000	115	86	38	93	169
* 2 1/2	75	10	<b>VRO21I750</b>	2	-	2.950	168	110		118	
3		10	<b>VRO21L900</b>	2	-	3.100	168	128	51	140	242

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