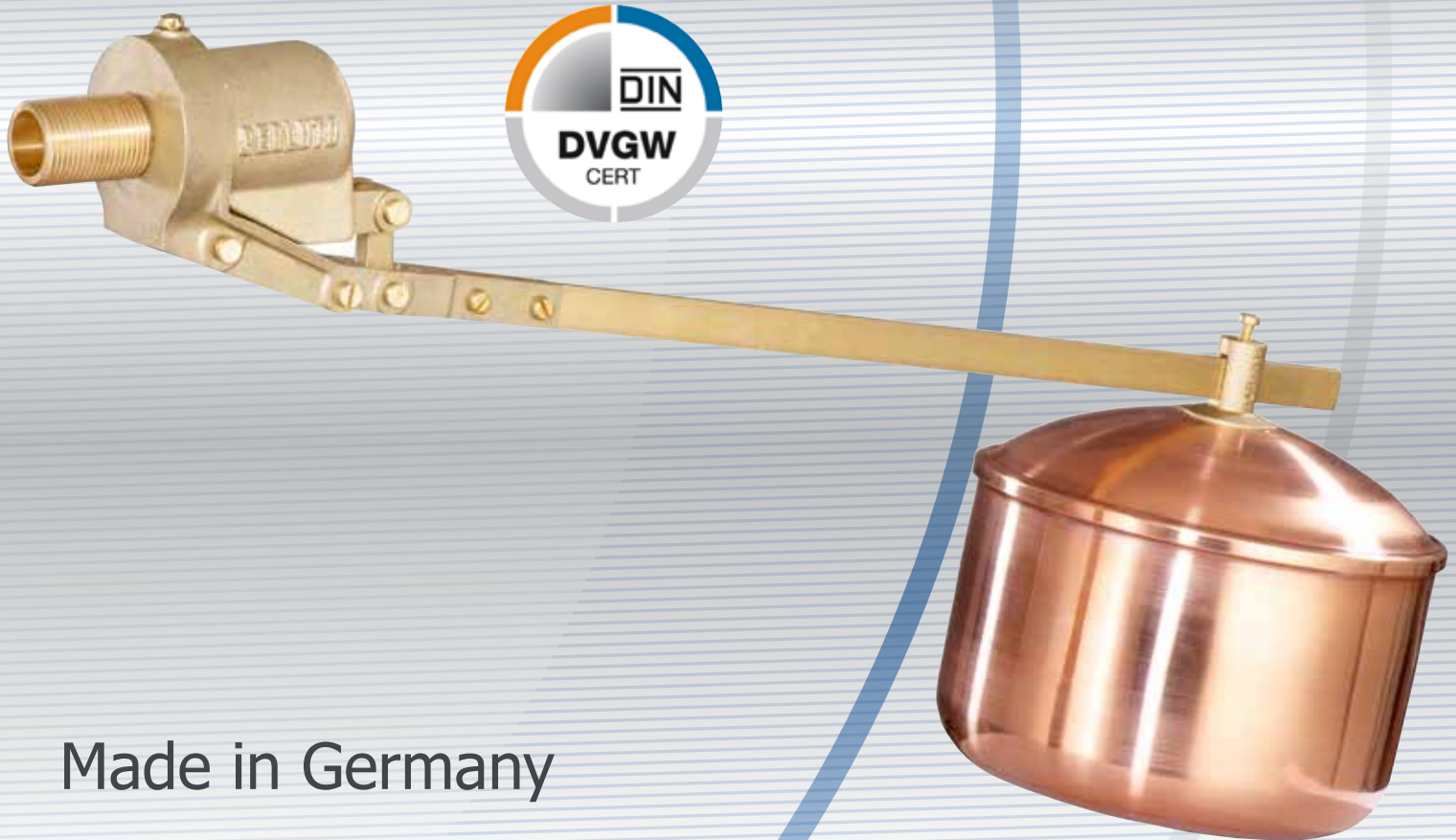


# With Good Reason

## Berluto Float Valves



Made in Germany

Berluto® Armaturen-Gesellschaft mbH  
Rhineland Valve Factory



## Why Berluto?

The requirements to float valves are most different and individual. A certain feature which is crucial for your special application might be of minor importance for other users. Our brochure shows all float valve series listing the technical key features. This prospectus just provides a first overview and will be helpful to find the most appropriate valve type for your purposes.

It may nevertheless be necessary to obtain more detailed information. In that case we look forward to receiving your e-mail or you just give us a call – we will gladly answer all your questions and provide personal advice.

You will see: there are many good reasons for a float valve from Berluto

## Just standard or also customized special versions?

We offer a wide range of standard valves adapted for a variety of applications and in recent years we extended our range in line with our customers' individual requirements. In our high-tech production plant we manufacture standard valves in large quantities as well as small series or even single items. To date, we worked out and realized a large number of specific solutions for our customers.

Please contact us if you will not find the appropriate valve in this brochure – we will always find a solution for you!

## Berluto Float Valves

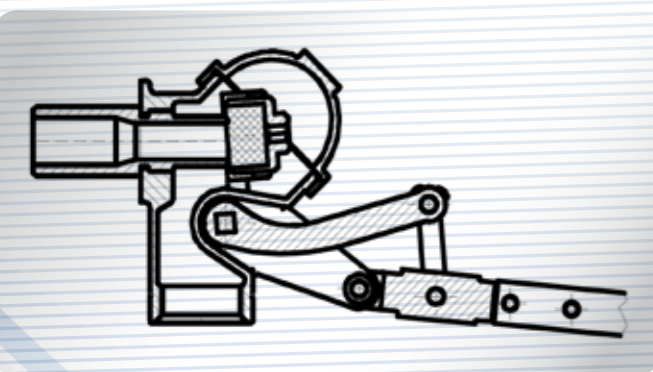
Ultra-solid and reliable float valves laid the base for our current wide-ranging valve program: in 1917, the plumber Jean Bergner got the German patent for his groundbreaking invention of an innovative lever transmitted float valve; thereupon, in 1920, he established the company Berluto. Initially designed for the use as toilet flushing, today our float valves are in use in a countless number of applications in the industry and agriculture. And to date, more than 90 years later, our technology is still unmatched and is even used in the air craft industry.

Our float valves regulate inflow and level without any auxiliary power or sensitive sensors, along the lines: install it and that's it! No matter what kind of media should be used or which flow rate is required – in our range you will always find the adequate float valve.

