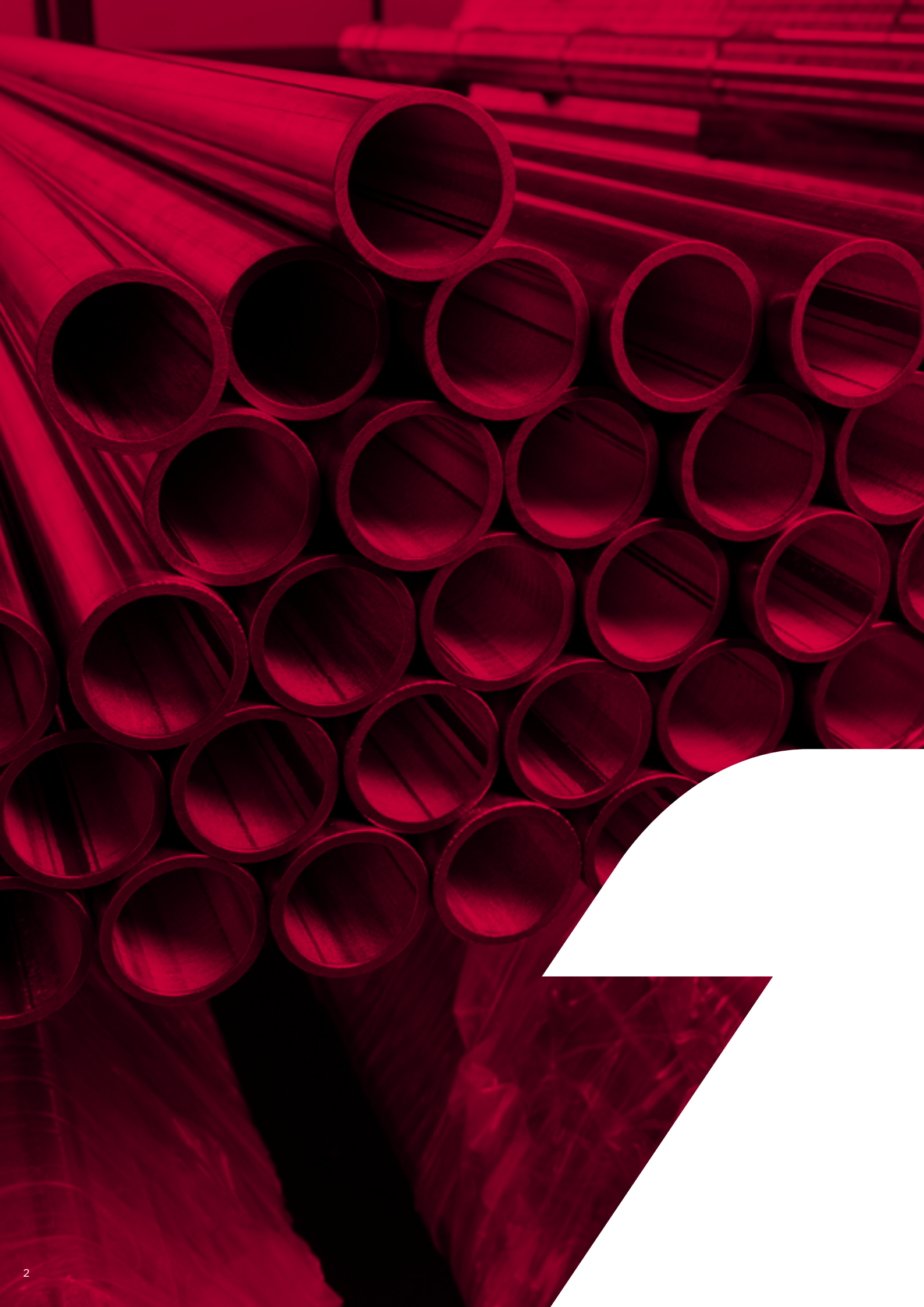
aalberts integrated piping systems

Apollo Valves

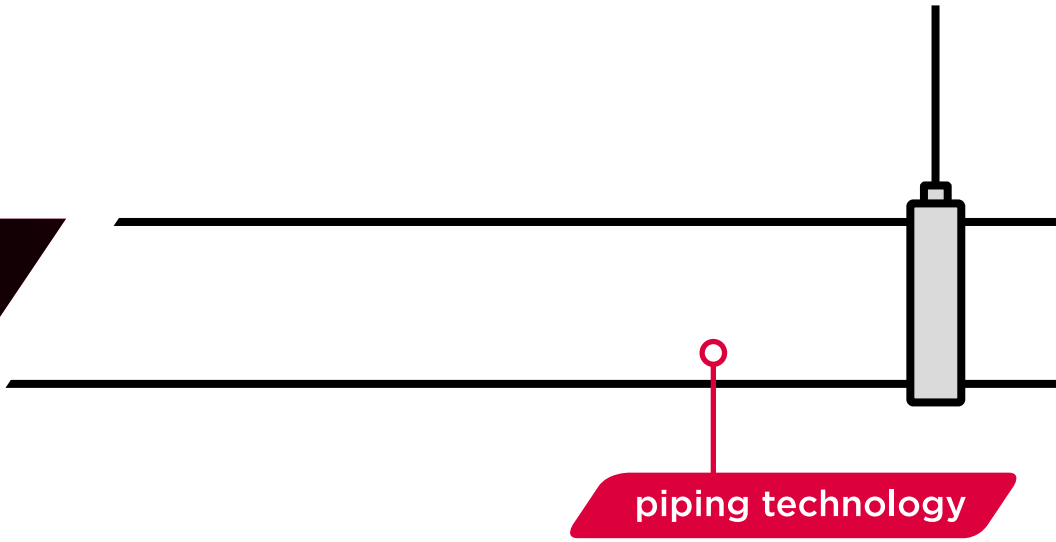
EN technical manual



contents

Aalberts integrated piping systems

don’t just buy products, buy solutions.



we are Aalberts integrated piping systems

Aalberts integrated piping systems engineers the most advanced integrated piping systems for the distribution and control of liquids and gases for key verticals, like industrial, utilities, commercial and residential. We offer fully integrated piping systems in valve, connection, fastening and piping technology. We work hand-in-hand with our customers to create the perfect integrated piping system, that meets their requirements. Our piping systems are easy to specify, install, control and maintain, saving important preparation and installation time. We meet the highest quality and industry standards needed in the selected verticals. We are the only business that truly offers its customers a single sourced and complete integrated piping solution, each and every time.
Don't just buy products, buy solutions.

our mission

With our integrated piping systems, supported by our unique Digital Design Service, we ensure that you will always get the best and easiest solution for the installation of an integrated piping system. From the moment that your plan is designed, you can get advice on complete and tailored solutions.
With our Revit Plug-in you have digital access to the complete product offering within Aalberts integrated piping systems. This information is always accessible and up to date, allowing the design of an optimal and economically attractive installation that will meet all your demands. So whether the task is project conception, installation, or on-going maintenance, we are the company that truly delivers a complete system and service offering. Our know-how, our can-do attitude, and our relentless innovation come as standard. We will sweat the small stuff in our quest to find the perfect solutions, even if we have to invent them.
This is how we deliver excellence.

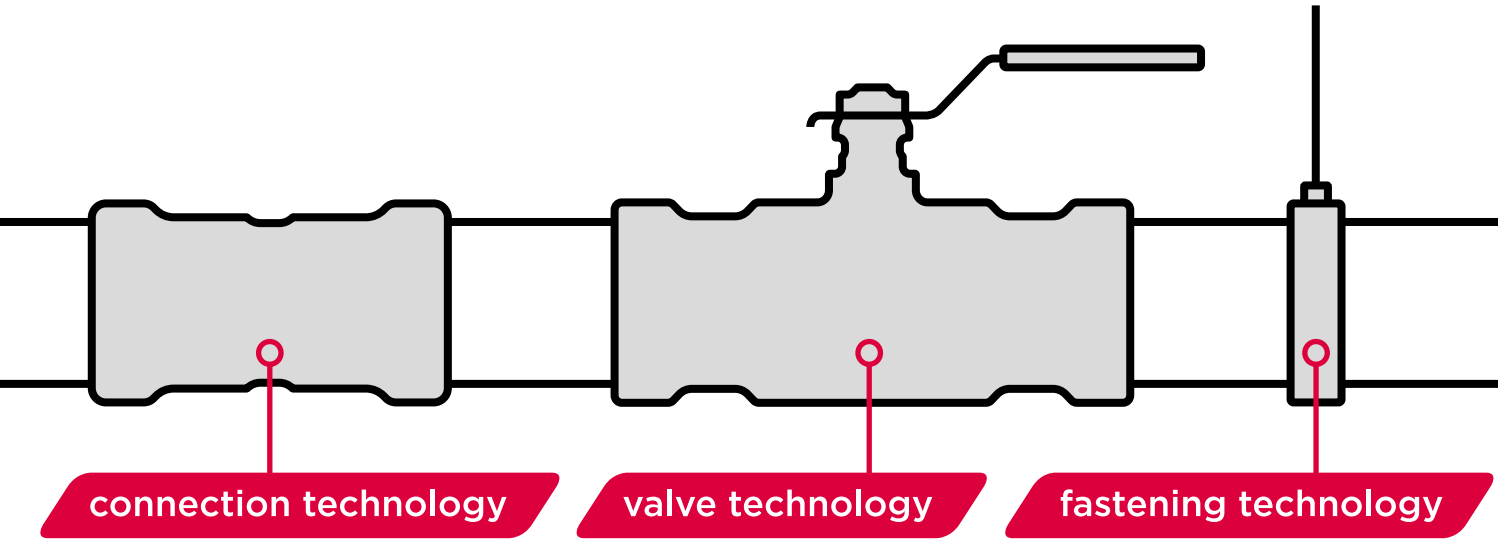
our way of working

We operate from various regions around the globe: America, United Kingdom, Middle East, Asia Pacific and Europe. As we have multiple locations in many countries, we are always close to our customers. More than 3500 mission critical employees are persistent to offer the best integrated piping system.
They work on our products, solutions and services every day. No matter how big the opportunity is, when we say we've got this, we won't let go until there is nothing left to learn. We improve ourselves by exchanging knowledge and experience to stay ahead of our competitors.
Good is never good enough.

With our sustainable spirit we contribute to circularity every single day. This belief is strongly linked to the way we do business. Rethink, reduce and recycle. We are entrepreneurial and take ownership in everything we do. We are convinced that self-development and diversity is essential.
The Aalberts way, winning with people.

the strength of Aalberts integrated piping systems

- the perfect solution for every project
- smart, fast and efficient installation
- valuable advice from the drawing board to delivery
- a very wide product range



For more information about Aalberts integrated piping systems, go to www.aalberts-ips.eu

Aalberts integrated piping systems connect: our systems are easy to combine with each other

Aalberts integrated piping systems is the combination of different companies with a strong legacy in their markets. The individual brands are well-known and each represents a long history. Together they offer the best integrated piping system for now and in the future.

our product lines

We offer product ranges that:

- connect seamlessly
- are available in dimensions from 6 mm up to 104" (DN2600)
- can be used for thick-walled pipe and thin-walled metal or plastic tube
- have press, compression, groove and push connections
- can be expanded with valves and accessories
- are BIM ready

Connection technology

VSH

VSH has been supplying quality products for 90 years and delivers piping systems and fittings throughout the world. In the 1970's VSH brought the well-known VSH Super compression fitting on the market which is still a best-seller, followed by the VSH XPress pressfitting, a technology that makes it possible to realize a connection even faster and more reliable.

Shurjoint

The history of Shurjoint dates back to 1974, when the founders produced their first grooved couplings. These first couplings were produced from malleable iron, the casting material of choice at this time. Shurjoint is recognized as a world leader in the design and manufacture of mechanical piping components.

Valve technology

Apollo

Apollo Valves has been supplying the commercial and industrial valve markets since 1928. The valves, with their signature yellow handles, are designed and manufactured in their state-of-the-art facilities in the Carolinas, USA. Apollo's vertical manufacturing integration assures better quality control, better cost control, and the shortest delivery lead times possible for their range of ball valves, automation products, safety relief valves, backflow preventers and plumbing/heating products

VSH PowerPress®

material	carbon steel
suitable for	thick-walled steel
connection	press / DW-profile
dimensions	½" - 2" (DN15 – DN50)

VSH SudoPress

material	carbon steel / stainless steel / copper
suitable for	carbon steel / stainless steel / copper
connection	press / V-profile
dimensions	12 – 108 mm (DN10 – DN100)

VSH XPress

material	carbon steel / stainless steel / copper / cunifer
suitable for	carbon steel / stainless steel / copper / cunifer
connection	press / M-profile
dimensions	12 – 108 mm (DN10 – DN100)

VSH Shurjoint

material	ductile iron / stainless steel
suitable for	thick-walled steel / stainless steel / HDPE
connection	groove
dimensions	½" - 104" (DN15 – DN2600)

VSH Super

material	brass
suitable for	carbon steel / stainless steel / copper / plastic
connection	compression
dimensions	6 – 54 mm (DN4 – DN50)

VSH SmartPress

material	stainless steel
suitable for	stainless steel (schedule 5S/10S)
connection	press / V-profile (ASP)
dimensions	½" - 2" (DN15 – DN50)

Apollo Valves

material	brass / bronze / carbon steel / stainless steel
suitable for	steel / carbon steel / stainless steel / copper
connection	threaded / press / push / flange
dimensions	DN15 – DN300

Apollo ProFlow

material	brass / ductile iron
suitable for	carbon steel / stainless steel / copper / plastic
connection	threaded / press / flange
dimensions	DN15 – DN300

Seppelfricke

material	brass
suitable for	steel / carbon steel / stainless steel / copper
connection	press (V & M profile) / threaded
dimensions	10 – 54 mm (DN8 – DN50)

VSH MultiPress

material	PPSU / brass
suitable for	plastic
connection	press / U & TH profile
dimensions	14 – 63 mm (DN10 – DN50)

VSH UltraLine

material	PPSU / brass / PVDF
suitable for	plastic
connection	sliding sleeve
dimensions	14 – 32 mm (DN10 – DN25)

VSH Tectite

material	copper / brass / stainless steel
suitable for	copper / carbon steel / stainless steel
connection	push
dimensions	10 – 54 mm (DN8 – DN50)

Apollo Valves

The Apollo Valve range offers installers comprehensive commercial valve solutions. Apollo Valves are mostly manufactured in the UK at the Aalberts integrated piping system facility and in Denmark at Broen, using the latest manufacturing processes. The valves are produced in materials that complement the applications and the piping system they are fitted in. These materials include stainless steel, carbon steel, bonze and brass, including the use of extruded material such as Low-Lead DZR Brass. Our end-to-end process provides continuity of manufacturing and testing, ensuring the highest level of reliability and quality. Our complete valve range, our technology and expertise ensure the accuracy, flexibility and system efficiency essential to building applications.

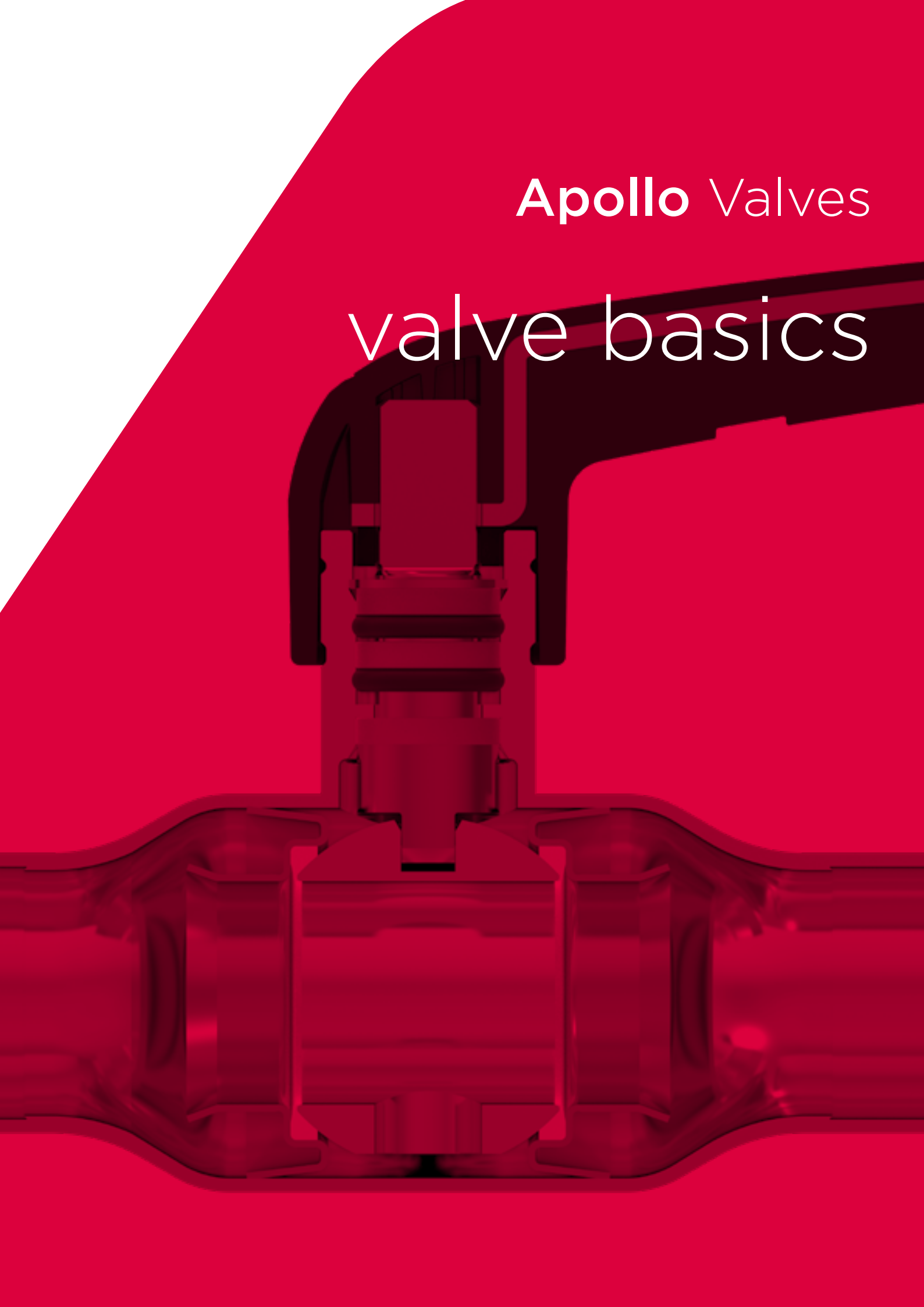
The cooperation with the specialised connection technology centre at Aalberts integrated piping systems in the Netherlands (Hilversum) guarantees optimal integration of Apollo Valve technology and VSH connection technology, often leading to valves with integrated connections such as Press (VSH XPress, VSH SudoPress, VSH PowerPress®, VSH SmartPress), Push (VSH Tectite), compression (VSH Super) and groove (VSH Shurjoint). Of course general connactions such as threaded ends and flanges are also widely available.

benefits of integrated connection technology

The combination of valve- and connection technology has multiple benefits for the installer: not only do they have identicle connection technology available as the rest of the system, requiring the same expertise and tools, but the connections are factory-mounted and pretested to ensure leak-free connections without time consuming fitting labour.

Apollo Valves

valve basics



ball valves

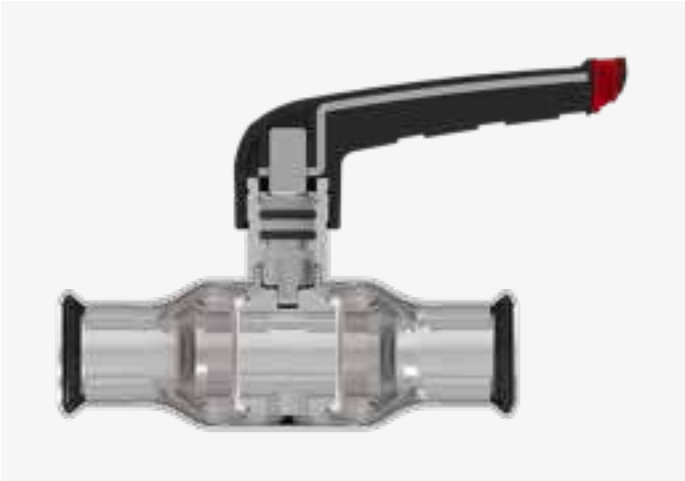
The Apollo ball valves provide isolation of piping systems and equipment, in both HVAC and general plumbing or industrial applications. Most valves are supplied as a full bore valve, providing minimum flow resistance. Ball valves are supplied in brass, bronze, carbon steel and stainless steel with a wide variety of connections.

advantages Apollo ball valves

- pressure rating up to 25 bar (VSH XPress FullFlow valves rated to 16 bar)
- available in a wide variety of body materials, DZR brass , carbon and stainless steel
- handles come in different styles like lever and T-handle with standard or extended stems.
- available with female or male threaded connections, union connections, flanged connections or VSH XPress and VSH PowerPress® adapters, facilitating heat free press connection technology
- suitable for heating and cooling applications and sanitairy use, depending on materials and approvals

function and operation

Fullflow ball valves use a ball (sphere) with a bore equal to the valves inlet and outlet dimensions to let liquid or gas flowing through it. Ball valves are bi-directional due to their design. Ball valves are used for flow control (open or shut). When the bore is aligned with the valves inlet and outlet, the valve is open. This is visible on the outside of the valve by the orienation of the handle. The valve is closed when the ball is pivoted 90° by the valve handle, blocking the flow. Normally, the handle is turned counter-clockwise to open the valve. the handle is turned clockwise to close the valve. To optimise ease of handling, all Apollo ball valves have handles that can be reversed.



The ball is held in place by the two seats, which is a floating ball valve design.

operators

Ball valves are operated by a lever/L-handle or a T-handle/ butterfly handle. The handle is used for easy visual confirmation of the valve's status. The handle is aligned with the flow when it is open, and is perpendicular to it when it is closed.

special operators

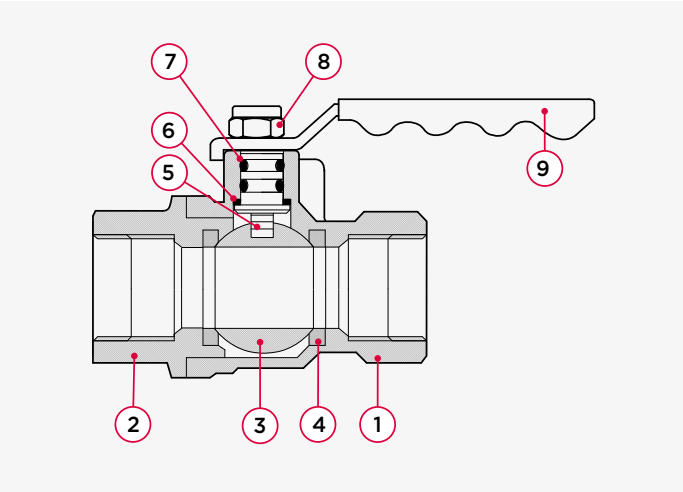
Manually operated ball valves can be closed instantly which may result in water hammer. This can be prevented by using a gear handle which makes operation slower. Operation is no longer a quarter turn but linear. Ball valves can sometimes be equipped with an actuator that may be operated pneumatically, hydraulically or by motor.

VSH XPress Fullflow ball valves
VSH XPress Fullflow ball valves utilize a different seat design. The seat is pushed against the ball by a spring, this ensures smooth operation and optimal tightness

stem extension
insulating valves to prevent energy loss is highly recommended. To make sure the valve can still be operated after insulation, the valve can be equipped with a stem extension. This extension is directly welded on the valves body. The stem rotates within the extension so insulation can be glued onto the valve.

components

ball valves consist of the following main components:

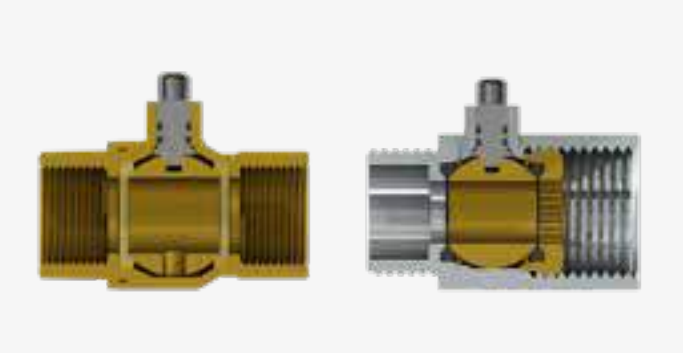


Nr	Component
1	body
2	body cap
3	ball
4	ball seat
5	stem

Nr	Component
6	thrust washer
7	stem o-ring
8	nut
9	lever handle

bore size of the ball

ball valves designs can be full bore or reduced bore.



full bore *reduced bore*

full bore
A full bore valve has an oversized ball with a hole the same size as the tube resulting in lower friction loss. Flow is unrestricted but the valve is larger compared to a reduced bore valve.

reduced bore
In reduced bore ball valves, the hole in the ball is smaller than the tube size resulting in less flow capacity than the tube. A reduced bore ball valve can be referred to as a standard port or standard bore.

flow control

Standard ball valves are not suitable for flow control. Ball valves should only be used fully open or fully closed. Using the valve for flow control can damage the seats and/or cause 'cavitation'. In that case, the valve will suffer structural damage and will not completely isolate in closed postion.

locking device

A locking device is a mechanical component that prevents that the handle accidently can be moved out of position. With a padlock unautorized operation of the valve is prevented.

operation
The locking device blocks the rotation of the handle, as it needs to be lifted before it can be turned. If a padlock is added through the hole, the locking device can't be lifted which makes unauthorized operation impossible.

balancing valves

The Apollo ProFlow valve range offers installers a comprehensive commercial and balancing valve solution. Apollo ProFlow valves are manufactured in the UK at the Aalberts integrated piping system facility using the latest manufacturing processes, including the use of extruded material such as low-lead DZR Brass.

advantages Apollo ProFlow dynamic balancing valves (PICV)

- all threaded valves rated to 16 bar
- removes potential of cartridge mix-up issues
- enables bypass/flushing to be actioned to prevent future issues
- can be utilised as isolating valve - no need for ball valve inline
- less time removing cartridges for flushing
- prevents deposit of debris within product
- supports water treatment to meet timescales in accordance with BSRIA guidelines threaded.

advantages Apollo ProFlow static balancing valves (FODRV)

- DZR brass body with threaded valves rated to 20 bar, VSH XPress valves rated to 16 bar
- handwheel incorporating position indicator with double regulating feature
- ± 5% flow measurement accuracy across all setting points
- robust handle manufactured from tough, glass-reinforced polymer
- memory stop
- DN65 - DN300 flanged versions also available (V955 series)

Our end-to-end process provides continuity of British manufacturing and testing, ensuring the highest level of reliability and quality. Our complete range of balancing valve technology, and expertise, ensure the accuracy, flexibility and system efficiency essential to building applications.

function and operation

static balancing valves

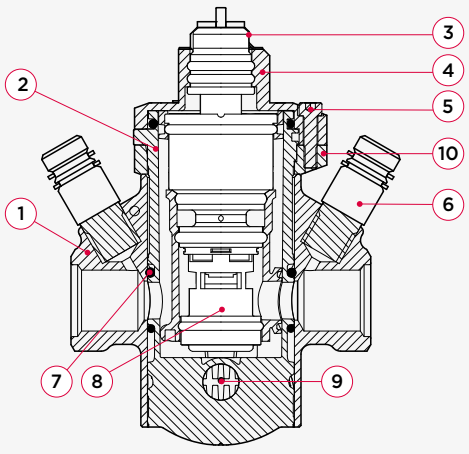
The Apollo ProFlow 1260 fixed orifice (FODRV) series of valves provides isolation and balancing of piping systems and equipment, in both HVAC and general plumbing applications. Each valve can be double regulated, closed and then reopened to a selected value, which can be set on commissioning. Additionally, the Apollo ProFlow 1260 series incorporates a measuring facility, and the flow rate can be verified using the Apollo ProFlow BC3 balancing computer.

dynamic balancing valves

The revolutionary Apollo ProFlow 1600 PICV (Pressure Independent Control Valve) comes complete with integrated bypass technology. This industry-leading innovation provides significant time and cost savings, with the use of a full velocity bypass making the installation, commissioning and maintenance process simple. The Apollo ProFlow 1600 PICV adds advanced functionality to control and accuracy. The differential pressure loss can be verified using the Apollo ProFlow BC3 balancing computer.

components

Apollo ProFlow PICV valves consists of the following main components:



Nr	Component
1	body
2	shuttle
3	indicator
4	cap
5	socket screw

Nr	Component
6	test point
7	o-ring
8	cartridge
9	locking peg
10	clamp

butterfly valves

Apollo butterfly valves are rubber lined valves and provide isolation of piping systems and equipment, in both HVAC and industrial applications. Butterfly valves can also be used for flow control. Butterfly valves are supplied in ductile iron with a stainless steel disc.

advantages Apollo butterfly valves

- pressure rating up to 16 bar
- large size range up to 24" (DN600)
- bi-directional
- available in wafer or lug type, flange connections or grooved connections
- seat with backup ring
- lever or gear operated

function and operation

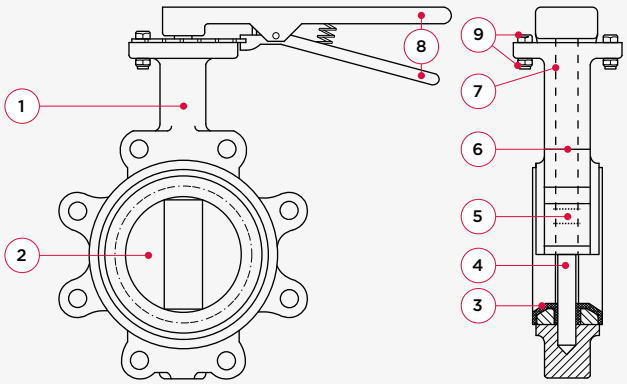
Butterfly valves are used for flow control (open, regulate or shut). The valve uses a disc to control liquid flowing through. The valve is open when the disc is in line with the flow. It is closed when it is turned 90°, blocking the flow with the disc positioned in the rubber valve seat.

The handle is used for easy visual confirmation of the valve's status. The handle is in alignment with the flow when open, and is perpendicular to it when the valve is closed. To go from the open to the losed position, the handle is turned a quarter, normally in clockwise direction. To open the valve the handle is turned in the counter-clockwise direction.

Larger sizes, normally up from DN200, are operated by a gearbox, due to the higher operating torque. By turning the gearbox handwheel clockwise the valve will close, to open the valve the handwheel must be turned counter-clockwise

components

Butterfly valves consists of the following main components:



Nr	Component	Nr	Component
1	body	6	o-ring
2	disc	7	bushing
3	seat	8	lever
4	shaft	9	hex bolts and nuts
5	pins		

connection types

wafer style valves

A wafer style butterfly valve is sandwiched between two flanged pipe ends. They are connected by long bolts across the valve body. The flanges and valve body are fully closed by a rubber sealing.

lug-style valves

Lug style valves have threaded inserts on both sides of the valve body. The valve is installed between two flanged pipe ends, the lug type allows the valve to be installed into a piping system using only two sets of bolts. With lug type valves, both sides can be disconnected separately. A lug style valve can be used as an end of line valve

double flange style valves

Double flange style valves have flanges on both sides and are installed between to flanged pipe ends. Due to the design the face to face length is typically longer compared to a wafer or lug type valve.

seat

Seats are normally made from rubber such as NBR or EPDM. Based on temperature and the medium flowing through the piping system, the correct seat material must be chosen.

seat design

Rubber lined butterfly valves are available in three different types of seat design: 1. loose seat, 2. seat with back-up ring 3. fully vulcanised seat. Depending on the application a particular design may be more suitable.

stop valves

Apollo stop valves are soft seated valves and provide isolation of piping systems and equipment and are mainly used in potable water applications. Stop valves are supplied in brass.

advantages Apollo stop valves

- pressure rating up to 16 bar
- valves with or without check valve (KFR®)
- with rising or non-rising stem, free of dead space, double o-ring stem sealing
- available with handwheel or handle operation
- handle with open position indicator and labelling fields
- with or without drain valve with adjustable spout
- available with female thread or SPS® press connections, universal for M- or V-profile jaws

function and operation

A stop valve is a multiturn valve used for flow control (open, or shut) using a disc to control liquid flowing through. The flow is blocked when the disc is pushed against the seat. Flow will run when the disc is lifted from the seat and is fully open when the disc reached its maximum height. The position of the stem and handwheel are used for a visual confirmation of the valve's status.

hygienic design

Our stop valves for drinking water applications have a special hygienic design. These valves are free of dead space, which prevents the growth of bacteria.

self-lubricating stem

The stop valve has a permanent smooth operation due to a self-lubricating stem seal. The stem thread is separated from the flowing medium to ensure smooth operation.

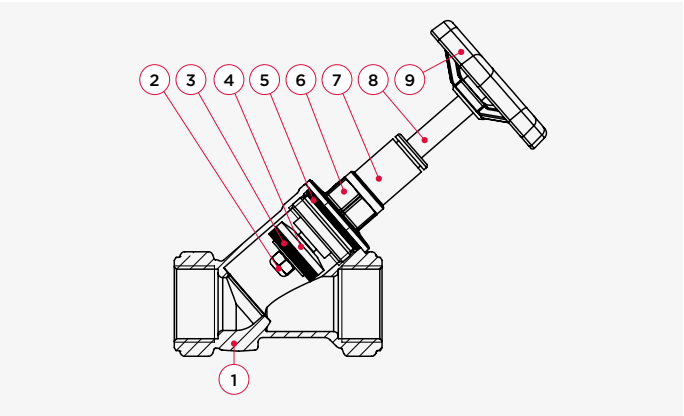
operator

The Apollo stop valves are operated by either a handwheel or a handle with a visual position indictor

stop check valve

Apollo stop check valves function as stop and check valve. When the flow stops or reverses the disc is pushed back by the spring against the seat, preventing backflow. Minimum pressure difference is needed to compress the spring and open the valve again and start the flow.

components



Nr	Component
1	body
2	nut
3	valve seal
4	valve disc
5	o-ring

Nr	Component
6	bonnet
7	double o-ring seal
8	stem
9	handwheel

check valves

Apollo check valves provide back flow prevention of piping systems and equipment, in both HVAC and general plumbing or industrial applications. There are several types of check valves depending on the application. Check valves are supplied in brass and bronze with a wide variety of connections.

advantages of Apollo check valves

- pressure rating up to 16 bar
- available as inline type or swing type check valve
- available with female or male threaded connections, union connections or VSH XPress and VSH PowerPress® adapters as well as with VSH Shurjoint grooved connections, facilitating heat free connection technology
- suitable for heating and cooling applications
- metal seated or soft seated
- low pressure drop

function and operation

Check valves prevent backflow and are used where flow is only in one direction. Check valves operate either on gravity, pressure difference or a combination of those.

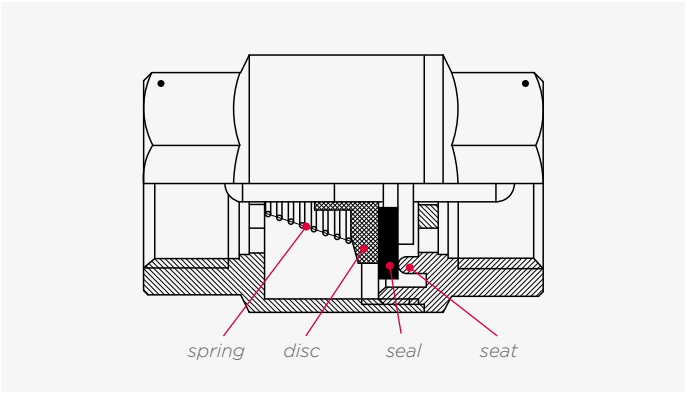
types of check valves

swing check valve

This type of check valve is a commonly used valve type. The disc rotates on an axis and is opened by flow pressure. If the flow stops or reverses, the disc will automatically drop and the valve will be closed. The valve can be orientated both in horizontal and vertical piping systems. Notice that the flow direction for vertical flow must be upwards. The swing check valve has a simple and robust construction.

spring check valve

The spring type check valve is a very compact valve and operates as follows: The disc is opened by the pressure of the flow. When the valve opens the spring is compressed. In case of pressure loss or return flow the disc will be forced to close by the spring.

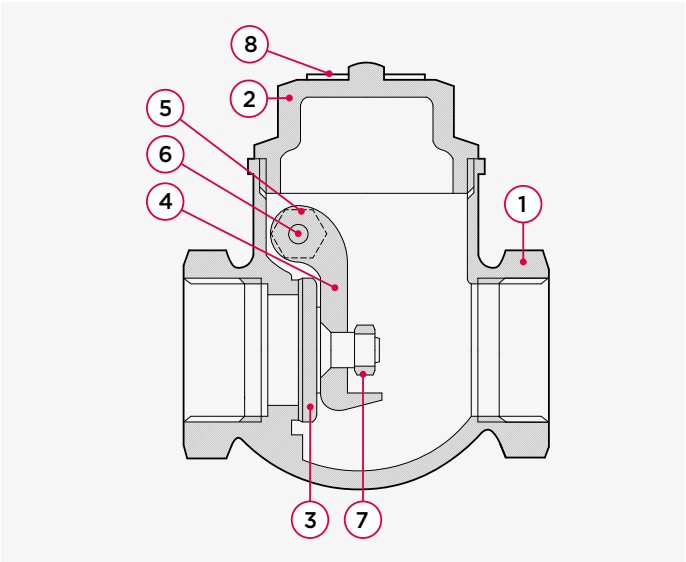


spring check valve principle

In case of very low pressure drops the spring helps the disc to close. Disadvantage of this valve type is, that it might get stuck due to the influence of dirt. Spring check valves can be mounted both in horizontal and vertical position.

components

Swing check valves consists of the following main components:



Nr	Component
1	body
2	cap
3	valve
4	swinger

Nr	Component
5	swinger pin cap
6	swinger pin
7	nut
8	rating disk

gate valves

Apollo gate valves are metal seated valves and provide isolation of piping systems and equipment in both HVAC and general plumbing or industrial applications. Gate valves are always supplied as a full bore valve, providing minimal flow resistance. Gate valves are supplied in brass.

advantages of the Apollo gate valves

- pressure rating up to 16 bar
- large size range, up to 4" (DN100)
- bi-directional
- metal seated
- available with female thread or VSH XPress connections, facilitating heat free press connection technology
- suitable for heating and cooling applications

function and operation

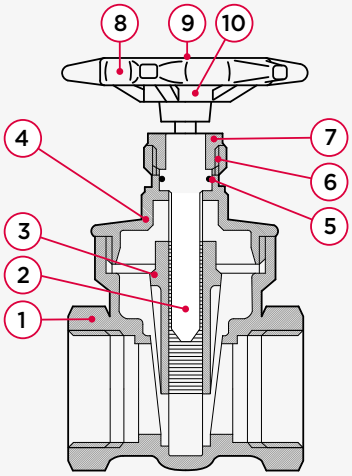
The obturator of a gate valve is a wedge shaped gate. When the valve is in the open position and the handwheel is turned clockwise, the wedge will slowly move down going into the path of the flow. The closed position is reached when the wedge makes contact with the seats. By turning the handwheel counter-clockwise the wedge is lifted up, out of the flow path.

operator with lockshield

Gate valves are operated by a handwheel and are also available with a lockshield to prevent unauthorized operation. To operate the lockshield valve, a special key is needed.

components

gate valves consist of the following main components:



Nr	Component
1	body
2	stem
3	wedge
4	bonnet
5	gland packing

Nr	Component
6	gland
7	gland nut
8	handwheel
9	handwheel nut
10	rating disc

strainers

Apollo strainers are used for filtration in piping systems and are therefore suitable for protecting equipment in both HVAC and general plumbing or industrial applications. Apollo strainers are supplied in either brass or bronze.

advantages of the Apollo strainers

- pressure rating up to 16 bar
- with stainless steel mesh
- available with female or male threaded connections, union connections, flanged connections or VSH XPress and VSH PowerPress® adapters, facilitating heat free press connection technology
- suitable for heating and cooling applications

function and operation

Strainers are used for filtration of particles in liquids or gasses and therefore protect equipment. The Y-type strainer consists of a body, a filter element and a cap

particles or debris in the liquid or gas flowing through the valve are filtered by the mesh and collected inside the filter element. The mesh can be removed and cleand/exchanged by unscrewing the body cap. Beware that it can only be removed when the system is depressured or drained or when the strainer is blocked-in by nearby valves.

mesh size

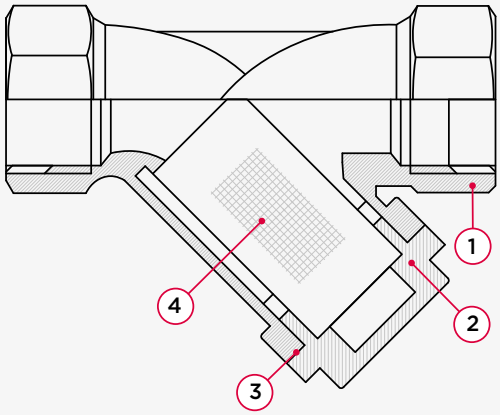
the openings in the screen have a certain dimension which is called the mesh size, given in fractional inches and millimeters and/or microns.

There is also a so called mesh number, which is not the same as the mesh size. For example, a mesh size of 1/32" or 0.8 mm is referred to as mesh number 20. Mesh numbers from 20 to 40 are mostly used.

mesh number	gap dimension [mm]	gap dimension [inch]
20	0.74	0.030
30	0.50	0.020
40	0.40	0.015
60	0.25	0.010
80	0.20	0.008
100	0.15	0.006
120	0.125	0.005
150	0.10	0.0039
200	0.076	0.0030

components

Strainers consist of the following main components:



Nr	Component
1	body
2	cap

Nr	Component
3	gasket
4	mesh

Apollo Valves

technical data

technical characteristics

ball valves

VSH XPress FullFlow Carbon ball valves

features
The valve is full bore and has a quarter turn handle. The stem is equipped with a double o-ring seal to prevent leakage.

materials
The body and valve internals are made of carbon steel (P235GH). The stem is made from stainless steel and the ball is made from brass. The valve seats are made of PTFE. The handle is made from nylon with a stainless steel reinforcement.

markings

on valve body:	branding, pressure rating (PN), size (DN)
on handle:	open/close indicator; branding/ connection type
on stem:	QR code representing serial number

connections
- VSH XPress connections (M-profile)
- female thread connections
- union adapters

Ball valves are also available with combinations of the connections mentioned above such as press x union, press x female thread etc.

extended stem
VSH XPress FullFlow Carbon ball valves are available with standard or extended stem

VSH XPress FullFlow Stainless ball valves

features
The valve is full bore and has a quarter turn handle. The stem is equipped with a double o-ring seal to prevent leakage.

materials
The body and valve internals are made of stainless steel (1.4401). The stem and ball are made from stainless steel. The handle is made from nylon with a stainless steel reinforcement.

markings

on valve body:	branding, pressure rating (PN), size (DN)
on handle:	open/close indicator; branding/ connection type
on stem:	QR code representing serial number

connections
- VSH XPress connections (M-profile)
- female thread connections
- union adapters

Ball valves are also available with combinations of the connections mentioned above such as press x union, press x female thread etc.

extended stem
VSH XPress FullFlow Stainless ball valves are available with standard or extended stem

Apollo PB550 ball valves

features
The valve is full bore. The stem is equipped with a double o-ring seal to prevent leakage.

materials
The body and valve internals are made of dezincification resistant brass CW602N. The valve seats are made out of PTFE.

handles
PB550: The handle is made from zinc plated steel with a PVC sleeve. The handle is equipped with a locking device and can be locked via a padlock.

PB550T: The T-handle is made from an aluminium alloy for insulation purposes.

PB550EL: The extended handle is made from zinc plated steel with a PVC sleeve. The handle is equipped with a locking device and can be locked via a padlock.

markings

on valve body:	pressure rating (PN) and size (DN)
on handle:	open/close indicator

connections
- female or male thread connections
- compression end connections
- VSH XPress connections (M-profile)
- VSH PowerPress® connections (DW-profile)
- VSH SmartPress connections (V-profile (ASP))
- VSH Shurjoint groove connections
- union adapters
- flange connections

Apollo PB100 ball valve

features
The valve is full bore. The stem is equipped with a single o-ring seal to prevent leakage.

materials
The body and valve internals are made brass CW617N. The valve seats are made out of PTFE.

markings

on valve body:	pressure rating (PN) and size (DN)
on handle:	open/close indicator

connections
- female threaded connections

Apollo PB300T ball valve

features
The valve is suitable for flow shut off and is full bore. The stem is equipped with a double o-ring seal to prevent leakage.

materials
The body and valve internals of the PB300T ball valve are made of brass CW617N. The valve seats are made out of PTFE. The T handle is made from aluminum alloy.

markings

on valve body:	pressure rating (PN) and size (DN)
on handle	open/close indicator

connections
- compression end connections

Apollo balancing valves

Apollo ProFlow 1260 static balancing valve (FODRV)

features
suitable for balancing, pre-set adjusted flow, measurement and flow shut off. The valve has a non-rising stem and handwheel with a position indicator with 80 setting positions. The valve is equipped with two test points for flow measurement. The valve provides a linear flow characteristic and has a memory stop.

materials
The body and valve internals are made of dezincification resistant brass CW511L. The valve seats are made of PTFE. The handwheel is made from 30% glass filled PA 66.

markings

on valve body:	pressure rating (PN) and dimension (DN), flow direction
on handwheel:	open/close indicator, setpoint indicator

connections
- female thread connections
- VSH XPress connections (M-profile)
- VSH PowerPress® connections (DW-profile)
- union adapters

Apollo ProFlow V955 static balancing valve (FODRV)

features
suitable for balancing, pre-set adjusted flow, measurement and flow shut off. The valve has a non-rising stem and handwheel with a position indicator with 8 setting positions. The valve is equipped with two test points for flow measurement.

materials
The body is made of ductile iron EN-GJS-400-15, the valve internals are made of brass and stainless steel. The handwheel is made from steel

markings

on valve body:	pressure rating (PN) and dimension (DN), flow direction
on handwheel:	open/close indicator, setpoint indicator

connections
- flanges according to EN 1092-2 PN16

Apollo ProFlow 1600 dynamic balancing valve (PICV)

features
suitable for automatic, pressure independent balancing, modulating control, measurement and flow shut off. The valve is suitable for actuation and has an adjustable position indicator with 10 setting positions. The valve is equipped with two test points for differential pressure measurements.

materials
The body of the Apollo ProFlow 1600 PICV is made of dezincification resistant brass CW511L. The valve internals are made of polyphenylene sulphide (PPS).

markings

on valve body:	pressure rating (PN) and dimension (DN), setpoint indicator, flow direction
on shuttle:	symbols for ‘flush’, ‘shut-off’ and ‘dynamic operation’

connections
- female thread connections
- VSH XPress connections (M-profile)
- VSH PowerPress® connections (DW-profile)
- union adapters

Apollo butterfly valves

Apollo V905 & V906 butterfly valves

features
The V905 and V906 valves are suitable for flow shut off and can be used for flow regulation which can be set at 7 positions. The stem is equipped with an o-ring seal to prevent leakage.

operation
- Apollo V905 and V906 are equipped with a lever handle
- Apollo V905G and V906G are equipped with a worm gear with handwheel

materials
The body and valve internals are made of ductile iron, the disc is made from stainless steel. The seat is made from EPDM
The lever handles of the Apollo V905 and V906 are made from malleable iron. The gearboxes of the Apollo V905G and V906G are made from cast iron. The gearbox handwheels are made from steel

markings
on valve body: pressure rating (PN) and dimension (DN)
on gearbox: position indicator

connections
Both Apollo V905 and V906 are available in two types:
- lug type flange connection
- wafer type flange connection

Apollo stop valves

Apollo stop valves

features
The valve is a Y-type stop valve. The stem is equipped with a double o-ring seal to prevent leakage and is self-lubricating. The valve can be equipped with a rising handwheel or non-rising handle and with a drain valve

materials
The body and valve internals are made of brass. The stem and disc are made from brass. The disc seal is made of EPDM. The handwheel is made from nylon

markings
on valve body: branding, pressure rating (PN), size (DN) and flow direction arrow

connections
- female thread connections
- universal SPS® press connections (compatible with M or V profile jaws)

Apollo KFR® stop/check valves

features
The valve is a Y-type stop valve with an internal check valve. The stem is equipped with a double o-ring seal to prevent leakage and is self-lubricating. The valve can be equipped with a rising handwheel or non-rising handle and with a drain valve

materials
The body and valve internals are made of brass.. The stem and disc are made from brass. The disc seal is made of EPDM. The handwheel is made from nylon.

markings
on valve body: branding, pressure rating (PN), size (DN) and flow direction arrow
on handle: the blue insert indicates that the valve is equipped with the check valve feature

connections
- female thread connections
- universal SPS® press connections (compatible with M or V profile jaws)

Apollo check valves

Apollo 1060A swing check valve

features
The valve is suitable as backflow preventor.

materials
The body is made from bronze and the valve internals are made of brass.

markings
marking on valve body: pressure rating (PN), size (DN) and flow direction

connections
- female thread connections
- VSH XPress connections (M-profile)
- VSH PowerPress® connections (DW-profile)
- union connections

Apollo 1063 spring check valve

features
The valve is suitable as backflow preventor.

materials
The body is made from brass and the valve internals are made of plastic.

markings
marking on valve body: pressure rating (PN), size (DN) and flow direction

connections
- female thread connections
- VSH XPress connections (M-profile)
- VSH PowerPress® connections (DW-profile)
- union connections

Apollo gate valves

Apollo 1068 gate valve

features
The valve is is full bore and suitable for flow shut off.

materials
The body and valve internals are made of brass CW617. The valve is metal seated

markings
marking on valve body: pressure rating (PN), size (DN) and flow direction

connections
- female thread connections
- VSH XPress connections (M-profile)
- VSH PowerPress® connections (DW-profile)
- union adapters

Apollo strainers

Apollo 1059 strainer

features
suitable for flow filtration.

materials
The body and valve internals are made of brass CW617. The filter element is made of stainless steel AISI 304.

markings
marking on valve body: pressure rating (PN), size (DN) and flow direction

connections
- female thread connections
- VSH XPress connections (M-profile)
- VSH PowerPress® connections (DW-profile)
- union adapters

connections

Valves are part of a piping system and therefore should be connected to this system. There a number of connection types:

- threaded connections
- flanged connections
- press connections
- push connections
- compression connections
- groove connections
- welded connections

threaded connections

Threaded connections are normally used for small size connections, mostly DN50 and smaller. The advantage of threaded connections is that these are simple straight forward connections and the pipe and valve can be easily disconnected. Normally this connection type is used for non-critical applications. Most common used threaded connection is BSP (British Standard Pipe) thread.
BSP threads are identified with letters, each of which represents the type of thread and their associated standards:

G: external (male) and internal parallel (ISO 228, DIN 259) - BSPP
R: external (male) taper (ISO 7, EN 10226, BS 21, JIS B 0203) - BSPT
Rp: internal parallel (ISO 7-1, EN 10226) - BSPT
Rc: internal taper (ISO 7) – BSPT

The difference between the ISO 7 and the ISO 228 is as follows: ISO 7 is for Pipe threads where pressure-tight joints are made on the threads. ISO 228 is for pipe threads where pressure-tight joints are not made on the threads. Sealing is provided by using flat seals in suitable materials.

flanged connections

The main advantage of flanged connections is the easiness of removing or changing a valve. A valve with a flanged connection is much heavier compared to other connections. Flanged connections are widely used in all types of applications. Valves with flanged connections are available for sizes DN15 up to DN1200. Flanged connections are normalized to EN standard EN 1092-1.

press connections

The various VSH press systems consist of press fittings, tubes, valves and tools, available in four different materials: stainless steel, carbon steel, copper and cunifer. Compared to other 'cold' connection methods, VSH press systems are extremely user-friendly:

- using VSH press systems dispenses with the need for time-consuming, complicated fastening techniques, preparations and drying times, installation is faster and cleaner.
- no need to thread the tubes
- no lubrication needed for installation
- easy insertion of the tube into the fitting due to the special fitting design
- short radius bends ensure compact and space-saving installation.

the above features ensure that less special skills are required for installation and that work can be carried out in a safe environment.

advantages of VSH XPress

- available in 4 different materials
- a wide range from 12 to 108 mm, including unique intermediate sizes 64 and 66.7 mm
- clear identification of materials and dimensions
- quick installation thanks to pre-marked insertion depths
- more security with the Leak Before Pressed function
- matching professional press tools
- fully compatible with other Aalberts ips systems

advantages of VSH SudoPress

- convenient installation, time savings and safety are top priorities
- double safety with Visu-Control® ring and Leak Before Pressed function
- simple, fast connection technology
- complete piping system (carbon steel, stainless steel and copper)
- fittings and tubes from 12 to 108 mm
- handy, matching press tools
- wide range with many local approvals
- fully compatible with other Aalberts ips systems

compression connections

Compression fittings are used widely in HVAC systems. A major benefit is that compression fittings don't require special tools and allow easy disconnection and reconnection. Compression connections are mostly used in sizes up to and including 35 mm.

push connections

The VSH Tectite push is an easy to use and fast connection technology; simply slide the fitting onto the deburred pipe by hand and the connection is made. No assembly tools are required and with a handy disassembly ring or fork the fittings can be disassembled and reused. After assembly, the push fitting is permanently rotatable in the pipe, making it possible to easily align a pipe at branches and bends. This also makes VSH Tectite ideal in combination with prefab.

