ALLDOS Dosing equipment

Pressure Retention Valves 525 for Dosing Pumps

Construction and Function

The pressure retention valves described below are applied in connection with ALLDOS dosing pumps. The installation of a pressure retention valve is essential, if the sum of backpressure and geodetic level difference between the suction valve of the dosing pump and the point of injection is less than 20 m water gauge.

The ALLDOS pressure retention valves work according to the back-pressure principle. The pressure is built up in the diaphragm chamber of the valve. The required pressure can be adjusted via a spring-loaded adjusting screw.

The pressure retention valve ensures reliable operation of the dosing head valves by exercising a specific positive pressure on them. It also ensures a harmonic dosing flow by means of the regulating function of the diaphragm/ spring system.

Design variants

The pressure retention valves are available in various nominal diameters and materials. The diaphragm is always PTFE - coated (further specifications see back page).

In nominal diameters DN 4 and 8 adaptors are available for direct installation of the pressure retention valves on the pressure valves of the dosing pumps.

Connections

Pressure retention valves made of plastics are supplied complete with connection screwings in corresponding materials. For pressure retention valves in DN 32 with flange connection we offer also counterflanges in corresponding materials.

Installation

The pressure retention valve should be installed directly before the point of injection so that the dosing line is not emptied when the pump is switched off. If the pressure retention valve is used in conjunction with a pulsation damper, it must be installed after the pulsation damper.

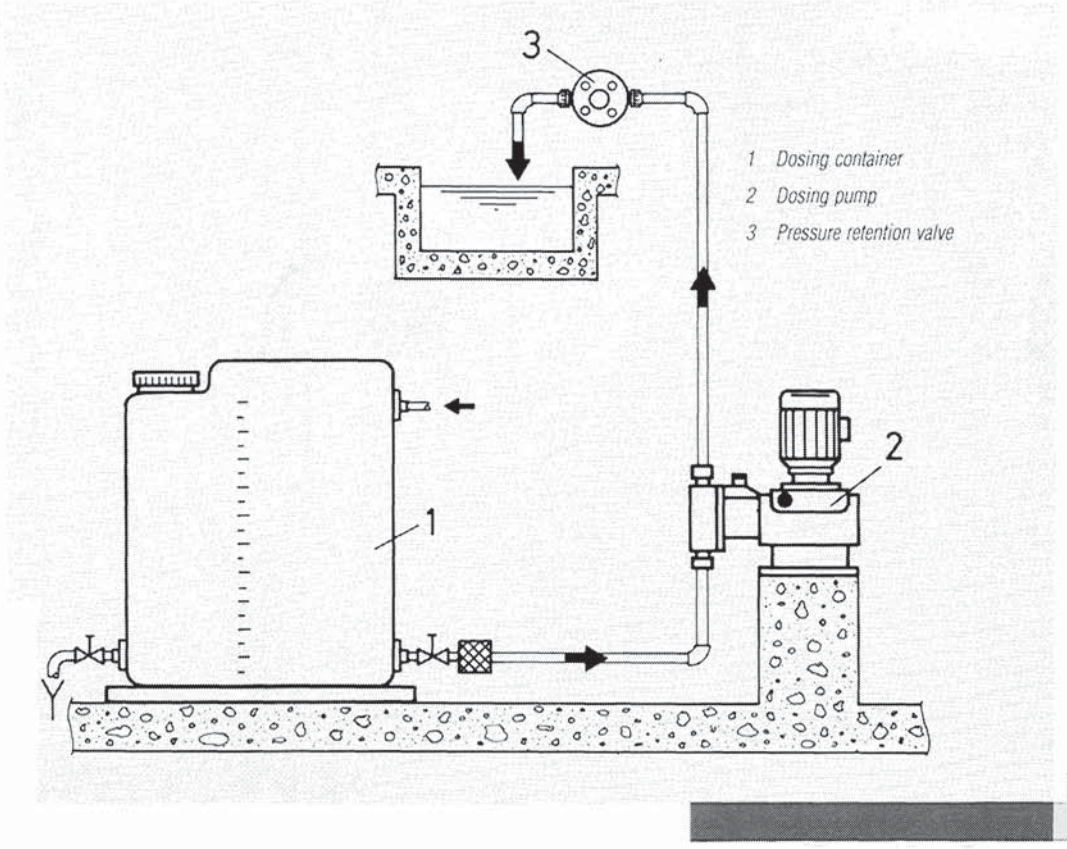
When using pressure retention valves DN 4 for direct installation on the pump, the connecting line to the point of injection should be kept as short as possible.