Over the years Berluto designed numerous valve types with different control and level regulation systems for various applications. On the following pages we explain the different construction types in order to ease your search for the right valve. Moreover, on page 5 you will find an overview table listing all series and types.

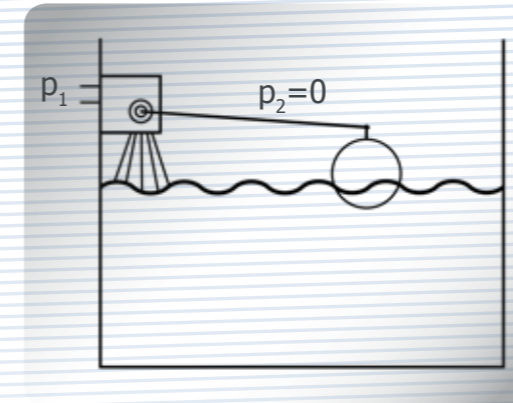
## Berluto Lever Construction

The special lever transmission construction of all Berluto float valves has been in use for more than 90 years and is unrivalled by this day. With this lever transmission the valve needs less buoyancy force and with a factor of 2.8 it is clearly below the values of float valves without lever transmission. For this reason, our float valves get along with relative short float arms and small floats – a real advantage in today's installations with often tight space. And in addition, the robust lever construction is more rigid against lateral swinging.



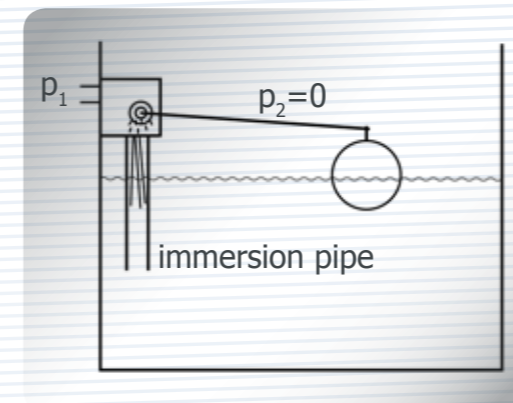
## The various design types

In recent years the requirements to float valves have become more and more specific and customers' demands have changed. Berluto designed a variety of design types with characteristic attributes described below.



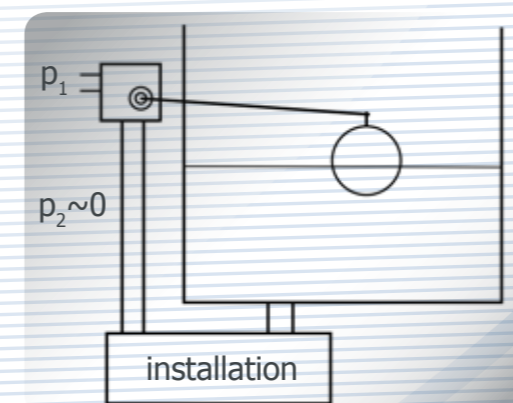
### open design

In an open designed float valve the media enters directly into the tank without a particular guidance. No backwater arises and, compared to a closed designed type, these valves achieve a high flow rate. This design type complies with the directives for system separators cat. AA (DIN EN 1717) and is thus ideally suited for the use with drinking water. Type RSV O is DVGW-certified. Please note that, due to the free outlet, the media surface is less smooth than in a closed designed valve.



### closed design

If requested, an immersion tube can be connected to all closed designed types. The guided inflow of the media ensures a smooth media surface. However, it must be noted that closed designed valves are not absolutely pressure-tight and are therefore exclusively adapted for the use in pressureless tanks. Provided that no immersion tube will be attached, also this valve type complies with the directives for system separators cat. AA (DIN EN 1717). For tank extensions or pipeline systems we recommend our pressure-tight valve types.

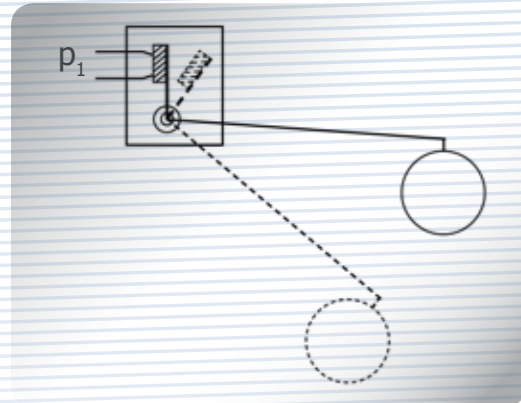


### pressure-tight design

This type is specially designed for tank extensions or pipeline systems. The valves are absolutely pressure-tight up to 10 bar respectively 12 bar. Even with counter-pressure on the outlet side the functioning is guaranteed. These valves are suited for applications with air and gas as well as for all kinds of tank extensions. Provided that no immersion tube will be attached and that the valve is placed inside the tank, also this valve type complies with the directives for system separators cat. AA (DIN EN 1717).

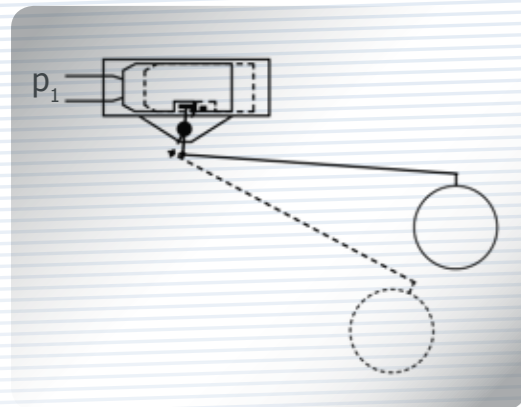
## The different methods of control

Berluto float valves are working with two different control types: either with a control flap or with a piston control. Just as the lever transmission construction this control flap is a proprietary Berluto construction.



### Control flap

With an increasing media level the control flap turns towards the valve seat, with decreasing level it shifts back and the media flows in. This type of control is always recommended for media containing dirt particles. The flap is extremely soil resistant and the seal is constantly flushed. With this type of control no dirt can accumulate which might cause a malfunction of the valve. All our valves of series SV, RSV and ESV are equipped with this control flap.