Advantages of VSH Tectite

- perfect assembly in small and difficult-to-reach spaces
- fast assembly without the use of tools
- tension-free assembly: pipes can be aligned
- complete pipe system in copper, brass and stainless steel
- Available in both demountable and non-demountable versions
- Ideal for combining with other systems like VSH XPress and VSH SudoPress

groove connections

VSH Shurjoint is a quality grooved piping system that makes it much easier to connect elements than with conventional joining techniques. It is less labourintensive, safer and cleaner, and the connections are of a consistently high quality. Most importantly, it is much faster than welding and fitting, meaning that VSH Shurjoint significantly cuts down on installation time and saves money in the process.

Advantages of VSH Shurjoint

- better job site safety – no welding required
- systems for steel, stainless steel, PVC and PE tubes
- very wide product range
- dimensions from ½" to 104" (DN15 – DN2600)
- design service, cost comparisons and thermal movement analysis
- fully compatible with other Aalberts ips systems
- demountable

standardization

Early in the 20th century, a start was made with standardization of valves. Nowadays most valves are standardized. Most common standard organizations are:

- EN (European committee for standardization)
- ISO (International organization for standardization)
- BSI (British standardization institute)
- NEN (Nederlands normalisatie instituut)
- DIN (Deutsches institut for Normung)
- API (American Petroleum Institute)
- ASME (American Society of mechanical engineers)

Most standards cover the face to face length, methods and requirements for strength calculation, examinations and pressure tests. For Europe, most standards are covered by EN standards, however local standards (per country) may still apply.

Notice that for some applications such as for example drinking water and natural gas additional requirements and standards may apply. These standards may vary from country to country and often require additional certification per country as well.

valve selection

main functions

Selecting the right valve is key to having a piping system that operates as efficient as possible and keep maintenance costs as low as possible. To select the right valve it's necessary to understand the construction and characteristics of a valve. The following functions are part of a valve selection

- flow isolation
- flow control
- system pressure control
- system safety
- backflow prevention

selection by function

applications

- pressure and temperature
- gas or liquid media
- corrosiveness of media
- erosiveness of media
- clean or dirty media

flow characteristics

- pressure loss over the valve
- uni or bi-directional flow
- control requirements
- leakage requirements
- safety requirements
- frequency of operation
- frequency of open/close operation
- control frequency

execution of the valve

- valve type
- construction details
- mode of operation
- material choice

other factors:

- availability of a valve
- interchangeability
- costs
- cost of ownership

overview of valves

Based on the valve function, valves can be categorized in main valve groups, see the table below

valve function			
open / close	**control**	**safety**	**other**
gate valve	stop valves	check valve	strainers
ball valve	butterfly valves	airators	sample valves
butterfly valve	static commissio-ning valves	safety valves	
stop valves	dynamic commis-sioning valves	thermal circulation valves	
diaphragm valves	pressure reducing valves		
plug valves			

Another option of valve function is the way the valve is operated, linear or quarter turn.

linear operation	**quarter turn**
stop valves	ball valve
gate valve	butterfly valve
stop valves	plug valves
static balancing valves	
diaphragm valves	

applications

potable water installations

Apollo Valves are used in potable water applications.
Certification per country may vary per valve type.

VSH XPress FullFlow Stainless

connection	VSH XPress connectors, female thread, union connectors
operating temperature	-35°C to +135°C
max. operating pressure	16 bar

Apollo PB550/PB550EL ball valve

connection	female thread
operating temperature	-10°C to +150°C
max. operating pressure	25 bar

Apollo PS550/PS550EL ball valve

connection	VSH XPress connectors
operating temperature	-10°C to +110°C
max. operating pressure	16 bar

Apollo PB500/PB500EL ball valve

connection	female thread
operating temperature	-10°C to +150°C
max. operating pressure	25 bar

Apollo PS500/PS500EL ball valve

connection	VSH XPress connections
operating temperature	-10°C to +110°C
max. operating pressure	16 bar

SEPP DIN-Basis stop valve.
With rising or non-rising handwheel, with drain valve

connection	female thread
operating temperature	-10°C to +90°C
max. operating pressure	16 bar

SEPP DIN-Basis stop check valve
with rising and non-rising handwheel, with drain valve

connection	female thread
operating temperature	-10°C to +90°C
max. operating pressure	16 bar

heating installations

Apollo ProFlow Valves are used in heating applications and are suitable for water and other neutral liquids. For media other than water, measuring corrections must be applied

Apollo ProFlow 1260 fixed orifice static balancing valve

connection	female thread
operating temperature	-10°C to +120°C
max. operating pressure	20 bar

Apollo ProFlow PP1260 fixed orifice static balancing valve

connection	VSH PowerPress® connectors
operating temperature	-10°C to +120°C
max. operating pressure	16 bar

Apollo ProFlow PS1260 fixed orifice static balancing valve

connection	VSH XPress connections
operating temperature	-10°C to +110°C
max. operating pressure	16 bar

Apollo ProFlow V955 fixed orifice static balancing valve

connection	flange
operating temperature	-10°C to +120°C
max. pressure	16 bar

Apollo ProFlow 1600 PICV (pressure independent control valve)

connection	female thread
operating temperature	-10°C to +90°C
max. operating pressure	16 bar

Apollo ProFlow PS1600 PICV (pressure independent control valve)

connection	VSH XPress connections
operating temperature	-10°C to +90°C
max. operating pressure	16 bar

VSH XPress FullFlow ball valves are used in heating applications and are suitable for water and other neutral liquids.

VSH XPress FullFlow Carbon and Stainless

connection	VSH XPress connections, female thread, union connectors
operating temperature	-35°C to +135°C
max. operating pressure	16 bar

Apollo ball valves are used in heating applications and are suitable for water and other neutral liquids.

Apollo PB550/PB550EL ball valve

connection	female thread
operating temperature	-10°C to +150°C
max. operating pressure	25 bar

Apollo PS550/PS550EL ball valve

connection	VSH XPress connections
operating temperature	-10°C to +110°C
max. operating pressure	16 bar

Apollo PB500/PS550EL ball valve

connection	female thread
operating temperature	-10°C to +150°C
max. operating pressure	25 bar

Apollo PS500/PS550EL ball valve

connection	VSH XPress connections
operating temperature	-10°C to +110°C
max. operating pressure	16 bar

Apollo PB300T

connection	compression
operating temperature	-10°C to +120°C
max. operating pressure 1	6 bar

Apollo PB100 ball valve

connection	female thread
operating temperature	-10°C to +150°C
max. operating pressure	16 bar

Apollo check valves are used in heating applications and are suitable for water and other neutral liquids.

Apollo 1060 swing check valve

connection	female thread
operating temperature	-10°C to +150°C
max. operating pressure	16 bar

Apollo PSU1060A swing check valve

connection	VSH XPress union connector
operating temperature	-10°C to +110°C
max. operating pressure	16 bar

Apollo 1063 spring check valve

connection	female thread
operating temperature	-10°C to +120°C
max. operating pressure	16 bar

1068 Apollo gate valve

connection	female thread
operating temperature	-10°C to +180°C
max. operating pressure	16 bar

Apollo PS1068 gate valve

connection	VSH XPress connections
operating temperature	-10°C to +180°C
max. operating pressure	16 bar

cooling installations

Apollo ProFlow Valves are used in cooling applications and are suitable for water and other neutral liquids. For media other than water, measuring corrections must be applied

Apollo ProFlow 1260 fixed orifice static balancing valve

connection	female thread
operating temperature	-10°C to +120°C
max. operating pressure	20 bar

Apollo ProFlow PP1260 fixed orifice static balancingvalve

connection	VSH PowerPress® connectors
operating temperature	-10°C to +120°C
max. operating pressure	16 bar

Apollo ProFlow PS1260 fixed orifice static balancing valve

connection	VSH XPress connections
operating temperature	-10°C to +110°C
max. operating pressure	16 bar

Apollo ProFlow V955 fixed orifice static balancing valve

connection	flange
operating temperature	-10°C to +120°C
max. pressure	16 bar

Apollo ProFlow 1600 PICV (pressure independent control valve)

connection	female thread
operating temperature	-10°C to +90°C
max. operating pressure	16 bar

Apollo ProFlow PS1600 PICV (pressure independent control valve)

connection	VSH XPress connections
operating temperature	-10°C to +90°C
max. operating pressure	16 bar

Apollo ball valves are used in cooling applications and are suitable for water and other neutral liquids. For media other than water, measuring corrections must be applied

VSH XPress FullFlow Carbon and Stainless

connection	VSH XPress connections, female thread, union connectors
operating temperature	-35°C to +135°C
max. operating pressure	16 bar

VSH XPress FullFlow ball valves are used in cooling applications and are suitable for water and other neutral liquids. For media other than water, measuring corrections must be applied

Apollo PB550/PB550EL ball valve

connection	female thread
operating temperature	-10°C to +150°C
max. operating pressure	25 bar

Apollo PS550/PS550EL ball valve

connection	VSH XPress connections
operating temperature	-10°C to +110°C
max. operating pressure	16 bar

Apollo PB500/PB500EL ball valve

connection	female thread
operating temperature	-10°C to +150°C
max. operating pressure	25 bar

Apollo PS500/PS500EL ball valve

connection	VSH XPress connections
operating temperature	-10°C to +110°C
max. operating pressure	16 bar

Apollo PB300T

connection	VSH Super compression
operating temperature	-10°C to +120°C
max. operating pressure 1	6 bar

Apollo PB100 ball valve

connection	female thread
operating temperature	-10°C to +150°C
max. operating pressure	16 bar

Apollo check valves are used in heating applications and are suitable for water and other neutral liquids.

Apollo 1060 swing check valve

connection	female thread
operating temperature	-10°C to +150°C
max. operating pressure	16 bar

Apollo PSU1060A swing check valve

connection	VSH XPress union connector
operating temperature	-10°C to +110°C
max. operating pressure	16 bar

Apollo 1063 spring check valve

connection	female thread
operating temperature	-10°C to +120°C
max. operating pressure	16 bar

Apollo gate valves are used in heating applications and are suitable for water and other neutral liquids.

1068 Apollo gate valve

connection	female thread
operating temperature	-10°C to +180°C
max. operating pressure	16 bar

Apollo PS1068 gate valve

connection	VSH XPress connections
operating temperature	-10°C to +180°C
max. operating pressure	16 bar

compressed air installations

Apollo ProFlow Valves are used in compressed air applications. Suitability is based on the ISO 8573 conditions for water and oil content as per table below.

class	water content [mg/m³]	oil content [mg/m³]	o-ring
1	3	0.01	EPDM/HNBR
2	120	0.1	EPDM/HNBR
3	880	1	EPDM/HNBR
4	6000	5	EPDM/HNBR
5	7800	25	EPDM/HNBR
6	9400	>25	FPM (green)/HNBR

compressed air and iso classification - o-ring to be used

VSH XPress FullFlow Stainless

connection	VSH XPress connections, female thread, union connectors
operating temperature	-35°C to +135°C
max. operating pressure	16 bar
suitabilty	up to and including class 5

VSH XPress FullFlow Carbon

connection	VSH XPress connections, female thread, union connectors
operating temperature	-35°C to +135°C
max. operating pressure	16 bar
suitabilty	water content up to and including class 3 oil content up to and including class 5

Apollo PB550/PB550EL ball valve

connection	female thread
operating temperature	-10°C to +150°C
max. operating pressure	25 bar
suitabilty	up to and including class 6

Apollo PS550/PS550 EL ball valve

connection	VSH XPress connections
operating temperature	-10°C to +110°C
max. operating pressure	16 bar
suitabilty	up to and including class 5

Apollo PB500/PB500EL ball valve

connection	female thread
operating temperature	-10°C to +150°C
max. operating pressure	25 bar
suitabilty	up to and including class 6

Apollo PS500/PS500EL ball valve

connection	VSH XPress connections
operating temperature	-10°C to +110°C
max. operating pressure	16 bar
suitabilty	up to and including class 5

Apollo PB300T

connection	compression
operating temperature	-10°C to +120°C
max. operating pressure	16 bar
suitabilty	up to and including class 5

Apollo PB100 ball valve

connection	female thread
operating temperature	-10°C to +150°C
max. operating pressure	16 bar
suitabilty	up to and including class 5

Apollo 1060 swing check valve

connection	female thread
operating temperature	-10°C to +150°C
max. operating pressure	16 bar
suitabilty	up to and including class 6

Apollo PSU1060A swnig check valve

connection	VSH XPress union connectionsoperating
temperature	-10°C to +110°C
max. operating pressure	16 bar
suitabilty	up to and including class 5

Apollo 1063 spring check valve

connection	female thread
operating temperature	-10°C to +120°C
max. operating pressure	16 bar
suitabilty	up to and including class 5

Compressed air piping systems must be properly tested as soon as the installation work is finished. The system designer and installation contractor must ensure safe methods are selected for testing the system. The methods must comply with all current health and safety regulations. They may include testing compressed air lines with fluids or compressed air at a specific pressure, or a combination of both. We recommend that the maximum working pressure of the product is not exceeded during this process.

Since 30 May 2002, most pressure equipment and installations on the market have had to comply with the Pressure Equipment Directive (PED) 1999. The Directive concerns items such as vessels, pressurized storage containers, heat exchangers, steam generators, boilers, industrial piping, safety equipment and pressure accessories.

Please note that Article 3(3) of the PED applies to VSH XPress. This means that only sound design and safe instructions for use and maintenance are required.

installation guidelines

general

Unpack the valve and before installation, check the body markings and nameplate to ensure that the correct valve has been selected for the intended purpose. Make sure that the piping system to which the valve is connected to, is clean and free from debris. Apollo alves are manufactured to exact standards and therefore should not be subjected to misuse.

Take notice of the following before installing any Apollo valve:

- avoid careless handling of the valve (valves should not be lifted using the handwheel or operation handle)
- remove any objects inside the valve
- check that the flow paths, end ports and valve threads are clean and free from debris.
- avoid excessive force during assembly

hangers

Use suitable hangers close to the valve in order to remove stress transmitted by the tube. Hangers should not be placed on the valves themselves.

thread connections

Confirm that the tube thread length is correct to avoid excessive penetration of the tube into the valve, which can cause damage. Threads should be engaged correctly when tightening the valve onto the tube. A wrench should always be fitted on the body end adjacent to the joint being made. Severe damage can occur to stems, valves and seats by the use of gear operators or levers larger than those originally supplied by the manufacturer and by wheel keys.

jointing compounds

Care should be taken when jointing compound is applied to the tube ends only and not on the valve thread connections. A surplus of compound will be forced outwards and not enter the valve. Overuse of jointing compound can lead to failure on the valve connections.

VSH XPress connections

Apollo Valves with VSH XPress connectors are suitable for carbon steel, stainless steel and copper tube and should be used with corresponding tubes (carbon to carbon, stainless to stainless, copper to copper).
VSH XPress connections are equipped with the 'Leak Before Press'. Full instructions for jointing press connections are available in the VSH XPress technical manual.

VSH PowerPress® connections

Apollo Valves with VSH PowerPress® connectors are suitable for carbon steel and should be used with corresponding tubes.
VSH PowerPress® connections are equipped with the 'Leak Before Press'. Full instructions for jointing press connections are available in the VSH PowerPress® technical manual.

operation space

When installing a valve, make sure that there is sufficient space to operate the valve, especially in case of Apollo Valves with lever handles, handwheels and Seppefricke stop valves with a rising stem.

flow direction

bi-directional flow path

Apollo ball and gate valves are bi-directional, there is no mandatory direction of flow.

uni-directionall flow path

Apollo check valves, Seppelfricke stop valves and Apollo strainers are uni-directional, the flow direction is indicated by an inscripted arrow on the valve body.

operation

Apollo Ball valves

Ball valves are operated by pivoting the lever or handle 90 degrees. Counter-clockwise operation will open the valve, clockwise pivoting will close the valve. In case the valve has a locking device, make sure the handle or lever is unlocked. Ball valves are intended to be either in the fully open or fully closed position. Excessive force during operation might damage the valve.

Apollo Gate valves

Gate valves are operated by rotating the handwheel. Counter-clockwise operation will open the valve, clockwise rotation of the handwheel will close the valve. Gate valves are intended to be either in the fully open or fully closed position. Excessive force during operation might damage the valve.

Apollo Stop valves

Stop valves are operated by a handwheel. Counter-clockwise operation will open the valve, clockwise rotation will close the valve. Excessive force during operation might damage the valve. 'KFR' stop valves have an integrated check valve. Flow pressure differences will open or close the valve.

Apollo Check valves

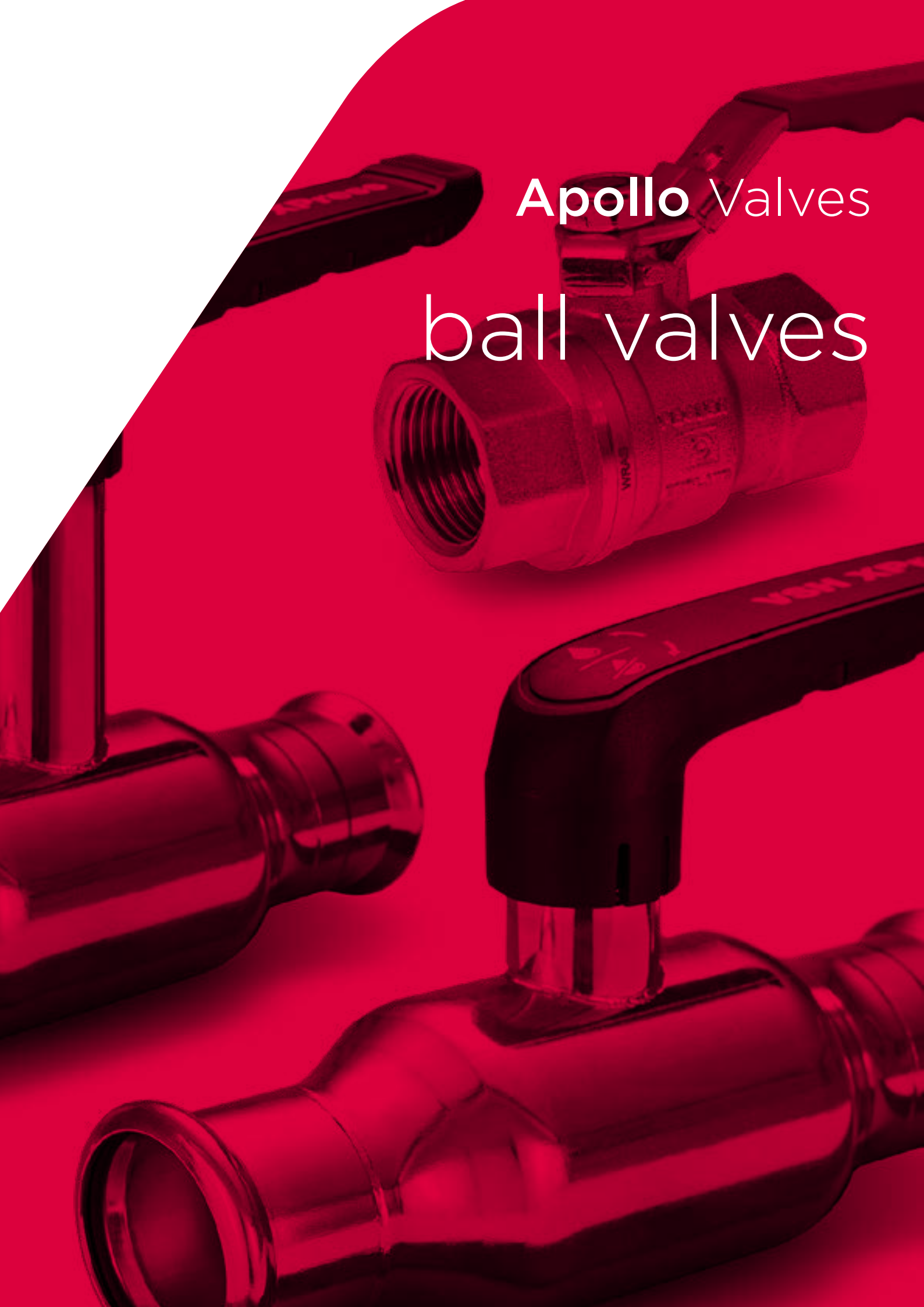
Check valves are self-operating and do not have an external operator. The flow pressure differences in the valve will open or close the check valve.

Apollo Strainers

Strainers do not have an operator. Dirt and debris might lead to pressure loss. In case of a fully clogged mesh inside the strainer. the flow might even get fully restricted. In that case cleaning the mesh element is necessary.

Apollo Valves

ball valves

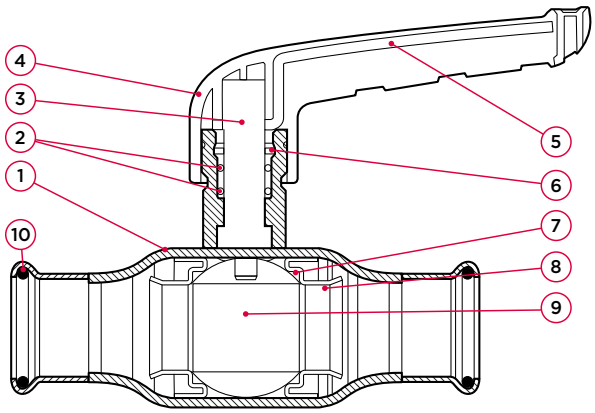


XPR10100 VSH XPress FullFlow Carbon ball valve

(2 x press)

specifications

- 100% full flow
- compact, one piece design
- maximum pressure 16 bar
- operating temperature -35 to 135°C
- interchangeable coloured indentification clips
- M-profile

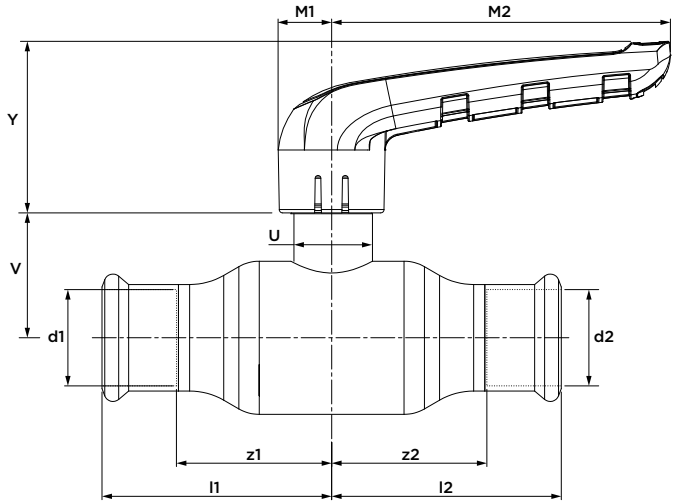


no.	component	material
1	body	carbon steel (P235GH)
2	o-ring	EPDM
3	stem	stainless steel (1.4401)
4	handle	fiberglass reinforced nylon (PA66)
5	handle reinforcement	carbon steel
6	friction ring	PTFE
7	seal	PTFE
8	support ring	stainless steel
9	ball	brass
10	o-ring	EPDM

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

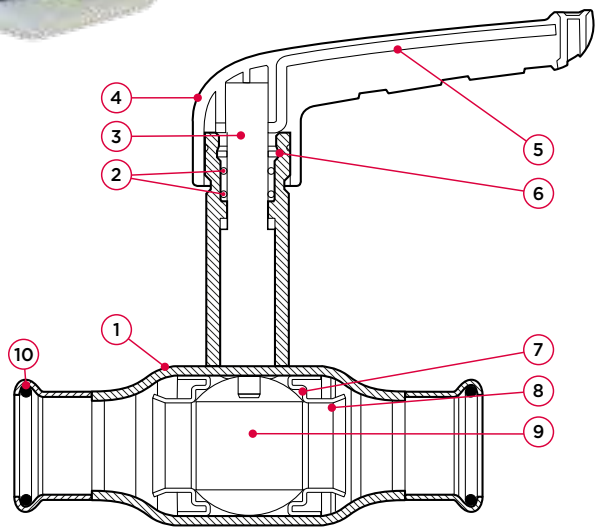
pressure equipment directive category	
all sizes	SEP



dimension		article no.	weight [kg]	Kvs [m³/h]	l1/l2	z1/z2	Y	V	U	M1	M2
15	(DN10)	101 0000 100	0.17	13	47	27	38	26	18	12	75
18	(DN15)	101 5000 100	0.21	21.1	52	32	38	28	18	12	75
22	(DN20)	102 0000 100	0.21	37.1	61	40	38	31	18	12	75
28	(DN25)	102 5000 100	0.55	65.5	68	45	50	37	24	15	100
35	(DN32)	103 2000 100	0.86	90.7	81	55	50	43	24	15	100
42	(DN40)	104 0000 100	1.39	141.5	99	70	59	47	28	18	119
54	(DN50)	105 0000 100	2.32	308.4	113	79	59	55	28	18	119

XPR10101 VSH XPress FullFlow Carbon valve with extended stem

(2 x press)



specifications

- 100% full flow
- compact, one piece design
- maximum pressure 16 bar
- operating temperature -35 to 135°C
- interchangeable coloured indentification clips
- M-profile

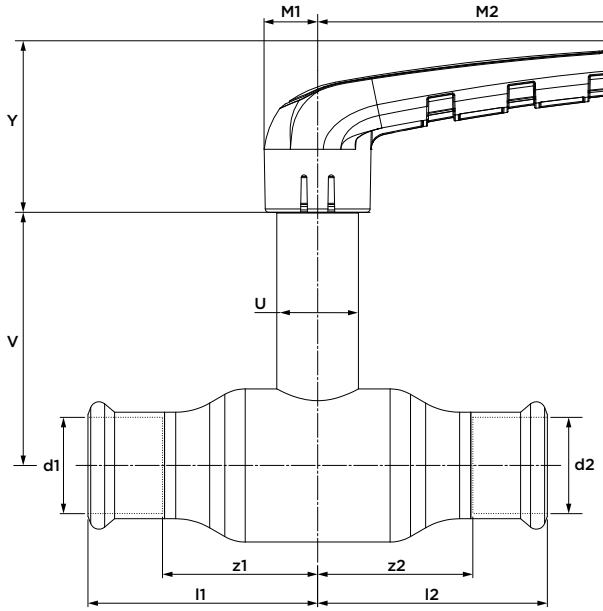
no.	component	material
1	body	carbon steel (P235GH)
2	o-ring	EPDM
3	stem	stainless steel (1.4401)
4	handle	fiberglass reinforced nylon (PA66)
5	handle reinforcement	carbon steel
6	friction ring	PTFE
7	seal	PTFE
8	support ring	stainless steel
9	ball	brass
10	o-ring	EPDM

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category

all sizes	SEP



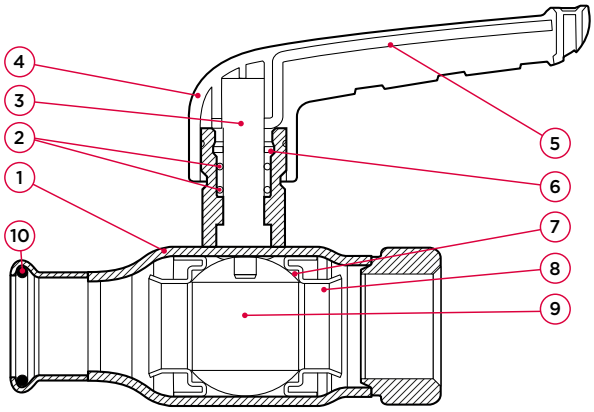
dimension		article no.	weight [kg]	Kvs [m³/h]	l1/l2	z1/z2	Y	V	U	M1	M2
15	(DN10)	101 0000 101	0.25	13	47	27	38	68	18	12	75
18	(DN15)	101 5000 101	0.29	21.1	52	32	38	70	18	12	75
22	(DN20)	102 0000 101	0.30	37.1	61	40	38	73	18	12	75
28	(DN25)	102 5000 101	0.68	65.5	68	45	50	74	24	15	100
35	(DN32)	103 2000 101	0.99	90.7	81	55	50	80	24	15	100
42	(DN40)	104 0000 101	1.62	141.5	99	70	59	98	28	18	119
54	(DN50)	105 0000 101	2.55	308.4	113	79	59	106	28	18	119

XPR11000 VSH XPress FullFlow Carbon ball valve

(press x female thread)

specifications

- carbon steel
- 100% full flow
- compact, one piece design
- maximum pressure 16 bar
- operating temperature -35 to 135°C
- interchangeable coloured indentification clips
- M-profile

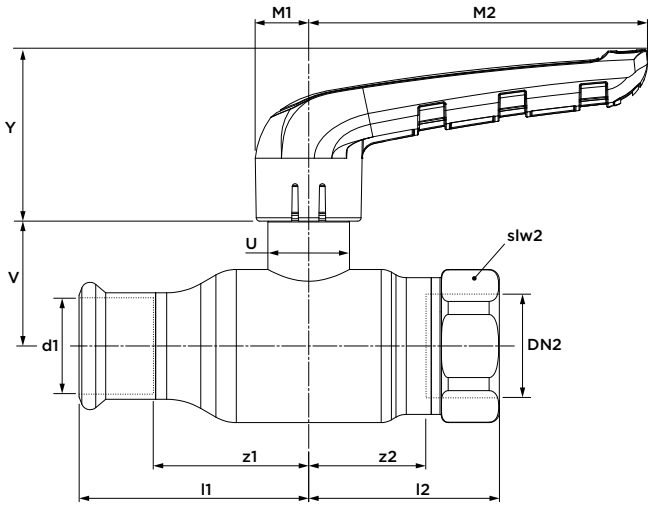


no.	component	material
1	body	carbon steel (P235GH)
2	o-ring	EPDM
3	stem	stainless steel (1.4401)
4	handle	fiberglass reinforced nylon (PA66)
5	handle reinforcement	carbon steel
6	friction ring	PTFE
7	seal	PTFE
8	support ring	stainless steel
9	ball	brass
10	o-ring	EPDM

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

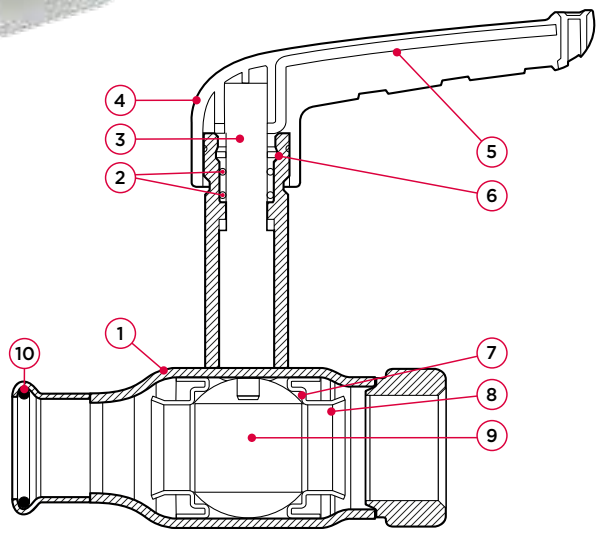
pressure equipment directive category	
all sizes	SEP

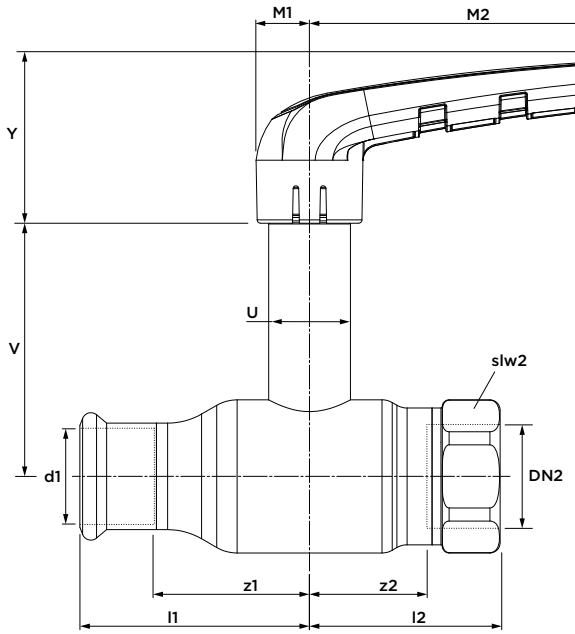


dimension		article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw2	Y	V	U	M1	M2
15 x G1"/2"	(DN10)	101 0001 010	0.19	13	47	38	28	27	27	38	26	18	12	75
18 x G¾"	(DN15)	101 5001 010	0.25	21.1	52	43	32	32	32	38	28	18	12	75
22 x G¾"	(DN20)	102 0001 000	0.30	37.1	61	52	40	36	36	38	31	18	12	75
28 x G1"	(DN25)	102 5001 000	0.61	65.5	68	56	45	37	41	50	37	24	15	100
35 x G1¼"	(DN32)	103 2001 000	0.97	90.7	81	67	55	46	50	50	43	24	15	100
42 x G1½"	(DN40)	104 0001 000	1.53	141.5	99	78	69	57	56	59	47	28	18	119
54 x G2"	(DN50)	105 0001 000	2.62	308.4	113	96	79	69	69	59	55	28	18	119

XPR11001 VSH XPress FullFlow Carbon ball valve with extended stem

(press x female thread)





specifications

- carbon steel
- 100% full flow
- compact, one piece design
- maximum pressure 16 bar
- operating temperature -35 to 135°C
- interchangeable coloured indentification clips
- M-profile

no.	component	material
1	body	carbon steel (P235GH)
2	o-ring	EPDM
3	stem	stainless steel (1.4401)
4	handle	fiberglass reinforced nylon (PA66)
5	handle reinforcement	carbon steel
6	friction ring	PTFE
7	seal	PTFE
8	support ring	stainless steel
9	ball	brass
10	o-ring	EPDM

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category

all sizes	SEP

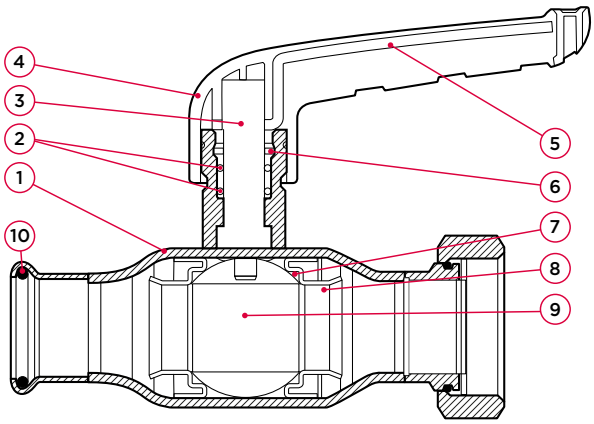
dimension		article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw2	Y	V	U	M1	M2
15 x G1"/2"	(DN10)	101 0001 011	0.28	13	38	47	27	28	27	38	68	18	12	75
18 x G¾"	(DN15)	101 5001 011	0.33	21.1	43	52	32	32	32	38	70	18	12	75
22 x G¾"	(DN20)	102 0001 001	0.38	37.1	52	61	36	40	36	38	73	18	12	75
28 x G1"	(DN25)	102 5001 001	0.74	65.5	56	68	37	45	41	50	74	24	15	100
35 x G1¼"	(DN32)	103 2001 001	1.11	90.7	67	81	46	55	50	50	80	24	15	100
42 x G1½"	(DN40)	104 0001 001	1.75	141.5	78	99	57	69	56	59	98	28	18	119
54 x G2"	(DN50)	105 0001 001	2.84	308.4	96	113	69	79	69	59	106	28	18	119

XPR11400 VSH XPress FullFlow Carbon ball valve

(press x union)

specifications

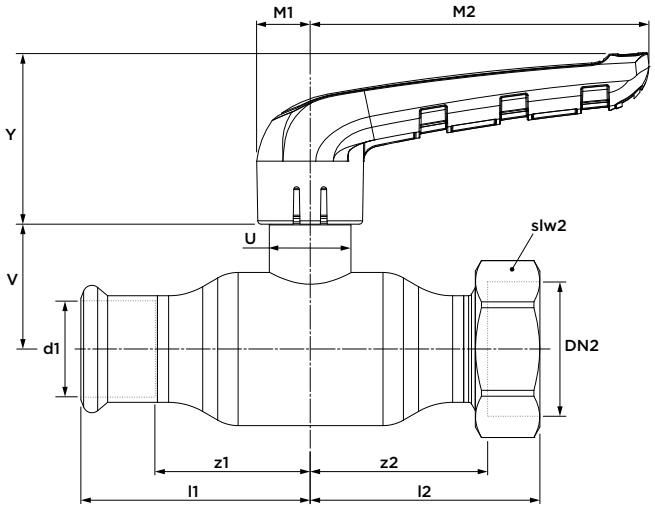
- 100% full flow
- compact, one piece design
- maximum pressure 16 bar
- operating temperature -35 to 135°C
- interchangeable coloured indentification clips
- M-profile



no.	component	material
1	body	carbon steel (P235GH)
2	o-ring	EPDM
3	stem	stainless steel (1.4401)
4	handle	fiberglass reinforced nylon (PA66)
5	handle reinforcement	carbon steel
6	friction ring	PTFE
7	seal	PTFE
8	support ring	stainless steel
9	ball	brass
10	o-ring	EPDM

maximum pressure [bar]		
operating pressure	**test pressure shell**	**test pressure seat**
16	24	17.6

pressure equipment directive category	
all sizes	SEP



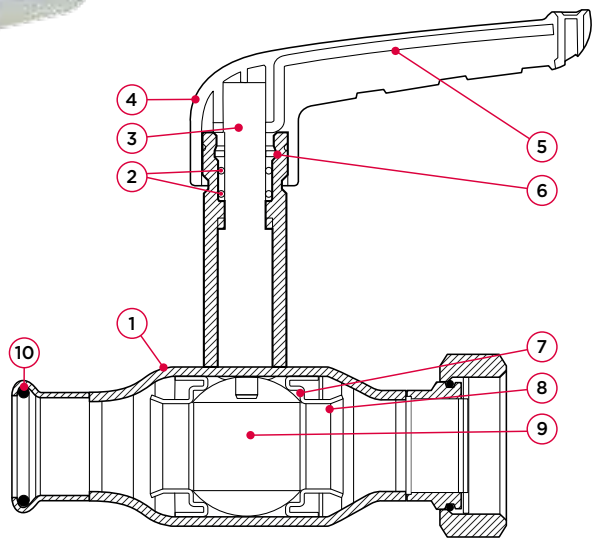
dimension		article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw2	Y	V	U	M1	M2
15 x G¾"	(DN10)	101 0001 410	0.22	13	47	59	28	49	27	38	26	18	12	75
18 x G¾"	(DN15)	101 5001 400	0.26	21.1	52	53	32	44	32	38	28	18	12	75
22 x G¾"	(DN20)	102 0001 410	0.28	37.1	61	72	41	62	32	38	31	18	12	75
28 x G1¼"	(DN25)	102 5001 400	0.65	65.5	68	67	46	55	46	50	37	24	15	100
35 x G1½"	(DN32)	103 2001 400	0.97	90.7	81	79	56	67	52	50	43	24	15	100
42 x G1¾"	(DN40)	104 0001 400	1.51	141.5	99	92	70	81	58	59	47	28	18	119
54 x G2¼"	(DN50)	105 0001 400	2.57	308.4	113	106	79	93	72	59	55	28	18	119

XPR11401 VSH XPress FullFlow Carbon ball valve with extended stem

(press x union)

specifications

- 100% full flow
- compact, one piece design
- maximum pressure 16 bar
- operating temperature -35 to 135°C
- interchangeable coloured indentification clips
- M-profile

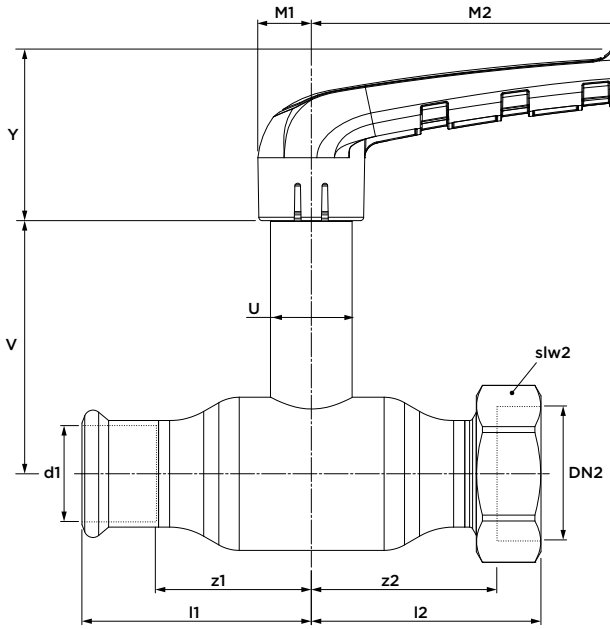


no.	component	material
1	body	carbon steel (P235GH)
2	o-ring	EPDM
3	stem	stainless steel (1.4401)
4	handle	fiberglass reinforced nylon (PA66)
5	handle reinforcement	carbon steel
6	friction ring	PTFE
7	seal	PTFE
8	support ring	stainless steel
9	ball	brass
10	o-ring	EPDM

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP



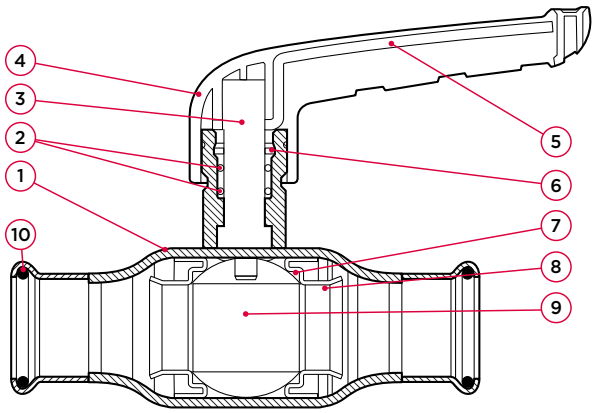
dimension		article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw2	Y	V	U	M1	M2
15 x G¾"	(DN10)	101 0001 411	0.30	13	47	59	28	49	27	38	68	18	12	75
18 x G¾"	(DN15)	101 5001 401	0.35	21.1	52	53	32	44	32	38	70	18	12	75
22 x G¾"	(DN20)	102 0001 411	0.36	37.1	61	72	41	62	32	38	73	18	12	75
28 x G1¼"	(DN25)	102 5001 401	0.78	65.5	68	67	46	55	46	50	74	24	15	100
35 x G1½"	(DN32)	103 2001 401	1.11	90.7	81	79	56	67	52	50	80	24	15	100
42 x G1¾"	(DN40)	104 0001 401	1.73	141.5	99	92	70	81	58	59	98	28	18	119
54 x G2¼"	(DN50)	105 0001 401	2.79	308.4	113	106	79	93	72	59	106	28	18	119

XPR20100 VSH XPress FullFlow Stainless ball valve

(2 x press)

specifications

- 100% full flow
- compact, one piece design
- maximum pressure 16 bar
- operating temperature -35 to 135°C
- interchangeable coloured indentification clips
- M-profile

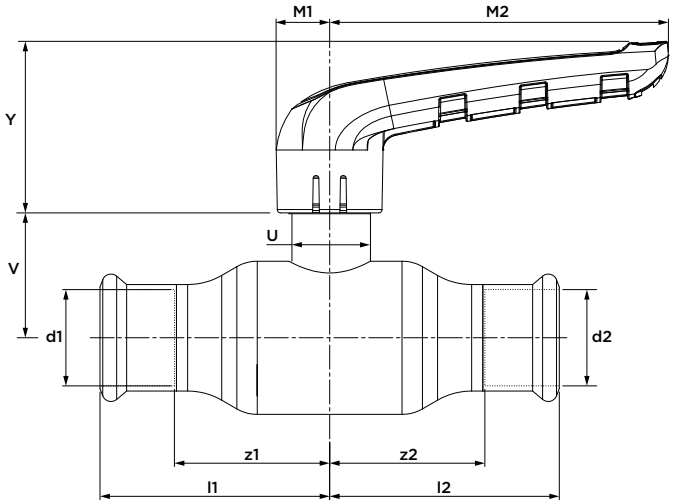


no.	component	material
1	body	stainless steel (1.4401)
2	o-ring	EPDM
3	stem	stainless steel (1.4401)
4	handle	fiberglass reinforced nylon (PA66)
5	handle reinforcement	stainless steel (1.4401)
6	friction ring	PTFE
7	seal	PTFE
8	support ring	stainless steel (1.4401)
9	ball	stainless steel (1.4401)
10	o-ring	EPDM

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP



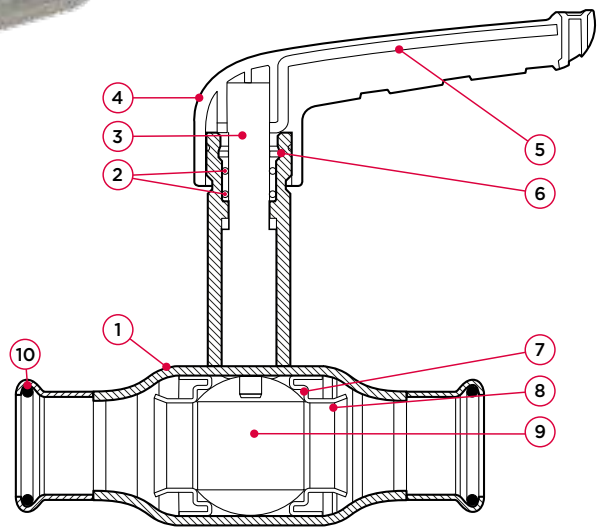
dimension		article no.	weight [kg]	Kvs [m³/h]	l1/l2	z1/z2	Y	V	U	M1	M2
15	(DN10)	201 0000 100	0.17	13	47	27	38	26	18	12	75
18	(DN15)	201 5000 100	0.21	21.1	52	32	38	28	18	12	75
22	(DN20)	202 0000 100	0.21	37.1	61	40	38	31	18	12	75
28	(DN25)	202 5000 100	0.55	65.5	68	45	50	37	24	15	100
35	(DN32)	203 2000 100	0.86	90.7	81	55	50	43	24	15	100
42	(DN40)	204 0000 100	1.39	141.5	99	70	59	47	28	18	119
54	(DN50)	105 0000 100	2.32	308.4	113	79	59	55	28	18	119

XPR20101 VSH XPress FullFlow Stainless ball valve with extended stem

(2 x press)

specifications

- 100% full flow
- compact, one piece design
- maximum pressure 16 bar
- operating temperature -35 to 135°C
- interchangeable coloured indentification clips
- M-profile

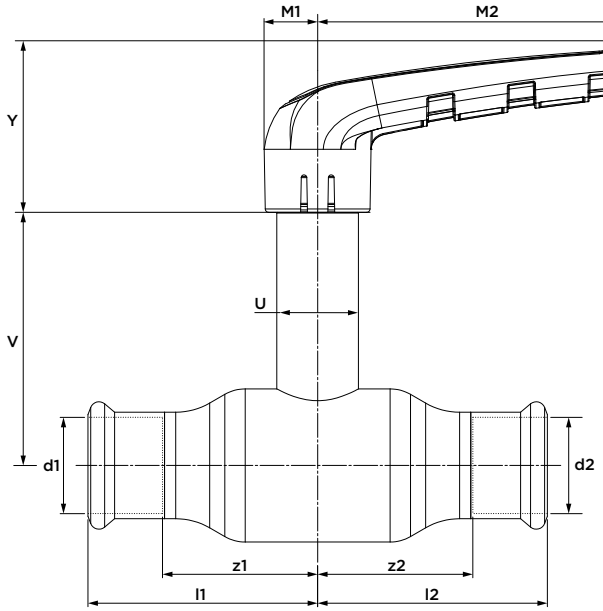


no.	component	material
1	body	stainless steel (1.4401)
2	o-ring	EPDM
3	stem	stainless steel (1.4401)
4	handle	fiberglass reinforced nylon (PA66)
5	handle reinforcement	stainless steel (1.4401)
6	friction ring	PTFE
7	seal	PTFE
8	support ring	stainless steel (1.4401)
9	ball	stainless steel (1.4401)
10	o-ring	EPDM

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP



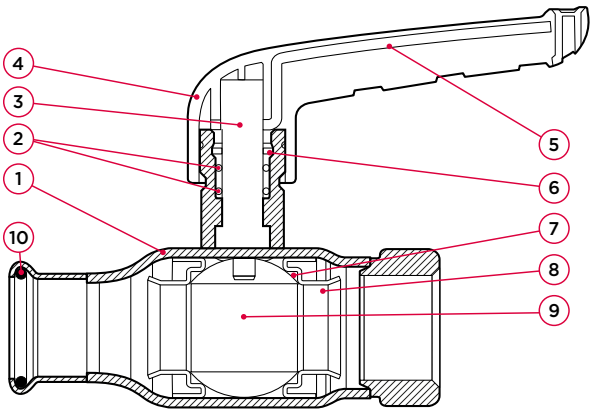
dimension.		article no.	weight [kg]	Kvs [m³/h]	l1/l2	z1/z2	Y	V	U	M1	M2
15	(DN10)	201 0000 101	0.25	13	47	27	38	68	18	12	75
18	(DN15)	201 5000 101	0.29	21.1	52	32	38	70	18	12	75
22	(DN20)	202 0000 101	0.30	37.1	61	40	38	73	18	12	75
28	(DN25)	202 5000 101	0.68	65.5	68	45	50	74	24	15	100
35	(DN32)	203 2000 101	0.99	90.7	81	55	50	80	24	15	100
42	(DN40)	204 0000 101	1.62	141.5	99	70	59	98	28	18	119
54	(DN50)	205 0000 101	2.55	308.4	113	79	59	106	28	18	119