Observe the correct direction of flow when installing the pressure retention valve (see direction arrow on the valve)!

Operating pressure

If no other specification is made in the order, the pressure retention valve is adjusted in the factory to 3 bar. This value can, however, be readjusted by the adjusting screw (see sectional drawing).

Important: The pressure retention valve does not function as a shut-off valve. Therefore, the adjusting screw must not be tightened too far.



Order data for pressure retention valves

Order No.	DN	Materials (body/ o-ring)	Fig.	L [mm]	ø D [mm]	H [mm]	h [mm]	R_i	d [mm]	ø a [mm]	For connection to	Wght. [kg]
525-0564	4	PVC/ Viton	1	96	68	90	21	-	78	4,5	hose 4/6	0,2
525-0565	4	PP/ Viton	1	96	68	90	21	-	78	4,5	hose 4/6	0,2
525-0566	4	PVDF/ -	1	96	68	90	21	-	78	4,5	tube 4/6	0,2
525-0570	4	1.4571/Viton	1	94	68	82	11	-	-	-	tube 4/6	0,5
525-0567	8	PVC/ Viton	1	96	68	90	21	-	78	4,5	hose 6/12, tube 12 x 1,4	0,4
525-0568	10	PP/ Viton	1	140	68	90	21	-	78	4,5	tube DN 10	0,3
525-0569	10	PVDF/ PTFE	1	140	68	90	21	-	78	4,5	tube DN 10	0,4
525-0571	8	1.4571	1	-	68	82	11	1/4"	-	-	tube R 1/4"	1,0
525-1163	20	PPH/Viton	2	153	90	144	28	-	72	6,6	hose 12/20, tube 25x1,9	0,7
525-1113	20	PVC/Viton	2	149	90	144	28	-	72	6,6	hose 12/20, tube 25x1,9	0,8
525-1183	20	PVDF/Viton	2	146	90	144	28	-	72	6,6	tube 25x1,9	1,2
525-2133	20	1.4571/Viton	3	-	90	144	28	3/4	72	6,6	tube R 3/4"	3,1
525-1173	32	PPH/Viton	4	229	129	218	70	-	105	8,4	flange DN 32 acc. to DIN	2,1
525-1223	32	PVC/Viton	2	205	129	188	40	-	105	8,4	tube 40x3,0	2,7
525-1243	32	PVC/Viton	4	229	129	218	70	-	105	8,4	flange DN 32 acc. to DIN	2,9
525-2403	32	PVDF/Viton	4	229	129	218	70	-	105	8,4	flange DN 32 acc. to DIN	3,5
525-2233	32	1.4571/Viton	3	-	129	188	40	1 ¼	105	8,4	tube R 1 1/4"	9,1
525-2243	32	1.4571/Viton	4	200	129	218	70	-	105	8,4	flange DN 32 acc. to DIN	11,6

Adaptors for installation of pressure retention valves DN 4 and DN 8 on the pump

529-060	DN 4, material PVC
529-062	DN 4, material PP
529-064	DN 4, material PVDF
529-058	DN 4, material 1.4571
529-061	DN 8, material PVC
529-063	DN 8, material PP
529-065	DN 8, material PVDF
529-059	DN 8, material 1.4571

Counterflanges for pressure retention valves DN 32

529-421	for 525-1173, composed of lapped flange, headed bush, screws, collars and nuts
529-417	for 525-1243, composed of lapped flange, headed bush, screws, collars and nuts
529-420	for 525-2403, composed of lapped flange, headed bush, screws, collars and nuts
529-423	for 525-2243, composed of welding neck flange, flat gasket, screws, collars and nuts