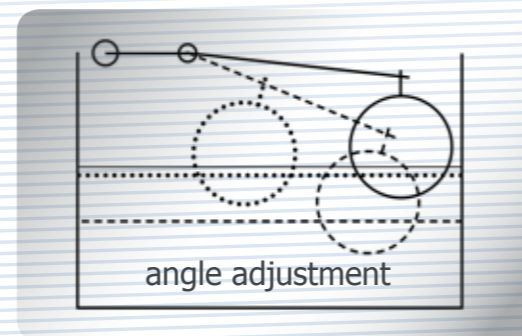
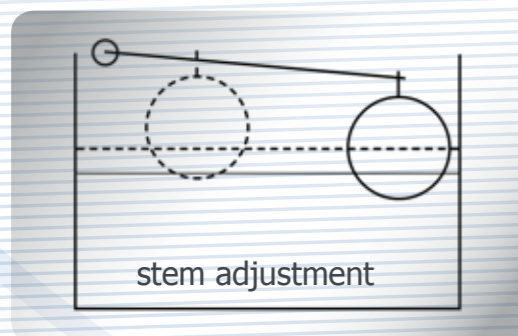


### Piston control

The piston control is a favourable alternative to the control flap. With increasing media level the piston moves axially towards the valve seat and with decreasing level it moves back. This kind of control requires little maintenance. The complete piston can be removed for inspection by dismantling one bolt.

## Level regulation of Berluto float valves

Today the regulation of the media level is all the more important since it is indispensable for many applications to adjust a certain level very precisely. Our valves offer two different kinds of regulation: with all types the float is mounted moveable on the stem. (see fig. on the left). The stem is slightly angled and is thus influencing the media level. Moreover, all types of series KSV and ESV are equipped with an additional option: an angle adjustment of the float stem (see fig. on the right) which is specially suited for a very precise level regulation.



type	max. working pressure	kvs-value	nominal size	material	connection	seal	leverage	design	method of control	angle adjustment
SV 94	6 bar	0.2-0.3 m³/h	DN10-DN15	brass	thread	NBR	--	closed	control flap	--
SV 26	12 bar	0.3-0.4 m³/h	DN10-DN15	brass	thread	NBR	--	closed	control flap	--
SV 45	10 bar	0.2-0.4 m³/h	DN10-DN20	stainless steel	thread	FKM	--	pressure tight	control flap	--
KSV 10	12 bar	2.0-5.5 m³/h	DN15-DN25	red bronze	thread	FKM	--	closed	control piston	yes
KSV 80	12 bar	2.6-6.7 m³/h	DN10-DN25	stainless steel	thread	FKM	--	closed	control piston	yes
RSV G	12 bar	1.9-48 m³/h	DN10-DN80	brass	thread	NBR	yes	closed	control flap	--
RSV O	12 bar	1.2-72 m³/h	DN10-DN80	brass	thread	NBR	yes	open	control flap	--
RSV VA	8 bar	2.1-48 m³/h	DN15-DN65	stainless steel	thread	FKM	yes	open	control flap	--
ESV G/G	12 bar	3.7-60 m³/h	DN15-DN80	stainless steel	thread	FKM	yes	pressure tight	control flap	yes
ESV F/G	12 bar	14-60 m³/h	DN40-DN80	stainless steel	flange	FKM	yes	pressure tight	control flap	yes
ESV F/F	12 bar	14-60 m³/h	DN40-DN80	stainless steel	flange	FKM	yes	pressure tight	control flap	yes

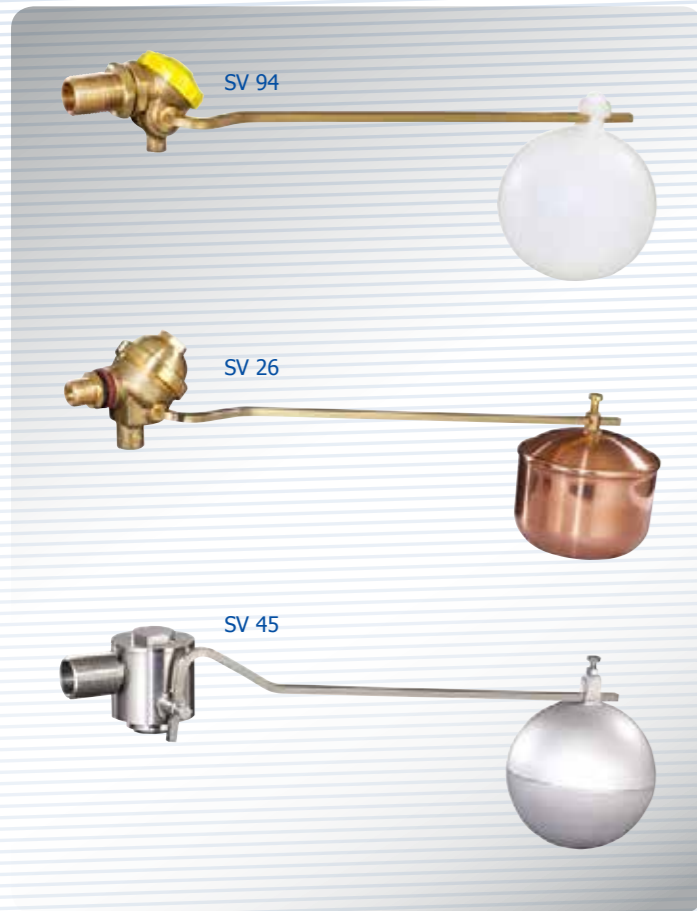


# Float valves for small storage tanks

## Series SV

Type overview float valves series SV with external thread according to ISO 7

SV-type	max. working pressure	material	seal	max. temperature	design
SV 94	6 bar	brass	NBR	80°C	closed
SV 26	12 bar	brass	NBR	80°C	closed
SV 45	10 bar	stainless steel	FKM	180°C	pressure tight



### Features

Our series SV offers very compact float valves for small storage tanks and the level regulation, e.g. flushing tanks, poultry drinking troughs, humidifiers, pond constructions, steam generation systems etc.

These types are ideally suited for applications with tight mounting space or with reduced flow rates.

The float is mounted slidable on the stem and the desired media level can be adjusted very precisely.

For this series we offer floats in Hostalen, copper or stainless steel.

Types SV 94 and SV 26 are adapted for water and neutral liquids. Type SV 45, made of stainless steel, can also be used for aggressive liquids and fully desalinated water.