XPR21000 VSH XPress FullFlow Stainless ball valve

(press x female thread)

specifications

- 100% full flow
- compact, one piece design
- maximum pressure 16 bar
- operating temperature -35 to 135°C
- interchangeable coloured indentification clips
- M-profile

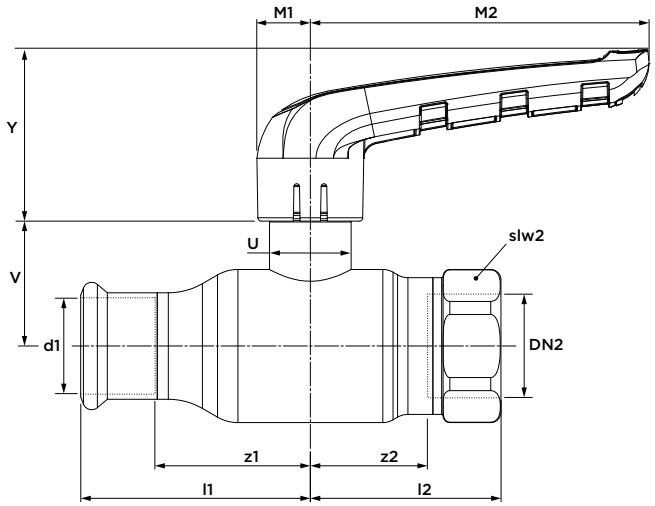


no.	component	material
1	body	stainless steel (1.4401)
2	o-ring	EPDM
3	stem	stainless steel (1.4401)
4	handle	fiberglass reinforced nylon (PA66)
5	handle reinforcement	stainless steel (1.4401)
6	friction ring	PTFE
7	seal	PTFE
8	support ring	stainless steel (1.4401)
9	ball	stainless steel (1.4401)
10	o-ring	EPDM

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP



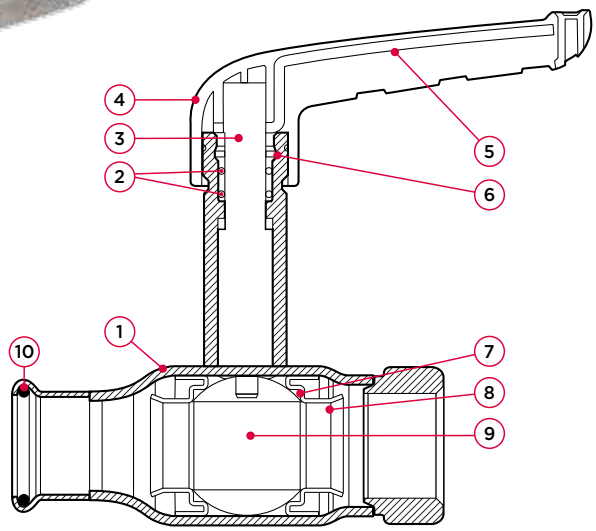
dimension		article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw2	Y	V	U	M1	M2
15 x G1"/2"	(DN10)	201 0001 010	0.19	13	47	38	28	27	27	38	26	18	12	75
18 x G¾"	(DN15)	201 5001 010	0.25	21.1	52	43	32	32	32	38	28	18	12	75
22 x G¾"	(DN20)	202 0001 000	0.30	37.1	61	52	40	36	36	38	31	18	12	75
28 x G1"	(DN25)	202 5001 000	0.61	65.5	68	56	45	37	41	50	37	24	15	100
35 x G1¼"	(DN32)	203 2001 000	0.97	90.7	81	67	55	46	50	50	43	24	15	100
42 x G1½"	(DN40)	204 0001 000	1.53	141.5	99	78	69	57	56	59	47	28	18	119
54 x G2"	(DN50)	205 0001 000	2.62	308.4	113	96	79	69	69	59	55	28	18	119

XPR21001 VSH XPress FullFlow Stainless ball valve with extended stem

(press x female thread)

specifications

- 100% full flow
- compact, one piece design
- maximum pressure 16 bar
- operating temperature -35 to 135°C
- interchangeable coloured indentification clips
- M-profile

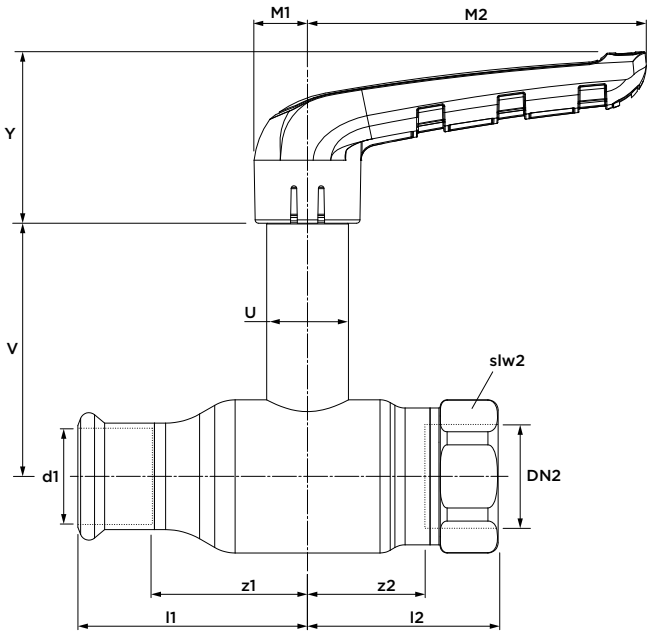


no.	component	material
1	body	stainless steel (1.4401)
2	o-ring	EPDM
3	stem	stainless steel (1.4401)
4	handle	fiberglass reinforced nylon (PA66)
5	handle reinforcement	stainless steel (1.4401)
6	friction ring	PTFE
7	seal	PTFE
8	support ring	stainless steel (1.4401)
9	ball	stainless steel (1.4401)
10	o-ring	EPDM

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP



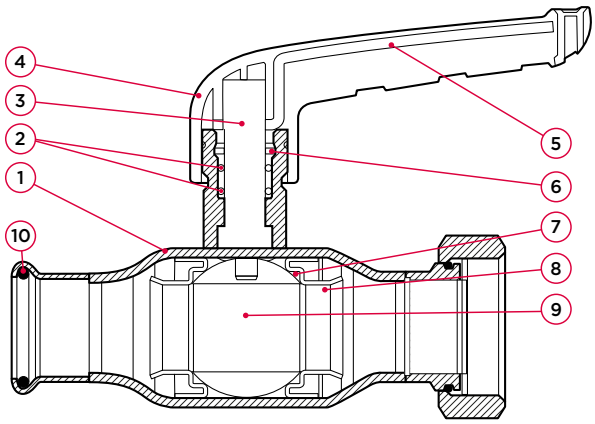
dimension		article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw2	Y	V	U	M1	M2
15 x G1"/2"	(DN10)	201 0001 011	0.28	13	47	38	28	27	27	38	68	18	12	75
18 x G¾"	(DN15)	201 5001 011	0.33	21.1	52	43	32	32	32	38	70	18	12	75
22 x G¾"	(DN20)	202 0001 001	0.38	37.1	61	52	40	36	36	38	73	18	12	75
28 x G1"	(DN25)	202 5001 001	0.74	65.5	68	56	45	37	41	50	74	24	15	100
35 x G1¼"	(DN32)	203 2001 001	1.11	90.7	81	67	55	46	50	50	80	24	15	100
42 x G1½"	(DN40)	204 0001 001	1.75	141.5	99	78	69	57	56	59	98	28	18	119
54 x G2"	(DN50)	205 0001 001	2.84	308.4	113	96	79	69	69	59	106	28	18	119

XPR21400 VSH XPress FullFlow Stainless ball valve

(press x union nut)

specifications

- 100% full flow
- compact, one piece design
- maximum pressure 16 bar
- operating temperature -35 to 135°C
- interchangeable coloured indentification clips
- M-profile

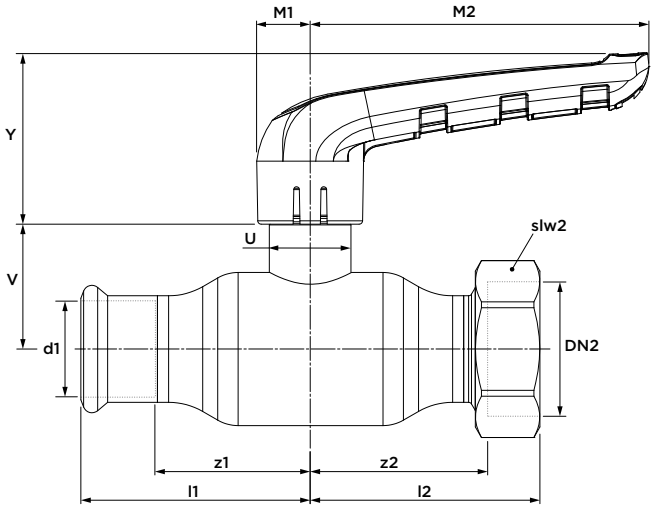


no.	component	material
1	body	stainless steel (1.4401)
2	o-ring	EPDM
3	stem	stainless steel (1.4401)
4	handle	fiberglass reinforced nylon (PA66)
5	handle reinforcement	stainless steel (1.4401)
6	friction ring	PTFE
7	seal	PTFE
8	support ring	stainless steel (1.4401)
9	ball	stainless steel (1.4401)
10	o-ring	EPDM

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP



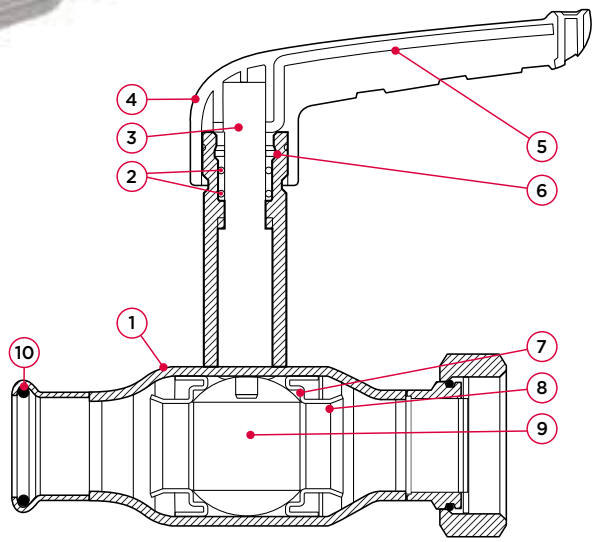
dimension		article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw2	Y	V	U	M1	M2
15 x G¾"	(DN10)	201 0001 410	0.22	13	47	59	28	49	27	38	26	18	12	75
18 x G¾"	(DN15)	201 5001 400	0.26	21.1	52	53	32	44	32	38	28	18	12	75
22 x G¾"	(DN20)	202 0001 410	0.28	37.1	61	72	41	62	32	38	31	18	12	75
28 x G1¼"	(DN25)	202 5001 400	0.65	65.5	68	67	46	55	46	50	37	24	15	100
35 x G1½"	(DN32)	203 2001 400	0.97	90.7	81	79	56	67	52	50	43	24	15	100
42 x G1¾"	(DN40)	204 0001 400	1.51	141.5	99	92	70	81	58	59	47	28	18	119
54 x G2¼"	(DN50)	205 0001 400	2.57	308.4	113	106	79	93	72	59	55	28	18	119

XPR21401 VSH XPress FullFlow Stainless ball valve with extended stem

(press x union nut)

specifications

- 100% full flow
- compact, one piece design
- maximum pressure 16 bar
- operating temperature -35 to 135°C
- interchangeable coloured indentification clips
- M-profile

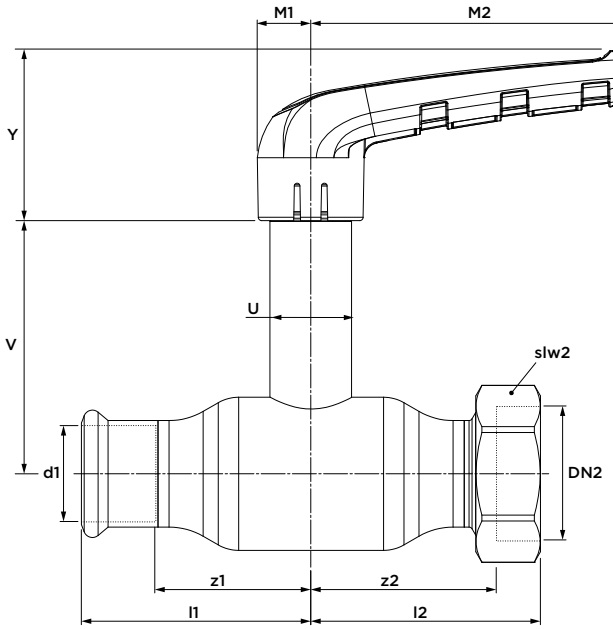


no.	component	material
1	body	stainless steel (1.4401)
2	o-ring	EPDM
3	stem	stainless steel (1.4401)
4	handle	fiberglass reinforced nylon (PA66)
5	handle reinforcement	stainless steel (1.4401)
6	friction ring	PTFE
7	seal	PTFE
8	support ring	stainless steel (1.4401)
9	ball	stainless steel (1.4401)
10	o-ring	EPDM

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP



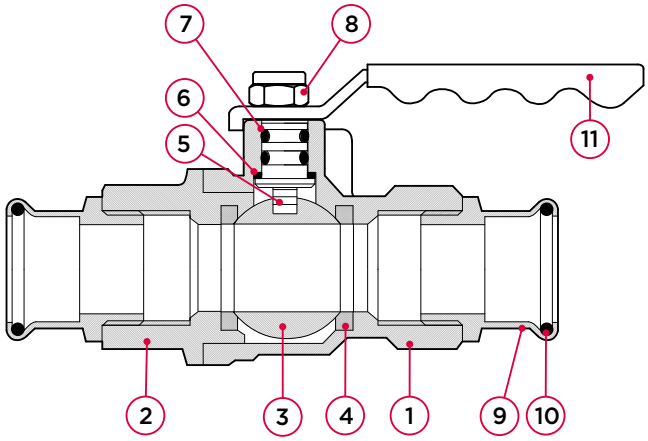
dimension		article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw2	Y	V	U	M1	M2
15 x G¾"	(DN10)	201 0001 411	0.30	13	47	59	28	49	27	38	68	18	12	75
18 x G¾"	(DN15)	201 5001 401	0.35	21.1	52	53	32	44	32	38	70	18	12	75
22 x G¾"	(DN20)	202 0001 411	0.36	37.1	61	72	41	62	32	38	73	18	12	75
28 x G1¼"	(DN25)	202 5001 401	0.78	65.5	68	67	46	55	46	50	74	24	15	100
35 x G1½"	(DN32)	203 2001 401	1.11	90.7	81	79	56	67	52	50	80	24	15	100
42 x G1¾"	(DN40)	204 0001 401	1.73	141.5	99	92	70	81	58	59	98	28	18	119
54 x G2¼"	(DN50)	205 0001 401	2.79	308.4	113	106	79	93	72	59	106	28	18	119

PS500 Apollo ball valve

(2 x press)

specifications

- VSH XPress gunmetal connections for carbon steel, stainless steel and copper tube
- M-profile
- 100% full flow
- maximum pressure 16 bar
- operating temperature -10 to 110°C
- blow-out and vandal proof assembly
- red lever handle



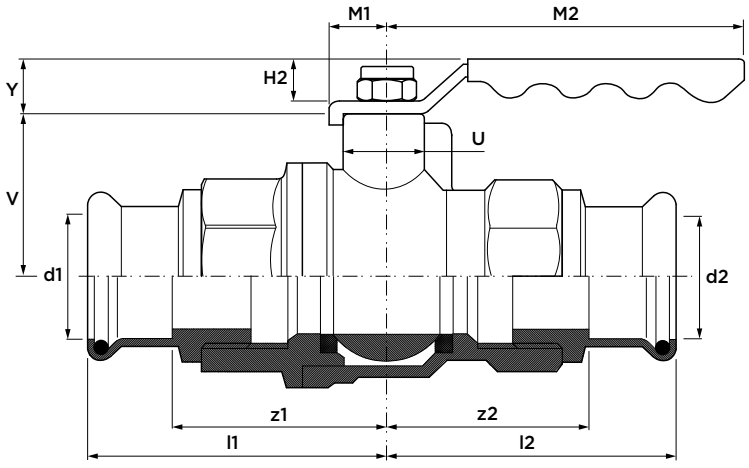
no.	component	material
1	body	brass (CW617N), chrome-plated
2	body cap	brass (CW617N), chrome-plated
3	ball	brass, chrome-plated
4	ball seat	PTFE
5	stem	brass
6	thrust washer	PTFE
7	stem o-ring	FPM
8	nut	zinc plated steel
9	press connection	gunmetal (CC499K)
10	o-ring	EPDM
11	lever handle	PVC insulated zinc plated steel

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category

all sizes	SEP



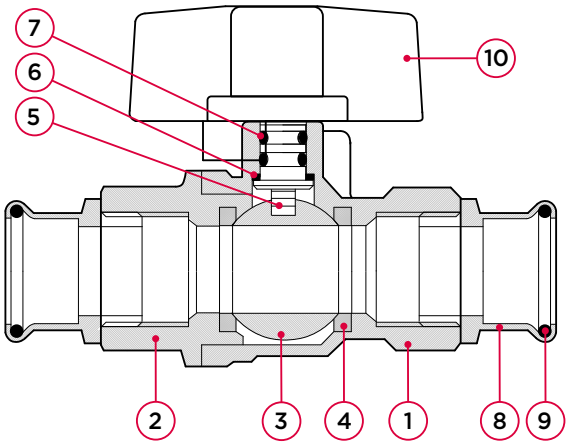
dimension	article no.	weight [kg]	Kvs [m³/h]	l1/l2	z1/z2	Y	V	U	H2	M1	M2
15 (DN15)	242301	0.30	17	53	33	21	20	10	18	10	83
18 (DN15)	242302	0.32	17	53	33	21	20	10	18	10	94
22 (DN20)	242303	0.50	41	58	37	21	31	11	18	10	103
28 (DN25)	242304	0.76	70	66	43	22	35	12	19	10	115
35 (DN32)	242305	1.15	121	76	53	22	42	13	19	11	130
42 (DN40)	242306	1.61	200	83	55	23	57	14	20	11	135
54 (DN50)	242307	2.45	292	99	67	24	62	15	21	12	159

PS500T Apollo ball valve with T-handle

(2 x press)

specifications

- VSH XPress gunmetal connections for carbon steel, stainless steel and copper tube
- M-profile
- 100% full flow
- maximum pressure 16 bar
- operating temperature -10 to 110°C
- blow-out and vandal proof assembly
- red T-handle



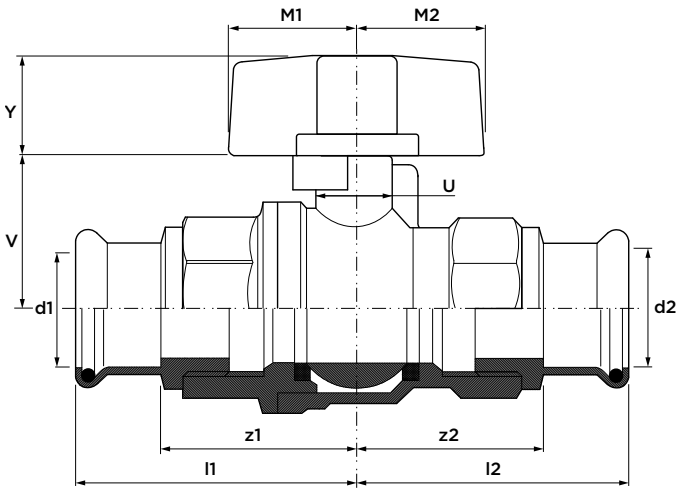
no.	component	material
1	body	brass (CW617N), chrome-plated
2	body cap	brass (CW617N), chrome-plated
3	ball	brass, chrome-plated
4	ball seat	PTFE
5	stem	brass
6	thrust washer	PTFE
7	stem o-ring	FPM
8	press connection	gunmetal (CC499K)
9	o-ring	EPDM
10	T-handle	aluminium, painted

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category

all sizes	SEP



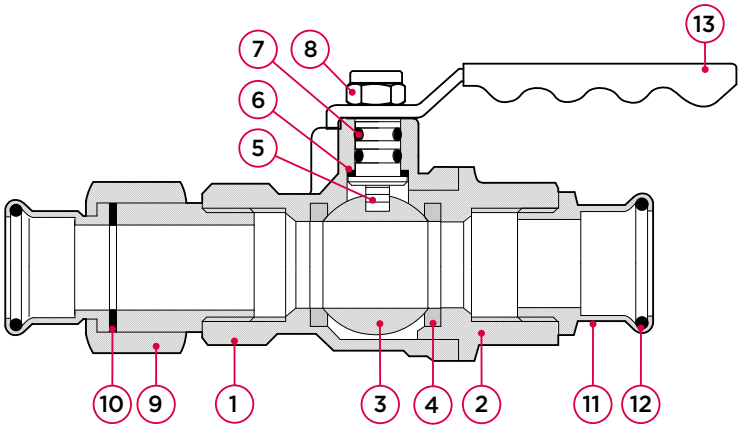
dimension		article no.	weight [kg]	Kvs [m³/h]	l1/l2	z1/z2	Y	V	U	M1/M2
15	(DN15)	242301	0.27	17	53	33	18	20	10	25
18	(DN15)	242302	0.30	17	53	33	18	20	10	25
22	(DN20)	242303	0.47	41	58	37	18	31	11	25
28	(DN25)	242304	0.71	70	66	43	18	35	12	25

PSU500 Apollo ball valve

(2 x press, with union connection)

specifications

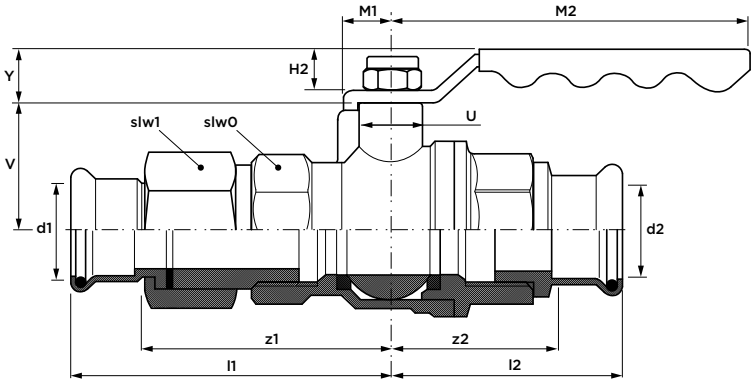
- VSH XPress gunmetal connections for carbon steel, stainless steel and copper tube
- M-profile
- 100% full flow
- maximum pressure 16 bar
- operating temperature -10 to 110°C
- blow-out and vandal proof assembly
- red lever handle



no.	component	material
1	body	brass (CW617N), chrome-plated
2	body cap	brass (CW617N), chrome-plated
3	ball	brass, chrome-plated
4	ball seat	PTFE
5	stem	brass
6	thrust washer	PTFE
7	stem o-ring	FPM
8	nut	zinc plated steel
9	union nut	gunmetal (CC499K)
10	flat seal	fiberring
11	press connection	gunmetal (CC499K)
12	o-ring	EPDM
13	lever handle	PVC insulated zinc plated steel

maximum pressure [bar]		
operating pressure	**test pressure shell**	**test pressure seat**
16	24	17.6

pressure equipment directive category	
all sizes	SEP



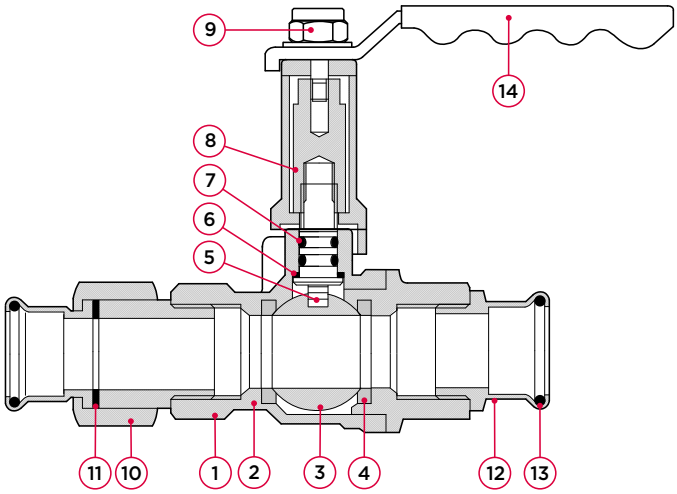
dimension		article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw0	slw1	Y	V	U	H2	M1	M2
15	(DN15)	243330	0.39	17	76	53	53	33	31	35	21	20	10	18	10	83
18	(DN15)	243331	0.39	17	76	53	53	33	31	35	21	20	10	18	10	94
22	(DN20)	243332	0.63	41	90	58	66	37	39	40	22	31	11	18	10	103
28	(DN25)	243333	0.96	70	95	66	69	43	46	52	22	35	12	19	10	115
35	(DN32)	243334	1.41	121	102	76	74	53	54	62	22	42	13	19	11	130
42	(DN40)	243335	1.91	200	113	83	80	55	62	70	23	57	14	20	11	135
54	(DN50)	243336	3.12	292	135	99	98	67	76	88	24	62	15	21	12	159

PSU500EL Apollo ball valve with extended stem

(2 x press, with union connection)

specifications

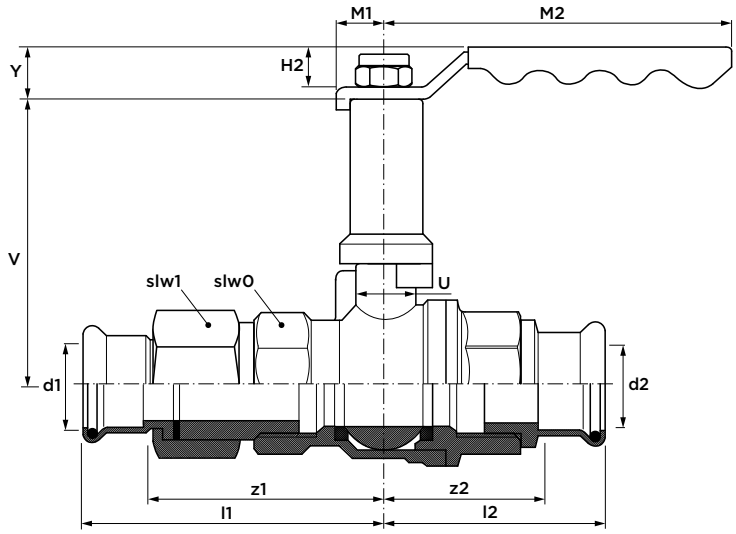
- VSH XPress gunmetal connections for carbon steel, stainless steel and copper tube
- M-profile
- 100% full flow
- maximum pressure 16 bar
- operating temperature -10 to 110°C
- blow-out and vandal proof assembly
- red lever handle



no.	component	material
1	body	brass (CW617N), chrome-plated
2	body cap	brass (CW617N), chrome-plated
3	ball	brass, chrome-plated
4	ball seat	PTFE
5	stem	brass
6	thrust washer	PTFE
7	stem o-ring	FPM
8	extended stem	brass
9	nut	zinc plated steel
10	union nut	gunmetal (CC499K)
11	flat seal	fiberring
12	press connection	gunmetal (CC499K)
13	o-ring	EPDM
14	lever handle	PVC insulated zinc plated steel

maximum pressure [bar]		
operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP



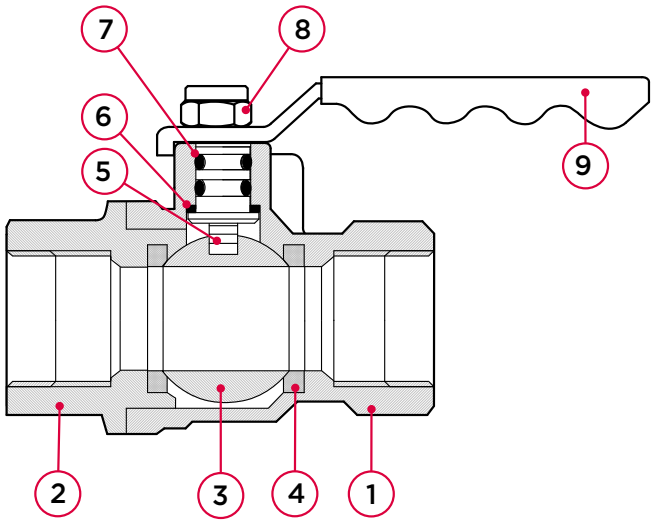
dimension		article no.	weight [kg]	Kvs [m3/h]	l1	l2	z1	z2	slw0	slw1	Y	V	U	H2	M1	M2
15	(DN15)	243340	0.46	17	76	53	53	33	31	35	21	64	10	18	10	83
22	(DN20)	243342	0.74	41	90	58	66	37	39	40	21	78	11	18	10	103
28	(DN25)	243343	1.05	70	95	66	69	43	46	52	22	90	12	19	10	115
35	(DN32)	243344	1.50	121	102	76	74	53	54	62	22	88	13	19	11	130
42	(DN40)	243345	2.08	200	113	83	80	55	62	70	23	107	14	20	11	135
54	(DN50)	243346	3.34	292	135	99	98	67	76	88	24	124	15	21	12	159

PB550PT Apollo ball valve

(2 x female thread)

specifications

- 100% full flow
- max. pressure 25 bar
- operating temperature -10 to 150°C
- blow-out and vandal proof assembly
- blue lever handle
- locking device

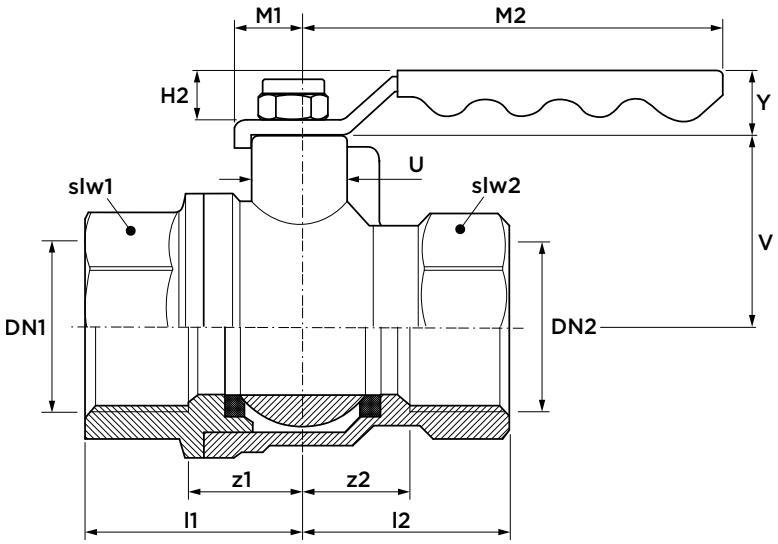


no.	component	material
1	body	DZR brass (CW602N)
2	body cap	DZR brass (CW602N)
3	ball	brass, chrome-plated
4	ball seat	PTFE
5	stem	DZR brass (CW602N)
6	thrust washer	PTFE
7	stem o-ring	FPM
8	nut	zinc plated steel
9	lever handle	PVC insulated zinc plated steel

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
25	17.5	27.5

pressure equipment directive category	
all sizes	SEP



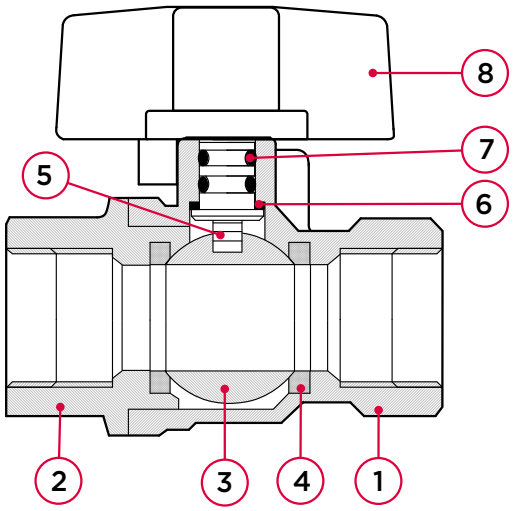
dimension	article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw1/slw2	Y	V	U	H2	M1	M2
G½" (DN15)	245150	0.29	17	30	30	18	18	31	21	20	10	18	10	94
G¾" (DN20)	245151	0.37	41	34	34	20	20	36	21	31	11	18	10	103
G1" (DN25)	245152	0.59	70	40	40	24	24	42	22	35	11	19	10	115
G1¼" (DN32)	245153	0.86	121	48	48	29	29	50	22	42	12	19	11	130
G1½" (DN40)	245154	1.06	200	50	50	30	30	60	23	57	13	20	11	135
G2" (DN50)	245155	1.73	292	62	62	37	37	71	23	67	15	20	12	159

PB550TPT Apollo ball valve with T-handle

(2 x female thread)

specifications

- 100% full flow
- maximum pressure 16 bar
- operating temperature -10 to 110°C
- blow-out and vandal proof assembly
- blue T-handle



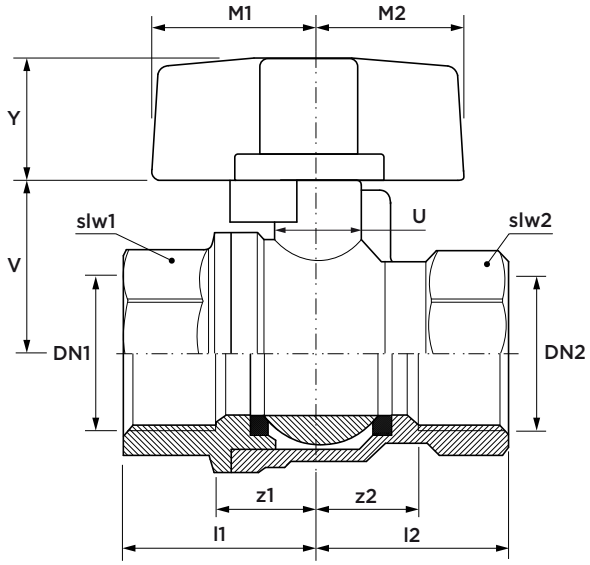
no.	component	material
1	body	brass (CW617N)
2	body cap	brass (CW617N)
3	ball	brass, chrome-plated
4	ball seat	PTFE
5	stem	DZR brass (CW602N)
6	thrust washer	PTFE
7	stem o-ring	FPM
8	T-handle	aluminium, painted

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
25	17.5	27.5

pressure equipment directive category

all sizes	SEP



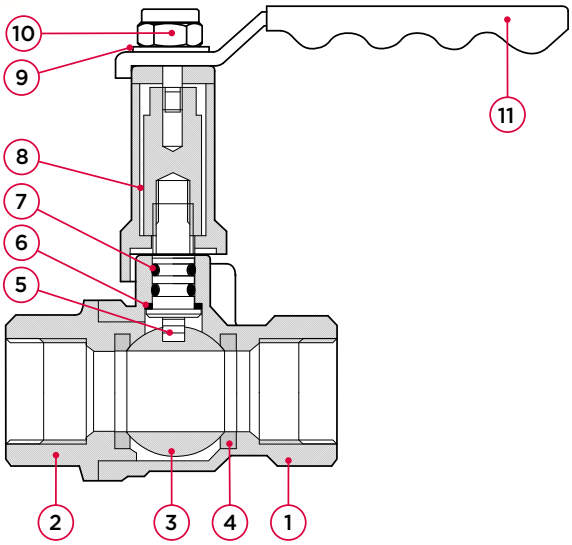
dimension		article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw1/slw2	Y	V	U	M1/M2
G½"	(DN15)	245215	0.27	17	40	40	24	24	43	18	35	11	25
G¾"	(DN20)	245216	0.32	17	30	30	18	18	31	18	20	10	25
Rp1"	(DN25)	245213	0.5	41	24	24	14	14	23	18	16	9	25

PB550EL Apollo ball valve with extended stem

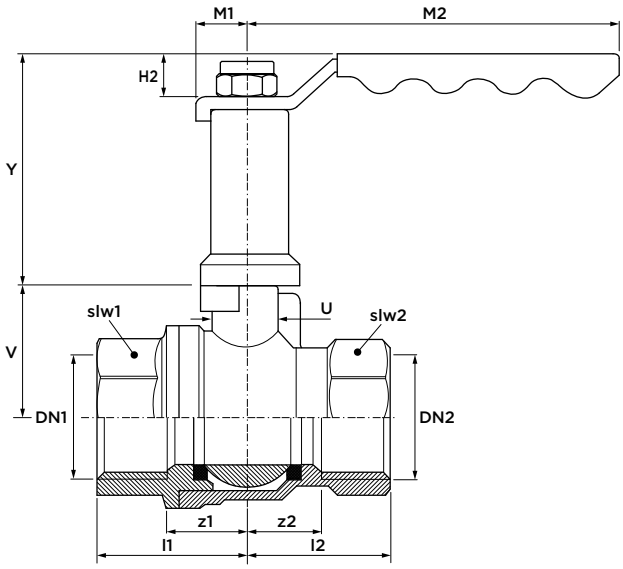
(2 x thread)

specifications

- 100% full flow
- max. pressure 25 bar
- operating temperature -10 to 150°C
- blow-out and vandal proof assembly
- blue lever handle



no.	component	material
1	body	DZR brass (CW602N)
2	body cap	DZR brass (CW602N)
3	ball	Brass, chrome-plated
4	ball seat	PTFE
5	stem	DZR brass
6	thrust washer	nickel-plated brass
7	stem o-ring	FPM
8	extended stem	brass
9	washer	brass
10	nut	zinc plated steel
11	lever handle	PVC insulated zinc plated steel



maximum pressure [bar]		
operating pressure	**test pressure shell**	**test pressure seat**
25	17.5	27.5

pressure equipment directive category	
all sizes	SEP

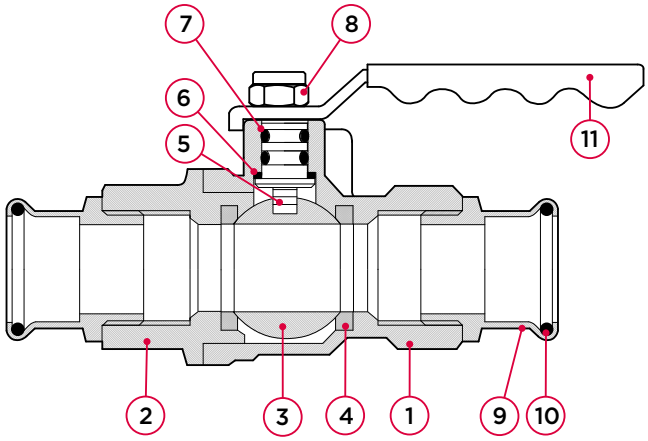
dimension	article no.	weight [kg]	Kvs [m³/h]	l1/l2	z1/z2	Y	V	U	H2	M1	M2
Rc½" (DN15)	245283	0.36	17	30	18	21	59	10	18	12	94
Rc¾" (DN20)	245284	0.47	41	34	20	22	78	11	18	12	103
Rc1" (DN25)	245285	0.68	70	40	24	22	81	11	19	12	115
Rc1¼" (DN32)	245286	0.95	121	48	29	23	88	12	19	13	130
Rc1½" (DN40)	245287	1.23	200	50	30	23	107	13	20	13	135
Rc2" (DN50)	245288	1.95	292	62	37	23	125	15	20	14	159

PS550 Apollo ball valve

(2 x press)

specifications

- VSH XPress gunmetal connections for carbon steel, stainless steel and copper tube
- M-profile
- 100% full flow
- maximum pressure 16 bar
- operating temperature -10 to 110°C
- blow-out and vandal proof assembly
- blue lever handle

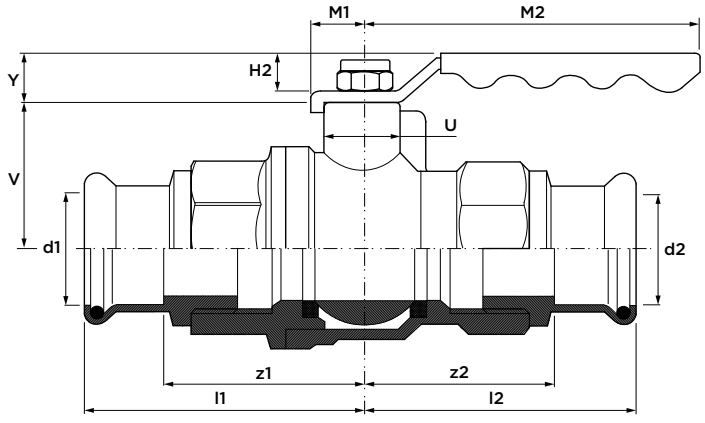


no.	component	material
1	body	DZR brass (CW602N)
2	body cap	DZR brass (CW602N)
3	ball	brass, chrome-plated
4	ball seat	PTFE
5	stem	DZR brass (CW602N)
6	thrust washer	PTFE
7	stem o-ring	FPM
8	nut	zinc plated steel
9	press connection	gunmetal (CC499K)
10	o-ring	EPDM
11	lever handle	PVC insulated zinc plated steel

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP



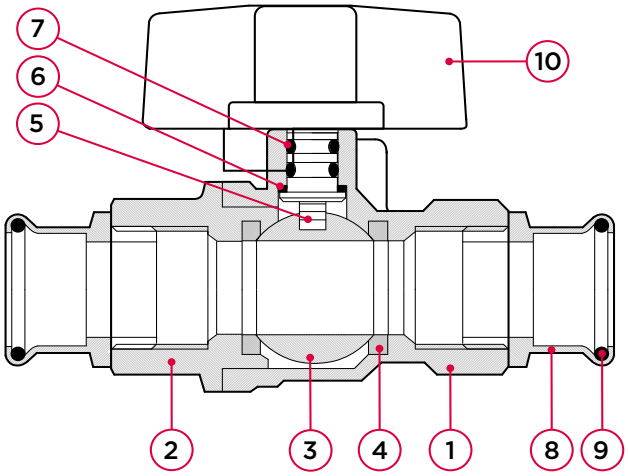
dimension	article no.	weight [kg]	Kvs [m³/h]	l1/l2	z1/z2	Y	V	U	H2	M1	M2
15 (DN15)	245220	0.30	17	53	33	21	20	10	18	10	83
18 (DN15)	245221	0.30	17	53	33	21	20	10	18	10	94
22 (DN20)	245222	0.50	41	58	37	21	31	11	18	10	103
28 (DN25)	245223	0.75	70	66	43	22	35	12	19	10	115
35 (DN32)	245224	1.33	121	76	53	22	42	13	19	11	130
42 (DN40)	245225	1.71	200	83	55	23	57	14	20	11	135
54 (DN50)	245226	2.53	292	99	67	24	62	15	21	12	159

PS550T Apollo ball valve with T-handle

(2 x press)

specifications

- VSH XPress gunmetal connections for carbon steel, stainless steel and copper tube
- M-profile
- 100% full flow
- maximum pressure 16 bar
- operating temperature -10 to 110°C
- blow-out and vandal proof assembly
- blue T-handle

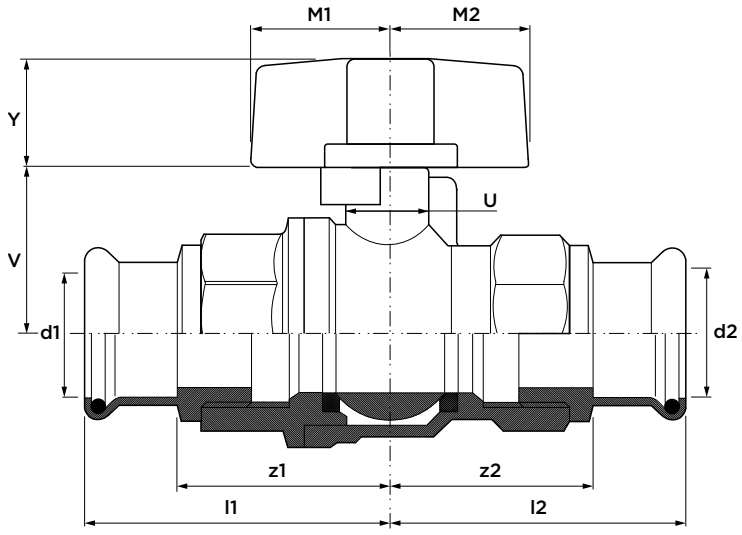


no.	component	material
1	body	DZR brass (CW602N)
2	body cap	DZR brass (CW602N)
3	ball	brass, chrome-plated
4	ball seat	PTFE
5	stem	DZR brass (CW602N)
6	thrust washer	PTFE
7	stem o-ring	FPM
8	press connection	gunmetal (CC499K)
9	o-ring	EPDM
10	T-handle	aluminium, painted

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP



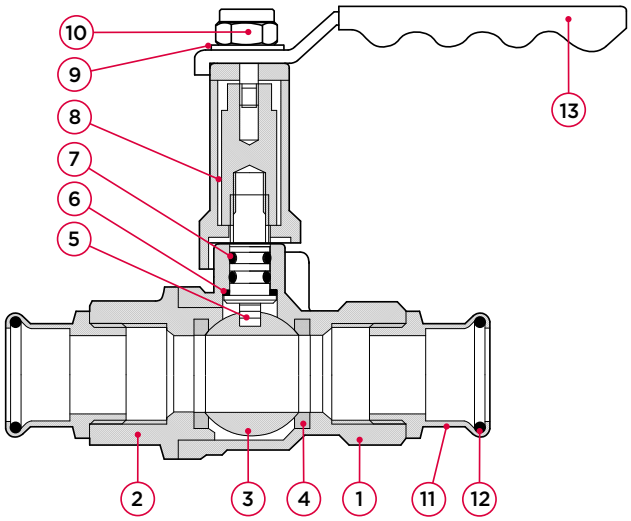
dimension	article no.	weight [kg]	Kvs [m³/h]	l1/l2	z1/z2	Y	V	U	M1/M2
15 (DN15)	245230	0.28	17	53	33	18	20	10	25
22 (DN20)	245232	0.47	41	58	37	18	31	11	25
28 (DN25)	245233	0.75	70	66	43	18	35	12	25

PS550EL Apollo ball valve with extended stem

(2 x press)

specifications

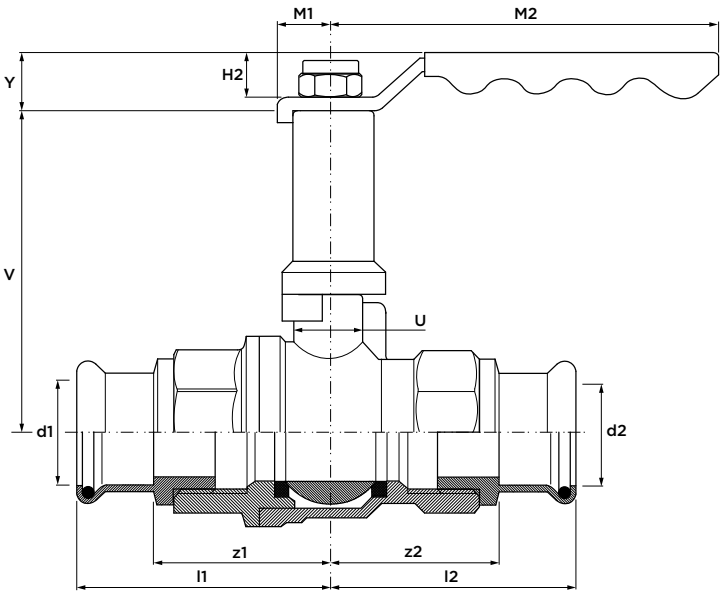
- VSH XPress gunmetal connections for carbon steel, stainless steel and copper tube
- M-profile
- 100% full flow
- maximum pressure 16 bar
- operating temperature -10 to 110°C
- blow-out and vandal proof assembly
- blue lever handle



no.	component	material
1	body	DZR brass (CW602N)
2	body cap	DZR brass (CW602N)
3	ball	Brass, chrome-plated
4	ball seat	PTFE
5	stem	DZR brass
6	thrust washer	nickel-plated brass
7	stem o-ring	FPM
8	extended stem	brass
9	washer	brass
10	nut	zinc plated steel
11	press connection	gunmetal (CC499K)
12	o-ring	EPDM
13	lever handle	PVC insulated zinc plated steel

maximum pressure [bar]		
operating pressure	**test pressure shell**	**test pressure seat**
16	24	17.6

pressure equipment directive category	
all sizes	SEP



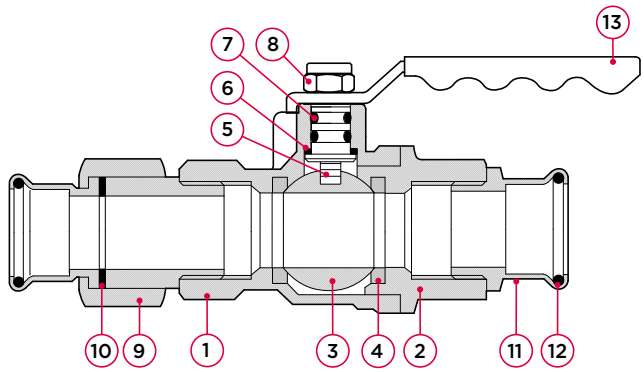
dimension	article no.	weight [kg]	Kvs [m³/h]	l1/l2	z1/z2	Y	V	U	H2	M1	M2
15 (DN15)	245300	0.37	17	53	33	21	64	10	18	10	83
18 (DN15)	245301	0.37	17	53	33	21	64	10	18	10	94
22 (DN20)	245302	0.60	41	58	37	21	78	11	19	10	103
28 (DN25)	245303	0.87	70	66	43	22	81	12	19	10	115
35 (DN32)	245304	1.52	121	76	48	22	88	13	20	11	130
42 (DN40)	245305	1.77	200	82	50	23	107	14	20	11	135
54 (DN50)	245306	2.81	292	99	62	24	124	15	21	12	159

