



# VR170, ZN170, Z171T

Float valve for water storage tanks with option of stainless steel or plastic floats

## APPLICATION

Float valves of this type regulate a fluid level in vented open or closed storage vessels or can be used for filling of water supply storage tanks.

Within the scope of their specification they can be used for industrial or commercial installations or also for public water supply systems. A soft seat seal provides positive shut-off, even with fluctuating supply pressure.

## SPECIAL FEATURES

- Available with plastics or stainless steel floats
- Float can be fitted horizontally or vertically
- Open construction design
- External thread connection to DIN 228
- High flow capacity
- Seat seal and piston replaceable
- Lever arm can be shortened where supply pressure is low

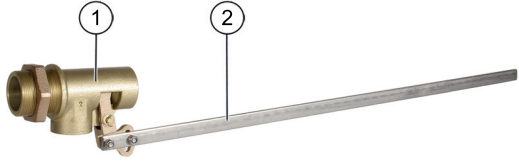


## TECHNICAL DATA


<b>Media</b>	
Medium:	Water and neutral liquids
<b>Connections/Sizes</b>	
Connection size:	R <sup>1</sup> / <sub>2</sub> " - R2 <sup>1</sup> / <sub>2</sub> "
<b>Pressure values</b>	
Max. operating pressure:	6.0 bar 8.0 bar with stainless steel float of next
<b>Operating temperatures</b>	
Max. operating temperature medium:	65 °C with plastics float 90 °C with stainless steel float
<b>Specifications</b>	
Installation position:	Horizontally on water storage vessel

## CONSTRUCTION

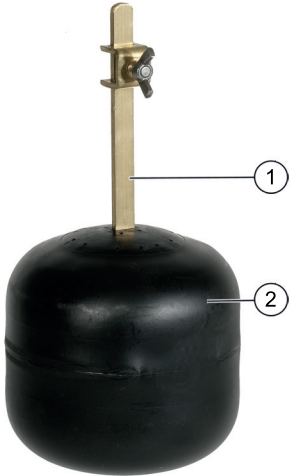
### Float valve VR170

Overview	Components	Materials
	<b>1</b> Housing	Brass (1/2" to 2") or red bronze (2 1/2")
	<b>2</b> Lever arm	Brass (1/2" to 1") or stainless steel (1 1/4" to 2 1/2")
	<b>Not depicted components:</b>	
	Piston	Brass
	Seals	NBR

### Stainless steel float ZN170

Overview	Components	Materials
	<b>1</b> Float	Stainless steel

### Plastics float Z171T

Overview	Components	Materials
	<b>1</b> Piston	Brass
	<b>2</b> Float	Plastic

## METHOD OF OPERATION

Float valves work in conjunction with floats to control the level of liquids in containers.

The float is at the level of the liquid in the container and acts directly on the lever arm of the float valve.

A variation in liquid level immediately causes a change in the flow rate through the float valve.

## TRANSPORTATION AND STORAGE

Keep parts in their original packaging and unpack them shortly before use.

The following parameters apply during transportation and storage:

Parameter	Value
Environment:	clean, dry and dust free
Min. ambient temperature:	5 °C
Max. ambient temperature:	55 °C
Min. ambient relative humidity:	25 % *
Max. ambient relative humidity:	85 % *