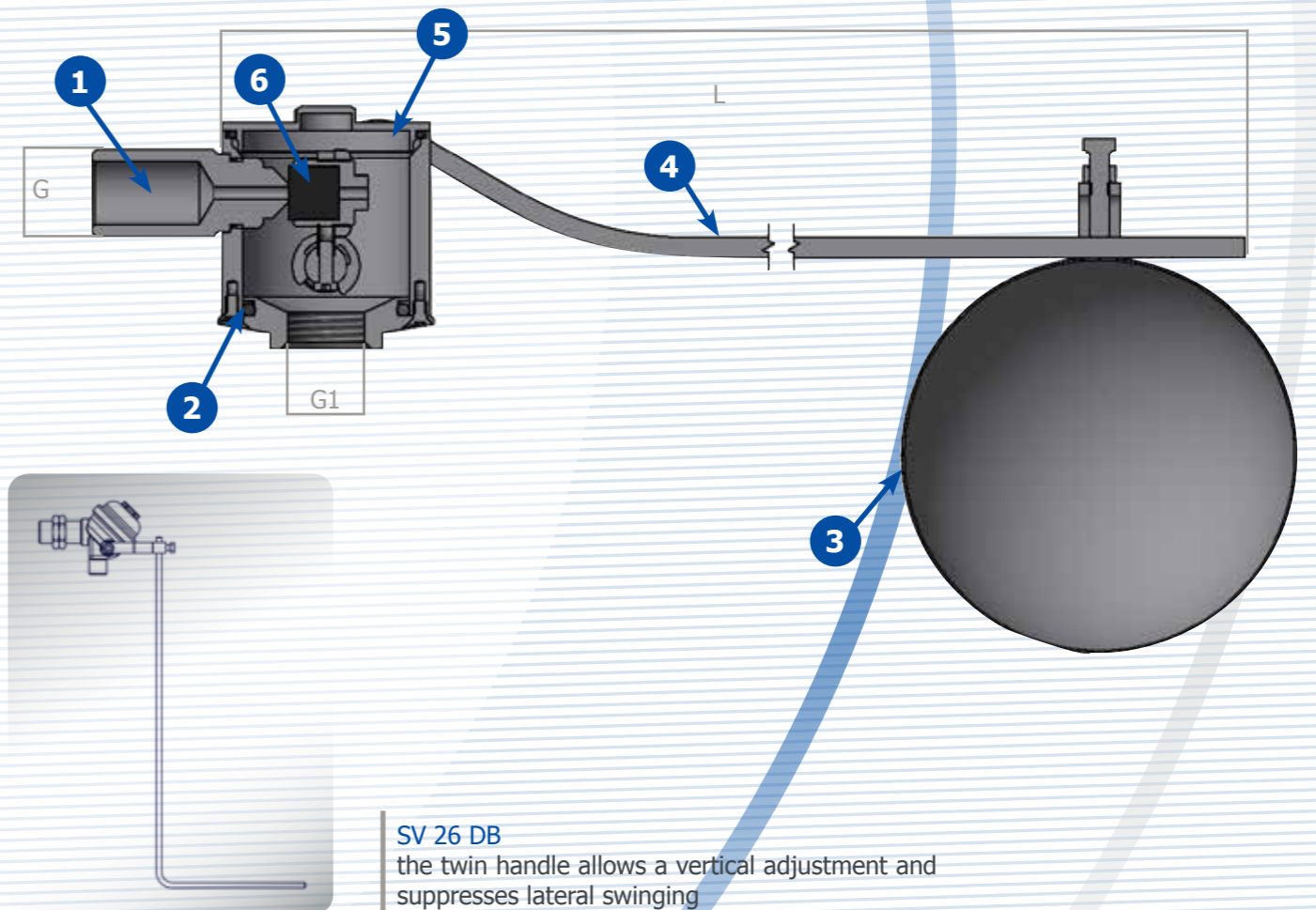
Type SV 26 is also available with twin handle which allows a vertical adjustment and suppresses lateral swinging.

The seal can be inspected and exchanged without dismantling the valve.

Matching floats you will find on page 14.

nominal size	connection	art.no. SV 94		art.no. SV 26	art.no. SV 26 DB		art.no. SV 45
		plastic cap	brass cap		twin handle	twin handle	
DN 10	G 3/8"	0007 01	0007 11	0006 01	0006 81	0004 51	
DN 15	G 1/2"	0007 02	0007 12	0006 02	0006 92	0004 52	
DN 20	3/4"	-	-	-	-	0004 53	

- max. working pressure up to 6, 10 or 12 bar
- pressure-tight version SV 45 suitable for pipeline systems
- various floats available in Hostalen, copper and stainless steel
- float stem can be shortened for installations with tight mounting space
- compact design for small storage tanks
- dirt-resistant control flap adapted for media containing dirt



nominal size	connection	SV 94			SV 26			SV 45			
		connection	kvs-value in m³/h	L in mm	weight in kg	kvs-value in m³/h	L in mm	weight in kg	kvs-value in m³/h	L in mm	weight in kg
DN 10	G + G1	3/8"	0.2	330	0.25	0.3	385	0.45	0.2	398	0.5
DN 15	G + G1	1/2"	0.3	330	0.3	0.4	385	0.5	0.3	398	0.5
DN 20	G + G1	3/4"	-	-	-	-	-	-	0.4	398	0.5

# Float valves compact design Series KSV

Type overview float valves series KSV with external thread according to ISO 7

KSV-type	max. working pressure	material	seal	max. temperature
KSV 10	12 bar	red bronze	FKM	80°C
KSV 80	12 bar	stainless steel	FKM	190°C



## Features

Our series KSV provides valves in the middle range whenever SV-valves are too small or RSV/ESV-valves are too elaborated. All types of this series work with a robust regulating piston.

The valve body of KSV 10 is made of high-grade red bronze, KSV 80 is made of stainless steel. Nozzles and seals are easy to replace, the piston can be removed by unscrewing one single bolt.

Furthermore, KSV-valves are very cost-efficient and their dimensions are compatible with many industrial float valves.

The stem angle is variable and the float is mounted slidable on the stem, so the desired media level can be adjusted absolutely precise.

Matching floats are available in copper, HDPE or stainless steel (V4A).