PSU550 Apollo ball valve, DZR

(2 x press, with union connection)

specifications

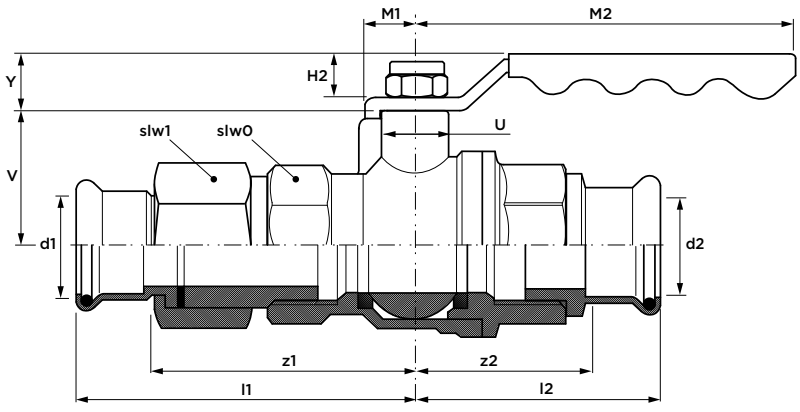
- VSH XPress gunmetal connections for carbon steel, stainless steel and copper tube
- M-profile
- 100% full flow
- maximum pressure 16 bar
- operating temperature -10 to 110°C
- blow-out and vandal proof assembly
- blue lever handle



no.	component	material
1	body	DZR brass (CW602N)
2	body cap	DZR brass (CW602N)
3	ball	brass, chrome-plated
4	ball seat	PTFE
5	stem	DZR brass
6	thrust washer	PTFE
7	stem o-ring	FPM
8	nut	zinc plated steel
9	union nut	DZR brass
10	flat seal	fiberring
11	press connection	gunmetal (CC499K)
12	o-ring	EPDM
13	lever handle	PVC insulated zinc plated steel

maximum pressure [bar]		
operating pressure	**test pressure shell**	**test pressure seat**
16	24	17.6

pressure equipment directive category	
all sizes	SEP



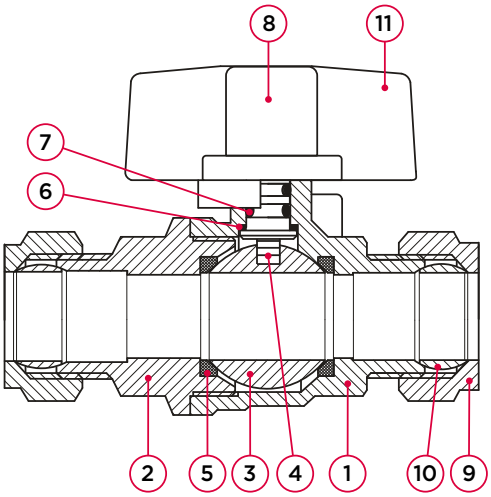
dimension		article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw0	slw1	Y	V	U	H2	M1	M2
15	(DN15)	245310	0.39	17	76	53	53	33	31	35	21	20	10	18	10	83
18	(DN15)	245311	0.39	17	76	53	53	33	31	35	21	20	10	18	10	94
22	(DN20)	245312	0.63	41	90	58	66	37	39	40	21	31	11	19	10	103
28	(DN25)	245313	0.96	70	95	66	69	43	46	52	22	35	12	19	10	115
35	(DN32)	245314	1.41	121	102	76	74	53	54	62	22	42	13	19	11	130
42	(DN40)	245315	1.91	200	113	83	80	55	62	70	23	57	14	20	11	135
54	(DN50)	245316	3.11	292	135	99	98	67	76	88	24	62	15	21	12	159

PB300T Apollo ball valve with T-handle

(2 x compression)

specifications

- 100% full flow
- maximum pressure 16 bar
- operating temperature -10 to 110°C
- blow-out and vandal proof assembly
- red or blue t-handle



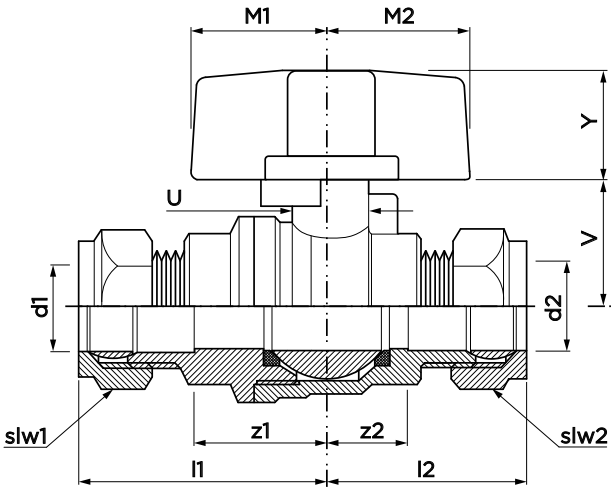
no.	component	material
1	body	brass (CW617N), chrome-plated
2	body cap	brass (CW617N), chrome-plated
3	ball	brass, chrome-plated
4	stem	brass
5	ball seat	PTFE
6	thrust washer	PTFE
7	stem o-ring	FPM
8	bolt	zinc plated steel
9	press connection	gunmetal (CC499K)
10	o-ring	EPDM
11	T-handle	PVC insulated zinc plated steel

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category

all sizes	SEP



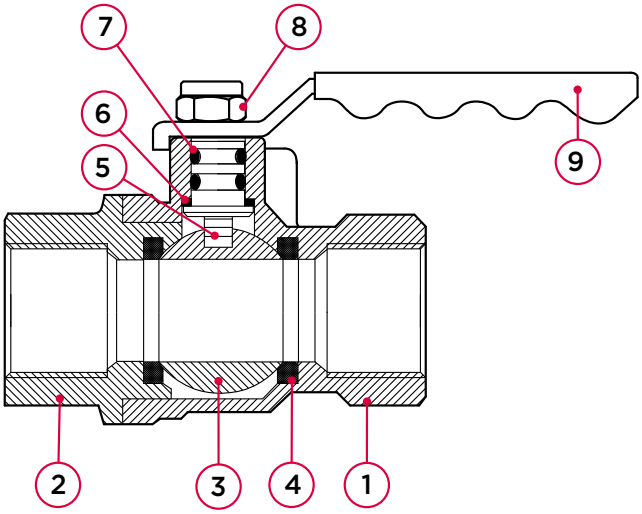
dimension	article no.	weight [kg]	Kvs [m³/h]	l1/l2	z1/z2	slw1/slw2	Y	V	U	M1/M2
15 (DN15)	255011 (blue handle)	0.25	17	38	26	32	22	23	14	25
15 (DN15)	255001 (red handle)	0.25	17	38	26	32	22	23	14	25
22 (DN20)	0319066 (blue handle)	0,42	41	43	27	32	25	23	18	30
22 (DN20)	0319077 (red handle)	0,42	41	43	27	32	25	23	18	30
25 (DN28)	255013 (blue handle)	0.66	70	49	31	32	28	35	18	25
25 (DN28)	255003 (red handle)	0.66	70	49	31	32	28	35	18	25

PB100 Apollo ball valve

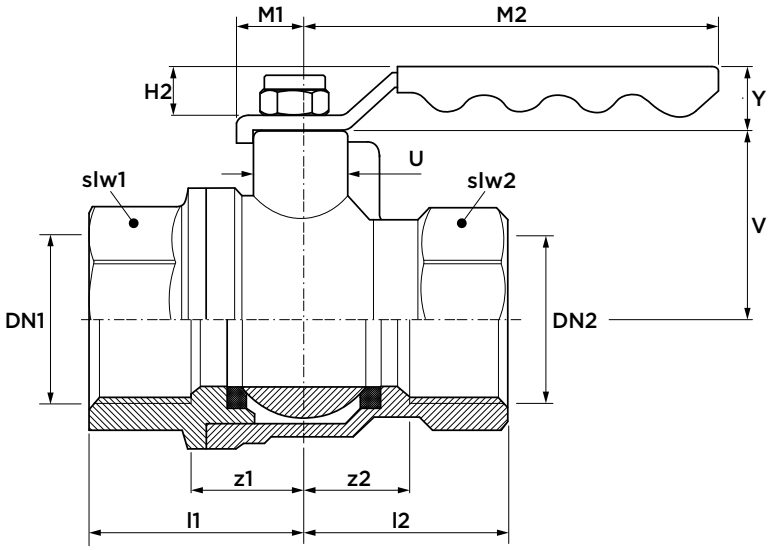
(2 x female thread)

specifications

- 100% full flow
- maximum pressure 16 bar
- operating temperature -10 to 110°C
- blow-out and vandal proof assembly
- red lever handle



no.	component	material
1	body	brass (CW617N), chrome-plated
2	body cap	brass (CW617N), chrome-plated
3	ball	brass, chrome-plated
4	ball seat	PTFE
5	stem	brass
6	thrust washer	PTFE
7	stem o-ring	FPM
8	nut	zinc plated steel
9	lever handle	PVC insulated zinc plated steel



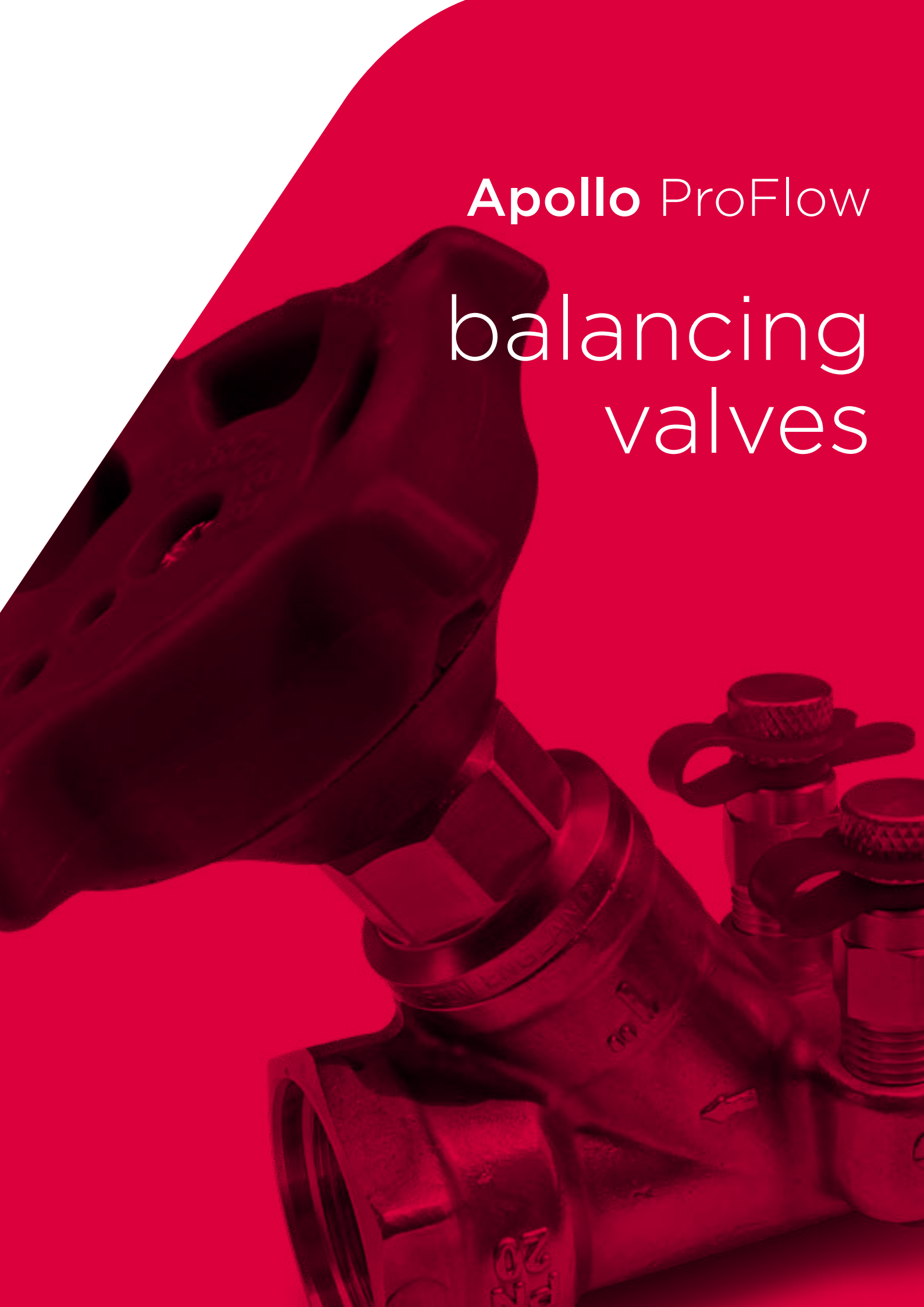
maximum pressure [bar]		
operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP

dimension	article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw1	slw2	Y	V	U	H2	M1	M2
G½" (DN15)	270001	0.209	17	25	27	13	15	24	24	26	29	10	18	8	100
G¾" (DN20)	270002	0.270	41	28	32	16	18	30	30	26	32	10	18	8	100
G1" (DN25)	270003	0.425	70	31	40	16	22	37	37	26	38	11	18	10	109
G1¼" (DN32)	270004	0.633	121	35	46	18	27	46	46	27	45	11	19	11	133
G1½" (DN40)	270005	0.853	200	43	46	26	28	53	53	30	78	13	19	12	133
G2" (DN50)	270006	1.393	292	54	56	32	33	65	65	27	62	13	20	12	150

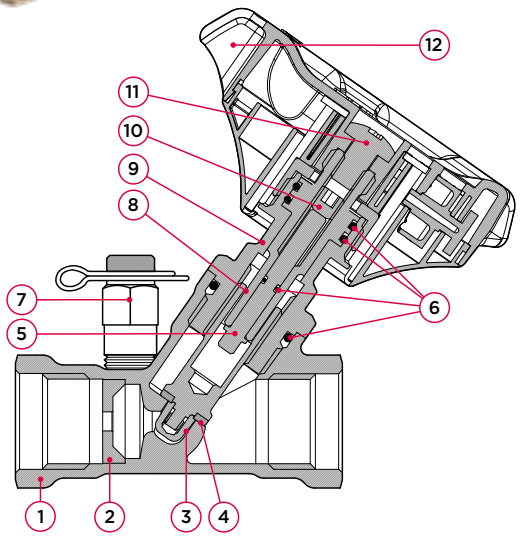
Apollo ProFlow

balancing valves



1260 Apollo ProFlow static balancing valve

(2 x female thread)



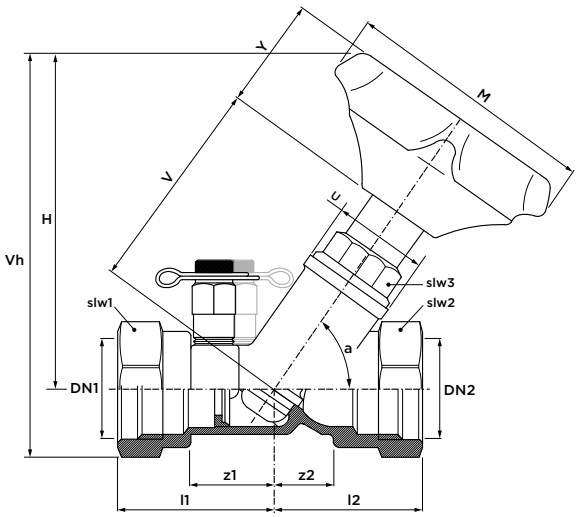
specifications

- max. operating pressure 20 bar
- operating temperature -10°C to 120°C
- fixed orifice measuring (FODRV)
- handle position indicator
- meets BS7350
- includes memory stop
- includes test points

no.	component	material
1	body	brass (CW511L)
2	orifice plate	brass (CW511L)
3	disc	brass (CW511L)
4	disc seal	PTFE
5	regulator pin	brass (CW511L)
6	o-rings	EPDM
7	test points	brass (CW511L)
8	stem	brass (CW511L)
9	bonnet	brass (CW511L)
10	memory stop screw	brass (CW511L)
11	set screw	stainless steel (AISI 304)
12	handle	30% glass filled PA 66

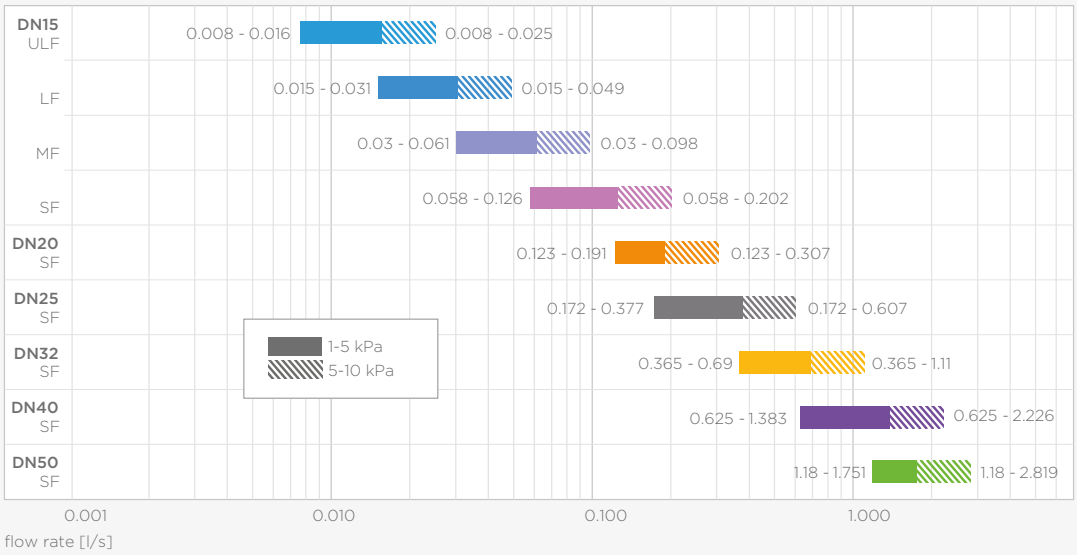
maximum pressure conditions [bar]		
max. pressure	**test pressure shell**	**test pressure seat**
20	30	22

pressure equipment directive category	
all dimensions	SEP

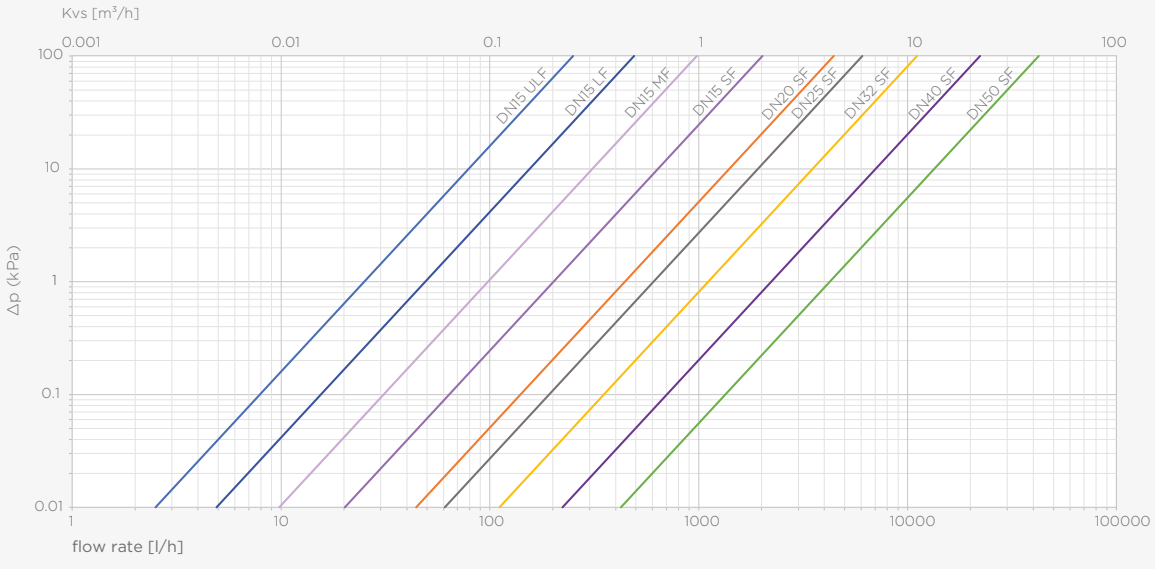


dimension	article no.	weight (kg)	l1	l2	z1	z2	slw1/slw2	slw3	Y	V	U	H	Vh	a [°]	M
G½" (DN15) ULF	126599	0.44	36	38	19	21	28	25	38	32	27	92	107	55	90
G½" (DN15) LF	126600	0.44	36	38	19	21	28	25	38	32	27	92	107	55	90
G½" (DN15) MF	126601	0.44	36	38	19	21	28	25	38	32	27	92	107	55	90
G½" (DN15) SF	126602	0.44	36	38	19	21	28	25	38	32	27	92	107	55	90
G¾" (DN20) SF	126603	0.58	34	43	18	24	32	25	38	38	27	96	114	55	90
G1" (DN25) SF	126604	0.84	44	51	24	31	41	25	38	45	33	108	131	55	90
G1¼" (DN32) SF	126605	1.22	50	66	29	45	50	32	38	56	41	126	154	55	90
G1½" (DN40) SF	126606	1.51	52	67	31	46	55	35	38	62	60	132	163	55	90
G2" (DN50) SF	126607	2.55	69	87	38	58	70	35	38	74	58	151	189	55	90

dimension	Kv [m³/h]	Kvs [m³/h]	flow [l/s]		flow [l/min]		flow [l/h]	
			min.	max.	min.	max.	min.	max.
G½" (DN15) ULF	0.27	0.25	0.008	0.016	0.46	0.94	27.4	56.2
G½" (DN15) LF	0.55	0.49	0.015	0.031	0.91	1.84	54.7	110.5
G½" (DN15) MF	1.08	0.98	0.030	0.061	1.80	3.67	108.0	220.0
G½" (DN15) SF	2.09	2.02	0.058	0.126	3.49	7.54	209.2	452.5
G¾" (DN20) SF	3.07	4.43	0.123	0.191	7.37	11.45	442.4	686.9
G1" (DN25) SF	6.19	6.07	0.172	0.377	10.32	22.61	619.2	1356.8
G1¼" (DN32) SF	13.13	11.10	0.365	0.690	21.89	41.38	1313.3	2482.6
G1½" (DN40) SF	22.49	22.26	0.625	1.383	37.48	82.95	2248.9	4977.0
G2" (DN50) SF	28.19	42.46	1.180	1.751	70.77	105.07	4246.2	6304.3



flow rate Apollo ProFlow 1260



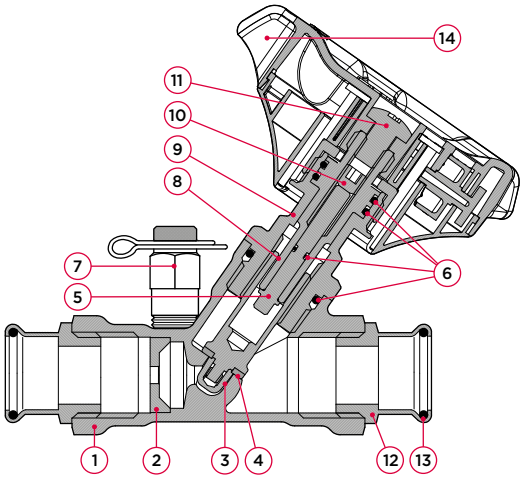
pressure loss Apollo ProFlow 1260

PS1260 Apollo ProFlow static balancing valve

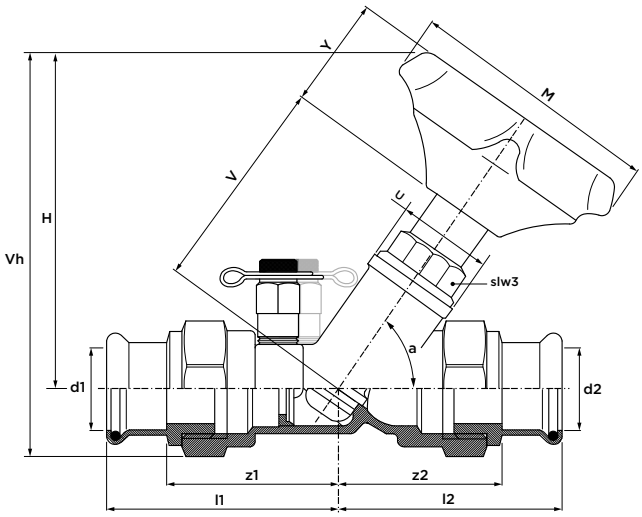
(2x press)

specifications

- max. operating pressure 16 bar
- operating temperature -10°C to 110°C
- VSH XPress gunmetal connections for carbon steel, stainless steel and copper tube
- M-profile
- fixed orifice measuring (FODRV)
- handle with visual digital positioning indicator
- memory stop for setting fixation
- test points for needle connection



no.	component	material
1	body	brass (CW511L)
2	orifice plate	brass (CW511L)
3	disc	brass (CW511L)
4	disc seal	PTFE
5	regulator pin	brass (CW511L)
6	o-rings	EPDM
7	test points	brass (CW511L)
8	stem	brass (CW511L)
9	bonnet	brass (CW511L)
10	memory stop screw	brass (CW511L)
11	set screw	stainless steel (AISI 304)
12	press connection	gunmetal (CC499K)
13	o-ring	EPDM
14	handle	30% glass filled PA 66



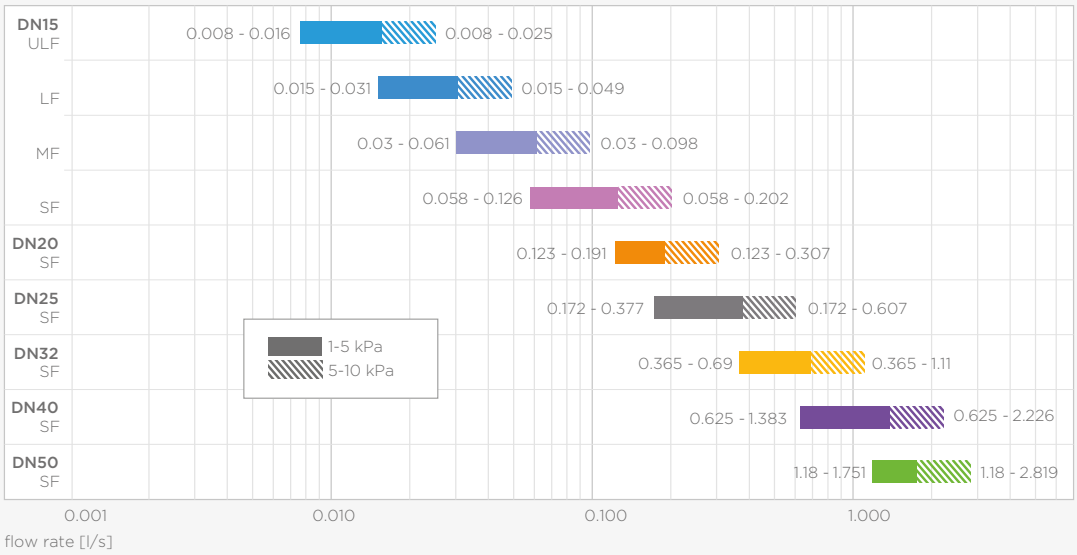
maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

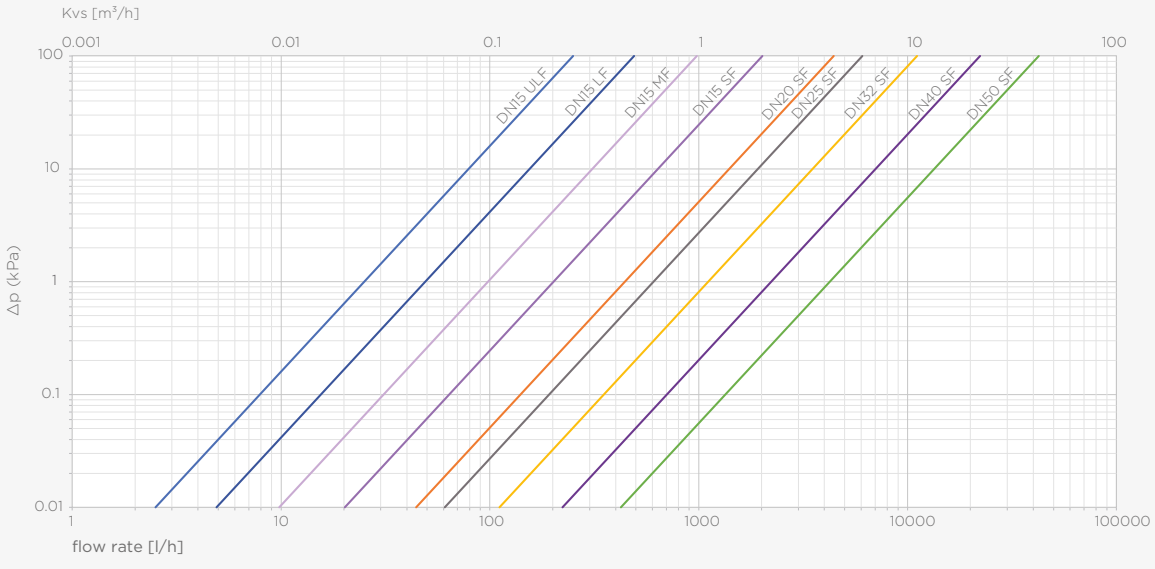
pressure equipment directive category	
all dimensions	SEP

dimension	article no.	weight (kg)	l1	l2	z1	z2	slw3	Y	V	U	H	Vh	a [°]	M
15 (DN15) ULF	126610	0.55	57	59	37	39	25	38	32	27	92	107	55	90
15 (DN15) LF	126611	0.55	57	59	37	39	25	38	32	27	92	107	55	90
15 (DN15) MF	126612	0.55	57	59	37	39	25	38	32	27	92	107	55	90
15 (DN15) SF	126613	0.55	57	59	37	39	25	38	32	27	92	107	55	90
18 (DN15) LF	126614	0.55	58	60	38	40	25	38	32	27	92	107	55	90
18 (DN15) SF	126615	0.55	58	60	38	40	25	38	32	33	92	107	55	90
22 (DN20) SF	126616	0.67	57	66	36	45	25	38	38	27	96	114	55	90
28 (DN25) SF	126617	0.99	70	78	47	55	25	38	45	33	108	131	55	90
35 (DN32) SF	126618	1.58	79	95	53	69	32	38	56	41	126	154	55	90
42 (DN40) SF	126619	2.05	88	103	58	73	35	38	62	60	132	163	55	90
54 (DN50) SF	126620	3.36	112	130	77	95	35	38	74	58	151	189	55	90

dimension	Kv [m³/h]	Kvs [m³/h]	flow [l/s] min.	flow [l/s] max.	flow [l/min] min.	flow [l/min] max.	flow [l/h] min.	flow [l/h] max.
15 (DN15) ULF	0.27	0.25	0.008	0.016	0.46	0.94	27.4	56.2
15 (DN15) LF	0.55	0.49	0.015	0.031	0.91	1.84	54.7	110.5
15 (DN15) MF	1.08	0.98	0.030	0.061	1.80	3.67	108.0	220.0
15 (DN15) SF	2.09	2.02	0.058	0.126	3.49	7.54	209.2	452.5
18 (DN15) LF	0.55	0.49	0.015	0.031	0.91	1.84	54.7	110.5
18 (DN15) SF	2.09	2.02	0.058	0.126	3.49	7.54	209.2	452.5
22 (DN20) SF	3.07	4.43	0.123	0.191	7.37	11.45	442.4	686.9
28 (DN25) SF	6.19	6.07	0.172	0.377	10.32	22.61	619.2	1356.8
35 (DN32) SF	13.13	11.10	0.365	0.690	21.89	41.38	1313.3	2482.6
42 (DN40) SF	22.49	22.26	0.625	1.383	37.48	82.95	2248.9	4977.0
54 (DN50) SF	28.19	42.46	1.180	1.751	70.77	105.07	4246.2	6304.3



flow rate Apollo ProFlow PS1260



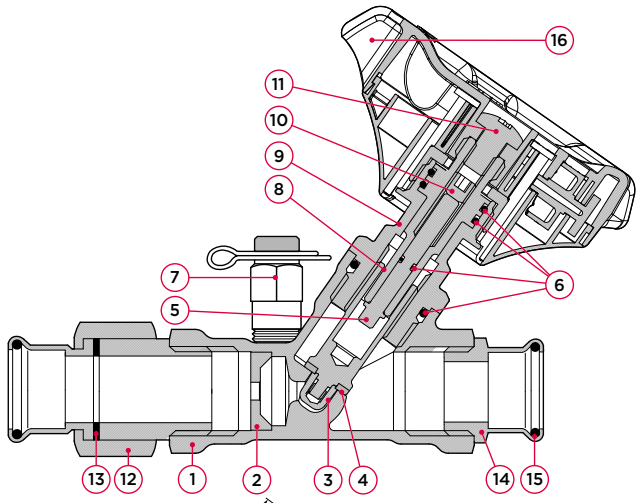
pressure loss Apollo ProFlow PS1260

PSU1260 Apollo ProFlow static balancing valve

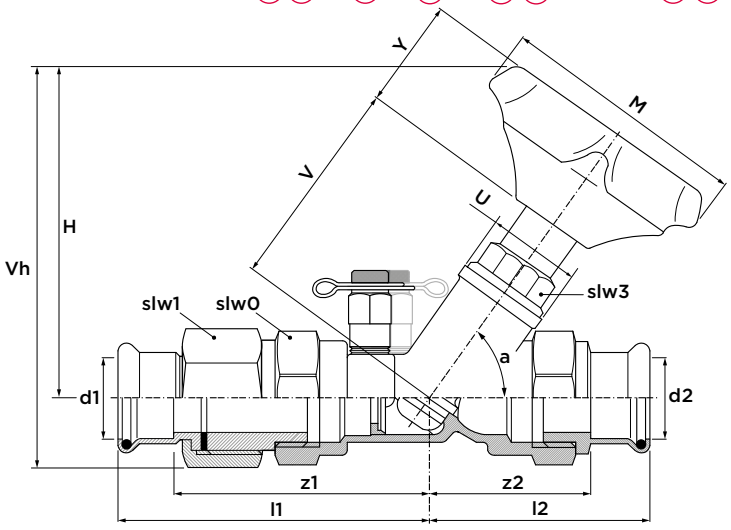
(2 x press, with union connection, inlet)

specifications

- max. operating pressure 16 bar
- operating temperature -10°C to 110°C
- VSH XPress gunmetal connections for carbon steel, stainless steel and copper tube
- M-profile
- fixed orifice measuring (FODRV)
- handle with visual digital positioning indicator
- memory stop for setting fixation
- test points for needle connection



no.	component	material
1	body	brass (CW511L)
2	orifice plate	brass (CW511L)
3	disc	brass (CW511L)
4	disc seal	PTFE
5	regulator pin	brass (CW511L)
6	o-rings	EPDM
7	test point	brass (CW511L)
8	stem	brass (CW511L)
9	bonnet	brass (CW511L)
10	memory stop screw	brass (CW511L)
11	set screw	stainless steel (AISI 304)
12	union nut	gunmetal (CC499K)
13	flat seal	fiberring
14	press connection	gunmetal (CC499K)
15	o-ring	EPDM
16	handle	30% glass filled PA 66



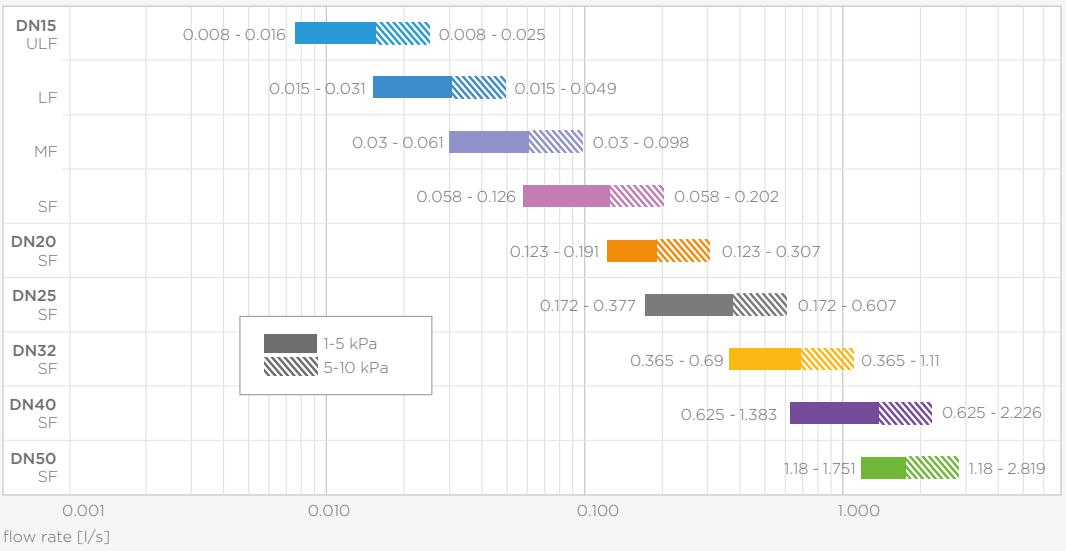
maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

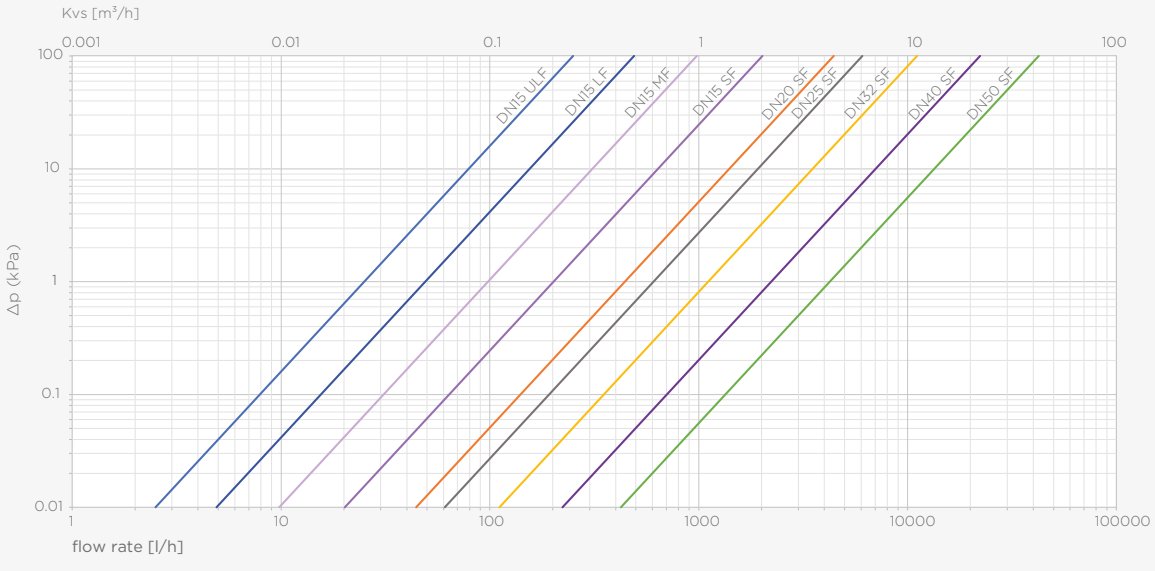
pressure equipment directive category	
all dimensions	SEP

dimension	article no.	weight (kg)	l1	l2	z1	z2	slw0	slw1	slw3	Y	V	U	H	Vh	a [°]	M
15 (DN15) ULF	126293	0.55	79	59	59	39	28	32	25	38	32	27	92	107	55	90
15 (DN15) LF	126247	0.55	79	59	59	39	28	32	25	38	32	27	92	107	55	90
15 (DN15) MF	126291	0.55	79	59	59	39	28	32	25	38	32	27	92	107	55	90
15 (DN15) SF	126248	0.55	79	59	59	39	28	32	25	38	32	27	92	107	55	90
18 (DN15) LF	126249	0.55	74	60	54	40	28	32	25	38	32	27	92	107	55	90
18 (DN15) SF	126250	0.55	74	60	54	40	28	32	25	38	32	27	92	107	55	90
22 (DN20) SF	126251	0.67	87	66	66	45	32	32	25	38	38	27	96	114	55	90
28 (DN25) SF	126252	0.99	95	78	72	55	41	39	25	38	45	33	108	131	55	90
32 (DN32) SF	126253	1.59	105	95	79	69	50	50	32	38	56	41	126	154	55	90
40 (DN40) SF	126254	2.05	116	103	86	73	55	55	35	38	62	60	132	163	55	90
50 (DN50) SF	126255	3.36	142	130	107	95	70	70	35	38	74	58	151	189	55	90

dimension			Kv [m³/h]	Kvs [m³/h]	flow [l/s] min.	flow [l/s] max.	flow [l/min] min.	flow [l/min] max.	flow [l/h] min.	flow [l/h] max.
15	(DN15)	ULF	0.27	0.25	0.008	0.016	0.46	0.94	27.4	56.2
15	(DN15)	LF	0.55	0.49	0.015	0.031	0.91	1.84	54.7	110.5
15	(DN15)	MF	1.08	0.98	0.030	0.061	1.80	3.67	108.0	220.0
15	(DN15)	SF	2.09	2.02	0.058	0.126	3.49	7.54	209.2	452.5
18	(DN15)	LF	0.55	0.49	0.015	0.031	0.91	1.84	54.7	110.5
18	(DN15)	SF	2.09	2.02	0.058	0.126	3.49	7.54	209.2	452.5
22	(DN20)	SF	3.07	4.43	0.123	0.191	7.37	11.45	442.4	686.9
28	(DN25)	SF	6.19	6.07	0.172	0.377	10.32	22.61	619.2	1356.8
32	(DN32)	SF	13.13	11.10	0.365	0.690	21.89	41.38	1313.3	2482.6
40	(DN40)	SF	22.49	22.26	0.625	1.383	37.48	82.95	2248.9	4977.0
50	(DN50)	SF	28.19	42.46	1.180	1.751	70.77	105.07	4246.2	6304.3



flow rate Apollo ProFlow PSU1260



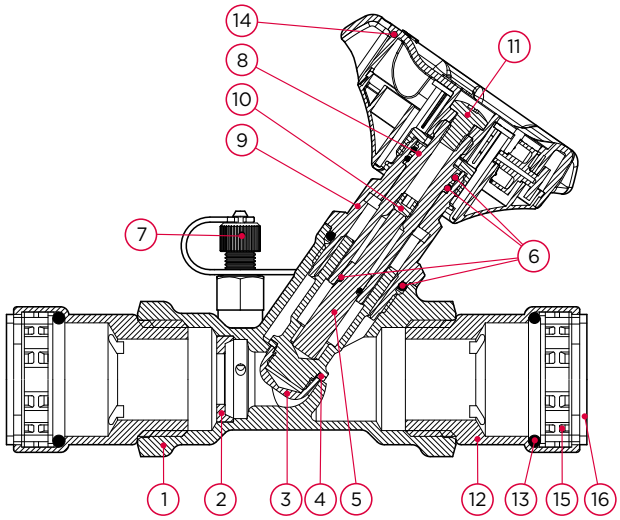
pressure loss Apollo ProFlow PSU1260

PP1260 Apollo ProFlow static balancing valve

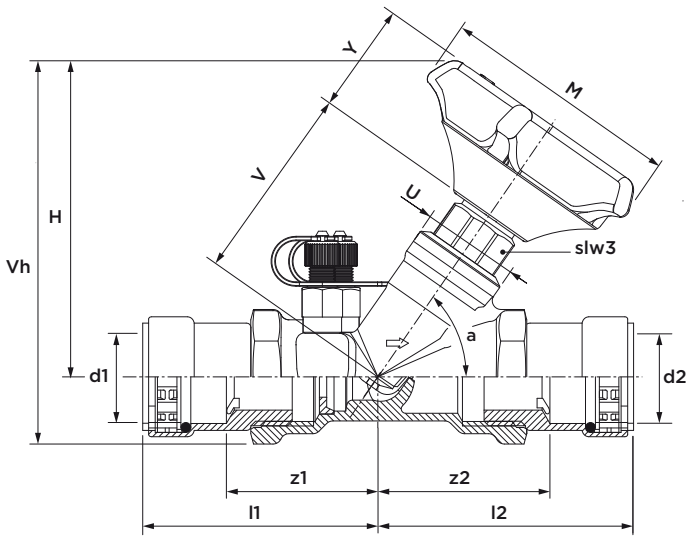
(2 x press)

specifications

- max. operating pressure 16 bar
- operating temperature -10°C to 120°C
- VSH PowerPress® connections
- DW-profile
- fixed orifice measuring (FODRV)
- handle with visual digital positioning indicator
- memory stop for setting fixation
- test points for needle connection
- socket transport protection
- visual press indicators



no.	component	material
1	body	brass (CW511L)
2	orifice plate	brass (CW511L)
3	disc	brass (CW511L)
4	disc seal	PTFE
5	regulator pin	brass (CW511L)
6	o-rings	EPDM
7	test point	brass (CW511L)
8	stem	brass (CW511L)
9	bonnet	brass (CW511L)
10	memory stop screw	brass (CW511L)
11	set screw	stainless steel (AISI 304)
12	press end	carbon steel zinc nickel plated
13	o-ring	EPDM
14	handle	30% glass filled PA 66
15	grab ring	stainless steel



maximum pressure [bar]

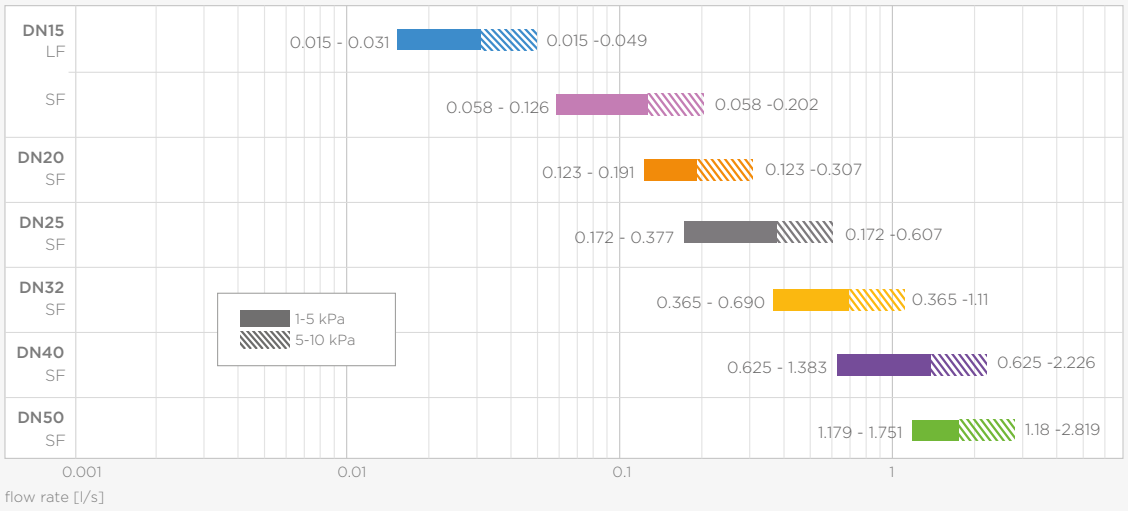
operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category

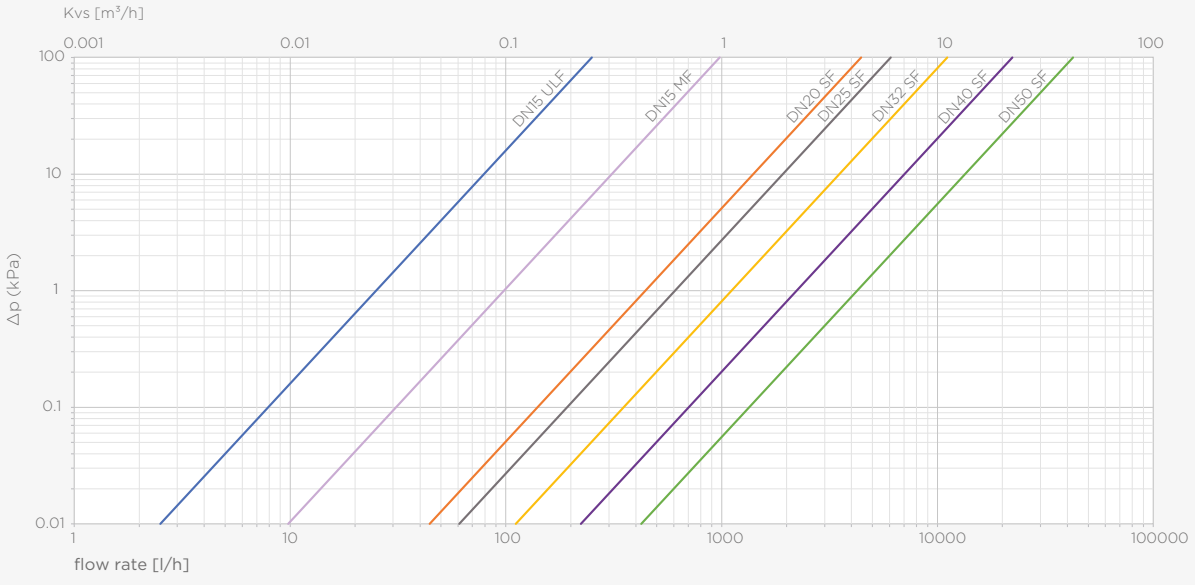
all dimensions	SEP

dimension			article no.	weight (kg)	l1	l2	z1	z2	slw3	Y	V	U	H	Vh	a [°]	M
½"	(DN15)	LF	PWR9440486	0.68	73	75	46	48	25	38	64	27	92	107	55	90
½"	(DN12)	SF	PWR9440497	0.68	73	75	46	48	25	38	64	27	92	107	55	90
¾"	(DN20)	SF	PWR9440508	0.80	74	83	43	52	25	38	64	27	96	114	55	90
1"	(DN25)	SF	PWR9440519	1.15	88	96	53	60	25	38	73	33	108	131	55	90
1¼"	(DN32)	SF	PWR9440521	1.93	110	126	62	78	32	38	81	41	126	154	55	90
1½"	(DN40)	SF	PWR9440530	2.52	114	129	66	81	35	38	85	60	132	163	55	90
2"	(DN50)	SF	PWR9440541	4.02	133	149	80	96	35	38	103	58	151	189	55	90

dimension		Kv [m³/h]	Kvs [m³/h]	flow [l/s] min.	flow [l/s] max.	flow [l/min] min.	flow [l/min] max.	flow [l/h] min.	flow [l/h] max.
½" (DN15)	LF	0.55	0.49	0.015	0.031	0.91	1.84	54.7	110.5
½" (DN12)	SF	2.09	2.02	0.058	0.126	3.49	7.54	209.2	452.5
¾" (DN20)	SF	3.07	4.43	0.123	0.191	7.37	11.45	442.4	686.9
1" (DN25)	SF	6.19	6.07	0.172	0.377	10.32	22.61	619.2	1356.8
1¼" (DN32)	SF	13.13	11.10	0.365	0.690	21.89	41.38	1313.3	2482.6
1½" (DN40)	SF	22.49	22.26	0.625	1.383	37.48	82.95	2248.9	4977.0
2" (DN50)	SF	28.19	42.46	1.180	1.751	70.77	105.07	4246.2	6304.3



flow rate Apollo ProFlow PP1260



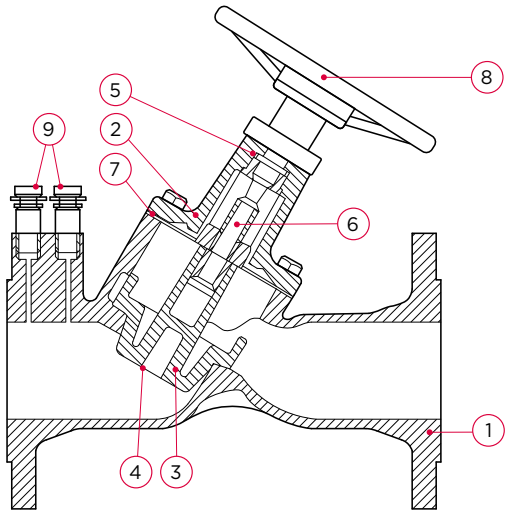
pressure loss Apollo ProFlow PP1260

V955 Apollo ProFlow static balancing valve

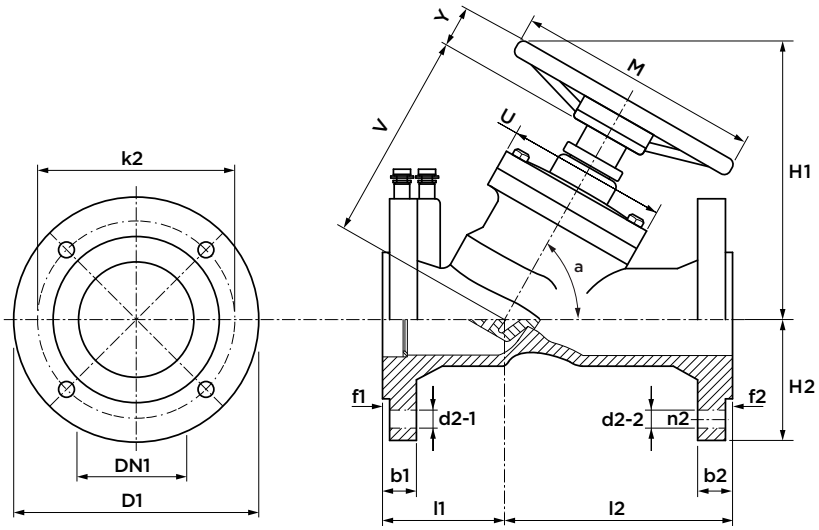
(2 x flange)

specifications

- max. operating pressure 16 bar
- operating temperature -10°C to 120°C
- fixed orifice
- regulating and isolating functions
- face to face dimensions to EN558-1
- DZR brass test points for flow measurement
- lockable settings



no.	component	material
1	body	ductile iron (EN-GJS-400-15)
2	bonnet	ductile iron (EN-GJS-400-15)
3	disc	ductile iron (EN-GJS-400-15), EPDM coated
4	disc nail	brass
5	o-ring	EPDM
6	stem	stainless steel
7	gasket	graphite
8	handwheel DN50-100	carbon steel
	handwheel DN125-300	ductile iron (EN-GJS-400-15)
9	test points	brass (CW511L)



maximum pressure [bar]