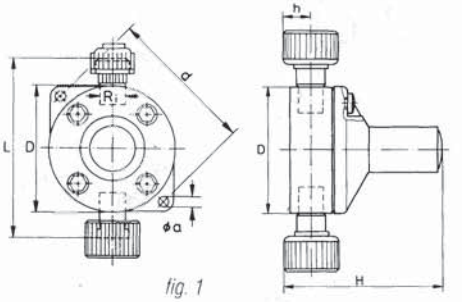


fig. 1

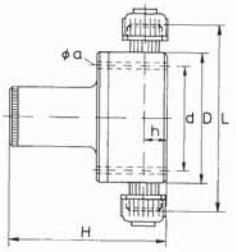


fig. 2

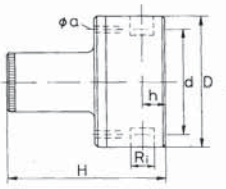


fig. 3

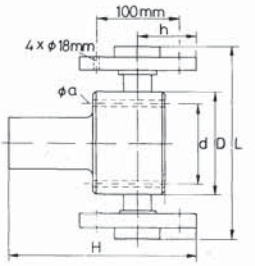
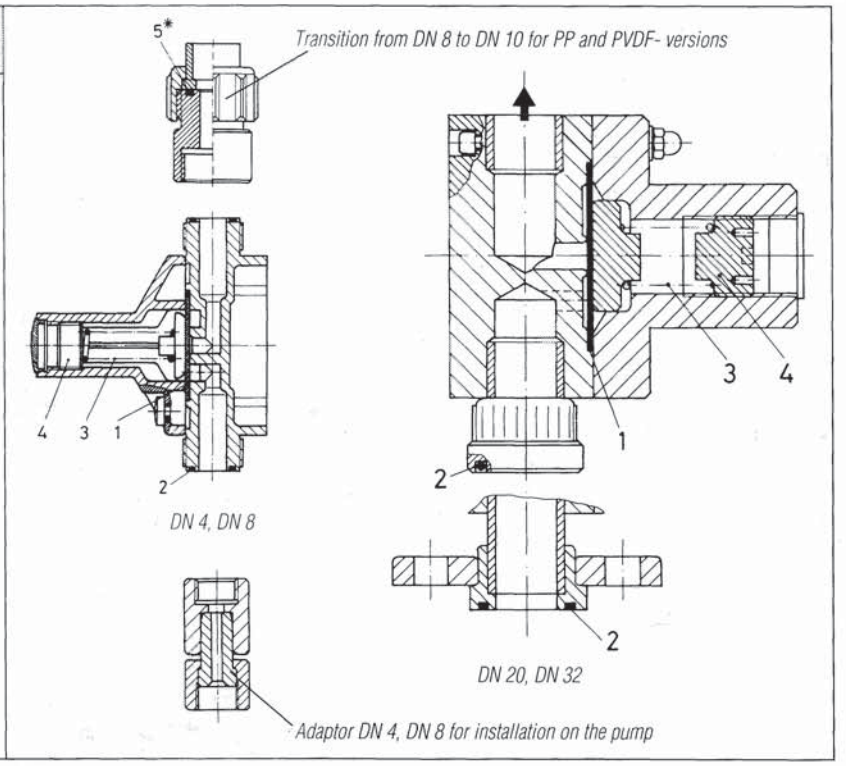


fig. 4

Spare parts for pressure retention valves

Type	Order nos. for spare parts			
	O-ring (2)	Diaphragm (1)	Spring (3)	Adjusting screw (4)
525-0564	52.298	10.6243-401	10.6247	10.6490-400
525-0565	52.298	10.6243-401	10.6247	10.6490-400
525-0566	52.346	10.6243-401	10.6247	10.6490-400
525-0570	-	10.6243-401	10.6247	10.6490-400
525-0567	52.105-2	10.6243-401	10.6247	10.6490-400
525-0568	52.105-2	10.6243-401	10.6247	10.6490-400
525-0569	52.344	10.6243-401	10.6247	10.6490-400
525-0571	-	10.6243-401	10.6247	10.6490-400
525-1163	52.141	10.6243-402	10.6251	10.2617-41
525-1113	52.141	10.6243-402	10.6251	10.2617-41
525-1183	52.141	10.6243-402	10.6251	10.2617-41
525-2133	-	10.6243-402	10.6251	10.2617-41
525-1173	52.202	10.6243-403	10.2663	10.2664-41
525-1223	52.154-2	10.6243-403	10.2663	10.2664-41
525-1243	52.202	10.6243-403	10.2663	10.2664-41
525-2403	52.202	10.6243-403	10.2663	10.2664-41
525-2233	-	10.6243-403	10.2663	10.2664-41
525-2243	54.009-4	10.6243-403	10.2663	10.2664-41



* o-ring item 5 with PP, part number: 52.150-2

Technical data subject to change without notice

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