Matching floats you will find on page 14.

nominal size	connection	art.no. KSV 10	art.no. KSV 80
DN 10	G 3/8"	-	0075 01
DN 15	G 1/2"	0107 02	0075 02
DN 20	G 3/4"	0107 03	0075 03
DN 25	G 1"	0107 04	0075 04

1 | max. working pressure up to 12 bar

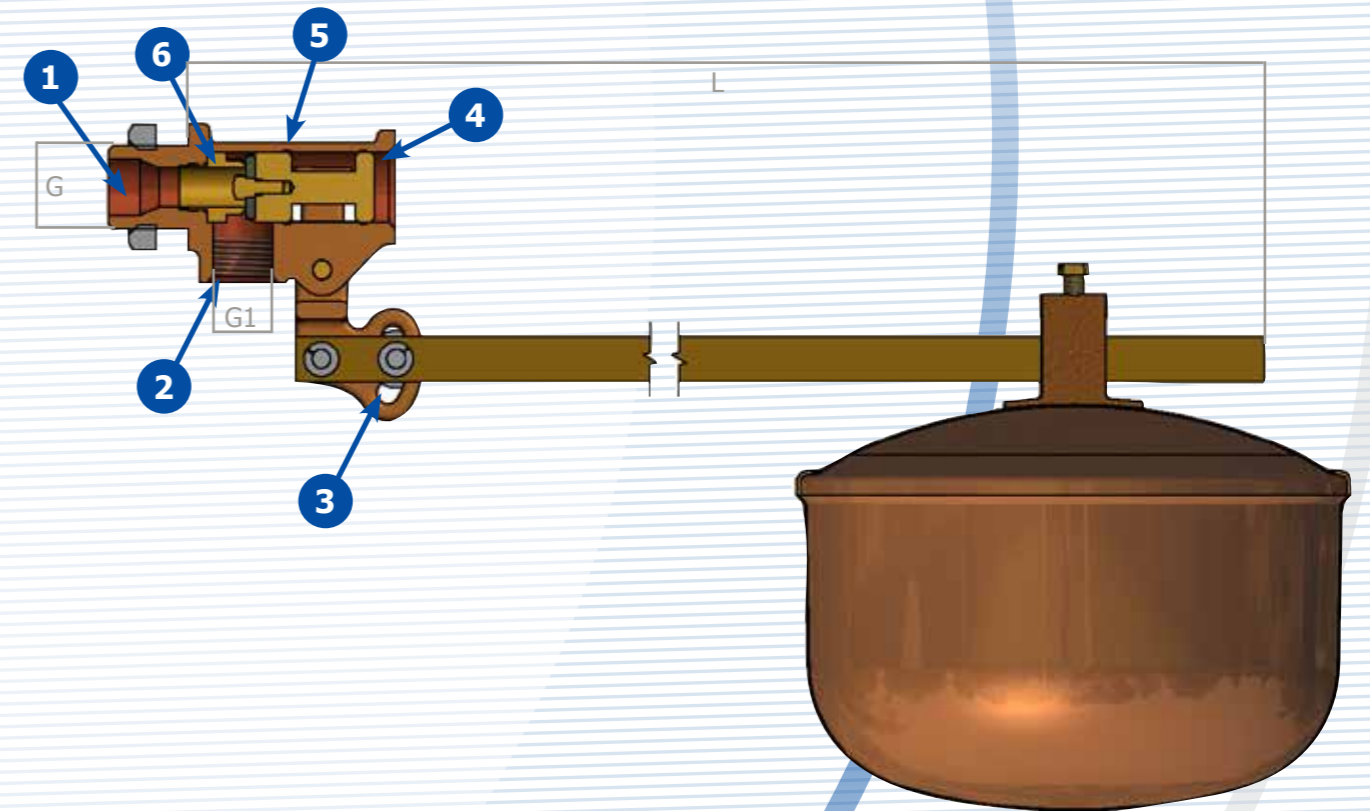
2 | port for immersion tube for a smooth media surface

3 | variable angle adjustment the media level can be regulated absolutely precise

4 | compact and simple design thus cost-efficient

5 | compatible dimensions numerous standard industrial valves can be replaced by KSV-valves

6 | exchangeable seals and valve seat without dismantling the valve



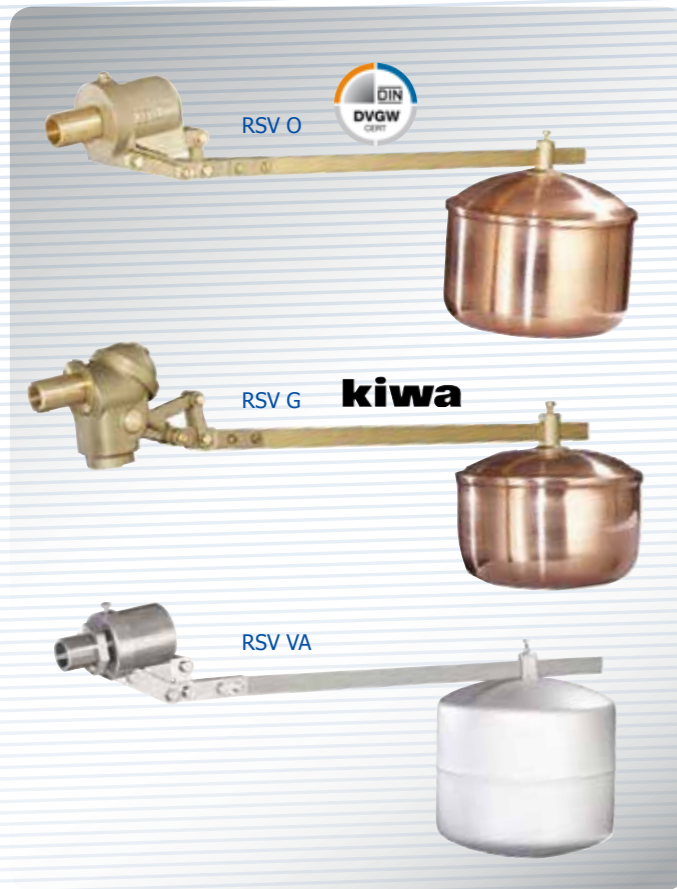
nominal size	connection		KSV 10			KSV 80		
	G	G1	kvs-value in m³/h	L in mm	weight in kg	kvs-value in m³/h	L in mm	weight in kg
DN 10	3/8"	3/8"	-	-	-	2.6	607	0.76
DN 15	1/2"	3/8"	2.3	604	0.83	2.7	607	0.80
DN 20	3/4"	1/2"	3.5	604	0.84	4.3	609	0.82
DN 25	1"	3/4"	6.0	723	1.25	6.7	728	1.29