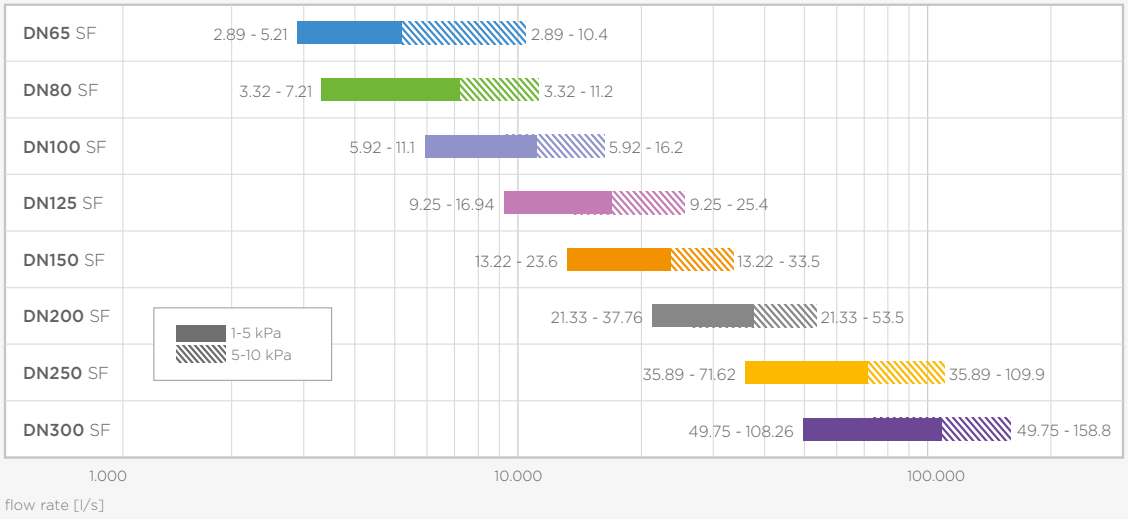
operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category

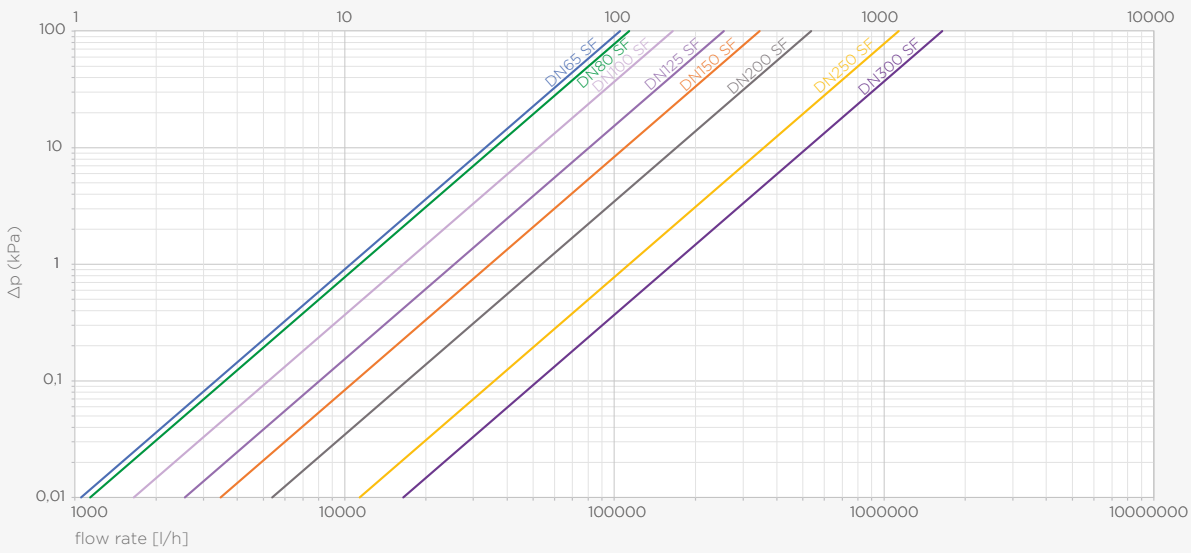
all dimensions	SEP

dimension	article no.	weight (kg)	D1	d2-1/d2-2	b1/b2	f1/f2	l1	l2	Y	V	U	H1	H2	n2	k2	a [°]	M
DN65	150013	17.0	185	19	20	3	73	218	15	192	122	263	93	4	145	55	172
DN80	150014	20.0	200	19	20	3	84	226	15	198	130	268	100	8	160	55	172
DN100	150010	29.0	220	20	22	3	98	252	15	223	141	300	110	8	180	55	197
DN125	150011	40.0	250	20	22	3	115	286	15	242	154	328	125	8	210	55	229
DN150	150012	52.0	285	20	24	3	127	353	15	255	167	340	143	8	240	55	261
DN200	150015	113.0	340	21	26	3	160	440	15	420	192	525	170	12	295	55	324
DN250	150016	185.0	400	21	29	3	169	561	15	449	218	572	200	12	355	55	387
DN300	150017	248.0	455	22	32	4	199	651	15	581	243	686	228	12	410	55	450

			flow [l/s]		flow [l/min]		flow [l/h]	
dimension	**Kv [m³/h]**	**Kvs [m³/h]**	**min.**	**max.**	**min.**	**max.**	**min.**	**ma.x**
DN65	104	104	2.890	5.210	173.40	312.60	10404.0	18756.0
DN80	112	112	3.320	7.210	199.20	432.60	11952.0	25956.0
DN100	162	162	5.920	11.100	355.20	666.00	21312.0	39960.0
DN125	254	254	9.250	16.940	555.00	1016.40	33300.0	60984.0
DN150	335	335	13.220	23.600	793.20	1416.00	47592.0	84960.0
DN200	535	535	21.330	37.760	1279.80	2265.60	76788.0	135936.0
DN250	1099	1099	35.890	71.620	2153.40	4297.20	129204.0	257832.0
DN300	1588	1588	49.750	108.260	2985.00	6495.60	179100.0	389736.0



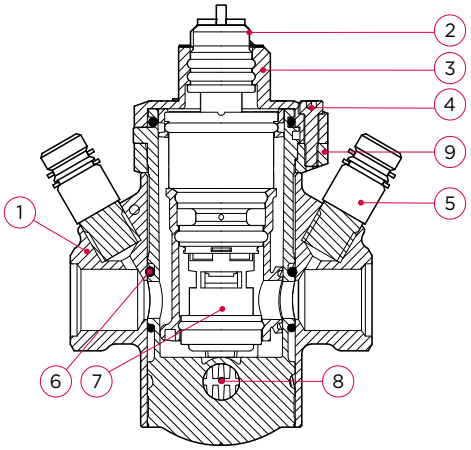
flow rate Apollo ProFlow V955



pressure loss Apollo ProFlow V955

1600 Apollo ProFlow PICV pressure independent control valve

(2 x female thread)



specifications

- max. operating pressure 16 bar
- operating temperature -10°C to 90°C
- built-in bypass: full bore forward and backflush
- built in isolation mode

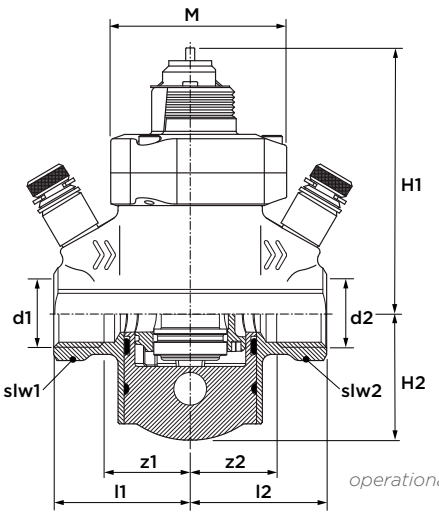
no.	component	material
1	body	brass (CW511L)
2	indicator	stainless steel (AISI 304)
3	cap	brass (CW511L)
4	socket screw	stainless steel (AISI 304)
5	test point	brass (CW511L)
6	o-ring	EPDM
7	cartridge	polyphenylene sulphide (PPS)
8	locking peg	polyoxymethylene (POM)
9	clamp	brass (CW511L)

maximum pressure [bar]

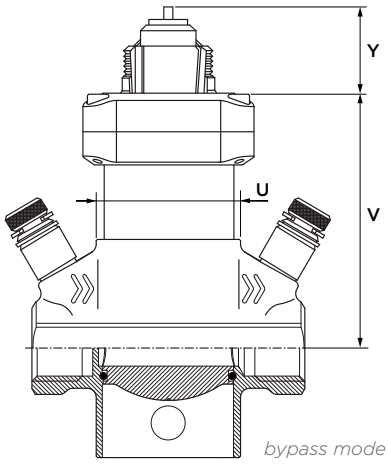
operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category

all dimensions	SEP



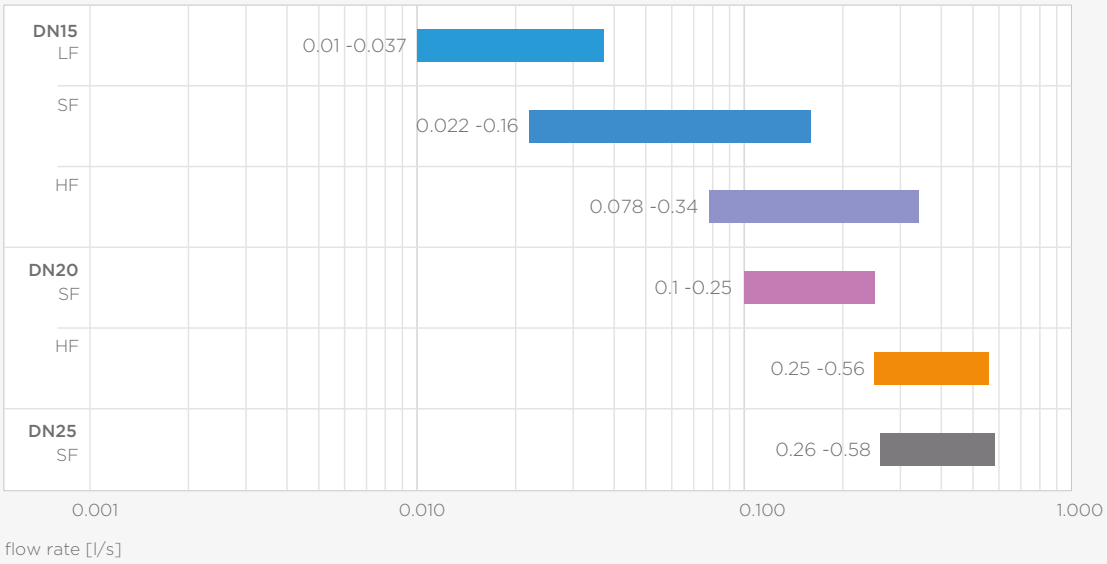
operational mode



bypass mode

dimension	article no.	weight (kg)	l1/l2	z1/z2	slw1/slw2	Y	V	U	H1	H2	M
G½" (DN15) LF	16001	0.90	48	29	27	31	84	49	90	44	65
G½" (DN15) SF	16002	0.90	48	29	27	31	84	49	90	44	65
G½" (DN15) HF	16003	0.90	48	29	27	31	84	49	90	44	65
G¾" (DN20) SF	16004	1.50	52	33	32	31	107	60	105	58	76
G¾" (DN20) HF	16005	1.50	52	33	32	31	107	60	105	58	76
G1" (DN25) SF	16006	1.50	58	42	40	31	107	60	105	58	76

	flow [l/s]		flow [l/min]		flow [l/h]	
dimension	**min.**	**max.**	**min.**	**max.**	**min.**	**max.**
G½" (DN15) LF	0.010	0.037	0.60	2.22	36.0	133.2
G½" (DN15) SF	0.022	0.160	1.32	9.60	79.2	576.0
G½" (DN15) HF	0.078	0.340	4.68	20.40	280.8	1224.0
G¾" (DN20) SF	0.100	0.250	6.00	15.00	360.0	900.0
G¾" (DN20) HF	0.250	0.560	15.00	33.60	900.0	2016.0
G1" (DN25) SF	0.260	0.580	15.60	34.80	936.0	2088.0



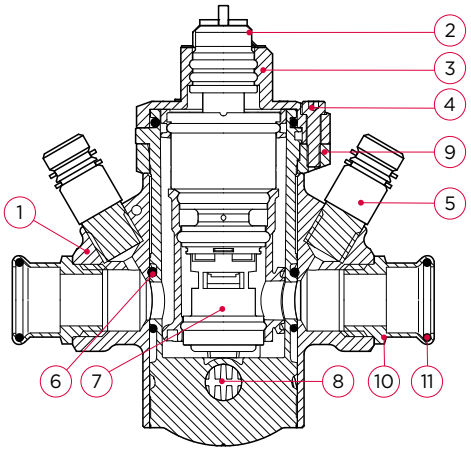
flow rate Apollo ProFlow 1600 PICV

PS1600 Apollo ProFlow PICV pressure independent control valve

(2 x press)

specifications

- max. operating pressure 16 bar
- operating temperature -10°C to 90°C
- built-in bypass: full bore forward and backflush
- built in isolation mode
- VSH XPress connections for copper, carbon steel and stainless steel tube
- M-profile

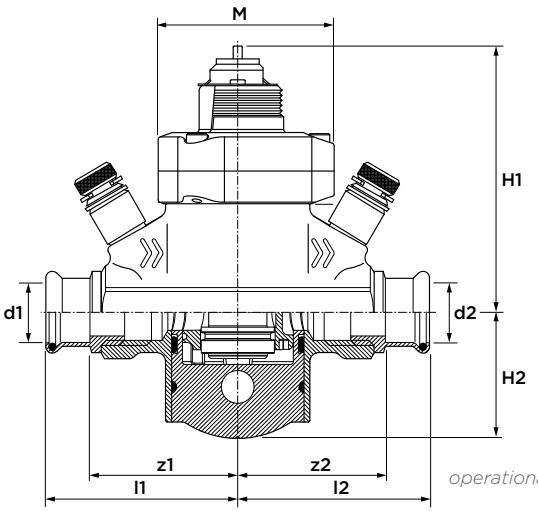


no.	component	material
1	body	brass (CW511L)
2	indicator	stainless steel (AISI 304)
3	cap	brass (CW511L)
4	socket screw	stainless steel (AISI 304)
5	test point	brass (CW511L)
6	o-ring	EPDM
7	cartridge	polyphenylene sulphide (PPS)
8	bocking peg	polyoxymethylene (POM)
9	clamp	brass (CW511L)
10	press connection	gunmetal (CC499K)
11	o-ring	EPDM

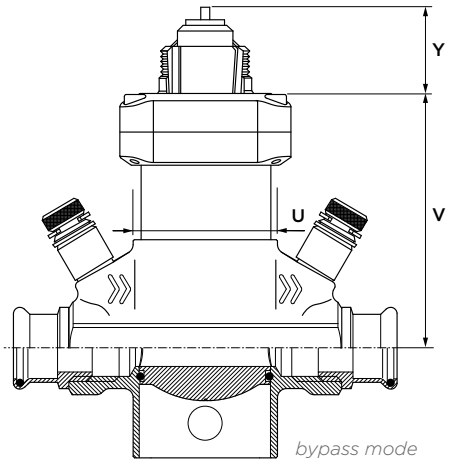
maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all dimensions	SEP



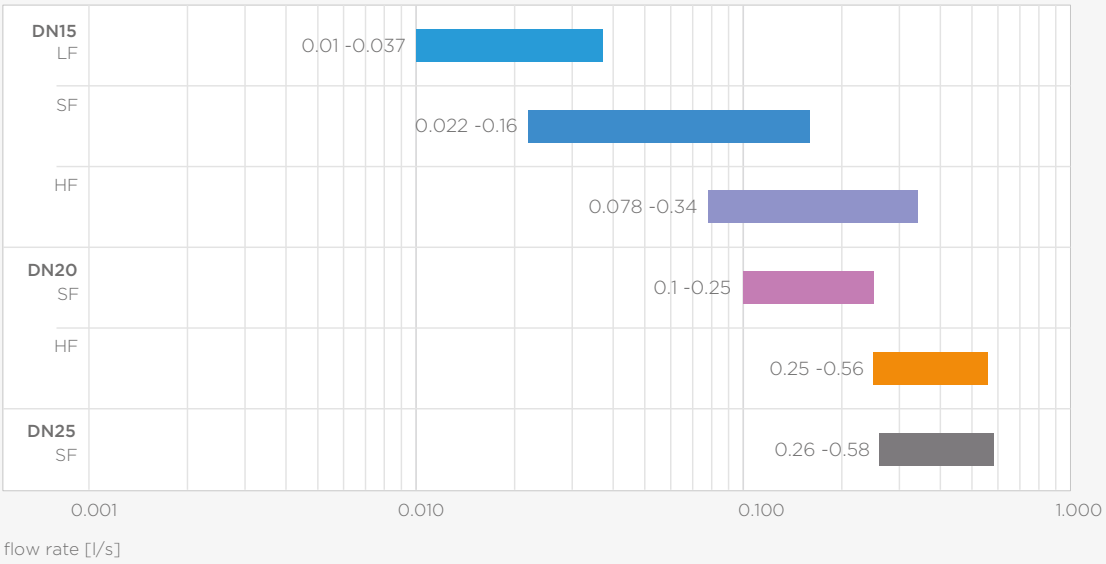
operational mode



bypass mode

dimension			article no.	weight (kg)	l1/l2	z1/z2	Y	V	U	H1	H2	M
15	(DN15)	LF	16020	0.96	68	48	31	84	49	90	44	65
15	(DN15)	SF	16021	0.96	68	48	31	84	49	90	44	65
15	(DN15)	HF	16022	0.96	68	48	31	84	49	90	44	65
22	(DN20)	SF	16023	1.64	76	55	31	107	60	105	58	76
22	(DN20)	HF	16024	1.64	76	55	31	107	60	105	58	76
28	(DN25)	SF	16025	1.64	84	61	31	107	60	105	58	76

dimension	flow [l/s]		flow [l/min]		flow [l/h]	
	min.	max.	min.	max.	min.	max.
15 (DN15) LF	0.010	0.037	0.60	2.22	36.0	133.2
15 (DN15) SF	0.022	0.160	1.32	9.60	79.2	576.0
15 (DN15) HF	0.078	0.340	4.68	20.40	280.8	1224.0
22 (DN20) SF	0.100	0.250	6.00	15.00	360.0	900.0
22 (DN20) HF	0.250	0.560	15.00	33.60	900.0	2016.0
28 (DN25) SF	0.260	0.580	15.60	34.80	936.0	2088.0



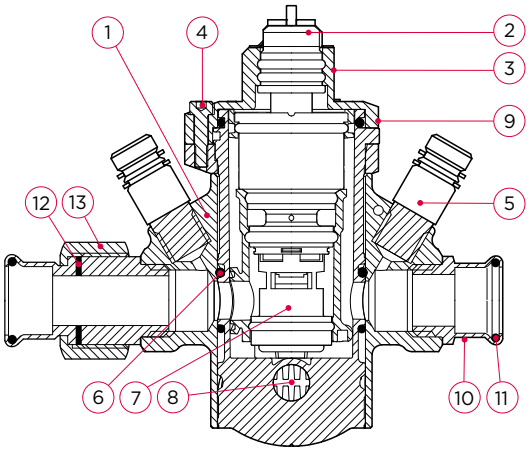
flow rate Apollo ProFlow PS1600 PICV

PSU1600 Apollo ProFlow PICV pressure independent control valve

(2 x press, with union connection, inlet)

specifications

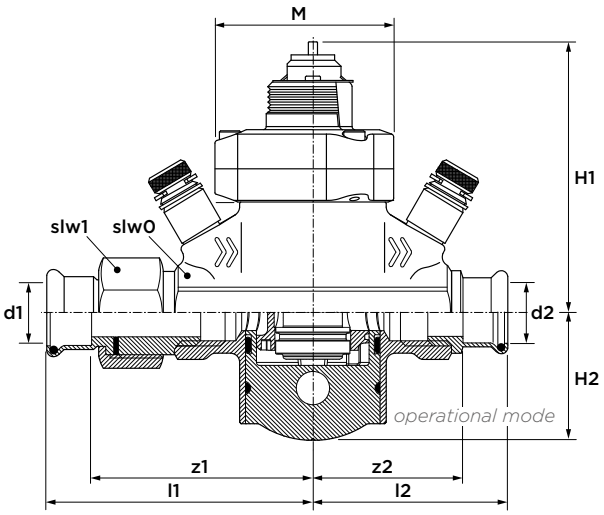
- max. operating pressure 16 bar
- operating temperature -10°C to 90°C
- built-in bypass: full bore forward and backflush
- built in isolation mode
- VSH XPress connections for copper, carbon steel and stainless steel tube
- M-profile

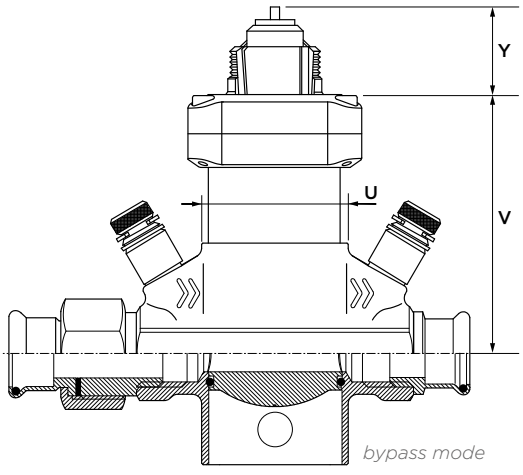


no.	component	material
1	body	brass (CW511L)
2	indicator	stainless steel (AISI 304)
3	cap	brass (CW511L)
4	socket screw	stainless steel (AISI 304)
5	test point	brass (CW511L)
6	o-ring	EPDM
7	cartridge	polyphenylene sulphide (PPS)
8	locking peg	polyoxymethylene (POM)
9	clamp	brass (CW511L)
10	press connection	gunmetal (CC499K)
11	o-ring	EPDM
12	flat seal	fiberring
13	union nut	gunmetal (CC499K)

maximum pressure [bar]		
operating pressure	**test pressure shell**	**test pressure seat**
16	24	17.6

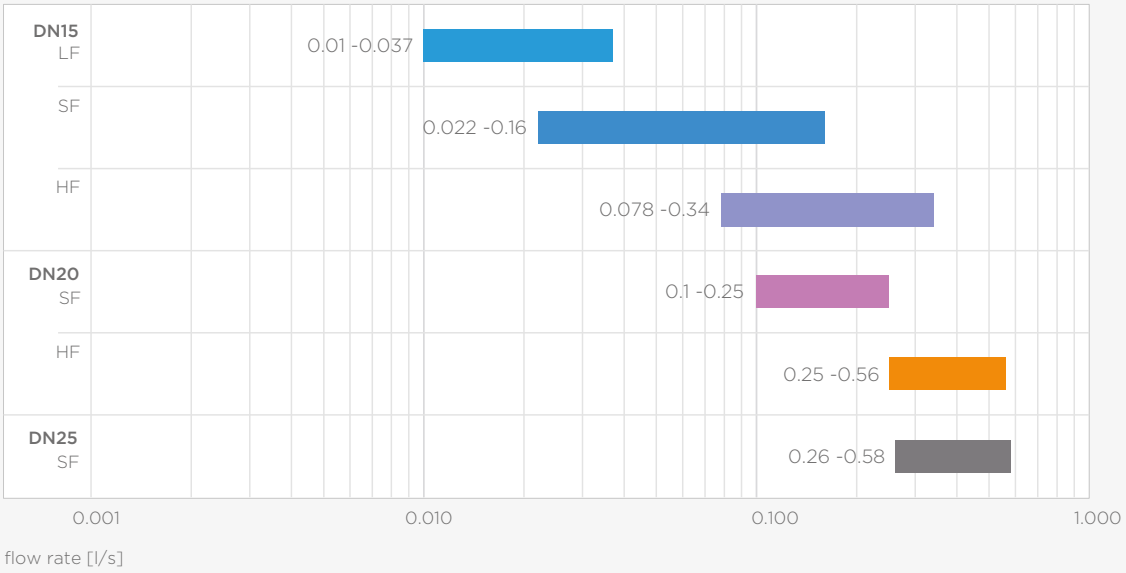
pressure equipment directive category	
all dimensions	SEP





dimension			article no.	weight (kg)	l1	l2	z1	z2	slw0	slw2	Y	V	U	H1	H2	M
15	(DN15)	LF	16050	0.96	68	89	48	70	27	34	31	84	49	90	44	65
15	(DN15)	SF	16051	0.96	68	89	48	70	27	34	31	84	49	90	44	65
15	(DN15)	HF	16052	0.96	68	89	48	70	27	34	31	84	49	90	44	65
22	(DN20)	SF	16053	1.64	75	105	55	84	32	40	31	107	60	105	58	76
22	(DN20)	HF	16054	1.64	75	105	55	84	32	40	31	107	60	105	58	76
28	(DN25)	SF	16055	1.64	84	109	62	86	40	48	31	107	60	105	58	76

dimension			flow [l/s]		flow [l/min]		flow [l/h]	
			min.	max.	min.	max.	min.	max.
15	(DN15)	LF	0.010	0.037	0.60	2.22	36.0	133.2
15	(DN15)	SF	0.022	0.160	1.32	9.60	79.2	576.0
15	(DN15)	HF	0.078	0.340	4.68	20.40	280.8	1224.0
22	(DN20)	SF	0.100	0.250	6.00	15.00	360.0	900.0
22	(DN20)	HF	0.250	0.560	15.00	33.60	900.0	2016.0
28	(DN25)	SF	0.260	0.580	15.60	34.80	936.0	2088.0



flow rate Apollo ProFlow PSU1600 PICV

Apollo valves

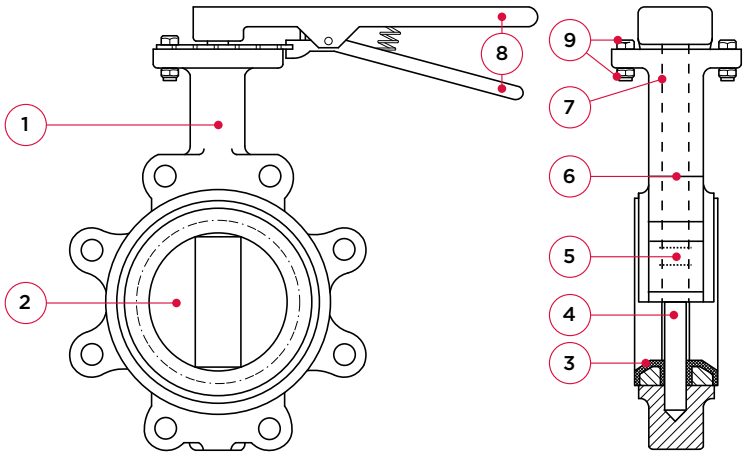
butterfly valves

V905 Apollo butterfly valve (lug type)

(2 x flange)

specifications

- maximum pressure 16 bar
- operating temperature -10°C to 120°C
- with lever handle

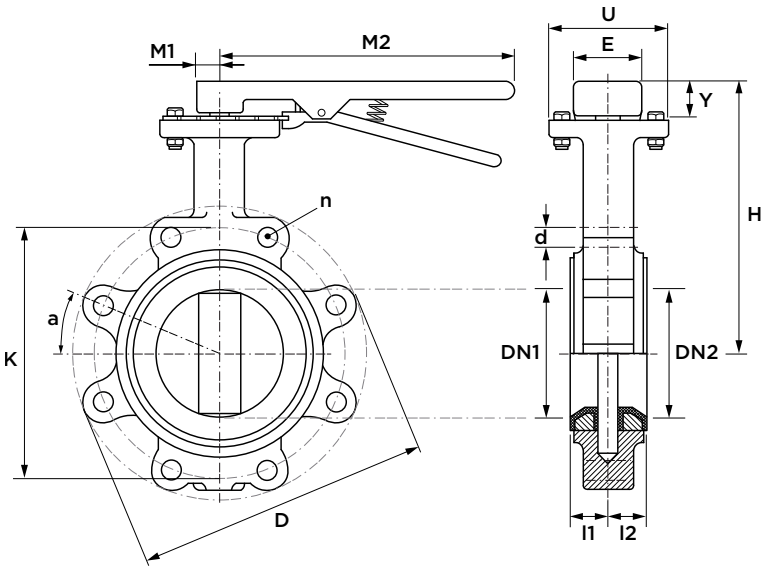


no.	component	material
1	body	cast iron (GGG40)
2	disc	stainless steel (CF8)
3	seat	EPDM
4	shaft	stainless steel (AISI 410)
5	pins	stainless steel (AISI 304)
6	o-ring	EPDM
7	bushing	PTFE
8	hex bolts and nuts	carbon steel
9	lever	malleable iron

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP



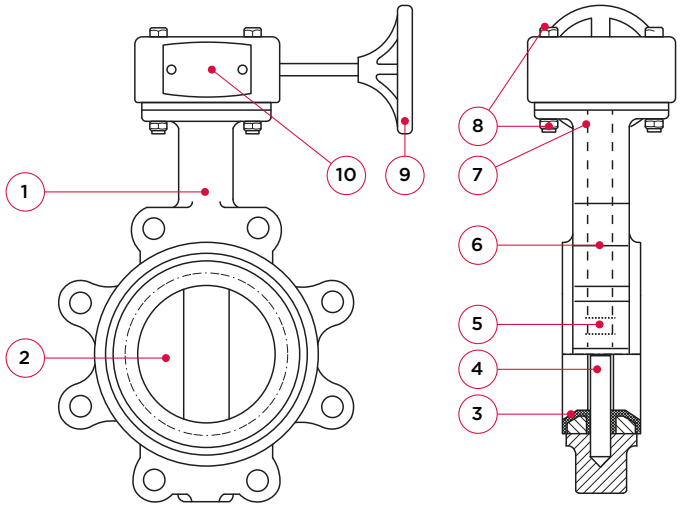
dimension	article no.	weight [kg]	l1/l2	D	n	d	K	H	Y	V	U	E	a [°]	M1	M2
DN65	15300	4.9	23	180	4	18	145	222	20	175	66	29	45	50	200
DN80	15301	5.1	23	200	8	18	160	239	20	181	66	29	22.5	50	200
DN100	15302	7.7	26	220	8	18	158	254	29	200	66	29	22.5	50	290
DN125	15303	10.6	28	255	8	18	210	262	29	213	90	29	22.5	70	290
DN150	15304	11.2	28	293	8	22	240	280	29	226	95	29	22.5	70	290
DN200	15305	18.7	30	330	12	22	295	320	45	260	95	32	15	70	450

V905G Apollo butterfly valve (lug type)

(2 x flange)

specifications

- maximum pressure 16 bar
- operating temperature -10°C to 120°C
- with handwheel



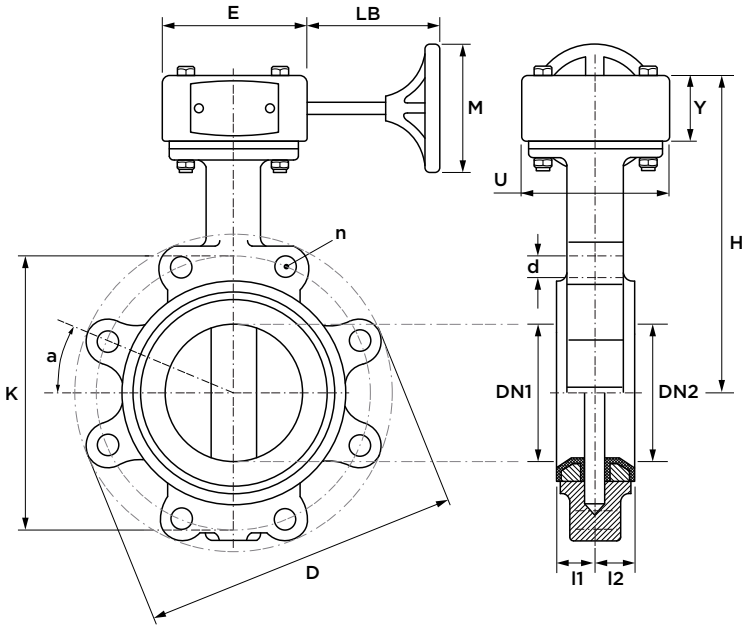
no.	component	material
1	body	cast iron (GGG40)
3	disc	stainless steel (CF8)
2	seat	EPDM
4	shaft	stainless steel (AISI 410)
5	pins	stainless steel (AISI 304)
6	o-ring	EPDM
7	bushing	PTFE
8	hex bolts and nuts	carbon steel
9	handwheel	steel
10	gearbox	cast iron

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category

all sizes	SEP



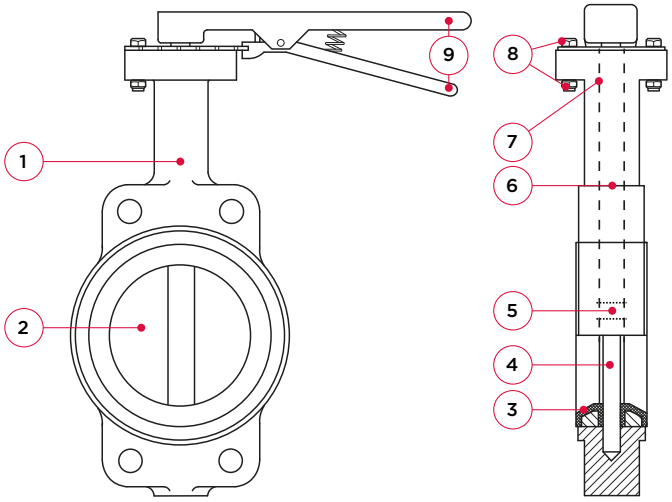
dimension	article no.	weight [kg]	l1/l2	D	n	d	K	Y	V	U	E	LB	H	a [°]	M
DN250	15306	35	34	405	12	26	355	120	337	161	155	115	520	15	285
DN300	15307	49	51	460	12	26	410	120	292	161	165	120	556	15	285

V906 Apollo butterfly valve (wafer type)

(2 x flange)

specifications

- maximum pressure 16 bar
- operating temperature -10°C to 120°C
- with lever handle

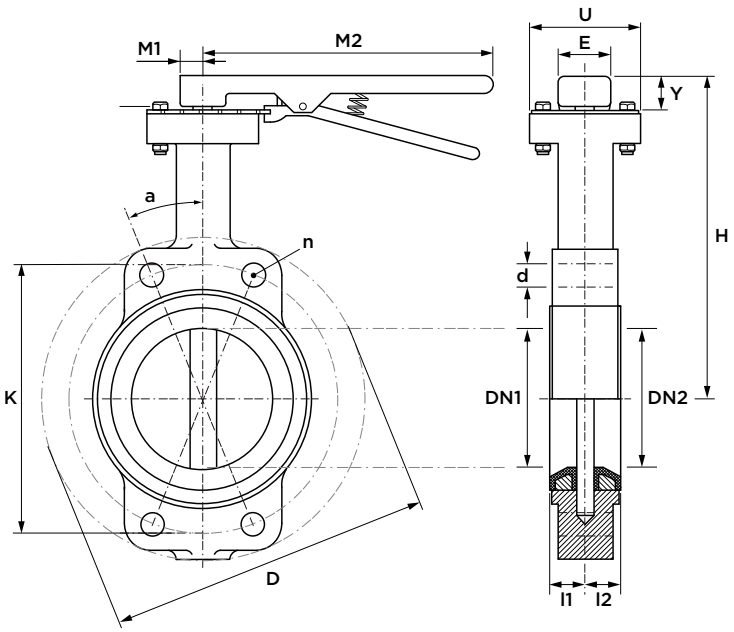


no.	component	material
1	body	cast iron (GGG40)
2	disc	stainless steel (CF8)
3	seat	EPDM
4	shaft	stainless steel (AISI 410)
5	pins	stainless steel (AISI 304)
6	o-ring	EPDM
7	bushing	PTFE
8	hex bolts and nuts	carbon steel
9	lever	malleable iron

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP



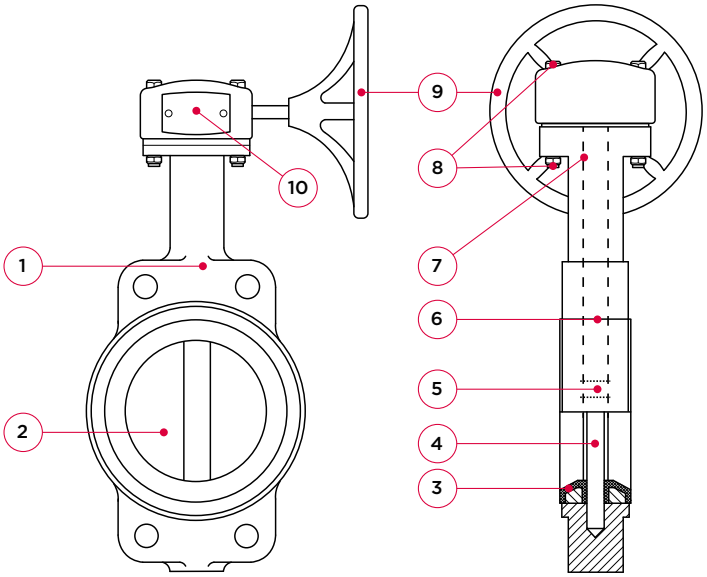
dimension	article no.	weight [kg]	l1/l2	D	n	d	K	H	Y	V	U	E	a [°]	M1	M2
DN65	15316	3.8	23	185	4	18	145	181	43	175	56	29	45	20	200
DN80	15317	4.1	23	200	8	18	160	187	43	181	56	29	22.5	20	200
DN100	15318	5.4	26	220	8	18	180	211	55	200	70	29	22.5	29	290
DN125	15319	7.5	28	250	8	18	210	226	55	213	70	29	22.5	29	290
DN150	15320	8.7	28	285	8	22	240	239	55	226	70	29	22.5	29	290
DN200	15321	14.3	30	340	12	22	295	293	89	260	94	32	15	45	450

V906G Apollo butterfly valve (wafer type)

(2 x flange)

specifications

- maximum pressure 16 bar
- operating temperature -10°C to 120°C
- with handwheel

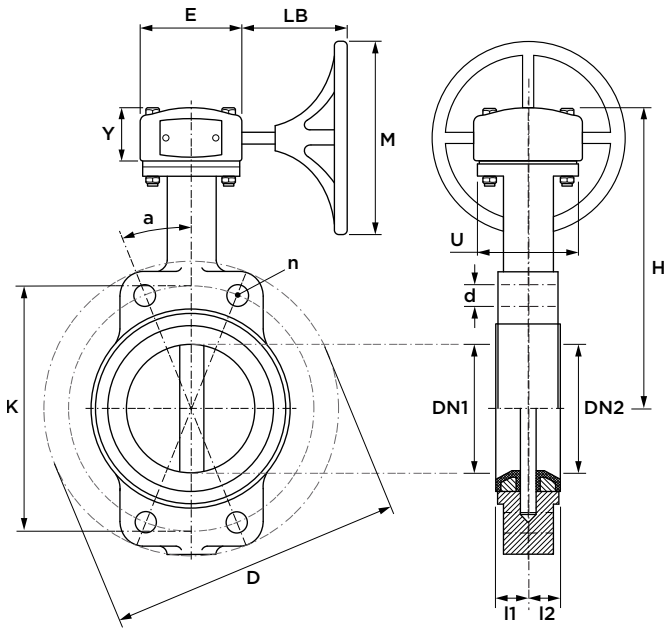


no.	component	material
1	body	cast iron (GGG40)
3	disc	stainless steel (CF8)
2	seat	EPDM
4	shaft	stainless steel (AISI 410)
5	pins	stainless steel (AISI 304)
6	o-ring	EPDM
7	bushing	PTFE
8	hex bolts and nuts	carbon steel
9	handwheel	steel
10	gearbox	cast iron

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP



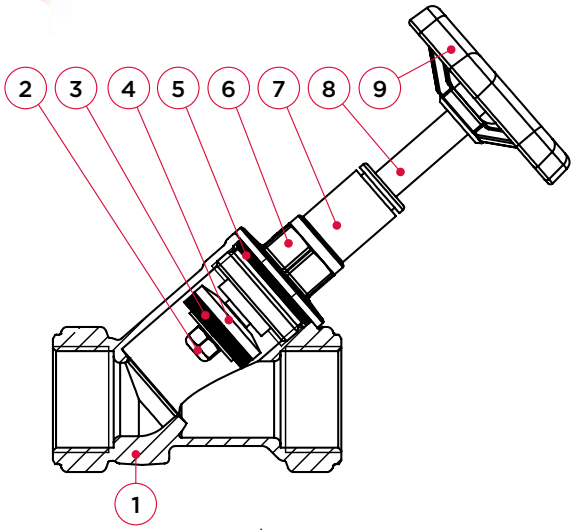
dimension	article no.	weight [kg]	l1/l2	D	n	d	K	Y	V	U	E	LB	H	a [°]	M
DN250	15322	29.3	34	405	12	26	355	120	292	125	135	115	584	15	270
DN300	15323	40	39	460	12	26	410	120	337	125	127	127	606	15	270

Apollo Valves

stop valves

1402 SEPP DIN-Basis stop valve

(2 x female thread)

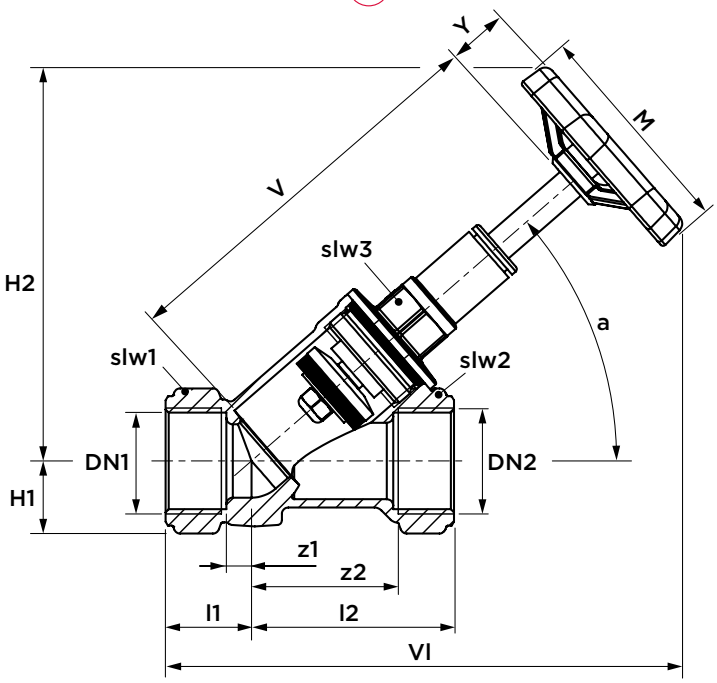


specifications

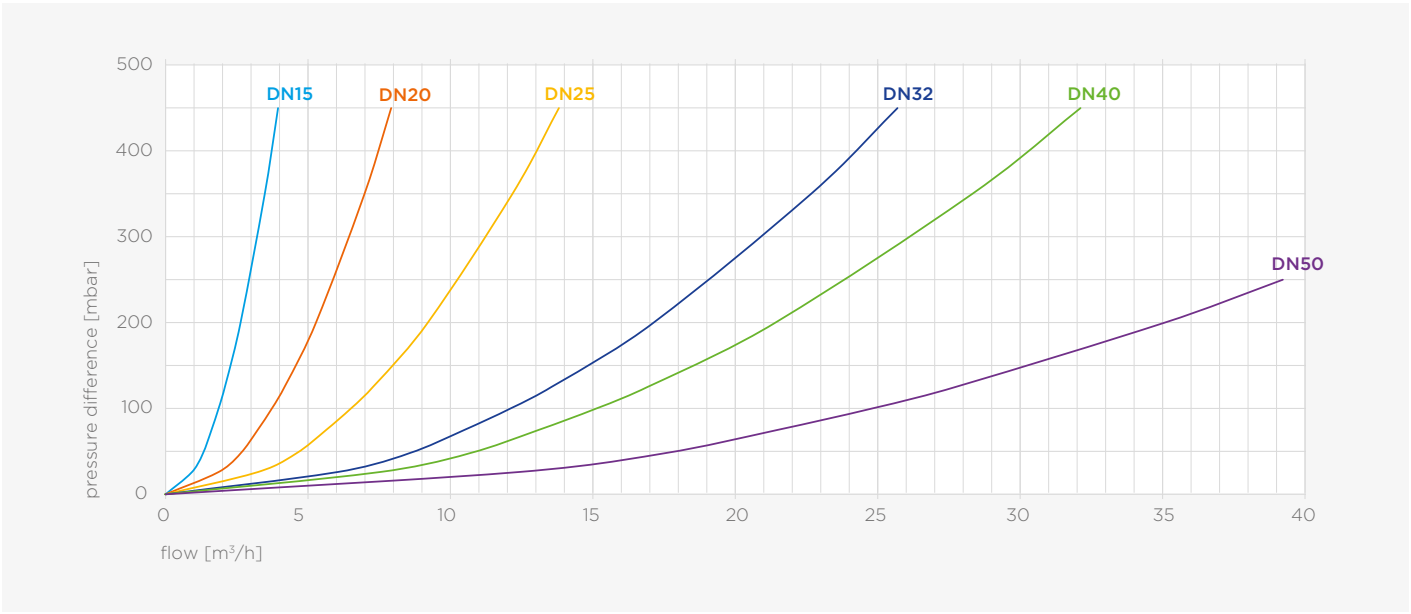
- maximum pressure 16 bar
- maximum temperature 90°C
- stem with double o-ring seal
- rising stem with grease chamber, without dead space
- without drain

no.	component	material
1	body	brass (CW617N)
2	nut	stainless (AISI 304/1.4301)
3	valve seal	EPDM
4	valve disc	brass
5	o-ring	EPDM
6	bonnet	brass
7	double o-ring seal	EPDM
8	stem	brass
9	handwheel	nylon (PA6, GF 20%)

maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
16	25	24
pressure equipment directive category (PED)		
all dimensions	SEP	

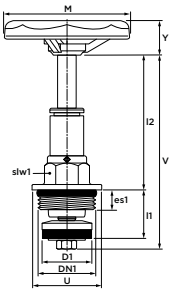


dimension	article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw1/2	slw3	Y	V	H1	H2	Vl	a [°]	M
Rp½" (DN15)	0048912	0.33	5.9	19	48	5	31	27	19	14	96	15	96	124	41	60
Rp¾" (DN20)	0048913	0.42	11.8	22	54	6	38	32	17	14	110	18	106	137	41	60
Rp1" (DN25)	0048914	0.78	20.6	27	64	8	45	40	22	19	128	23	121	160	41	70
Rp1¼" (DN32)	0048915	1.2	38.3	31	81	10	60	50	24	19	164	26	149	195	41	70
Rp1½" (DN40)	0048916	1.42	47.8	35	89	12	68	55	24	23	172	29	163	212	41	90
Rp2" (DN50)	0048917	2.65	78.4	41	112	15	86	70	32	23	224	38	197	260	41	90



flow range

1992 SEPP DIN-Basis bonnet assembly, rising stem



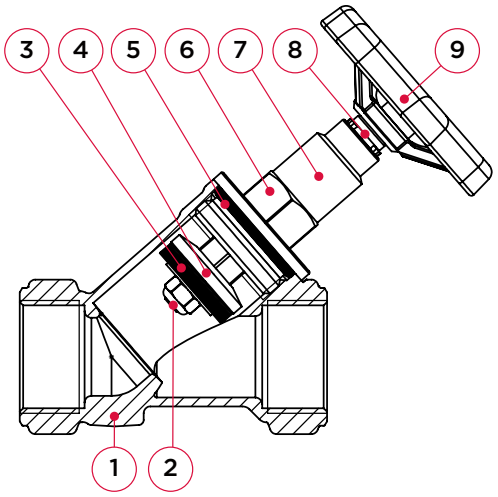
dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Y	V	U	M
G½" (DN15)	0048979	0.11	16	20-35	61	19	9	14	96	26	60
G¾" (DN20)	0048981	0.15	22	23-43	67	17	8	14	110	38	60
G1" (DN25)	0048983	0.27	28	27-52	76	22	11	19	127	46	70
G1¼" (DN32)	0048986	0.43	35	29-63	101	24	12	19	163	52	70
G1½" (DN40)	0048988	0.52	41	35-72	104	24	13	23	169	56	90
G2" (DN50)	0048990	0.87	53	38-89	139	32	13	23	225	68	90

1402.10 SEPP DIN-Basis stop valve

(2 x female thread)