\*non condensing

## TECHNICAL CHARACTERISTICS

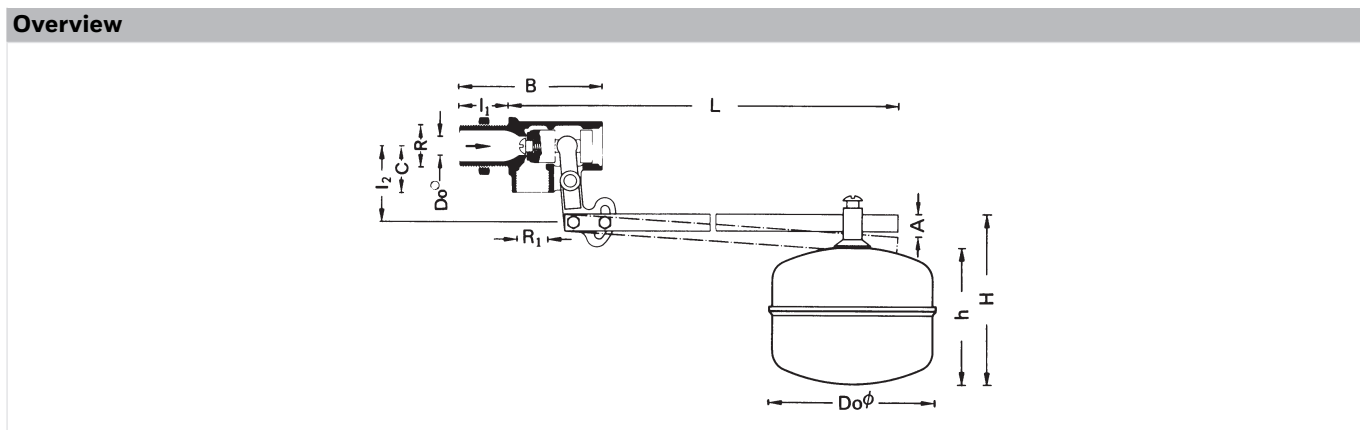
### kvs-Values

#### Float valve VR170

Connection sizes:	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"
kvs-value (m <sup>3</sup> /h):	2.0	3.6	5.5	9.4	13.0	17.5	21.0

## DIMENSIONS

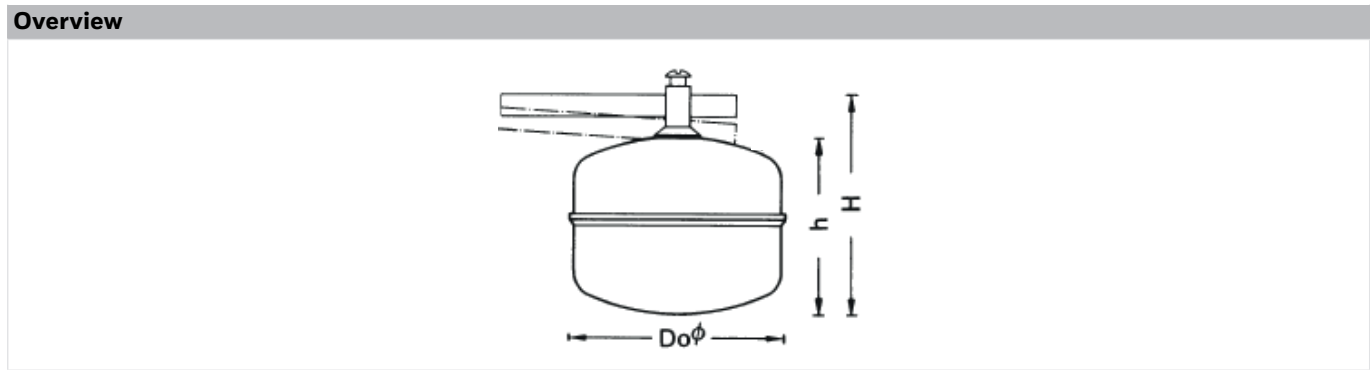
#### Float valve VR170



Parameter	Values							
Connection size:	R	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"
Outlet	R1	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Weight:	kg	1.0	1.1	1.3	2.0	2.6	3.8	5.3
Dimensions:	ØD <sub>0</sub>	9	12	15	20	25	30	35
	L	600	610	720	730	890	900	1150
	A	120	130	135	180	315	325	430
	B	90	100	110	130	150	165	185
	C	30	30	37	44	50	55	62
	l <sub>1</sub>	30	35	38	45	50	50	55
l <sub>2</sub>	54	54	54	66	66	78	78	
Lever arm:	BxTxL	15x6x570	15x6x570	15x6x680	20x6x680	20x6x825	20x6x825	20x8x1060

Note: All dimensions in mm unless stated otherwise.