# Float valves for large storage tanks

## Series RSV

Type overview float valves series RSV with external thread according to ISO 7

RSV-type	max. working pressure	material	seal	max. temperature	design	approval
RSV O	12 bar	brass	NBR	80°C	open	DVGW
RSV G	12 bar	brass	NBR	80°C	closed	KIWA
RSV VA	8 bar	stainless steel	FKM	190°C	open	-



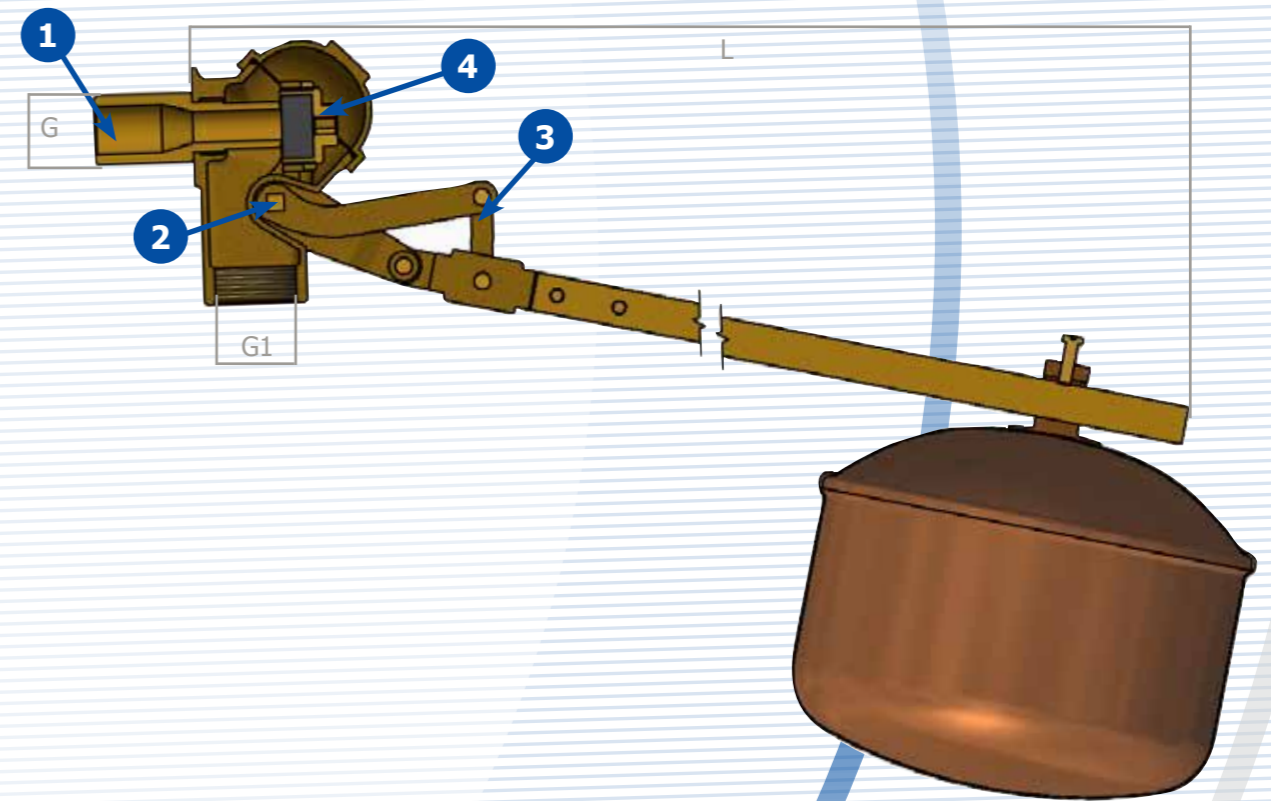
### Features

Float valves of our series RSV are always used when extremely robust valves for elevated supply pressures and/or high flow rates are required.

Series RSV O and RSV G are specially suited for drinking water. All models comply with the rigid European Drinking Water Regulation and DIN 1717 and are DVGW- and KIWA-certified. For this reason, both series are ideally suited for all applications which require a connection to the drinking water system (e.g. pressure boosters, fire protection systems etc.).

Due to the specific lever transmission these valves get along with relative short stems. The seal can be inspected and exchanged without dismantling the valve. All valves are entirely made of brass or stainless steel (RSV VA). Matching floats are available either made of copper or stainless steel (V4A).

- 1 max. working pressure up to 12 bar
- 2 robust design with twin axial guidance preventing lateral swinging
- 3 elaborated lever construction therefore compact installation dimensions and a construction which is stable at high pressure/flow rate and resistant to swinging
- 4 dirt-resistant control flap suitable for media containing dirt



nominal size	connection	art.no. RSV O	art.no. RSV G	art.no. RSV VA
DN 10	G 3/8"	0004 01	0005 01	-
DN 15	G 1/2"	0004 02	0005 02	0003 02
DN 20	G 3/4"	0004 03	0005 03	0003 03
DN 25	G 1"	0004 04	0005 04	0003 04
DN 32	G 1 1/4"	0004 05	0005 05	0003 05
DN 40	G 1 1/2"	0004 06	0005 06	0003 06
DN 50	G 2"	0004 07	0005 07	0003 07
DN 65	G 2 1/2"	0004 08	0005 08	0003 08
DN 80	G 3"	0004 09	0005 09	-

Matching floats you will find on page 14.