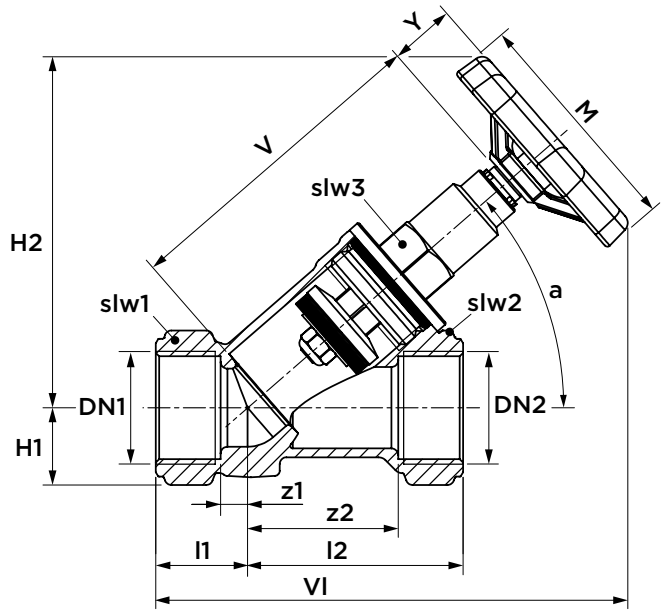
specifications

- maximum pressure 16 bar
- maximum temperature 90°C
- stem with double o-ring seal
- non-rising stem with grease chamber
- without drain

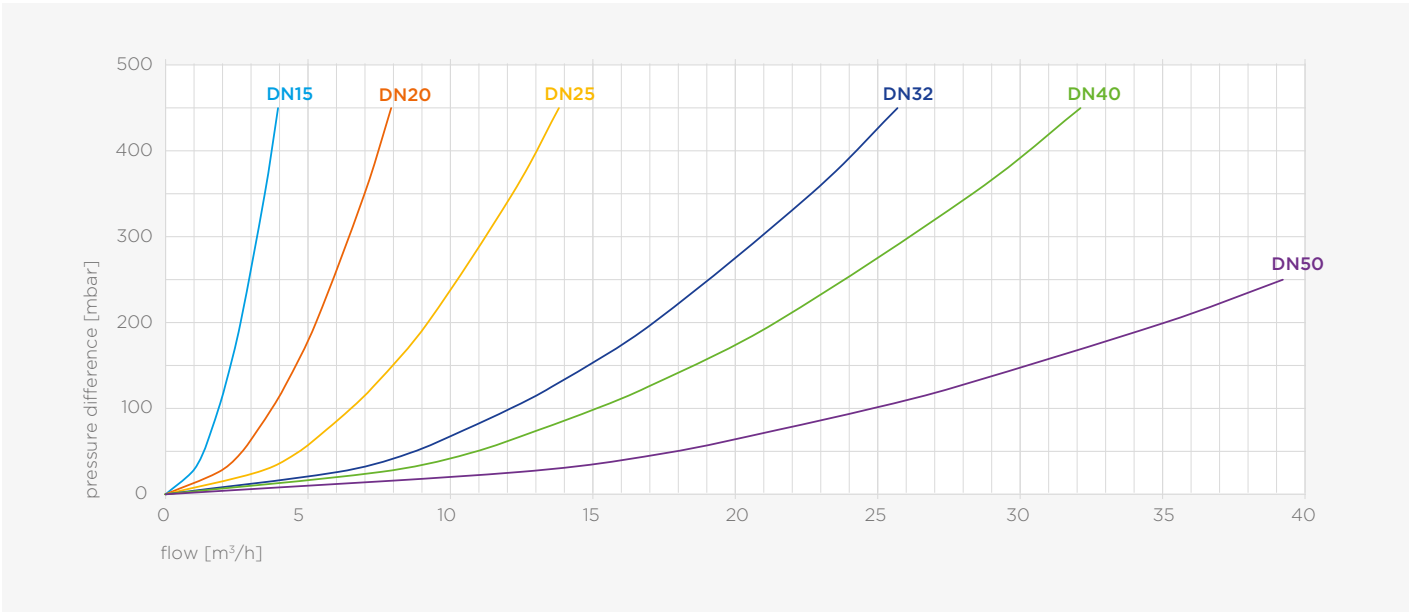


no.	component	material
1	body	brass (CW617N)
2	nut	stainless (AISI 304/1.4301)
3	valve seal	EPDM
4	valve disc	brass
5	o-ring	EPDM
6	bonnet	brass
7	double o-ring seal	EPDM
8	stem	brass
9	handwheel	nylon (PA6, GF 20%)

maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
16	25	24
pressure equipment directive category (PED)		
all dimensions	SEP	

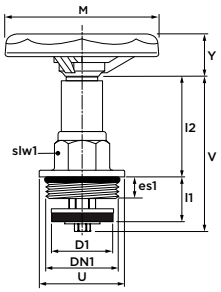


dimension	article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw1/2	slw3	Y	V	H1	H2	Vl	a [°]	M
Rp½" (DN15)	0048328	0.31	5.9	19	48	5	31	27	19	14	70	15	77	105	41	60
Rp¾" (DN20)	0048329	0.4	11.8	22	54	6	38	32	17	14	84	18	88	118	41	60
Rp1" (DN25)	0048330	0.72	20.6	27	64	8	45	40	22	19	95	23	104	140	41	70
Rp1¼" (DN32)	0048331	1.16	38.3	31	81	10	60	50	24	19	117	25	118	161	41	70
Rp1½" (DN40)	0048332	1.34	47.8	35	89	12	68	55	24	19	131	29	128	174	41	70
Rp2" (DN50)	0048333	2.42	78.4	41	112	15	86	70	32	19	96	38	158	200	41	70



flow range

1997 SEPP DIN-Basis bonnet assembly, non-rising stem



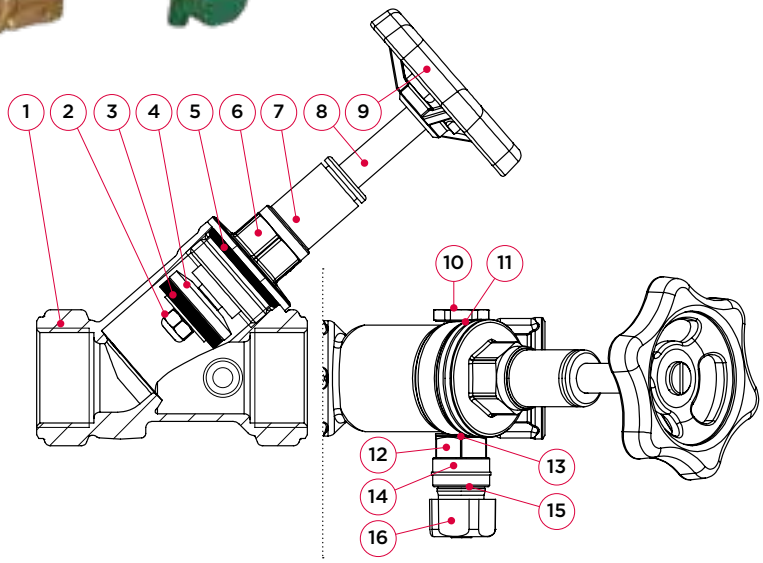
dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Y	V	U	M
G½" (DN15)	0048340	0.1	16	20-35	34	17	9	14	55	26	60
G¾" (DN20)	0048341	0.15	22	23-43	41	17	8	14	65	38	60
G1" (DN25)	0048342	0.26	28	27-52	45	21	11	19	71	46	70
G1¼" (DN32)	0048343	0.43	35	29-63	56	24	12	19	84	52	70
G1½" (DN40)	0048344	0.54	41	35-72	60	24	13	19	91	56	70
G2" (DN50)	0048345	0.81	53	38-89	72	32	13	19	108	68	70

1407 SEPP DIN-Basis stop valve

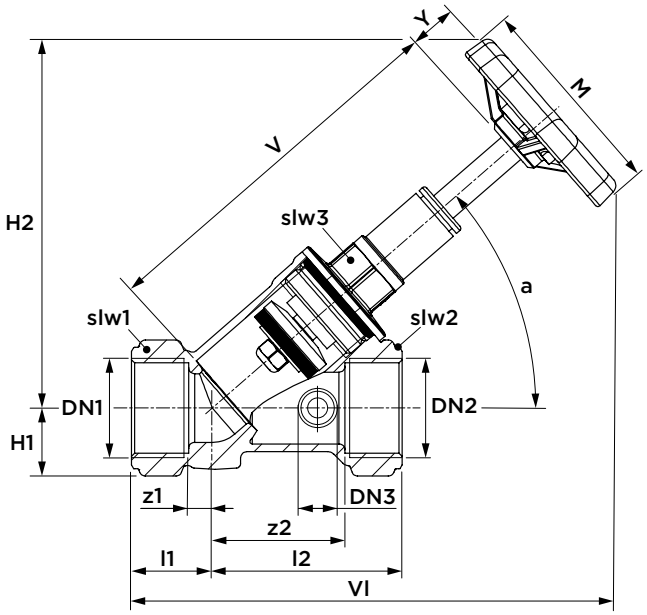
(2 x female thread)

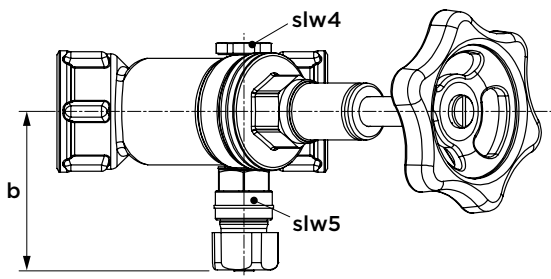
specifications

- maximum pressure 16 bar
- maximum temperature 90°C
- stem with double o-ring seal
- rising stem with grease chamber, without dead space
- with drain



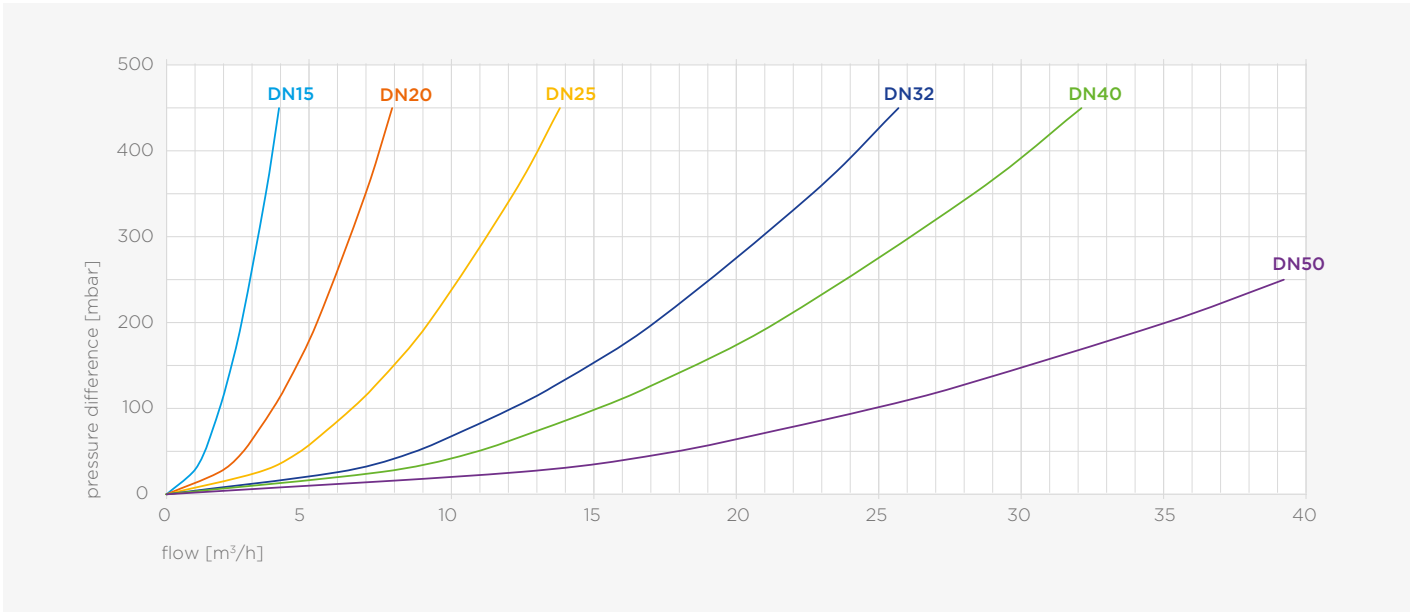
no.	component	material
1	body	brass (CW617N)
2	nut	stainless (AISI 304/1.4301)
3	valve seal	EPDM
4	valve disc	brass
5	o-ring	EPDM
6	bonnet	brass
7	double o-ring seal	EPDM
8	stem	brass
9	handwheel	nylon (PA6, GF 20%)
10	plug	brass
11	seal	PTFE
12	drain body	brass
13	seal	PTFE
14	drain stem seal	EPDM
15	drain rotatable outlet	nylon (PA6, GF 20%)
16	drain handle	nylon (PA6, GF 20%)





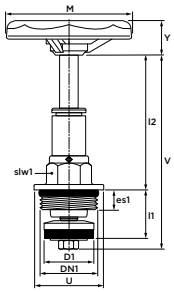
maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
16	25	24
pressure equipment directive category (PED)		
all dimensions	SEP	

dimension	article no.	weight [kg]	Kvs [m³/h]	DN3	l1	l2	z1	z2	slw1/2	slw3	slw4/5	Y	V	Vl	H1	H2	b	a [°]	M
Rp½" (DN15)	0048918	0.38	5.9	8	19	48	5	31	27	19	17	14	96	124	15	96	66	41	60
Rp¾" (DN20)	0048919	0.47	11.8	8	22	54	6	38	32	17	17	14	110	137	18	106	72	41	60
Rp1" (DN25)	0048920	0.83	20.6	8	27	64	8	45	40	22	17	19	128	160	23	121	77	41	70
Rp1¼" (DN32)	0048922	1.24	38.3	8	31	81	10	60	50	24	17	19	164	195	26	149	89	41	70
Rp1½" (DN40)	0048923	1.46	47.8	8	35	89	12	68	55	24	17	23	172	212	29	163	95	41	90
Rp2" (DN50)	0048924	2.70	78.4	8	41	112	15	86	70	32	17	23	224	260	38	197	111	41	90



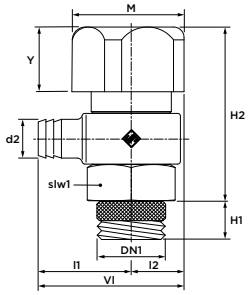
flow range

1992 SEPP DIN-Basis bonnet assembly, rising stem



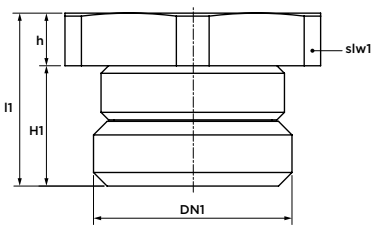
dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Y	V	U	M
G½" (DN15)	0048979	0.11	16	20-35	61	19	9	14	96	26	60
G¾" (DN20)	0048981	0.15	22	23-43	67	17	8	14	110	38	60
G1" (DN25)	0048983	0.27	28	27-52	76	22	11	19	127	46	70
G1¼" (DN32)	0048986	0.43	35	29-63	101	24	12	19	163	52	70
G1½" (DN40)	0048988	0.52	41	35-72	100	24	13	23	169	56	90
G2" (DN50)	0048990	0.87	53	38-89	139	32	13	23	225	68	90

1932 SEPP drain valve



dimension	article no.	weight [kg]	d2	l1	l2	slw1	Y	Vl	H1	H2	M
G¼" (DN8)	0018905	0.04	7	18	11	17	13	29	7	34	23

1937 SEPP plug



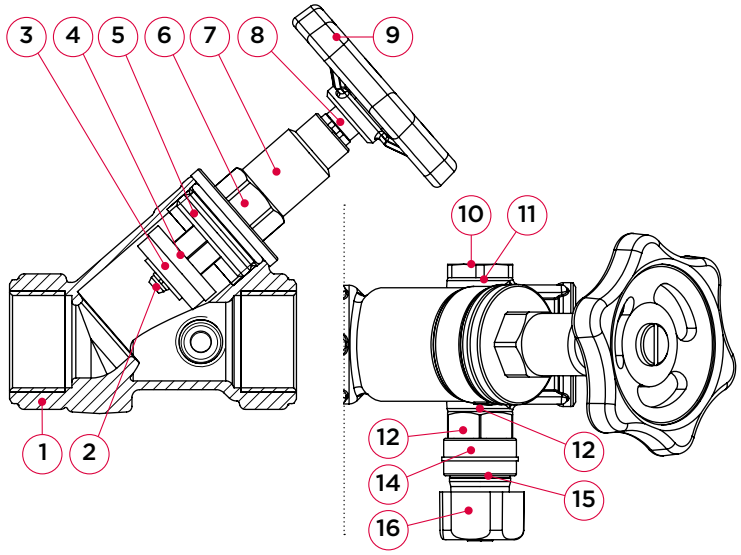
dimension	article no.	weight [kg]	l1	h	H1	slw1
G¼" (DN8)	0022828	0.01	17	4	12	17

1407.10 SEPP DIN-Basis stop valve

(2 x female thread)

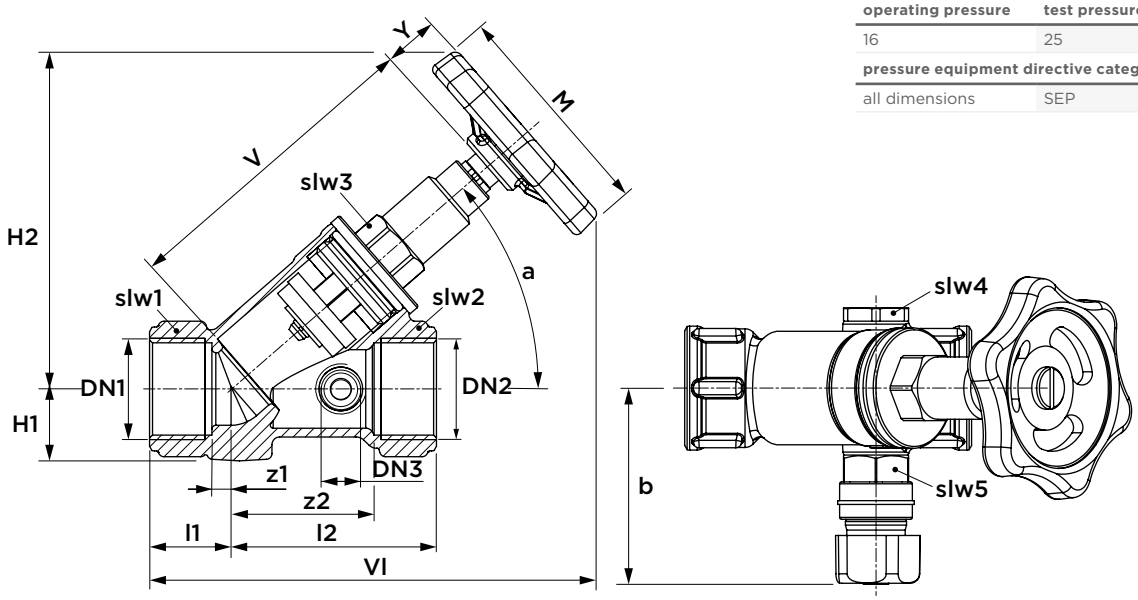
specifications

- maximum pressure 16 bar
- maximum temperature 90°C
- stem with double o-ring seal
- non-rising stem with grease chamber
- without drain

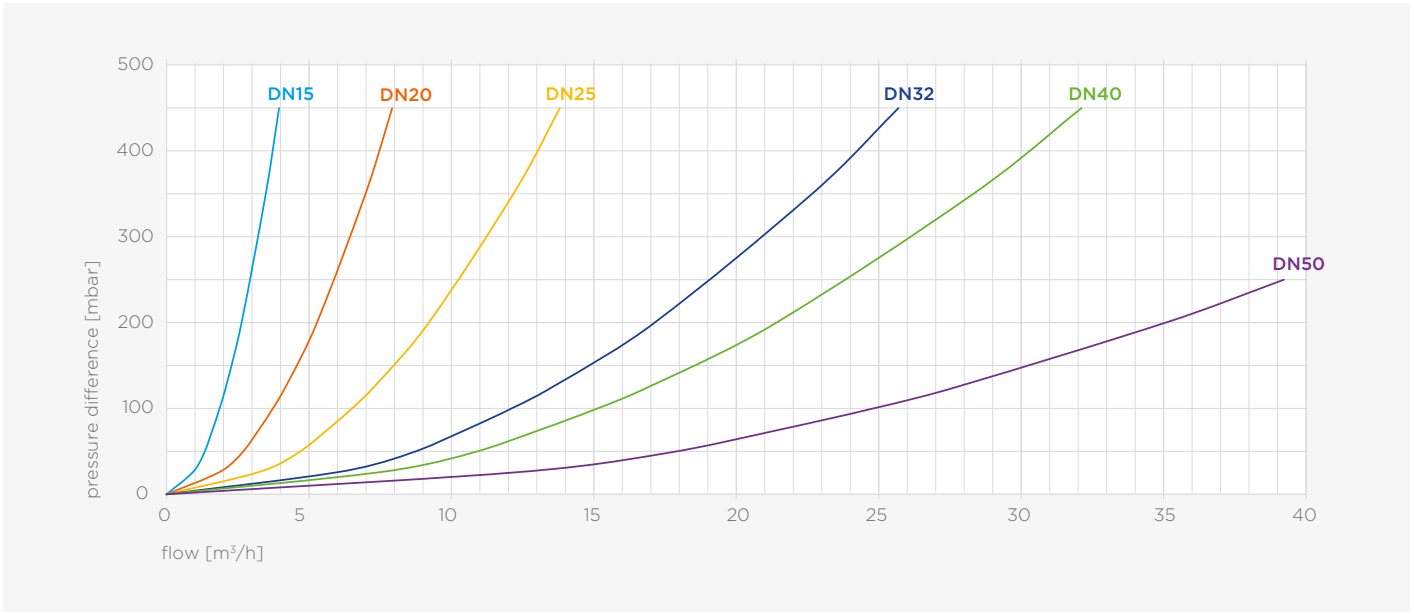


no.	component	material
1	body	brass (CW617N)
2	nut	stainless (AISI 304/1.4301)
3	valve seal	EPDM
4	valve disc	brass
5	o-ring	EPDM
6	bonnet	brass
7	double o-ring seal	EPDM
8	stem	brass
9	handwheel	nylon (PA6, GF 20%)
10	plug	brass
11	seal	PTFE
12	drain body	brass
13	seal	PTFE
14	drain stem seal	EPDM
15	drain rotatable outlet	nylon (PA6, GF 20%)
16	drain handle	nylon (PA6, GF 20%)

maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
16	25	24
pressure equipment directive category (PED)		
all dimensions	SEP	

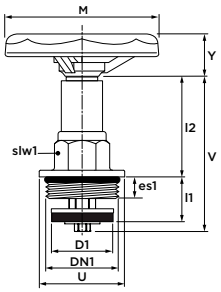


dimension	article no.	weight [kg]	Kvs [m³/h]	DN3	l1	l2	z1	z2	slw1/2	slw3	slw4/5	Y	V	Vl	H1	H2	b	a [°]	M
Rp½" (DN15)	0048334	0.35	5.9	8	19	48	5	31	27	17	17	14	70	105	15	77	66	41	60
Rp¾" (DN20)	0048335	0.44	11.8	8	22	54	6	38	32	17	17	14	84	118	18	88	72	41	60
Rp1" (DN25)	0048336	0.76	20.6	8	27	64	8	45	40	21	17	19	95	140	23	104	77	41	70
Rp1¼" (DN32)	0048337	1.20	38.3	8	31	81	10	60	50	24	17	19	117	161	25	118	89	41	70
Rp1½" (DN40)	0048338	1.38	47.8	8	35	89	12	68	55	24	17	19	131	174	29	128	95	41	70
Rp2" (DN50)	0048339	2.46	78.4	8	41	112	15	86	70	32	17	19	96	200	38	158	111	41	70



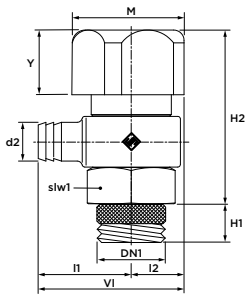
flow range

1997 SEPP DIN-Basis bonnet assembly, non-rising stem



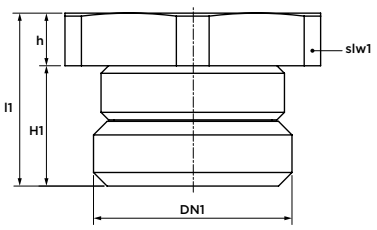
dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Y	V	U	M
G½" (DN15)	0048340	0.1	16	20-35	34	17	9	14	55	26	60
G¾" (DN20)	0048341	0.15	22	23-43	41	17	8	14	65	38	60
G1" (DN25)	0048342	0.26	28	27-52	45	21	11	19	71	46	70
G1¼" (DN32)	0048343	0.43	35	29-63	56	24	12	19	84	52	70
G1½" (DN40)	0048344	0.54	41	35-72	60	24	13	19	91	56	70
G2" (DN50)	0048345	0.81	53	38-89	72	32	13	19	108	68	70

1932 SEPP drain valve



dimension	article no.	weight [kg]	d2	l1	l2	slw1	Y	Vl	H1	H2	M
G¼" (DN8)	0018905	0.04	7	18	11	17	13	29	7	34	23

1937 SEPP plug



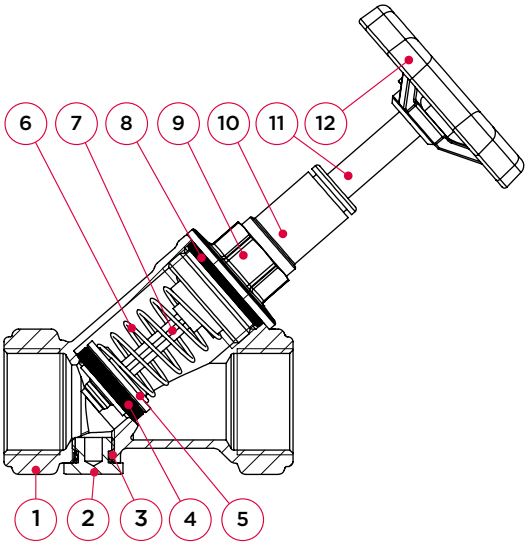
dimension	article no.	weight [kg]	l1	h	H1	slw1
G¼" (DN8)	0022828	0.01	17	4	12	17

1502 SEPP DIN-Basis KFR® stop/check valve

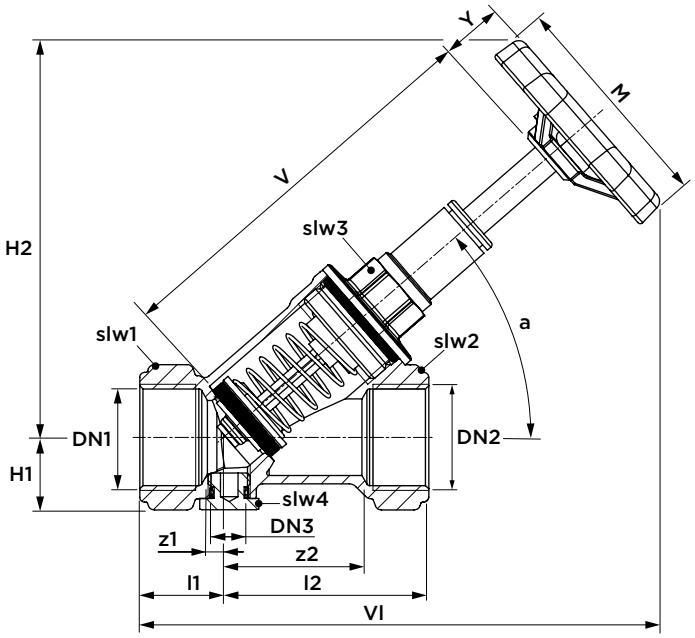
(2 x female thread)

specifications

- maximum pressure 16 bar
- maximum temperature 90°C
- stem with double o-ring seal
- rising stem with grease chamber, without dead space
- without drain
- integrated check valve

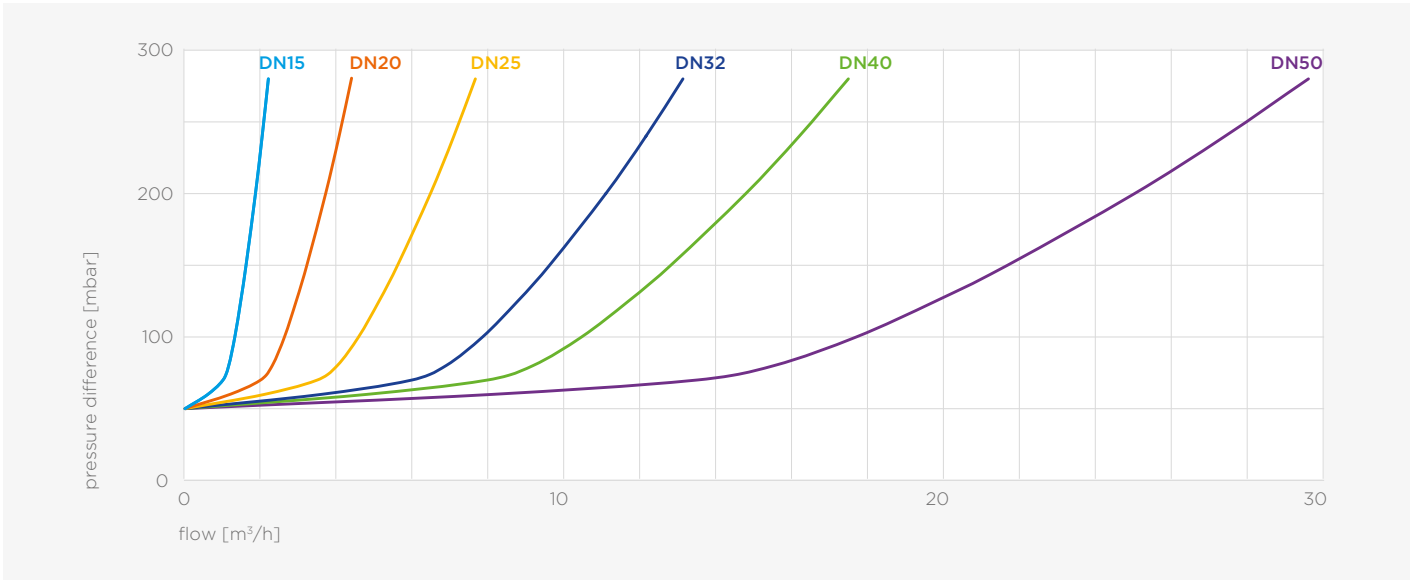


no.	component	material
1	body	brass (CW617N)
2	control plug	brass
3	seal	PTFE
4	valve seal	EPDM
5	valve disc	brass
6	spring	stainless (1.4309)
7	stem	POM
8	o-ring	EPDM
9	bonnet	brass
10	double o-ring seal	EPDM
11	stem	brass
12	handwheel	nylon (PA6, GF 20%)



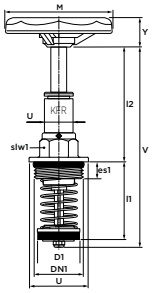
maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
16	25	24
pressure equipment directive category (PED)		
all dimensions	SEP	

dimension	article no.	weight [kg]	Kvs [m³/h]	DN3	l1	l2	z1	z2	slw1/2	slw3	slw4	Y	V	Vl	H1	H2	a [°]	M
Rp½" (DN15)	0048921	0.33	4.1	8	19	48	5	31	27	19	17	14	96	124	15	96	41	60
Rp¾" (DN20)	0048930	0.42	8.3	8	22	54	6	38	32	17	17	14	110	137	18	106	41	60
Rp1" (DN25)	0048934	0.78	14.5	8	27	64	8	45	40	22	17	19	128	160	23	121	41	70
Rp1¼" (DN32)	0048936	1.2	24.9	8	31	81	10	60	50	24	17	19	164	195	26	149	41	70
Rp1½" (DN40)	0048937	1.42	33.2	8	35	89	12	68	55	24	17	23	172	212	29	163	41	90
Rp2" (DN50)	0048939	2.65	56	8	41	112	15	86	70	32	17	23	224	260	38	197	41	90



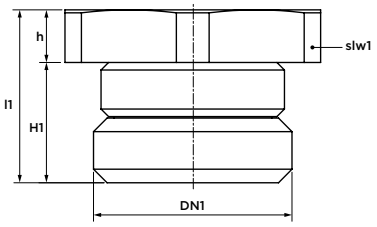
flow range

1999 SEPP DIN-Basis KFR® bonnet assembly, rising stem



dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Y	V	U	M
G½" (DN15)	0048980	0.18	16	22-35	61	19	9	14	96	26	60
G¾" (DN20)	0048982	0.2	22	24-43	67	17	8	14	110	32	60
G1" (DN25)	0048984	0.3	28	28-52	76	22	11	19	127	36	70
G1¼" (DN32)	0048985	0.49	35	30-63	101	24	12	19	163	49	70
G1½" (DN40)	0048987	0.57	41	35-72	104	24	13	23	169	56	90
G2" (DN50)	0048989	0.94	53	39-89	139	32	13	23	225	68	90

1937 SEPP plug



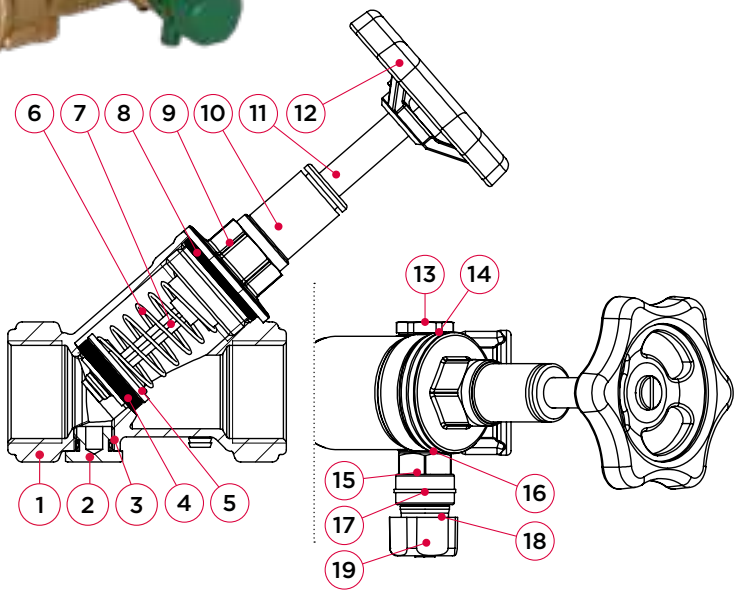
dimension	article no.	weight [kg]	l1	h	H1	slw1
G¼" (DN8)	0022828	0.01	17	4	12	17

1507 SEPP DIN-Basis KFR® stop/check valve

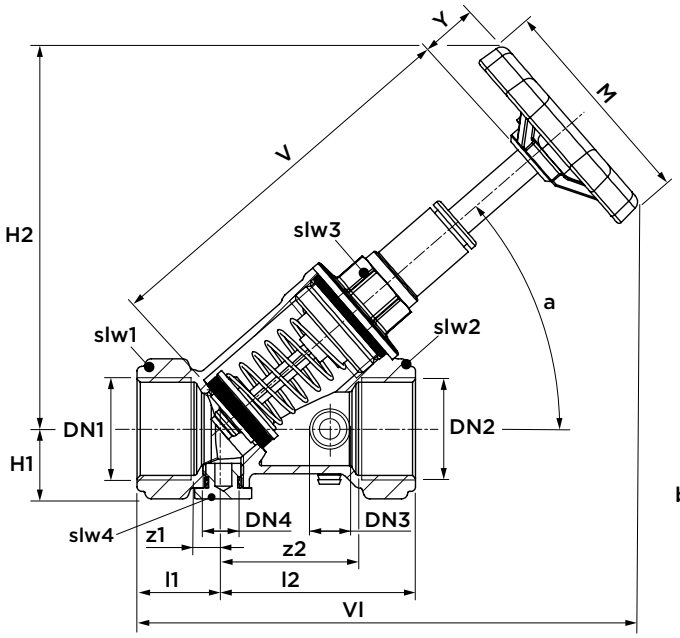
(2 x female thread)

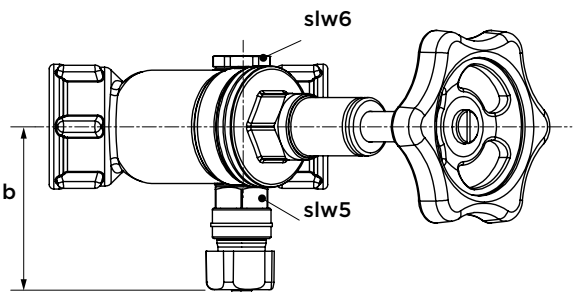
specifications

- maximum pressure 16 bar
- maximum temperature 90°C
- stem with double o-ring seal
- rising stem with grease chamber, without dead space
- with drain
- integrated check valve



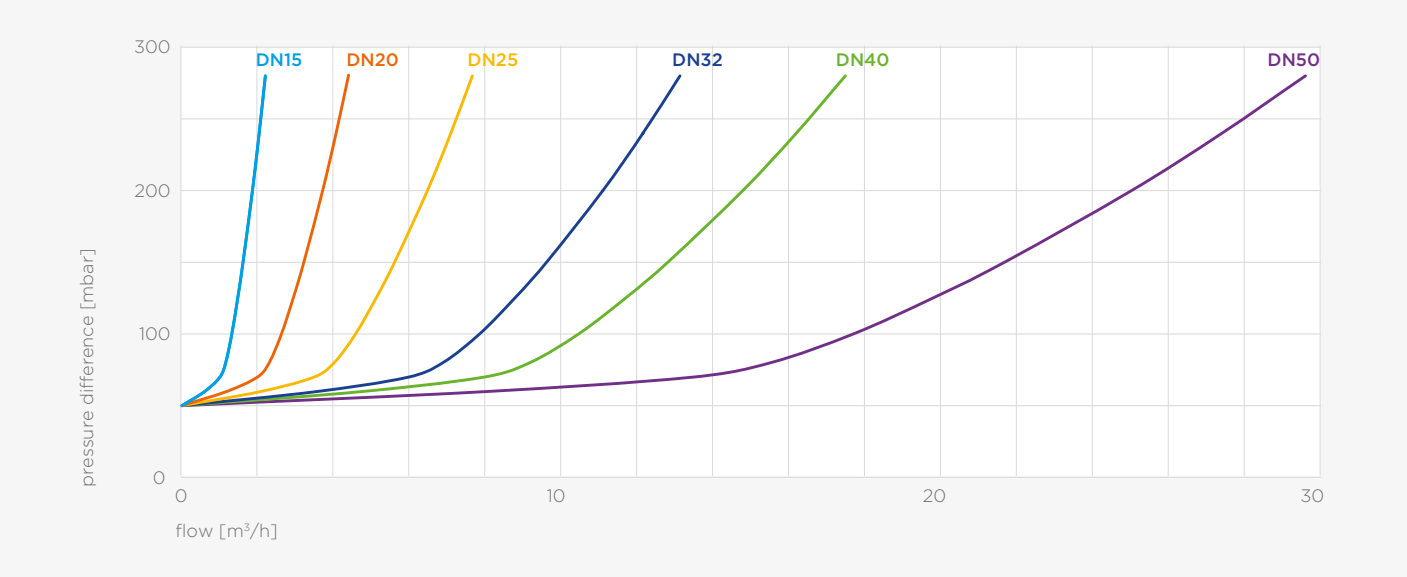
no.	component	material
1	body	brass (CW617N)
2	control plug	brass
3	seal	PTFE
4	valve seal	EPDM
5	valve disc	brass
6	spring	stainless (1.4309)
7	stem	POM
8	o-ring	EPDM
9	bonnet	brass
10	double o-ring seal	EPDM
11	stem	brass
12	handwheel	nylon (PA6, GF 20%)
13	plug	brass
14	seal	PTFE
15	drain body	brass
16	seal	PTFE
17	drain stem seal	EPDM
18	drain rotatable outlet	nylon (PA6, GF 20%)
19	drain handle	nylon (PA6, GF 20%)





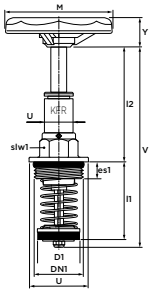
maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
16	25	24
pressure equipment directive category (PED)		
all dimensions	SEP	

dimension	article no.	weight [kg]	Kvs [m³/h]	DN3/4	l1	l2	z1	z2	slw1/2	slw3	slw4/5/6	Y	V	H1	H2	Vl	b	a [°]	M
Rp½" (DN15)	0048960	0.39	4.1	8	19	48	5	31	27	19	17	14	96	15	96	124	66	41	60
Rp¾" (DN20)	0048961	0.51	8.3	8	22	54	6	38	32	17	17	14	110	18	106	137	72	41	60
Rp1" (DN25)	0048962	0.53	14.5	8	27	64	8	45	40	22	17	19	128	23	121	160	77	41	70
Rp1¼" (DN32)	0048963	1.24	24.9	8	31	81	10	60	50	24	17	19	164	26	149	195	89	41	70
Rp1½" (DN40)	0048964	1.46	33.2	8	35	89	12	68	55	24	17	23	172	29	163	212	95	41	90
Rp2" (DN50)	0048965	2.69	56.0	8	41	112	15	86	70	32	17	23	224	38	197	260	111	41	90



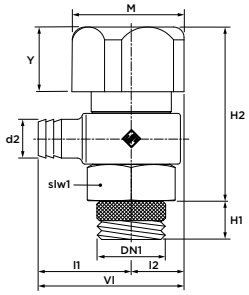
flow range

1999 SEPP DIN-Basis KFR® bonnet assembly, rising stem



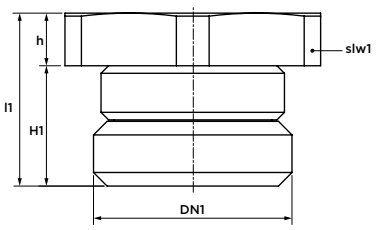
dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Y	V	U	M
G½" (DN15)	0048980	0.18	16	22-35	61	19	9	14	96	26	60
G¾" (DN20)	0048982	0.2	22	24-43	67	17	8	14	110	32	60
G1" (DN25)	0048984	0.3	28	28-52	76	22	11	19	127	36	70
G1¼" (DN32)	0048985	0.49	35	30-63	101	24	12	19	163	49	70
G1½" (DN40)	0048987	0.57	41	35-72	104	24	13	23	169	56	90
G2" (DN50)	0048989	0.94	53	39-89	139	32	13	23	225	68	90

1932 SEPP drain valve



dimension	article no.	weight [kg]	d2	l1	l2	slw1	Y	Vl	H1	H2	M
G¼" (DN8)	0018905	0.04	7	18	11	17	13	29	7	34	23

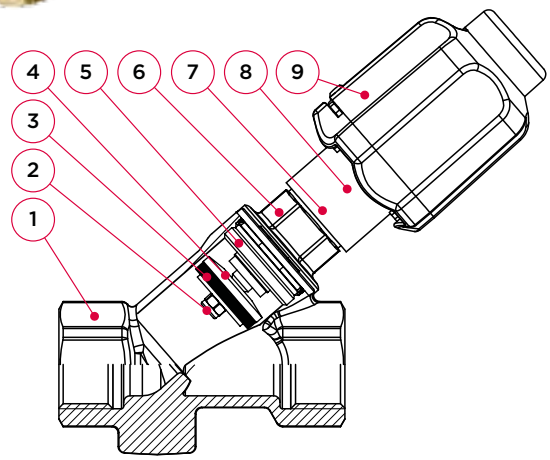
1937 SEPP plug



dimension	article no.	weight [kg]	l1	h	H1	slw1
G¼" (DN8)	0022828	0.01	17	4	12	17

1401.10 SEPP Kommunal stop valve

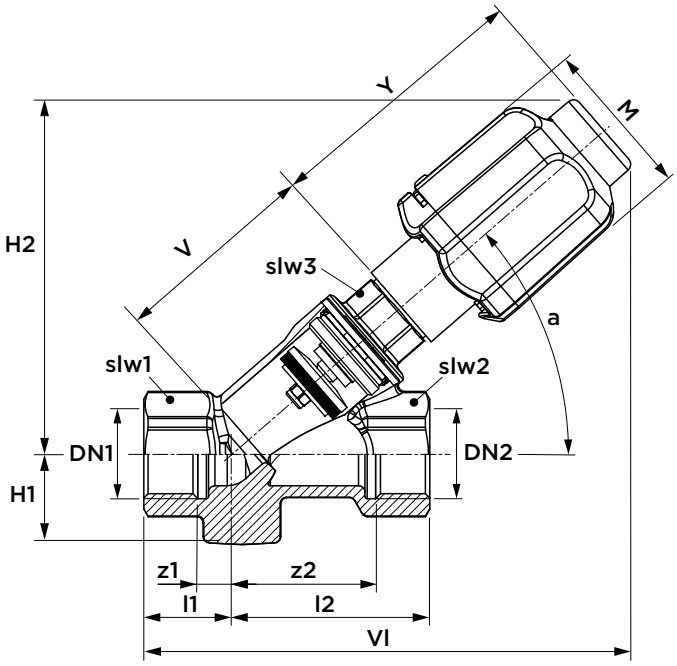
(2 x female thread)



specifications

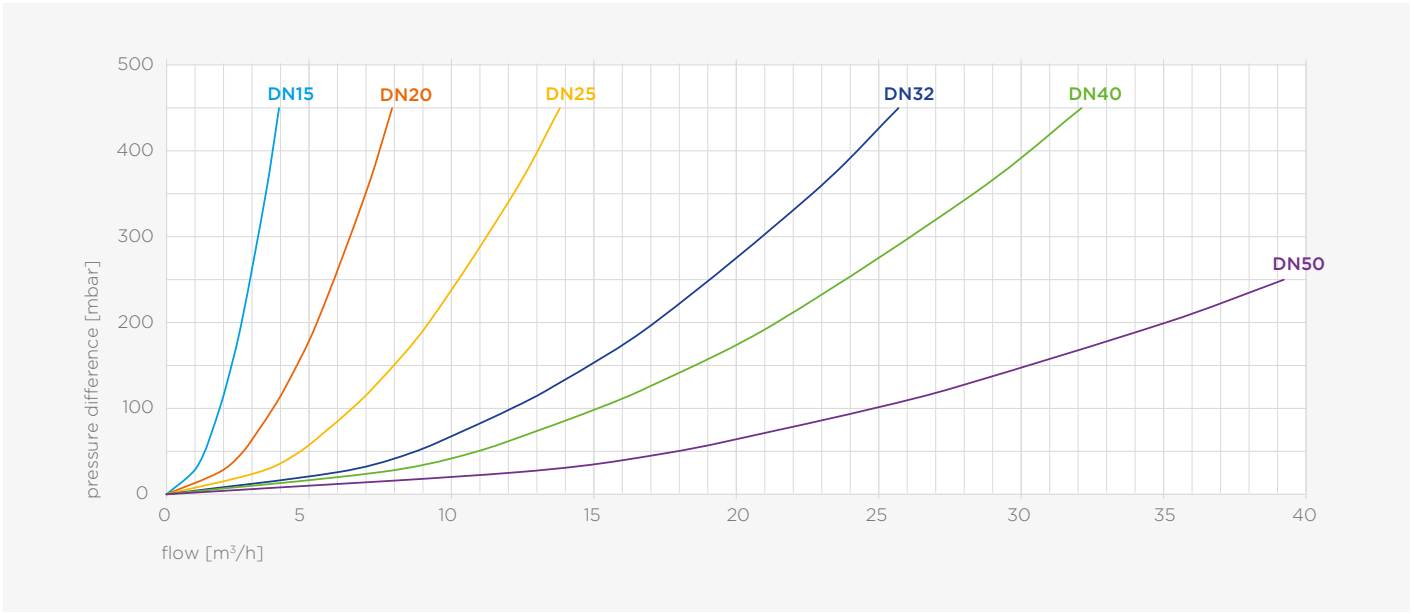
- maximum pressure 16 bar
- maximum temperature 90°C
- connections with wrench flats
- stem with double o-ring seal
- non-rising stem with grease chamber, without dead space
- with identification label
- with open position indicator
- without drain

no.	component	material
1	body	brass (CW617N)
2	nut	stainless (AISI 304/1.4301)
3	valve seal	EPDM
4	valve disc	brass
5	o-ring	EPDM
6	bonnet	brass
7	double o-ring seal	EPDM
8	stem	brass
9	handle	nylon (PA6, GF 20%)



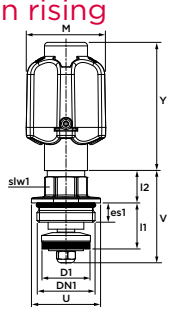
maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
16	25	24
pressure equipment directive category (PED)		
all dimensions	SEP	

dimension	article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw1/2	slw3	Y	V	Vl	H1	H2	a [°]	M
Rp½" (DN15)	0000819	0.37	5.9	21	46	6	31	27	19	62	52	113	20	82	41	36
Rp¾" (DN20)	0000820	0.45	11.8	23	54	7	38	32	17	62	60	126	20	92	41	36
Rp1" (DN25)	0000821	0.79	20.6	27	65	8	45	40	22	73	68	146	24	107	41	46
Rp1¼" (DN32)	0000822	1.28	38.3	31	81	10	60	50	24	94	87	180	27	132	41	56
Rp1½" (DN40)	0000823	1.56	47.8	33	89	12	68	55	24	94	95	189	29	138	41	56
Rp2" (DN50)	0000824	2.66	78.4	41	112	15	86	70	32	125	116	241	38	177	41	60



flow range

1927 SEPP Kommunal stop valve bonnet assembly, non rising



dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Y	V	U	M
G½" DN15	0001482	0.15	16	20-35	11	19	9	62	31	26	36
G¾" DN20	0001483	0.19	22	23-43	19	17	8	62	42	38	36
G1" DN25	0001484	0.31	28	27-52	19	22	11	73	46	46	46
G1¼" DN32	0001485	0.5 5	35	29-63	23	24	12	94	53	52	56
G1½" DN40	0001486	0.64	41	35-72	23	24	13	94	59	56	56
G2" DN50	0001487	0.98	53	34-92	31	32	13	125	66	68	60
G2½" DN65	0033750	1.30	68	34-92	31	36	16	125	66	86	60
G3" DN80*	0033751	1.83	82	34-100	106	41	16	28	137	120	120