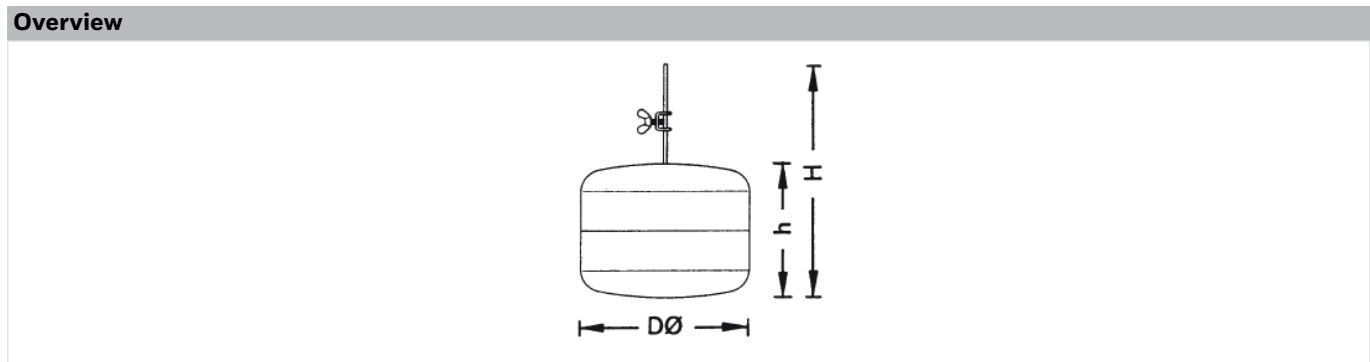
### Stainless steel float ZN170



Parameter	Values								
Connection size:	R	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
Weight:	kg	0.4	0.5	0.7	0.8	1.0	1.2	1.2	1.4
Dimensions:	ØD <sub>0</sub>	150	150	180	180	230	230	245	280
	H	146	161	171	206	206	246	271	306
	h	125	140	150	180	180	220	245	280
Lift:	kg	1.5	1.7	2.8	3.5	5.0	6.5	8.5	11.5

Note: All dimensions in mm unless stated otherwise.

### Plastics float Z171T



Parameter	Values		
Connection size:	R	For 1/2", 3/4", 1" float valves	For 1 1/4", 1 1/2"* , 2** float valve
Weight:	kg	0.2	0.4
Dimensions:	DØ	130	200
	H	248	278
	h	130	160
Lift:	kg	1.2	3.5

\* Valve connection 1 1/2" to 5 bar and

\*\* Valve connection 2" to 3 bar operating pressure

Note: All dimensions in mm unless stated otherwise.

## ORDERING INFORMATION

The following tables contain all the information you need to make an order of an item of your choice. When ordering, please always state the type, the ordering or the part number.

### Options

The valve is available in the following sizes: R<sup>1/2</sup>", R<sup>3/4</sup>", R1", R1<sup>1/4</sup>", R1<sup>1/2</sup>", R2" and R2<sup>1/2</sup>"

- standard
- not available

		VR170-...A	ZN170-...A	Z171T-...A
Connection type:	Standard version	•	-	-
	Stainless Steel float, for VR170-...A	-	•	-
	Plastic float, for VR170-...A	-	-	•

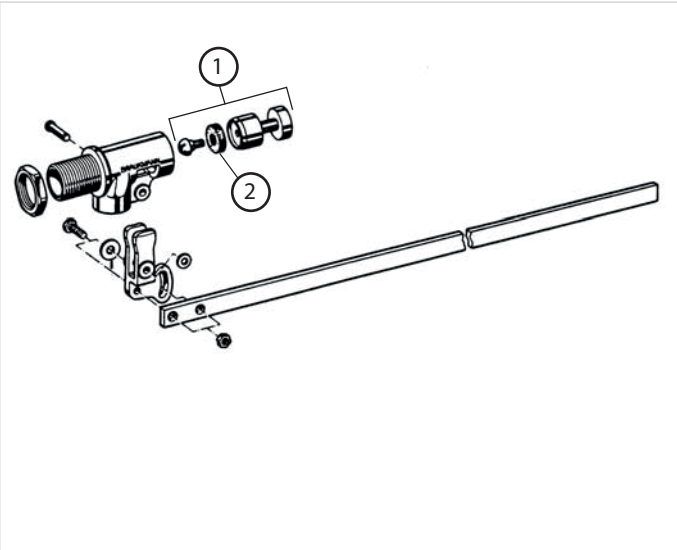
Note: ... = space holder for connection size

Note: Ordering number example for R1" and type A valve: VR170-1A

Note: Order Example:  
 Z171T-1<sup>1/2</sup>" = Plastics float, for VR170 - 1<sup>1/2</sup>A to 1A  
 Z171T -1<sup>1/4</sup>" = Plastics float, for VR170-1<sup>1/4</sup>A to 2A

### Spare Parts

Float valve VR170, from 1949 onwards

Overview	Description	Dimension	Part No.
	<b>1 Piston complete</b>		
		1/2"	0900401
		3/4"	0900402
		1"	0900403
		1 <sup>1/4</sup> "	0900404
		1 <sup>1/2</sup> "	0900405
		2"	0900406
		2 <sup>1/2</sup> "	0900407
	<b>2 Sealing ring single</b>		
		1/2"	2657800
		3/4"	2657800
		1"	2658000
		1 <sup>1/4</sup> "	2658100
		1 <sup>1/2</sup> "	2658200
		2"	2658300
	2 <sup>1/2</sup> "	2658400	

### For more information

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