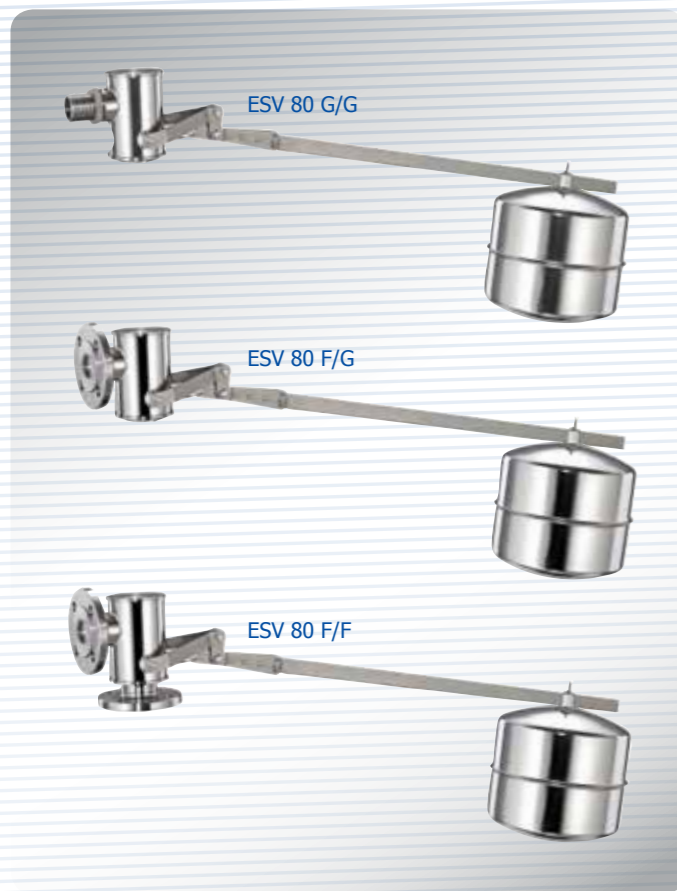
DN	connection		RSV O			RSV G			RSV VA		
	G	G1*	kvs-value in m³/h	L in mm	weight in kg	kvs-value in m³/h	L in mm	weight in kg	kvs-value in m³/h	L in mm	weight in kg
DN 10	3/8"	3/4"	1.2	400	0.8	1.9	408	0.95	-	-	-
DN 15	1/2"	3/4"	2.1	520	1.25	2.5	510	1.05	2.1	520	1.2
DN 20	3/4"	1"	3.2	550	1.7	5.1	560	1.55	3.2	570	1.35
DN 25	1"	1 1/4"	9.5	620	2.4	7.5	630	2.5	6.5	540	1.45
DN 32	1 1/4"	1 1/2"	15	715	3.8	13	730	3.3	13	720	2.5
DN 40	1 1/2"	1 3/4"	23	770	4.75	18	800	4.35	20	770	2.7
DN 50	2"	2"	36	880	6.55	25	960	7.75	30	880	4.55
DN 65	2 1/2"	2"	72	1050	10.65	48	985	8.3	48	950	4.9
DN 80	3"	2"	72	1050	11.45	48	985	9.5	-	-	-

\* only for RSV G

# Pipeline float valves Series ESV

Type overview float valves series ESV with external thread according to ISO 7 or flanges according to DIN EN 1092

ESV-type	max. working pressure	material	seal	max. temperature	connection inlet / outlet
ESV 80 G/G	12 bar	stainless steel	FKM	190°C	thread / thread
ESV 80 F/G	12 bar	stainless steel	FKM	190°C	flange / thread
ESV 80 F/F	12 bar	stainless steel	FKM	190°C	flange / flange



## Features

The high performance float valves of series ESV are a further development of our proven series RSV. ESV-valves provide an optimal media resistance due to the exclusive use of stainless steel (V4A); with the pressure-tight sealing of the valve bodies these models are not only suited for tank installations but also for pipeline systems. ESV-valves are extremely robust, durable and the control flap is highly insensitive to dirt. Due to the specific lever transmission these valves get along with relative short stems. The seal can be inspected and exchanged without dismantling the valve.

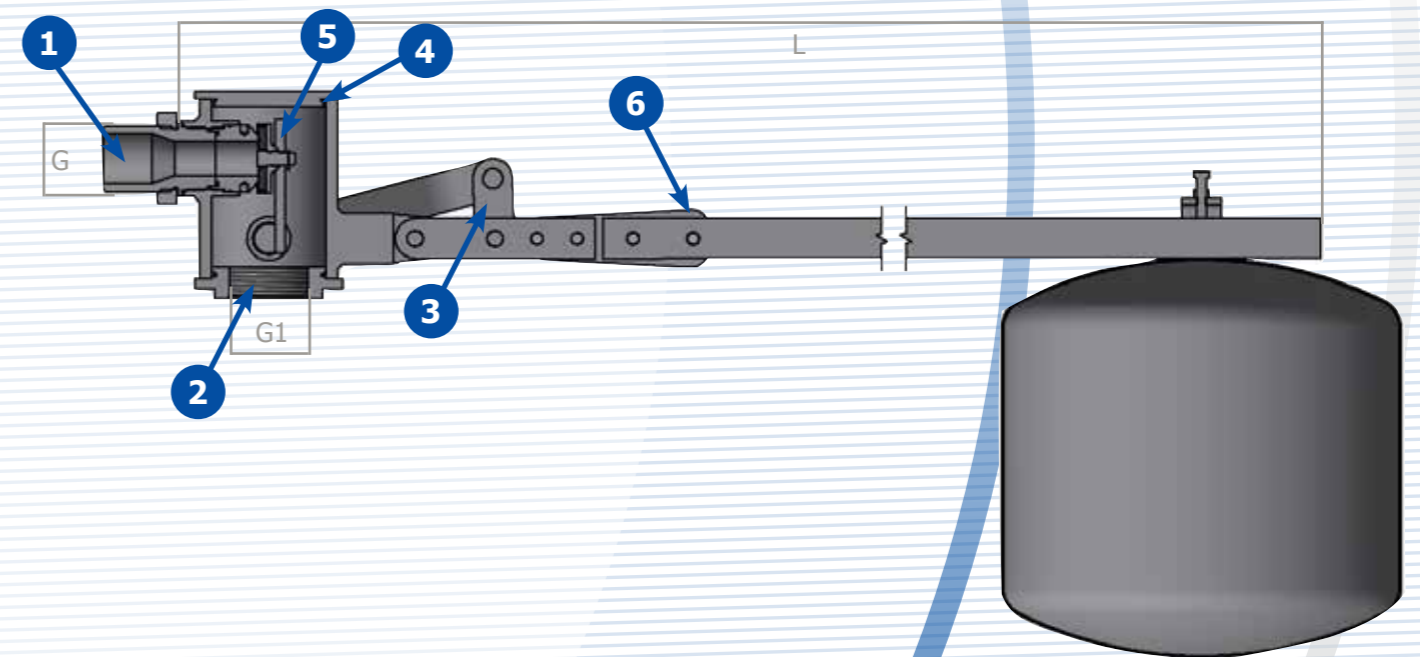
The valves are available with different connection types:  
 ESV 80 G/G: internal and external thread  
 ESV 80 F/G: internal flange, external thread  
 ESV 80 F/F: internal flange, external flange