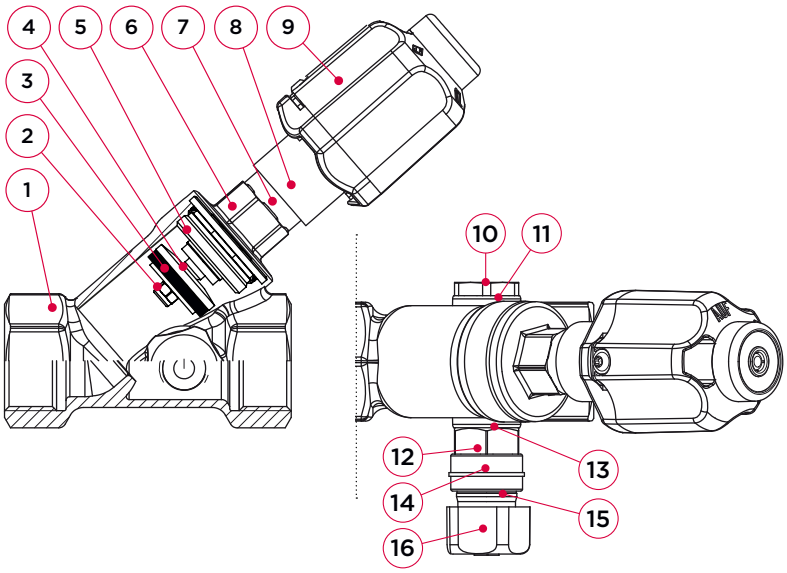
*with handwheel

1406.10 SEPP Kommunal stop valve

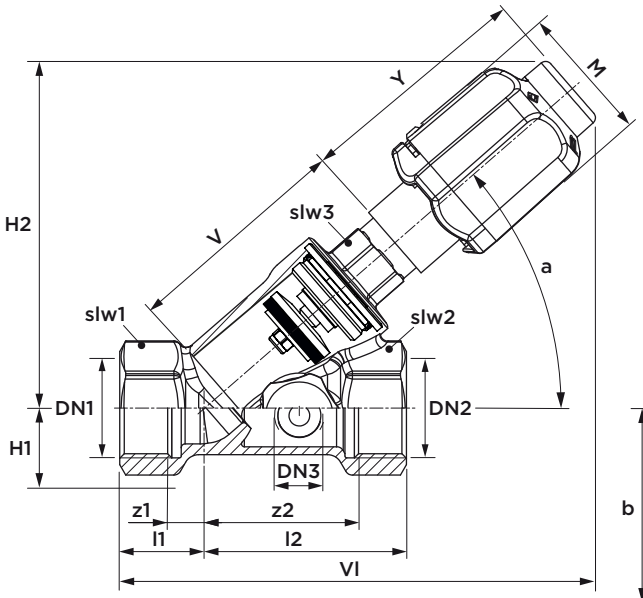
(2 x female thread)

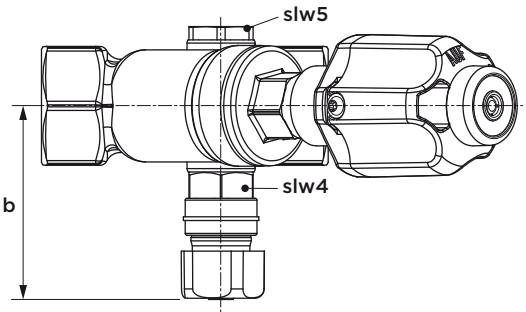
specifications

- maximum pressure 16 bar
- maximum temperature 90°C
- connections with wrench flats
- stem with double o-ring seal
- non-rising stem with grease chamber, without dead space
- with identification label
- with open position indicator
- with drain



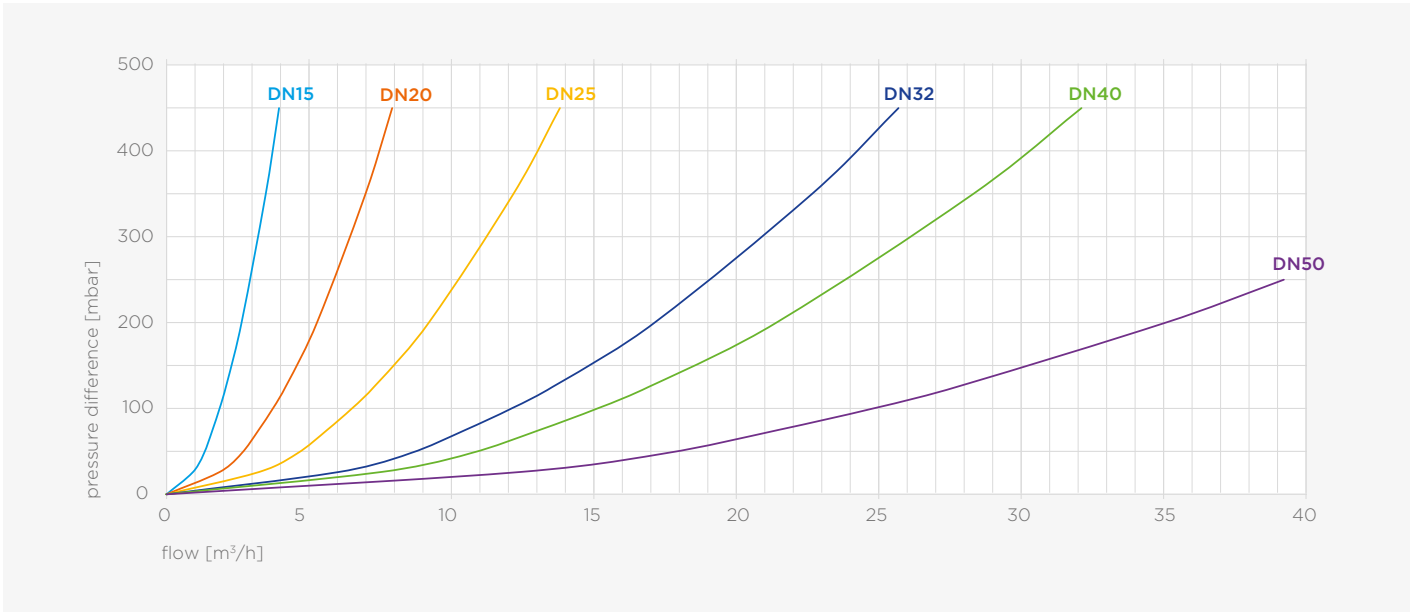
no.	component	material
1	body	brass (CW617N)
2	nut	stainless (AISI 304/1.4301)
3	valve seal	EPDM
4	valve disc	brass
5	o-ring	EPDM
6	bonnet	brass
7	double o-ring seal	EPDM
8	stem	brass
9	handle	nylon (PA6, GF 20%)
10	plug	brass
11	seal	PTFE
12	drain body	brass
13	seal	PTFE
14	drain stem seal	EPDM
15	drain rotatable outlet	nylon (PA6, GF 20%)
16	drain handle	nylon (PA6, GF 20%)





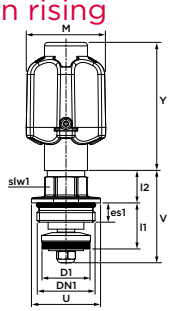
maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
16	25	24
pressure equipment directive category (PED)		
all dimensions	SEP	

dimension	article no.	weight [kg]	Kvs [m³/h]	DN3	l1	l2	z1	z2	slw1/2	slw3	slw4/5	Y	V	Vl	H1	H2	b	a [°]	M
Rp½" (DN15)	0000825	0.42	5.9	8	21	46	6	31	27	19	17	62	52	113	20	82	66	41	36
Rp¾" (DN20)	0000826	0.51	11.8	8	23	54	7	38	32	17	17	62	60	126	20	92	72	41	36
Rp1" (DN25)	0000827	0.84	20.6	8	27	65	8	45	40	22	17	73	68	146	24	107	77	41	46
Rp1¼" (DN32)	0000828	1.3	38.3	8	31	81	10	60	50	24	17	94	87	180	27	132	89	41	56
Rp1½" (DN40)	0000829	1.57	47.8	8	33	89	12	68	55	24	17	94	95	189	29	138	95	41	56
Rp2" (DN50)	0000830	2.7	78.4	8	41	112	15	86	70	32	17	125	116	241	38	177	111	41	60



flow range

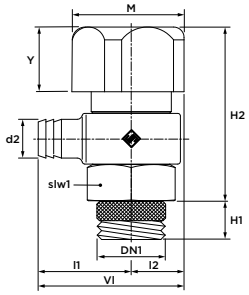
1927 SEPP Kommunal stop valve bonnet assembly, non rising



dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Y	V	U	M
G½" DN15	0001482	0.15	16	20-35	11	19	9	62	31	26	36
G¾" DN20	0001483	0.19	22	23-43	19	17	8	62	42	38	36
G1" DN25	0001484	0.31	28	27-52	19	22	11	73	46	46	46
G1¼" DN32	0001485	0.5 5	35	29-63	23	24	12	94	53	52	56
G1½" DN40	0001486	0.64	41	35-72	23	24	13	94	59	56	56
G2" DN50	0001487	0.98	53	34-92	31	32	13	125	66	68	60
G2½" DN65	0033750	1.30	68	34-92	31	36	16	125	66	86	60
G3" DN80*	0033751	1.83	82	34-100	106	41	16	28	137	120	120

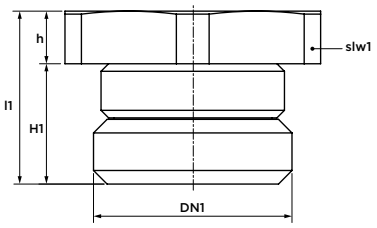
*with handwheel

1932 SEPP drain valve



dimension	article no.	weight [kg]	d2	l1	l2	slw1	Y	Vl	H1	H2	M
G¼" (DN8)	0018905	0.04	7	18	11	17	13	29	7	34	23

1937 SEPP plug



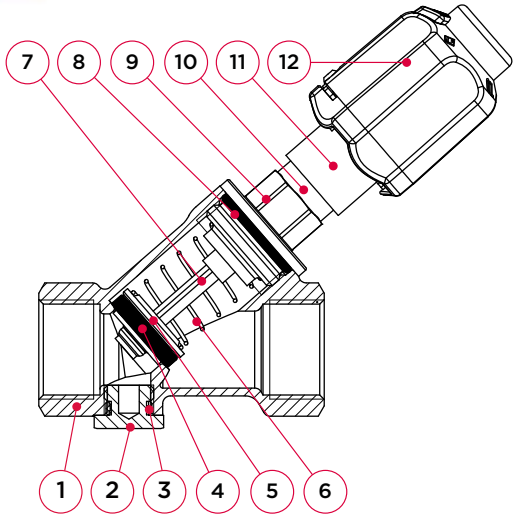
dimension	article no.	weight [kg]	l1	h	H1	slw1
G¼" (DN8)	0022828	0.01	17	4	12	17

1501.10 SEPP Kommunal KFR® stop/check valve

(2 x female thread)

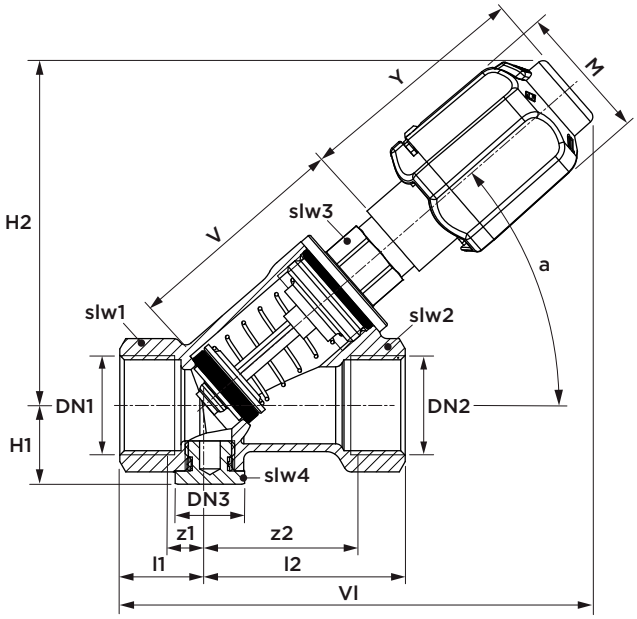
specifications

- maximum pressure 16 bar
- maximum temperature 90°C
- connections with wrench flats
- stem with double o-ring seal
- non-rising stem with grease chamber, without dead space
- with identification label
- with open position indicator
- without drain
- integrated check valve

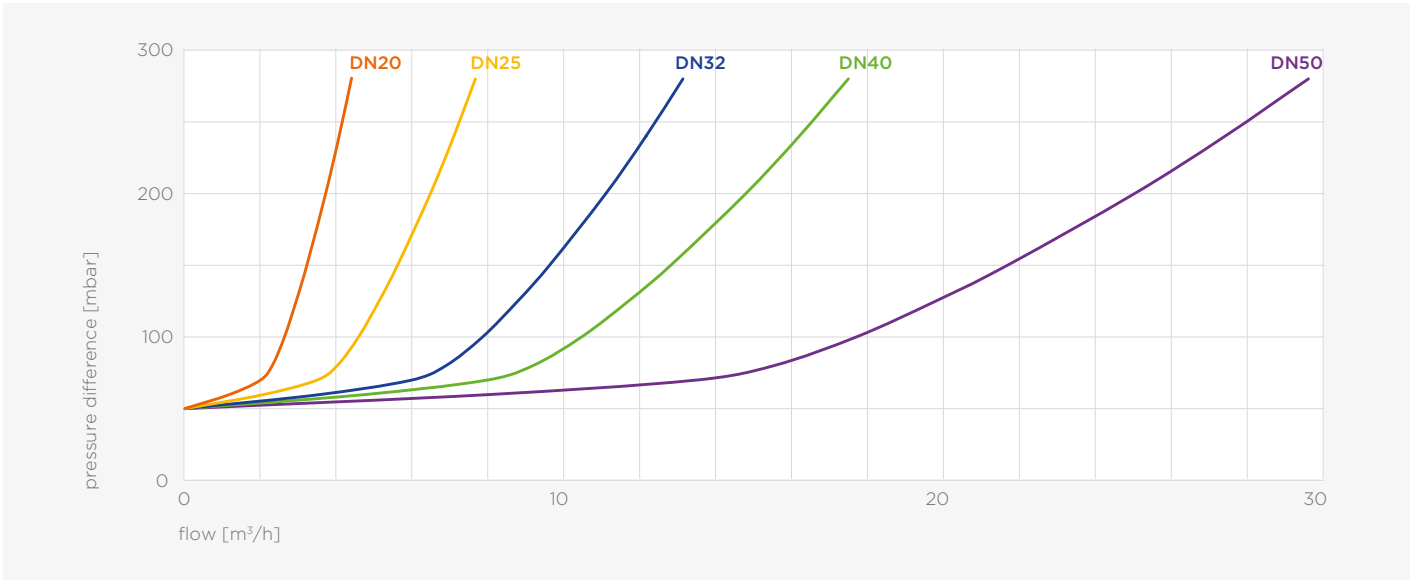


no.	component	material
1	body	brass (CW617N)
2	control plug	brass
3	seal	PTFE
4	valve seal	EPDM
5	valve disc	brass
6	spring	stainless (1.4309)
7	stem	POM
8	o-ring	EPDM
9	bonnet	brass
10	double o-ring seal	EPDM
11	stem	brass
12	handle	nylon (PA6, GF 20%)

maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
16	25	24
pressure equipment directive category (PED)		
all dimensions	SEP	

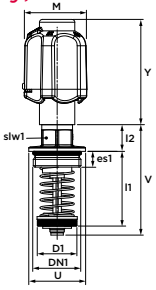


dimension	article no.	weight [kg]	Kvs [m³/h]	DN3	l1	l2	z1	z2	slw1/2	slw3	slw4	Y	V	Vl	H1	H2	a [°]	M
Rp¾" (DN20)	0000900	0.54	8.3	8	23	54	7	38	32	17	17	62	60	126	20	92	41	36
Rp1" (DN25)	0000901	0.79	14.5	8	27	65	8	45	40	22	17	73	68	146	24	107	41	46
Rp1¼" (DN32)	0000902	1.28	24.9	8	31	81	10	60	50	24	17	94	87	180	27	132	41	56
Rp1½" (DN40)	0000903	1.56	33.2	8	33	89	12	68	55	24	17	94	95	189	29	138	41	56
Rp2" (DN50)	0000904	2.66	56	8	41	112	15	86	70	32	17	125	116	241	38	177	41	60



flow range

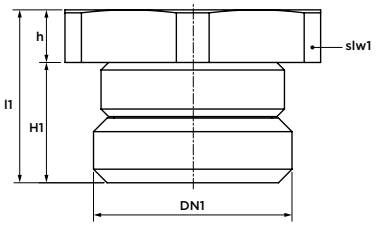
1929 SEPP Kommunal KFR® stop/check valve bonnet assembly, non rising



dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Y	V	U	M
G½" DN15	0013081	0.16	16	20-35	11	19	9	62	31	26	36
G¾" DN20	0001520	0.2	22	23-43	19	17	8	62	42	38	36
G1" DN25	0001521	0.35	28	27-52	19	22	11	73	46	46	46
G1¼" DN32	0001522	0.6	35	29-63	23	24	12	94	53	52	56
G1½" DN40	0001523	0.7	41	35-72	23	24	13	94	59	56	56
G2" DN50	0001524	1.15	53	34-92	31	32	13	125	66	68	60
G2½" DN65	0001499	1.3	68	34-92	31	36	16	125	66	86	60
G3" DN80*	0001500	2	82	34-100	106	41	16	28	137	120	120

*with handwheel

1937 SEPP plug



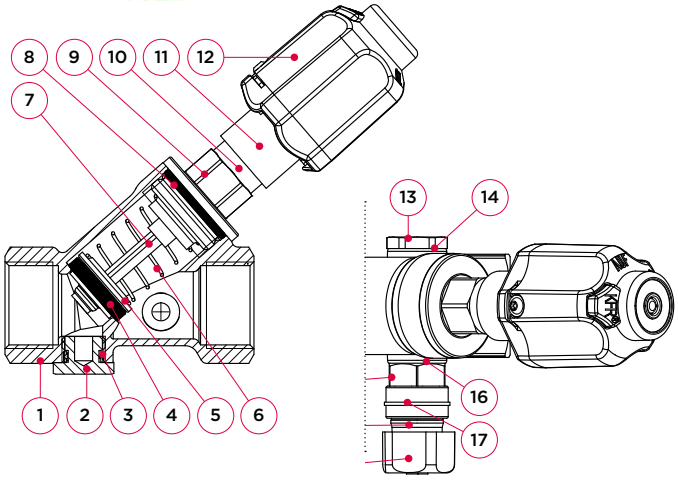
dimension	article no.	weight [kg]	l1	h	H1	slw1
G¼" (DN8)	0022828	0.01	17	4	12	17

1506.10 SEPP Kommunal KFR® stop/check valve

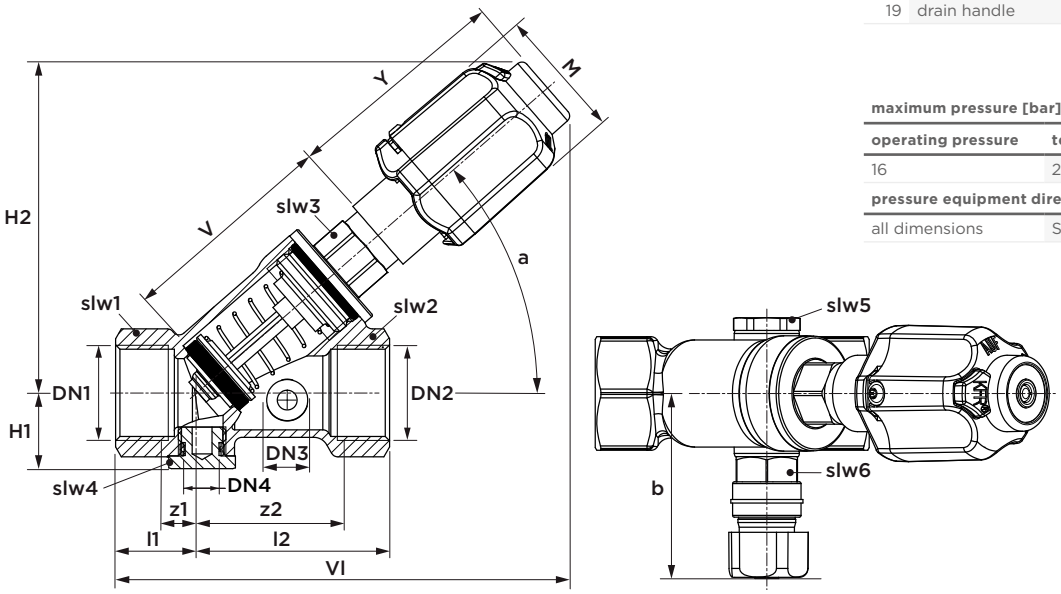
(2 x female thread)

specifications

- maximum pressure 16 bar
- maximum temperature 90°C
- connections with wrench flats
- stem with double o-ring seal
- non-rising stem with grease chamber, without dead space
- with identification label
- with open position indicator
- with drain
- integrated check valve

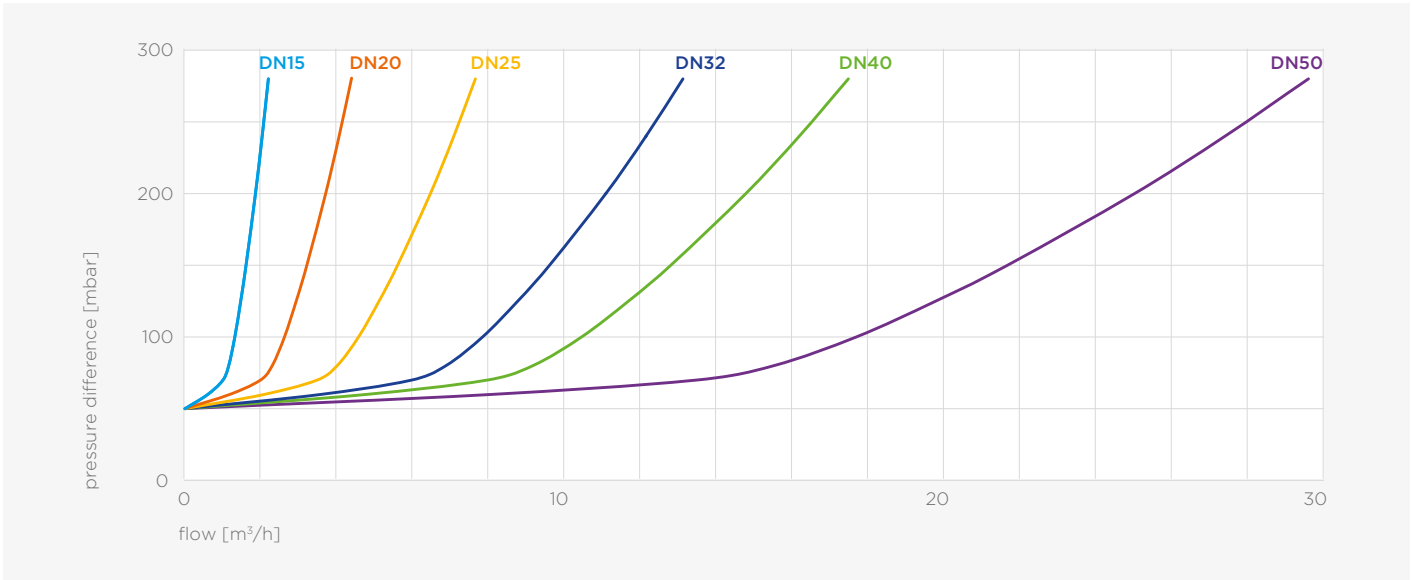


no.	component	material
1	body	brass (CW617N)
2	control plug	brass
3	seal	PTFE
4	valve seal	EPDM
5	valve disc	brass
6	spring	stainless (1.4309)
7	stem	POM
8	o-ring	EPDM
9	bonnet	brass
10	double o-ring seal	EPDM
11	stem	brass
12	handle	nylon (PA6, GF 20%)
13	plug	brass
14	seal	PTFE
15	drain body	brass
16	seal	PTFE
17	drain stem seal	EPDM
18	drain rotatable outlet	nylon (PA6, GF 20%)
19	drain handle	nylon (PA6, GF 20%)



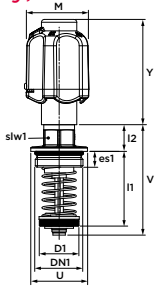
maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
16	25	24
pressure equipment directive category (PED)		
all dimensions	SEP	

dimension	article no.	weight [kg]	Kvs [m³/h]	DN3/4	l1	l2	z1	z2	slw1/2	slw3	slw4/5/6	Y	V	Vl	H1	H2	b	a [°]	M
Rp½" (DN15)	0201341	0.45	4.1	8	21	46	6	31	27	19	17	62	52	113	20	82	66	41	36
Rp¾" (DN20)	0000914	0.5	8.3	8	23	54	7	38	32	17	17	62	60	126	20	92	72	41	36
Rp1" (DN25)	0000915	0.85	14.5	8	27	65	8	45	40	22	17	73	68	146	24	107	77	41	46
Rp1¼" (DN32)	0000916	1.35	24.9	8	31	81	10	60	50	24	17	94	87	180	27	132	89	41	56
Rp1½" (DN40)	0000917	1.65	33.2	8	33	89	12	68	55	24	17	94	95	189	29	138	95	41	56
Rp2" (DN50)	0000918	2.7	56	8	41	112	15	86	70	32	17	125	116	241	38	177	111	41	60



flow range

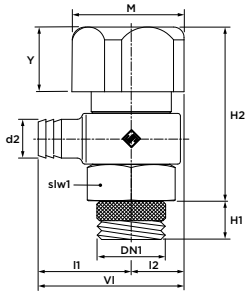
1929 SEPP Kommunal KFR® stop/check valve bonnet assembly, non rising



dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Y	V	U	M
G½" DN15	0013081	0.16	16	20-35	11	19	9	62	31	26	36
G¾" DN20	0001520	0.2	22	23-43	19	17	8	62	42	38	36
G1" DN25	0001521	0.35	28	27-52	19	22	11	73	46	46	46
G1¼" DN32	0001522	0.6	35	29-63	23	24	12	94	53	52	56
G1½" DN40	0001523	0.7	41	35-72	23	24	13	94	59	56	56
G2" DN50	0001524	1.15	53	34-92	31	32	13	125	66	68	60
G2½" DN65	0001499	1.3	68	34-92	31	36	16	125	66	86	60
G3" DN80*	0001500	2	82	34-100	106	41	16	28	137	120	120

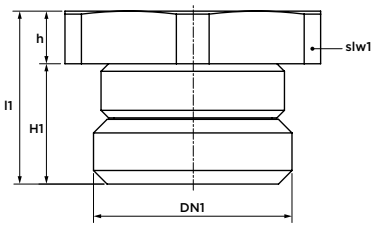
*with handwheel

1932 SEPP drain valve



dimension	article no.	weight [kg]	d2	l1	l2	slw1	Y	Vl	H1	H2	M
G¼" (DN8)	0018905	0.04	7	18	11	17	13	29	7	34	23

1937 SEPP plug



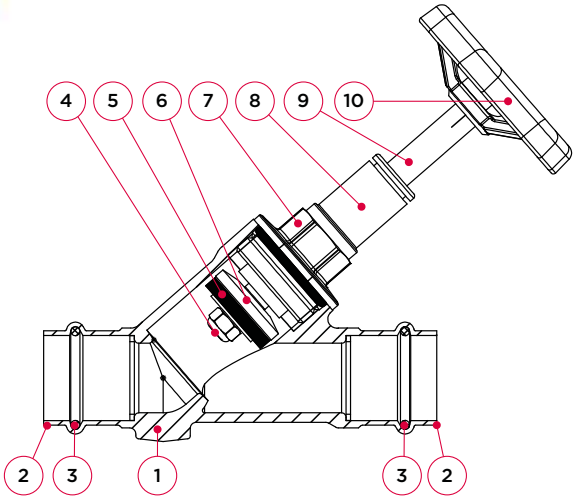
dimension	article no.	weight [kg]	l1	h	H1	slw1
G¼" (DN8)	0022828	0.01	17	4	12	17

4621 SPS® stop valve

(2 x press)

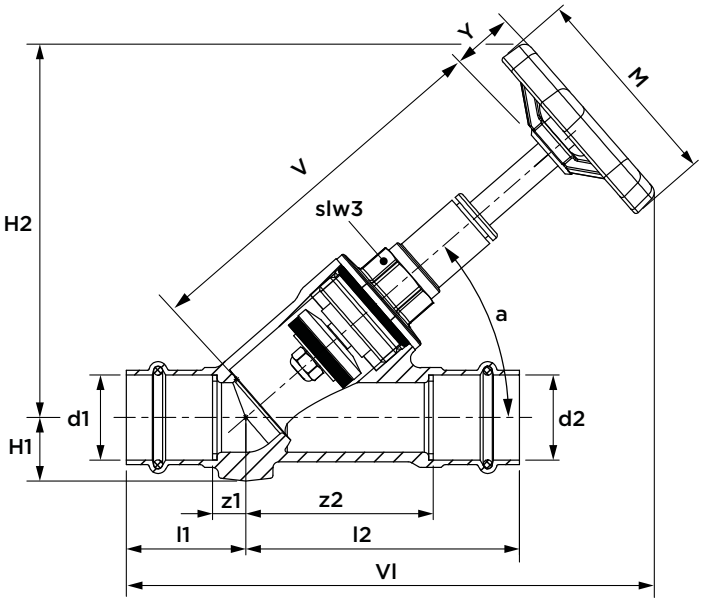
specifications

- maximum pressure 16 bar
- maximum temperature 90°C
- with universal SPS® press connections for copper, stainless steel and carbon steel tubes, compatible with M- and V-profile jaws
- stem with double o-ring seal
- rising stem with grease chamber, without dead space
- without drain

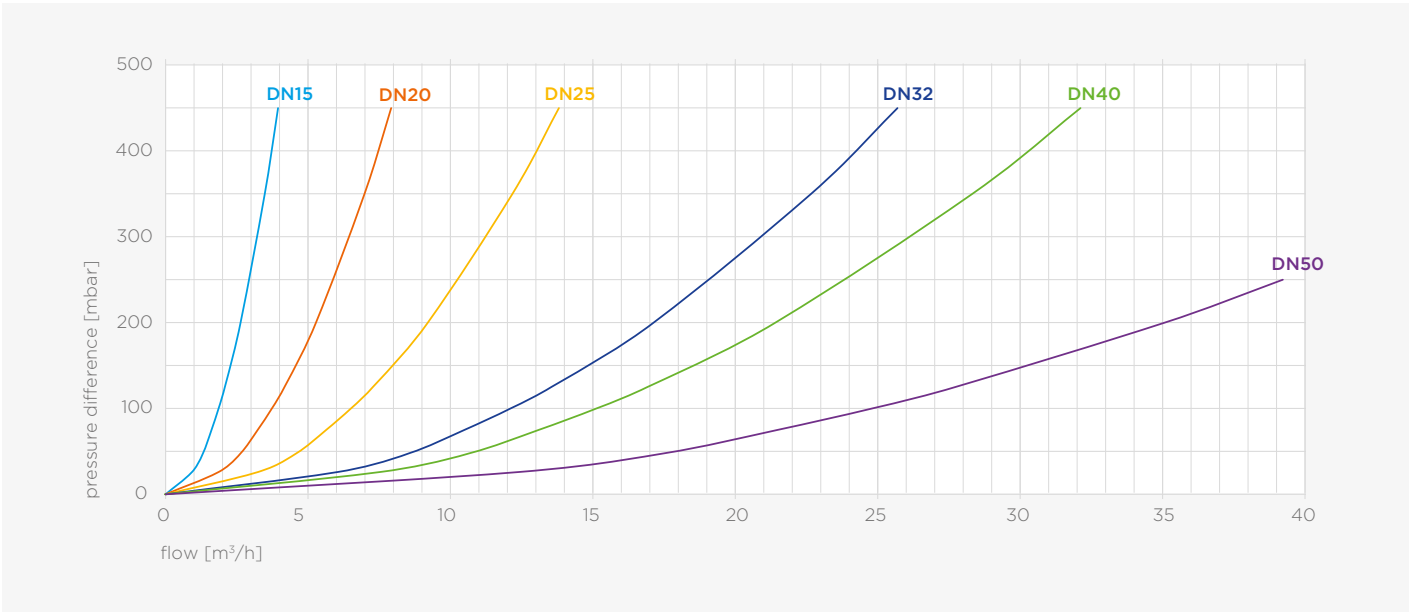


no.	component	material
1	body	DZR brass (CW625N)
2	press connection	DZR brass (CW625N)
3	o-ring	EPDM
4	nut	stainless (AISI 304/1.4301)
5	valve seal	EPDM
6	valve disc	brass
7	bonnet	brass
8	double o-ring seal	EPDM
9	stem	brass
10	handwheel	nylon (PA6, GF 20%)

maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
16	25	24
pressure equipment directive category (PED)		
all dimensions	SEP	

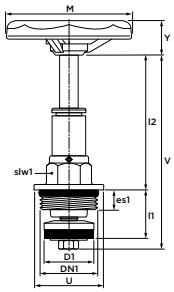


dimension		article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw3	Y	V	Vl	H1	H2	a [°]	M
15	(DN15)	TW0037100	0.39	5.9	38	72	12	46	19	14	96	142	20	96	41	60
18	(DN20)	TW0037101	0.51	11.8	40	84	11	55	17	14	110	155	18	103	41	60
22	(DN20)	TW0037102	0.53	11.8	40	84	11	55	17	14	110	155	18	103	41	60
28	(DN25)	TW0037103	0.76	20.6	40	91	11	62	22	19	127	175	23	123	41	70
35	(DN32)	TW0037104	1.14	38.3	46	102	14	70	24	19	163	208	25	150	41	70
42	(DN40)	TW0037105	1.61	47.8	57	121	21	85	24	23	169	229	29	163	41	90
54	(DN50)	TW0211049	2.25	78.4	64	144	18	98	32	23	225	283	38	197	41	90



flow range

4922 SEPP DIN-Basis bonnet assembly, rising stem



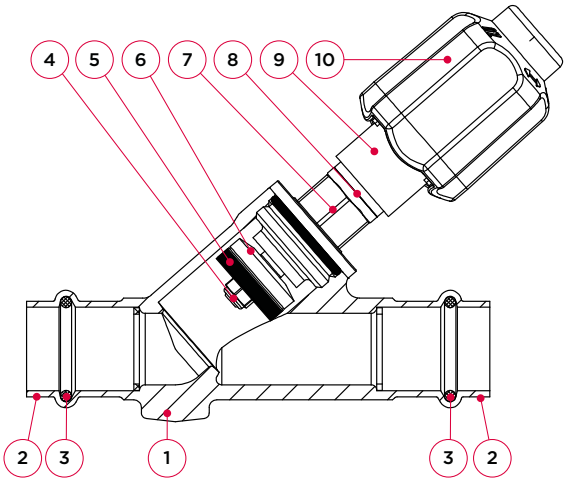
dimension	article no.	weight [kg]	D1	l1	l2	sw1	es1	Y	V	U	M
G½" (DN15)	0049810	0.11	16	20-35	61	19	9	14	96	26	60
G¾" (DN20)	0049811	0.15	22	23-43	67	17	8	14	110	38	60
G1" (DN25)	0049809	0.27	28	27-52	76	22	11	19	127	46	70
G1¼" (DN32)	0049812	0.43	35	29-63	101	24	12	19	163	52	70
G1½" (DN40)	0049813	0.52	41	35-72	100	24	13	23	169	56	90
G2" (DN50)	0210133	0.87	53	38-89	139	32	13	23	225	68	90

4621.10 SPS® stop valve

(2 x press)

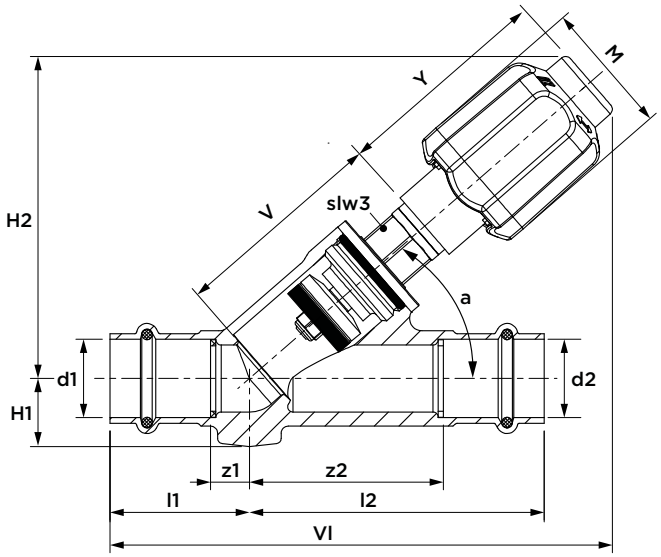
specifications

- maximum pressure 16 bar
- maximum temperature 90°C
- with universal SPS® press connections for copper, stainless steel and carbon steel tubes, compatible with M- and V-profile jaws
- with identification label
- with open position indicator
- stem with double o-ring seal
- non-rising stem with grease chamber, without dead space
- without drain

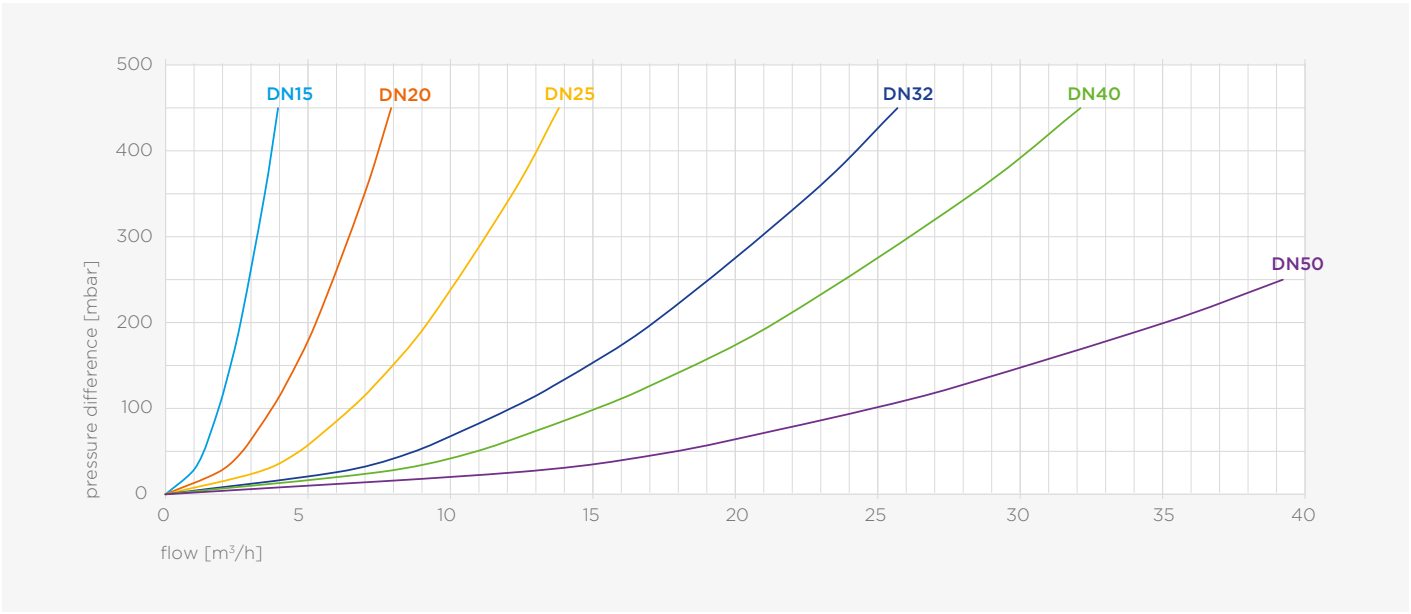


no.	component	material
1	body	DZR brass (CW625N)
2	press connection	DZR brass (CW625N)
3	o-ring	EPDM
4	nut	stainless (AISI 304/1.4301)
5	valve seal	EPDM
6	valve disc	brass
7	bonnet	brass
8	double o-ring seal	EPDM
9	stem	brass
10	handle	nylon (PA6, GF 20%)

maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
16	25	24
pressure equipment directive category (PED)		
all dimensions	SEP	

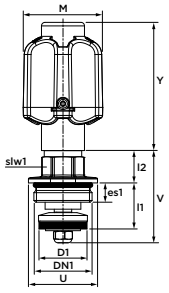


dimension	article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw3	Y	V	H1	H2	Vl	a [°]	M
15 (DN15)	TW0022225	0.50	5.9	38	72	12	46	19	62	45	19	80	129	41	36
18 (DN20)	TW0026194	0.58	11.8	40	84	11	55	17	62	59	20	90	142	41	36
22 (DN20)	TW0022226	0.60	11.8	40	84	11	55	17	62	59	20	90	142	41	36
28 (DN25)	TW0022227	0.79	20.6	40	91	11	62	22	73	70	21	106	159	41	46
35 (DN32)	TW0022228	1.24	38.3	46	102	14	70	24	94	85	25	132	196	41	56
42 (DN40)	TW0022840	1.68	47.8	57	121	21	85	24	94	93	28	138	213	41	56
54 (DN50)	TW0211041	2.44	78.4	64	144	18	98	36	125	119	33	177	265	41	60



flow range

4917 SEPP Servo-Plus bonnet assembly



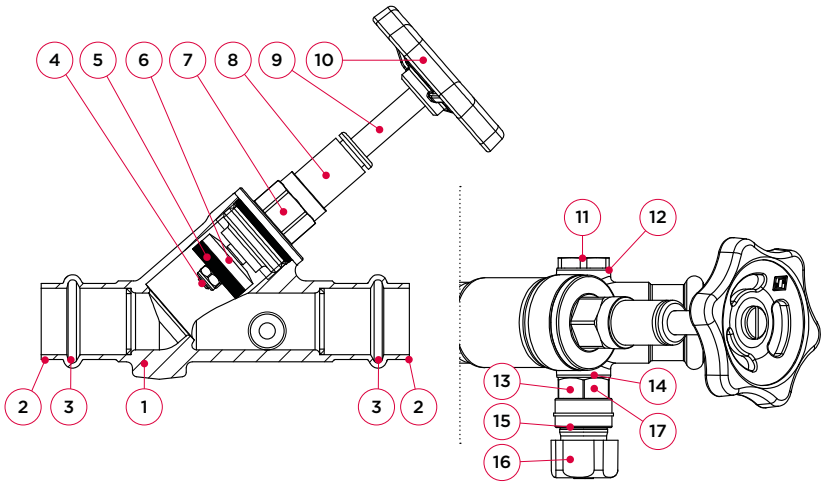
dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Y	V	U	M
G½" DN15	0033315	0.15	16	20-35	11	19	9	62	31	26	36
G¾" DN20	0033316	0.19	22	23-43	19	17	8	62	42	38	36
G1" DN25	0033319	0.31	28	27-52	19	22	11	73	46	46	46
G1¼" DN32	0033320	0.55	35	29-63	23	24	12	94	53	52	56
G1½" DN40	0033321	0.64	41	35-72	23	24	13	94	59	56	56
G2" DN50	0033322	0.98	53	34-92	31	32	13	125	66	68	60

4626 SPS® stop valve with drain

(2 x press)

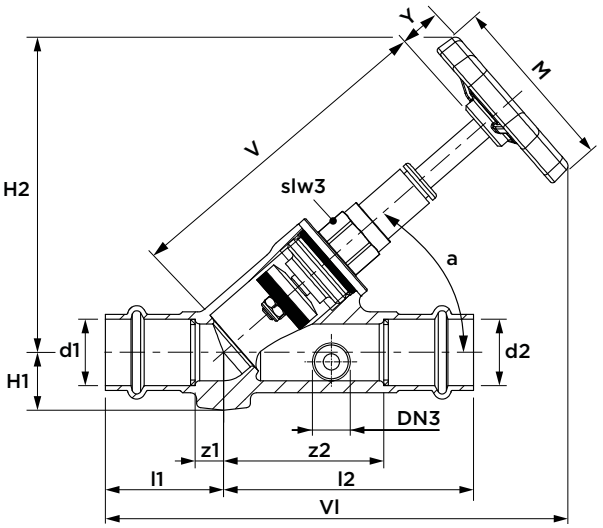
specifications

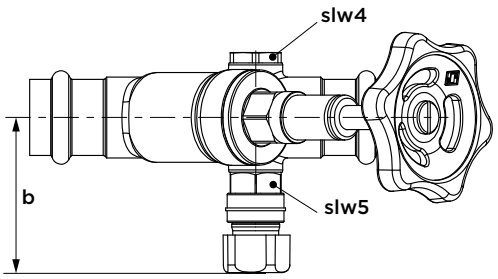
- maximum pressure 16 bar
- maximum temperature 90°C
- with universal SPS® press connections for copper, stainless steel and carbon steel tubes, compatible with M- and V-profile jaws
- stem with double o-ring seal
- rising stem with grease chamber, without dead space



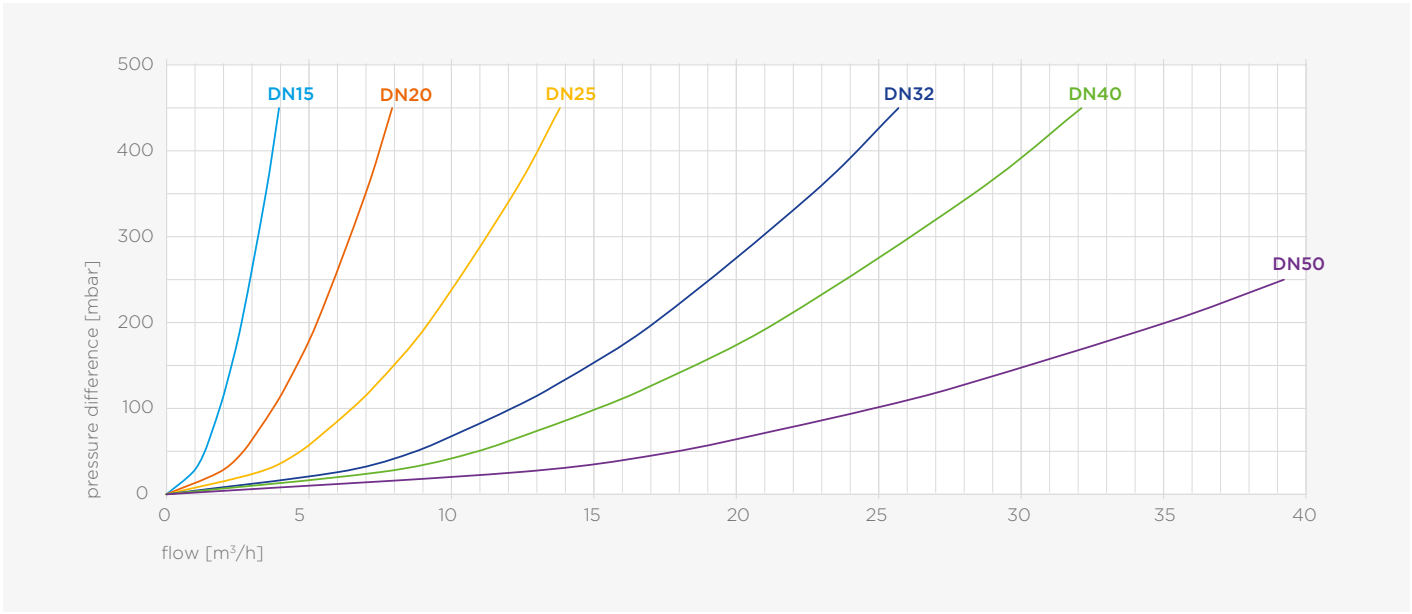
no.	component	material
1	body	DZR brass (CW625N)
2	press connection	DZR brass (CW625N)
3	o-ring	EPDM
4	nut	stainless (AISI 304/1.4301)
5	valve seal	EPDM
6	valve disc	brass
7	bonnet	brass
8	double o-ring seal	EPDM
9	stem	brass
10	handwheel	nylon (PA6, GF 20%)
11	plug	brass
12	seal	PTFE
13	drain body	brass
14	drain self-sealing gasket	PTFE
15	drain rotatable outlet	nylon (PA6, GF 20%)
16	drain handle	nylon (PA6, GF 20%)
17	drain stem seal	EPDM

maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
16	25	24
pressure equipment directive category (PED)		
all dimensions	SEP	



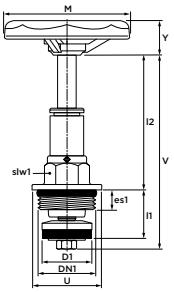


dimension		article no.	weight [kg]	Kvs [m³/h]	DN3	l1	l2	z1	z2	slw4/5	slw3	Y	V	Vl	H1	H2	b	a [°]	M
15	(DN12)	TW0037106	0.40	5.9	8	38	72	12	46	17	19	14	96	142	20	96	48	41	60
18	(DN20)	TW0037107	0.55	11.8	8	40	84	11	55	17	17	14	110	155	18	103	52	41	60
22	(DN20)	TW0037108	0.54	11.8	8	40	84	11	55	17	17	14	110	155	18	103	52	41	60
28	(DN25)	TW0037109	0.77	20.6	8	40	91	11	62	17	22	19	127	175	23	123	53	41	70
35	(DN32)	TW0037110	1.15	38.3	8	46	102	14	70	17	24	19	163	208	25	150	57	41	70
42	(DN40)	TW0037111	1.62	47.8	8	57	121	21	85	17	24	23	169	229	29	163	59	41	90
54	(DN50)	TW0211051	2.26	78.4	8	64	144	18	98	17	32	23	225	283	38	197	65	41	90



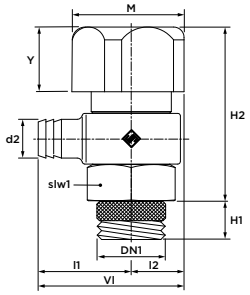
flow range

4922 SEPP DIN-Basis bonnet assembly, rising stem



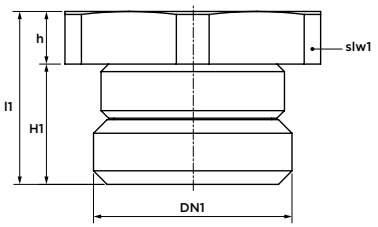
dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Y	V	U	M
G½" (DN15)	0049810	0.11	16	20-35	61	19	9	14	96	26	60
G¾" (DN20)	0049811	0.15	22	23-43	67	17	8	14	110	38	60
G1" (DN25)	0049809	0.27	28	27-52	76	22	11	19	127	46	70
G1¼" (DN32)	0049812	0.43	35	29-63	101	24	12	19	163	52	70
G1½" (DN40)	0049813	0.52	41	35-72	100	24	13	23	169	56	90
G2" (DN50)	0210133	0.87	53	38-89	139	32	13	23	225	68	90

4966 SEPP Servo drain valve



dimension	article no.	weight [kg]	d2	l1	l2	slw1	Y	Vl	H1	H2	M
G¼" (DN8)	0033465	0.04	7	18	11	17	13	29	7	34	23