All ESV-types are also available with ANSI- or NPT-threads.

nominal size	connection	art.no. ESV 80 G/G	art.no. ESV 80 F/G	art.no. ESV 80 F/F
DN 15	G 1/2"	0070 02	-	-
DN 20	G 3/4"	0070 03	-	-
DN 25	G 1"	0070 04	-	-
DN 32	G 1 1/4"	0070 05	-	-
DN 40	G 1 1/2"	0070 06 / 0070 16*	0071 06 / 0071 16*	0072 06 / 0072 16*
DN 50	G 2"	0070 07	0071 07	0072 07
DN 65	G 2 1/2"	0070 08	0071 08	0072 08
DN 80	G 3"	0070 09	0071 09	0072 09

Matching floats you will find on page 14.

- max. working pressure up to 12 bar
- port for immersion tube for a smooth media surface
- elaborated lever construction therefore compact installation dimensions and a construction which is stable at high pressures/flow rates and resistant to swinging
- pressure-tight design suitable for pipeline systems
- dirt-resistant control flap suitable for media containing dirt
- variable angle adjustment the media level can be regulated absolutely precise



DN	connection		ESV 80 G/G			ESV 80 F/G			ESV 80 F/F		
	G	G1	kvs-value in m³/h	L in mm	weight in kg	kvs-value in m³/h	L in mm	weight in kg	kvs-value in m³/h	L in mm	weight in kg
DN 15	1/2"	3/4"	3.7	657	1.8	-	-	-	-	-	-
DN 20	3/4"	1"	5.7	657	1.8	-	-	-	-	-	-
DN 25	1"	1 1/4"	9.5	811	3.1	-	-	-	-	-	-
DN 32	1 1/4"	1 1/2"	13.6	811	3.2	-	-	-	-	-	-
DN 40*	1 1/2"	1 1/2"	14	829	3.4	14	818	5.4	14	818	7.9
DN 40	1 1/2"	2"	20	1048	6.9	20	1028	8.7	20	1028	11.3
DN 50	2"	2 1/2"	32	1048	6.9	32	1028	9.2	32	1028	12.6
DN 65	2 1/2"	3"	52	1193	11.5	52	1180	13.6	52	1180	17.5
DN 80	3"	3"	60	1193	11.5	60	1180	14.5	60	1180	18.6

\* compact design

\* compact design

## Floats for series SV94, SV26, SV45



material	valve size	art.no.	diameter
PE	DN10 / DN15	0008 31	90 mm
CU	DN10 / DN15	0008 00	96 x 84 mm
V4A	DN10 / DN15	0008 41	95 mm

## HDPE - floats for series KSV



for valve size up to 6 bar	for valve size up to 8 bar	for valve size up to 12 bar	art.no.	diameter
DN 15 / DN 20	--	--	0008 33	150 mm
DN 25	DN 15 / DN 20	--	0008 34	180 mm
--	DN 25	DN 15 / DN 20	0008 35	220 mm
--	--	DN 25	0008 36	300 mm

## CU - copper floats for series KSV, RSV



for valve size up to 6 bar	for valve size up to 8 bar	for valve size up to 12 bar	art.no.	Ø x height in mm
DN 10	--	--	0008 01	121 x 100
DN 15	DN 10	--	0008 02	152 x 116
DN 20	DN 15	DN 10	0008 03	173 x 130
DN 25	DN 20	DN 15	0008 04	205 x 175
DN 32	DN 25	DN 20	0008 05	231 x 200
DN 40	DN 32	DN 25	0008 06	257 x 220
DN 50	DN 40	DN 32	0008 07	308 x 255
DN 65 / DN 80	DN 50	DN 40	0008 08	345 x 285
--	DN 65 / DN 80	DN 50	0008 10	400 x 260

## V4A - stainless steel floats for series KSV, RSV, ESV



for valve size up to 6 bar	for valve size up to 8 bar	for valve size up to 12 bar	art.no.	Ø x height in mm
DN 15	--	--	0008 42	150 x 149
DN 20	DN 15	--	0008 43	180 x 150
DN 25	DN 20	DN 15	0008 44	200 x 200
DN 32	DN 25	DN 20	0008 45	230 x 180
DN 40	DN 32	DN 25	0008 46	245 x 245
DN 50	DN 40	DN 32	0008 47	285 x 285
DN 65 / DN 80	DN 50	DN 40	0008 48	350 x 260
--	DN 65 / DN 80	DN 50	0008 49	400 x 260



## Company history

On 31th July 1917, the plumber Jean Bergner got the German patent for the innovative construction of a very robust and reliable float valve.

In 1920, Bergner founded in Düsseldorf, - cooperating with the merchant Ludwig and the plumber Toeller -, the company "Berluto Schwimmerhahngesellschaft Ludwig & Co.". In 1924, the "Berluto Armaturen-Aktiengesellschaft" was established, chaired by August Bender and with numerous regional share-holding plumbers. In 1953, the business was transformed into today's "Berluto Armaturen-Gesellschaft mbH". By this day, the company is managed in the third generation by descendants of the company founder.



## Today

This day, Berluto Armaturen GmbH is located in an advanced development and manufacturing site in Tonisvorst, Germany. Computer-aided development processes and CNC-machining centres with CAD/CAM connection ensure a flexible production with high precision and short processing times. This allows a production of large valve series as well as custom-made special valves in the well-known high quality made in Germany by Berluto.



## We would be pleased to welcome you as our new customer

In this brochure you will find just a small selection of our entire product range. For reasons of space we are not able to show all variations and special versions in this prospectus. If you do not find the adequate valve for your application, please do not hesitate to contact us by phone, by email, or by fax. We will do our best to offer the optimal solution for your purposes and we look forward to hear from you soon.



# With good reason

## Our program



Pressure reducers in stainless steel



Pressure reducers in red bronze



Float valves in stainless steel



Float valves in red bronze and brass



Safety valves in red bronze and brass



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