4968 SEPP plug



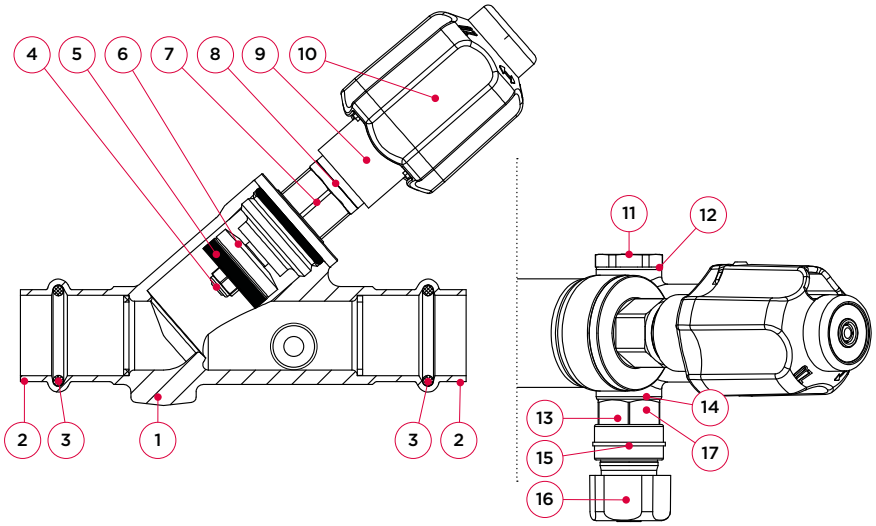
dimension	article no.	weight [kg]	l1	slw1	h	H1
G¼" (DN8)	0033468	0.012	12	17	4	8

4626.10 SPS® stop valve with drain

(2 x press)

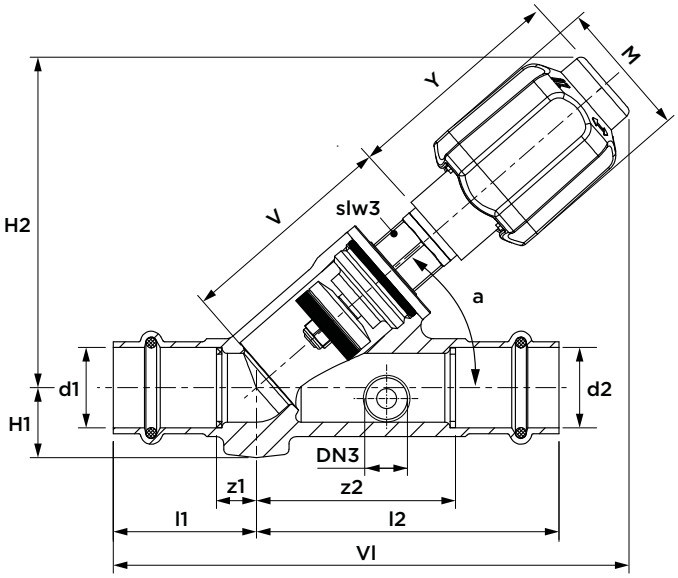
specifications

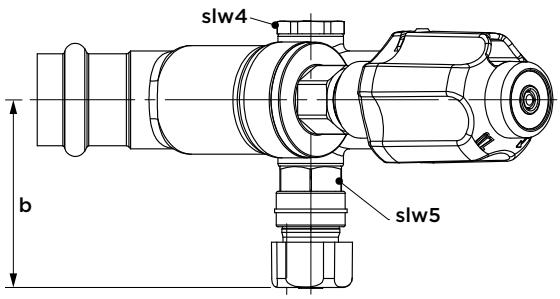
- maximum pressure 16 bar
- maximum temperature 90°C
- with universal SPS® press connections for copper, stainless steel and carbon steel tubes, compatible with M- and V-profile jaws
- with identification label
- with open position indicator
- stem with double o-ring seal
- non-rising stem with grease chamber, without dead space



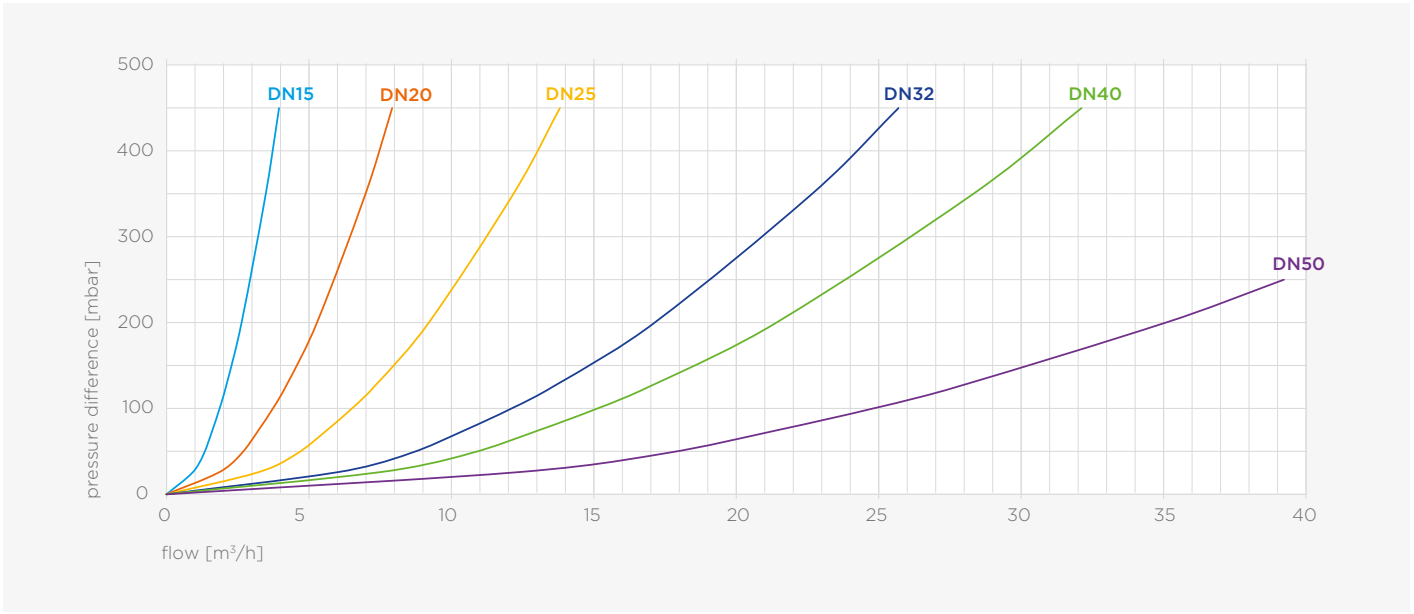
no.	component	material
1	body	DZR brass (CW625N)
2	press connection	DZR brass (CW625N)
3	o-ring	EPDM
4	nut	stainless (AISI 304/1.4301)
5	valve seal	brass
6	valve disc	EPDM
7	bonnet	brass
8	double o-ring seal	EPDM
9	stem	brass
10	handle	nylon (PA6, GF 20%)
11	plug	brass
12	plug seal	PTFE
13	drain body	brass
14	drain self-sealing gasket	PTFE
15	drain rotatable outlet	nylon (PA6, GF 20%)
16	drain handle	nylon (PA6, GF 20%)
17	drain stem seal	EPDM

maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
16	25	24
pressure equipment directive category (PED)		
all dimensions	SEP	



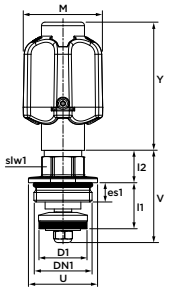


dimension	article no.	weight [kg]	Kvs [m³/h]	DN3	l1	l2	z1	z2	slw3	slw4/5	Y	V	Vl	H1	H2	b	a [°]	M
15 (DN15)	TW0022229	0.51	5.9	8	38	72	12	46	19	17	62	45	129	19	80	48	41	36
18 (DN20)	TW0026195	0.79	11.8	8	40	84	11	55	17	17	62	59	142	20	90	52	41	36
22 (DN20)	TW0022230	1.21	11.8	8	40	84	11	55	17	17	62	59	142	20	90	52	41	36
28 (DN25)	TW0022231	1.27	20.6	8	40	91	11	62	22	17	73	70	159	21	106	53	41	46
35 (DN32)	TW0022232	1.69	38.3	8	46	102	14	70	24	17	94	85	196	25	132	57	41	56
42 (DN40)	TW0022843	1.77	47.8	8	57	121	21	85	24	17	94	93	213	28	138	59	41	56
54 (DN50)	TW0211050	2.39	78.4	8	64	144	18	98	36	17	125	119	265	33	177	65	41	60



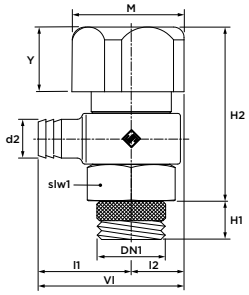
flow range

4917 SEPP Servo-Plus bonnet assembly



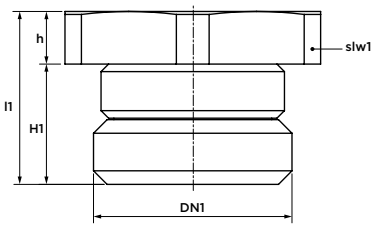
dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Y	V	U	M
G½" DN15	0033315	0.15	16	20-35	11	19	9	62	31	26	36
G¾" DN20	0033316	0.19	22	23-43	19	17	8	62	42	38	36
G1" DN25	0033319	0.31	28	27-52	19	22	11	73	46	46	46
G1¼" DN32	0033320	0.55	35	29-63	23	24	12	94	53	52	56
G1½" DN40	0033321	0.64	41	35-72	23	24	13	94	59	56	56
G2" DN50	0033322	0.98	53	34-92	31	32	13	125	66	68	60

4966 SEPP Servo drain valve



dimension	article no.	weight [kg]	d2	l1	l2	slw1	Y	Vl	H1	H2	M
G¼" (DN8)	0033465	0.04	7	18	11	17	13	29	7	34	23

4968 SEPP plug



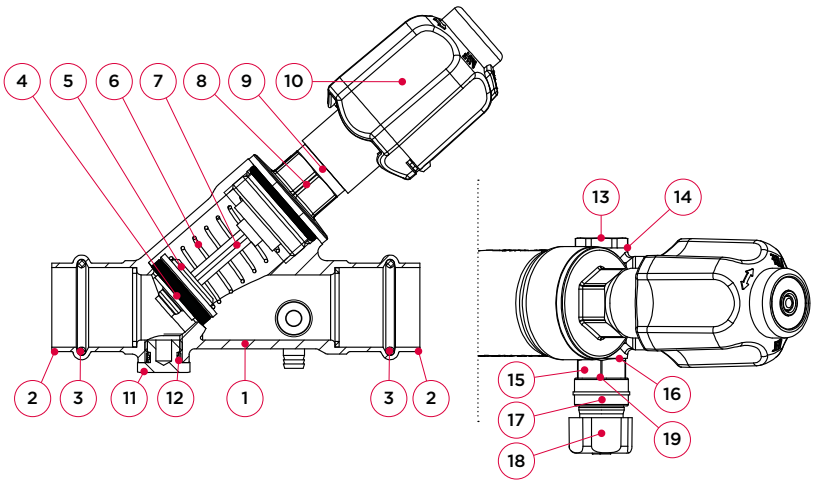
dimension	article no.	weight [kg]	l1	slw1	h	H1
G¼" (DN8)	0033468	0.012	12	17	4	8

4726 SPS® KFR® stop/check valve

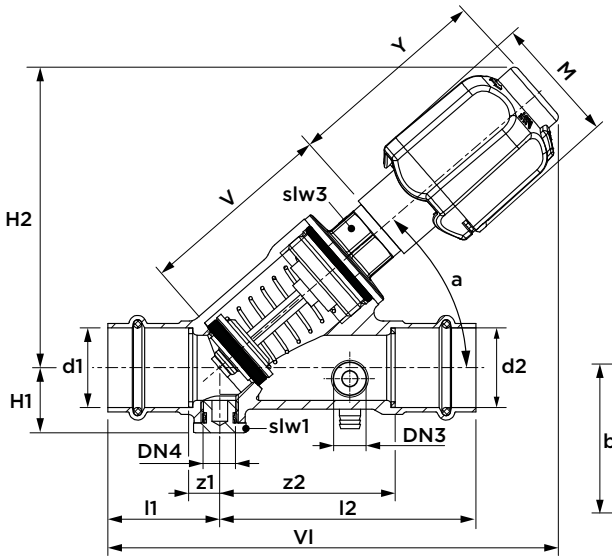
(2 x press)

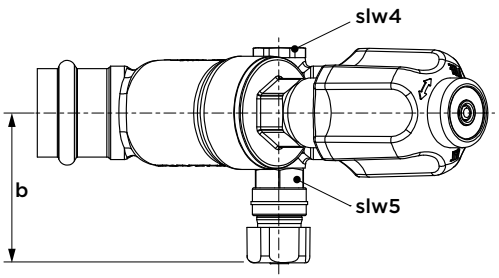
specifications

- maximum pressure 16 bar
- maximum temperature 90°C
- with universal SPS® press connections for copper, stainless steel and carbon steel tubes, compatible with M- and V-profile jaws
- with identification label
- with open position indicator
- stem with double o-ring seal
- non-rising stem with grease chamber, without dead space
- with drain



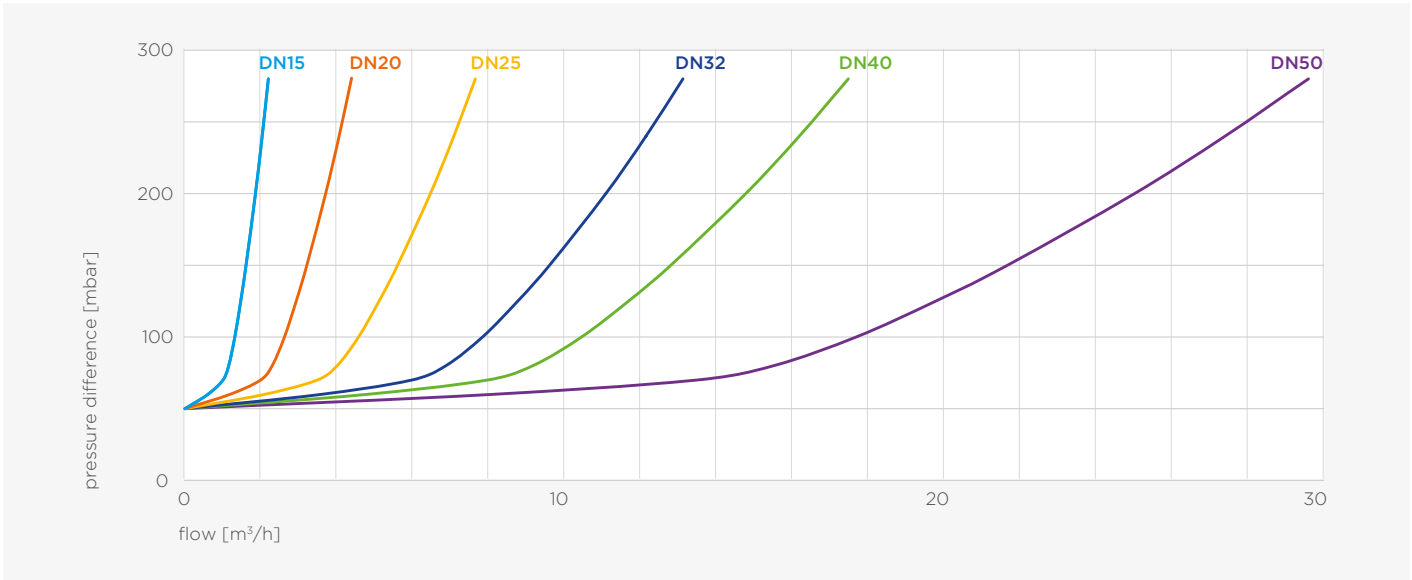
no.	component	material
1	body	DZR brass (CW625N)
2	press connection	DZR brass (CW625N)
3	o-ring	EPDM
4	valve seal	EPDM
5	valve disc	brass
6	spring	stainless (1.4309)
7	stem	POM
8	bonnet	brass
9	double o-ring seal	EPDM
10	handle	nylon (PA6, GF 20%)
11	control plug	brass
12	control plug seal	PTFE
13	plug	brass
14	seal	PTFE
15	drain body	brass
16	drain self-sealing gasket	PTFE
17	drain rotatable outlet	nylon (PA6, GF 20%)
18	drain handle	EPDM
19	drain stem seal	nylon (PA6, GF 20%)





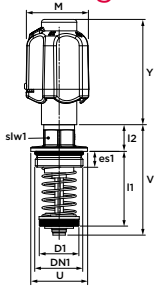
maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
16	25	24
pressure equipment directive category (PED)		
all dimensions	SEP	

dimension	article no.	weight [kg]	Kvs [m³/h]	DN3/4	l1	l2	z1	z2	slw3	slw4/5	Y	V	Vl	H1	H2	b	a [°]	M
18 (DN20)	TW0022859	0.51	4.1	8	40	84	11	55	17	17	62	59	142	20	90	52	41	36
22 (DN20)	TW0022236	0.58	8.3	8	40	84	11	55	17	17	62	59	142	20	90	52	41	36
28 (DN25)	TW0022237	1.38	14.5	8	40	91	11	62	22	17	73	70	159	21	106	53	41	46
35 (DN32)	TW0022238	1.70	24.9	8	46	102	14	70	24	17	94	85	196	25	132	57	41	56
42 (DN40)	TW0022812	2.10	33.2	8	57	121	21	85	24	17	94	93	213	28	138	59	41	56
54 (DN50)	TW0211053	2.54	56	8	64	144	18	98	36	17	125	119	265	33	177	65	41	60



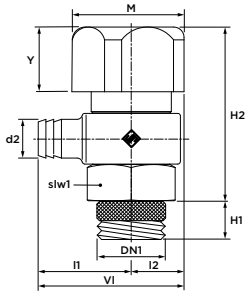
flow range

4969 SEPP Servo-Plus KFR® bonnet assembly, non-rising



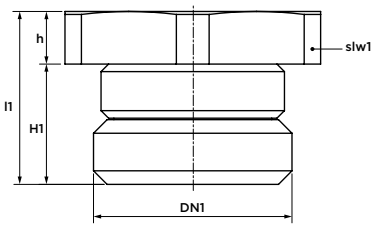
dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Y	V	U	M
G¾" (DN20)	0026067	0.2	22	23-43	19	17	8	62	42	38	36
G1" (DN25)	0026068	0.35	28	27-52	19	22	11	73	46	46	46
G1¼" (DN32)	0026069	0.6	35	29-63	23	24	12	94	53	52	56
G1½" (DN40)	0026070	0.7	41	35-72	23	24	13	94	59	56	56
G2" (DN50)	0026071	1.15	53	34-92	31	32	13	125	66	68	60

4966 SEPP Servo drain valve



dimension	article no.	weight [kg]	d2	l1	l2	slw1	Y	Vl	H1	H2	M
G¼" (DN8)	0033465	0.04	7	18	11	17	13	29	7	34	23

4968 SEPP plug



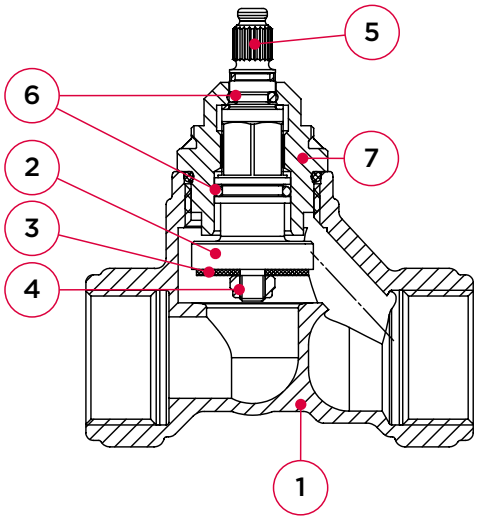
dimension	article no.	weight [kg]	l1	h	H1	slw1
G¼" (DN8)	0033468	0.012	12	4	8	17

2701.05 SEPP UP stop valve with short stem

(2 x thread)

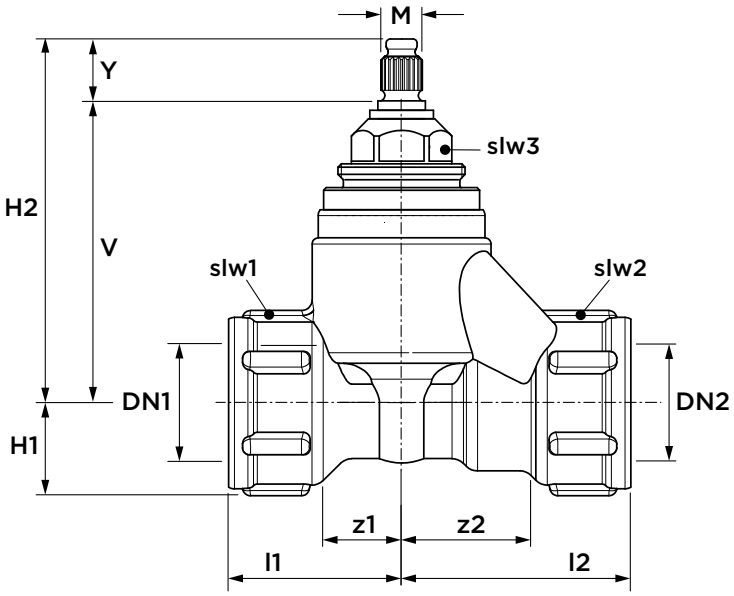
specifications

- maximum pressure 10 bar
- maximum temperature 90°C
- stem with double o-ring seal
- non-rising stem with grease chamber, without dead space
- with protection cap
- for in-wall assembly

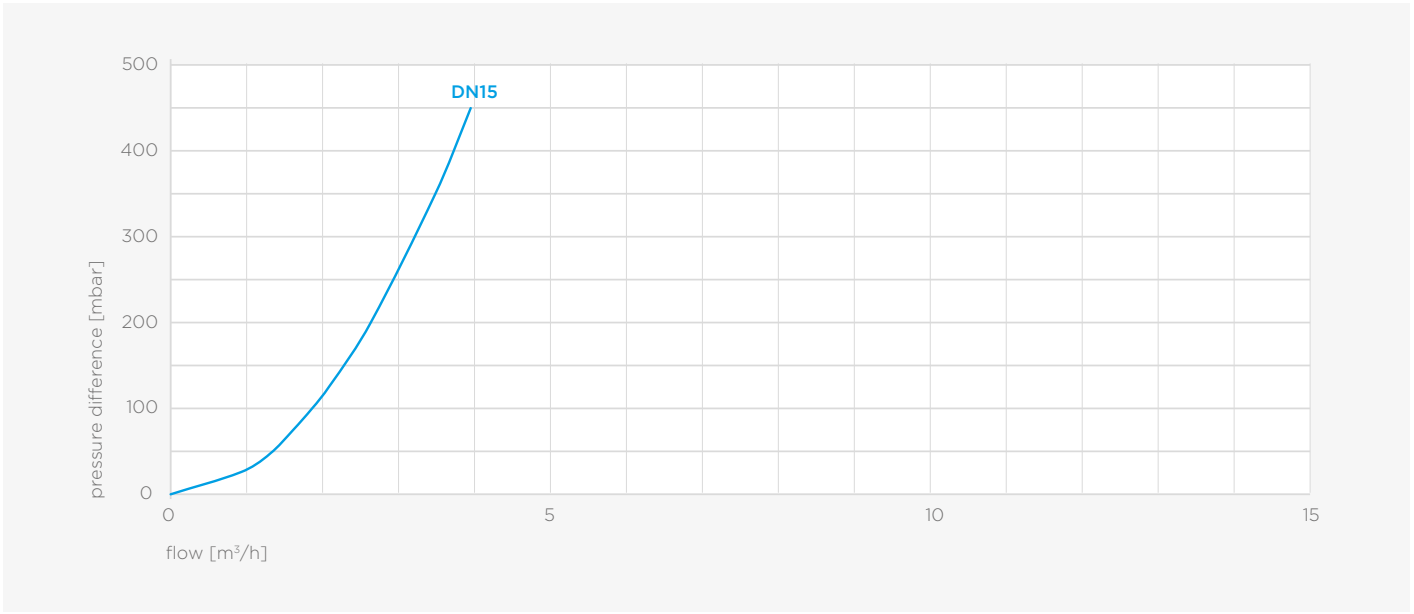


no.	component	material
1	body	brass (CW617N)
2	valve disc	brass
3	valve seal	EPDM
4	nut	stainless
5	stem	brass
6	o-ring	EPDM
7	bonnet	brass

maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
10	25	16
pressure equipment directive category (PED)		
all dimensions	SEP	

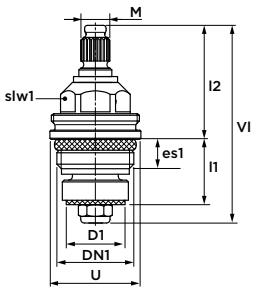


dimension	article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw1/2	slw3	Y	V	H1	H2	M
Rp½" (DN15)	0213036	0.27	2.4	29	36	14	22	30	17	12	42	15	54	8



flow range

2911.05 SEPP UP bonnet assembly



dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	U	Vl	M
G½" (DN15)	0210901	0.08	16	18	31	17	8	25	55	8

2931.05 SEPP UP finishing set with DM grip, cold and hot

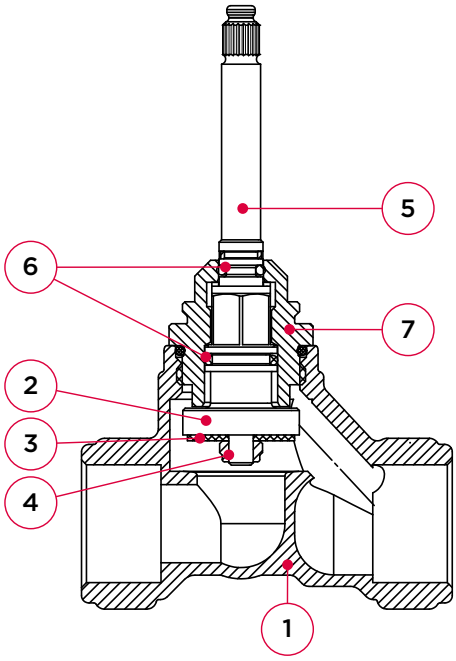
dimension	article no.	weight [kg]	decor plate [Ø]
DN15-DN20	0214487	0.23	70

2701.01 SEPP UP stop valve with long stem

(2 x thread)

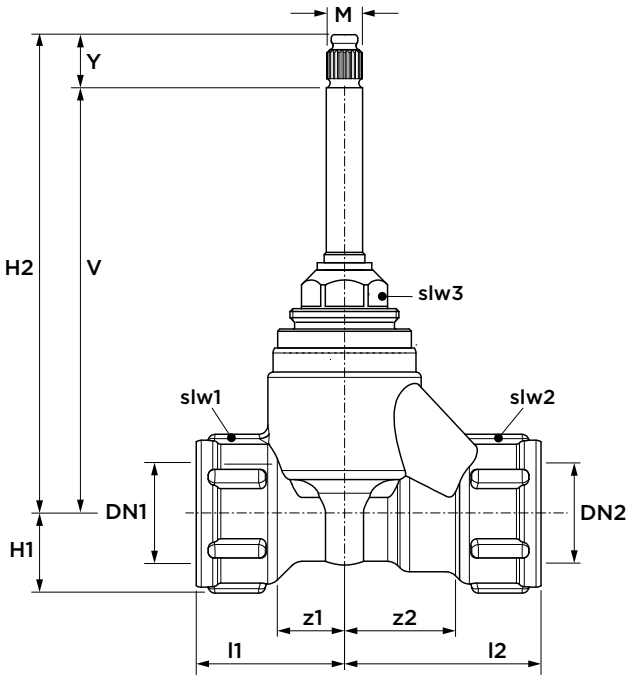
specifications

- maximum pressure 10 bar
- maximum temperature 90°C
- stem with double o-ring seal
- non-rising stem with grease chamber, without dead space
- with protection cap
- for in-wall assembly

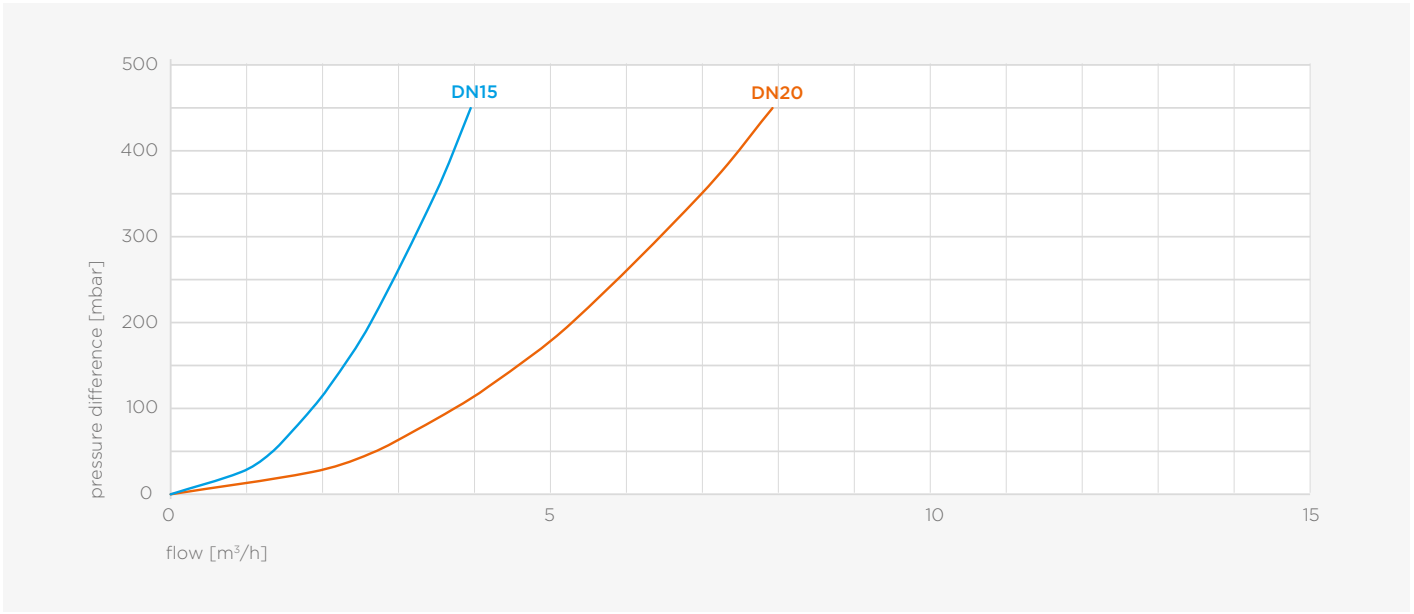


no.	component	material
1	body	brass (CW617N)
2	valve disc	brass
3	valve seal	EPDM
4	nut	stainless
5	stem	brass
6	o-ring	EPDM
7	bonnet	brass

maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
10	25	16
pressure equipment directive category (PED)		
all dimensions	SEP	

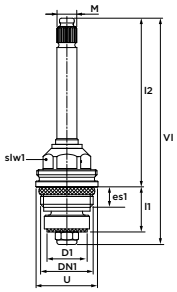


dimension	article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw1/2	slw3	Y	V	H1	H2	M
Rp½" (DN15)	0026289	0.28	2.4	29	36	14	22	27	17	12	85	15	113	8
Rp¾" (DN20)	0026290	0.4	4.8	33	44	17	27	32	17	12	94	18	121	8



flow range

2911.01 SEPP UP bonnet assembly



dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Vl	U	M
G½"(DN15)	0013454	0.09	16	23	67	17	8	91	25	8
G¾"(DN20)	0013455	0.12	22	27	69	17	8	95	30	8

2931.02 SEPP UP finishing set with DM grip, cold and hot

dimension	article no.	weight [kg]	decor plate [Ø]
DN15-DN20	0213758	0.22	70

2931.12 SEPP ZOOM finishing set with DM grip, cold and hot

dimension	article no.	weight [kg]	decor plate [Ø]
DN15-DN20	0213879	0.32	70

2913.02 SEPP UP finishing set with star grip, cold and hot

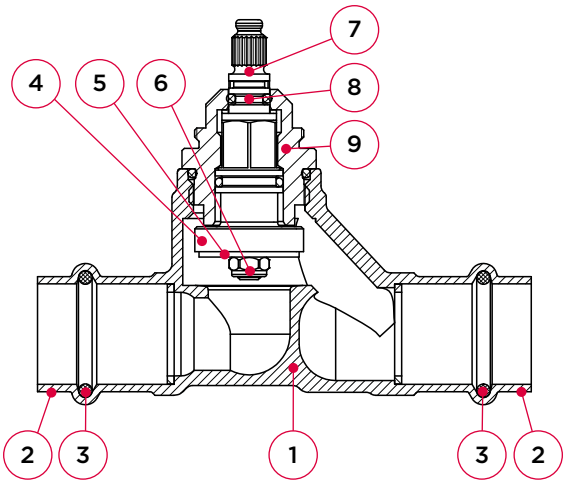
dimension	article no.	weight [kg]	decor plate [Ø]
DN15-DN20	0028698	0.18	70

2721.05 SEPP UP stop valve with short stem

(2 x press)

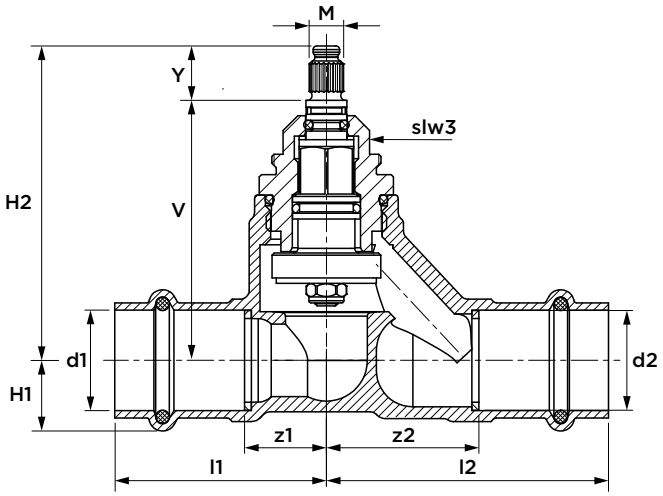
specifications

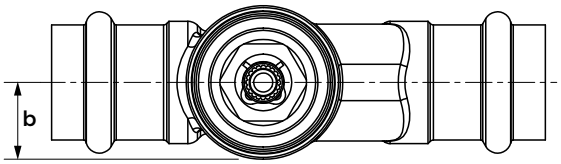
- maximum pressure 10 bar
- maximum temperature 90°C
- with universal SPS® press connections for copper, stainless steel and carbon steel tubes, compatible with M- and V-profile jaws
- with protection cap
- for in-wall assembly



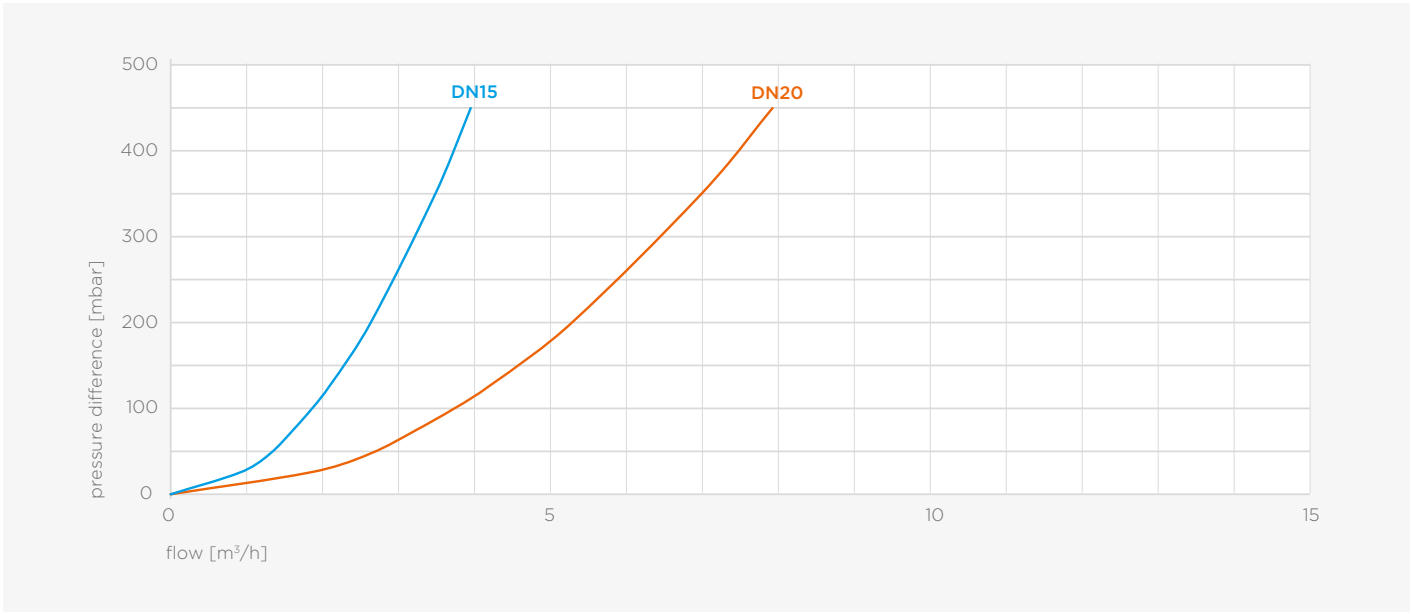
no.	component	material
1	body	DZR brass (CW626N)
2	press connection	DZR brass (CW626N)
3	o-ring	EPDM
4	valve disc	brass
5	valve seal	EPDM
6	nut	stainless
7	stem	brass
8	o-ring	EPDM
9	bonnet	brass

maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
10	25	16
pressure equipment directive category (PED)		
all dimensions	SEP	



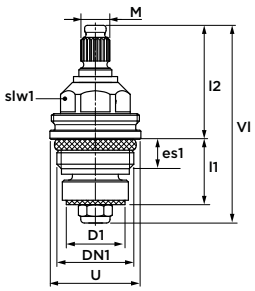


dimension	article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw1	Y	V	H1	H2	b	M
15 (DN15)	TW0035219	0.25	2.4	42	53	15	27	17	12	42	15	54	14	8
22 (DN20)	TW0035220	0.38	4.8	47	62	19	34	17	12	44	19	56	17	8



flow range

2911.05 SEPP UP bonnet assembly



dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Vl	U	M
G½" (DN15)	0210901	0.08	16	18	31	17	8	55	25	8
G¾" (DN20)	0210902	0.10	22	20	32	17	8	58	30	8

2931.05 SEPP UP finishing set with DM grip, cold and hot

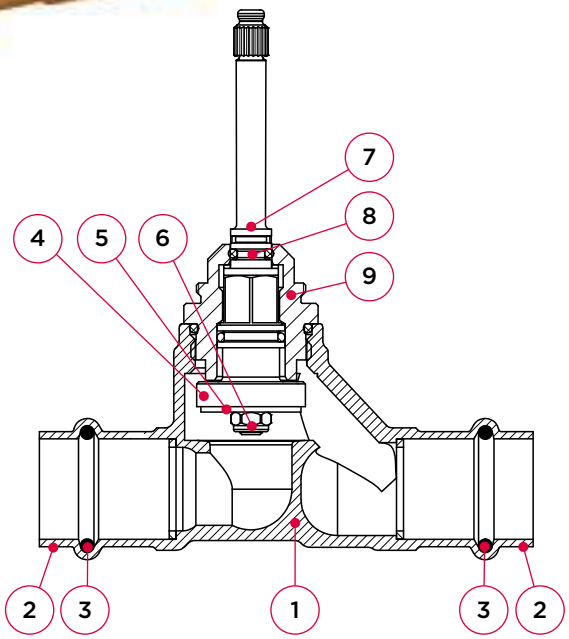
dimension	article no.	weight [kg]	decor plate [Ø]
DN15-DN20	0214487	0.23	70

2721.01 SEPP UP stop valve with long stem

(2 x press)

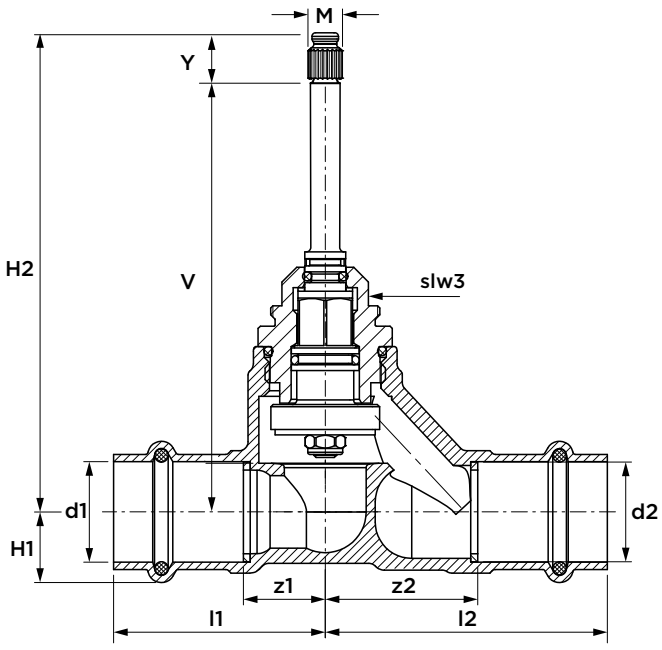
specifications

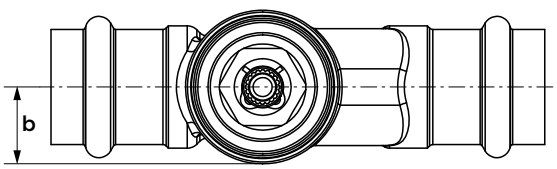
- maximum pressure 10 bar
- maximum temperature 90°C
- with universal SPS® press connections for copper, stainless steel and carbon steel tubes, compatible with M- and V-profile jaws
- with protection cap
- for in-wall assembly



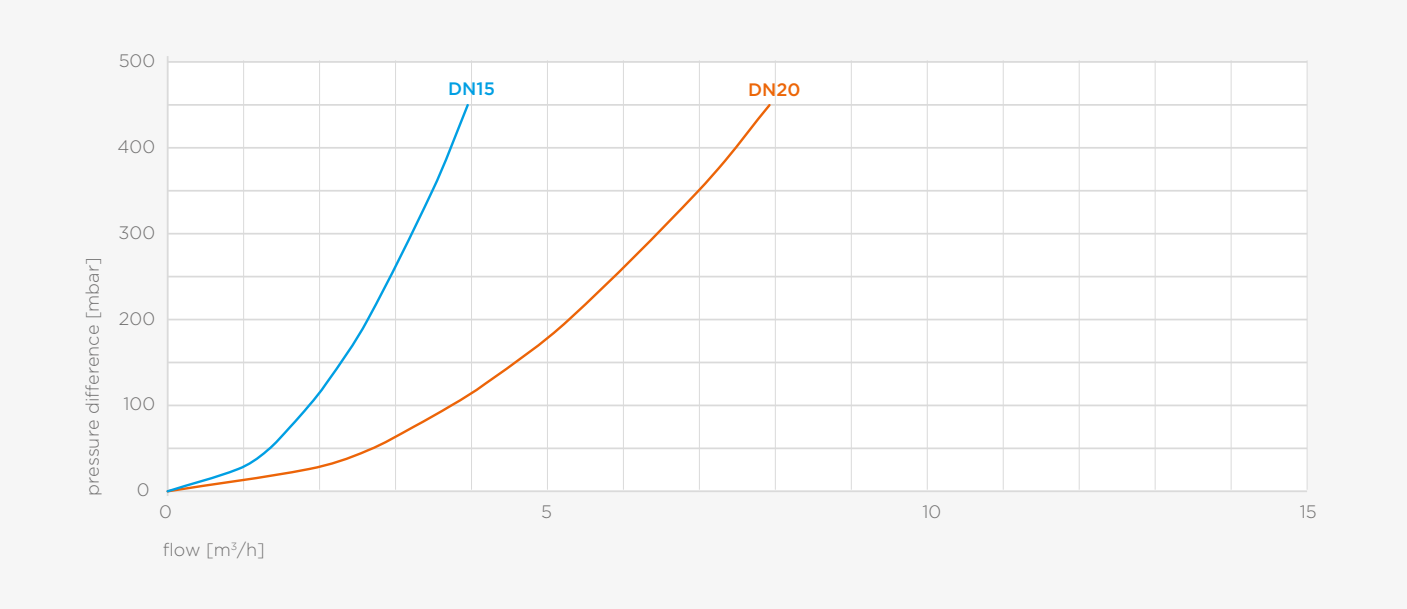
no.	component	material
1	body	DZR brass (CW626N)
2	press connection	DZR brass (CW626N)
3	o-ring	EPDM
4	valve disc	brass
5	valve seal	EPDM
6	nut	stainless
7	stem	brass
8	o-ring	EPDM
9	bonnet	brass

maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
10	25	16
pressure equipment directive category (PED)		
all dimensions	SEP	



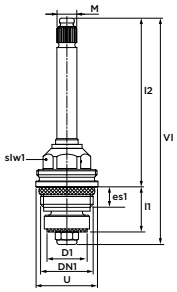


dimension	article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw3	Y	V	H1	H2	b	M
15 (DN15)	TW0035219	0.26	2.4	42	53	15	27	17	12	86	19	98	14	8
22 (DN20)	TW0035220	0.40	4.8	47	62	18	34	17	12	94	29	106	17	8



flow range

2911.01 SEPP UP bonnet assembly



dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	U	Vl	M
G½"(DN15)	0013454	0.09	16	23	67	17	8	25	91	8
G¾"(DN20)	0013455	0.12	22	27	69	17	8	30	95	8

2931.02 SEPP UP finishing set with DM grip, cold and hot

dimension	article no.	weight [kg]	decor plate [Ø]
DN15-DN20	0213758	0.22	70

2931.12 SEPP ZOOM finishing set with DM grip, cold and hot

dimension	article no.	weight [kg]	decor plate [Ø]
DN15-DN20	0213879	0.32	70

2913.02 SEPP UP finishing set with star grip, cold and hot

dimension	article no.	weight [kg]	decor plate [Ø]
DN15-DN20	0028698	0.18	70

Apollo Valves

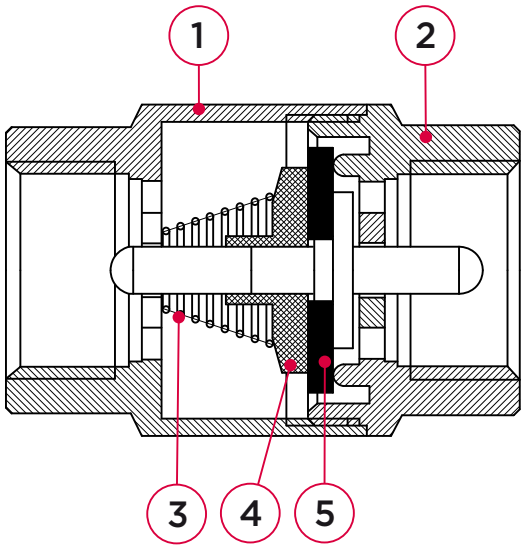
check valves

1063 Apollo spring check valve

(2 x female thread)

specifications

- max. pressure 8 bar
- operating temperature -10 to 90°C
- soft seated spring return
- horizontal or vertical mounting (upward flow only)
- body arrow indicates flow direction
- low pressure drop



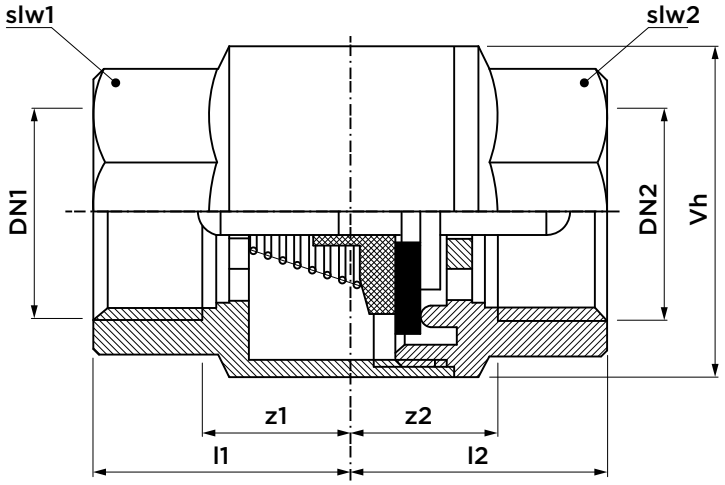
no.	component	material
1	body	brass (CW617N)
2	body cap	brass (CW617N)
3	disc	plastic (ABS)
4	spring	stainless steel
5	seat	NBR

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category

all sizes	SEP



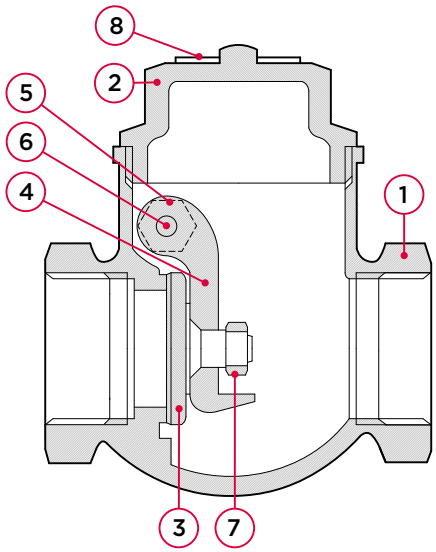
dimension	article no.	weight [kg]	l1/l2	z1/z2	slw1/slw2	Vh
G½" (DN15)	124121	0.123	25	17	32	28
G¾" (DN20)	124122	0.173	29	19	37	35
G1" (DN25)	124123	0.214	30	20	45	40
G1¼" (DN32)	124124	0.325	33	22	56	50
G1½" (DN40)	124125	0.492	38	25	67	57
G2" (DN50)	124126	0.625	43	29	79	70
G2½" (DN65)	124128	1.914	55	30	98	87
G3" (DN80)	124127	1.18	50	33	112	95
G4" (DN100)	124129	2.9110	57	38	138	129

1060A Apollo swing check valve

(2 x female thread)

specifications

- max. pressure 25 bar
- operating temperature -10 to 150°C
- metal seat and swing type metal disk
- horizontal or vertical mounting orientation (upward flow only)
- body arrow indicates direction of flow
- with inspection point

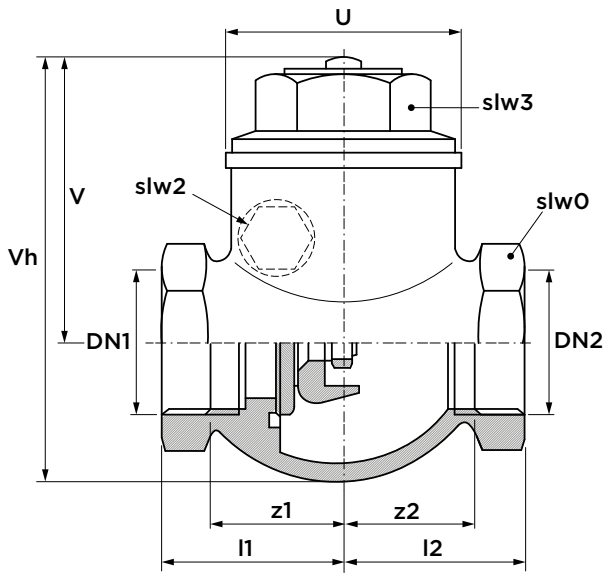


no.	component	material
1	body	gunmetal (C83600)
2	body cap	brass (CW617N)
3	valve	gunmetal (C83600)
4	swinger	brass/gunmetal (CW614N)
5	swinger pin cap	brass (CW614N)
6	swinger pin	brass (CW614N)
7	nut	brass (CW614N)
8	rating disk	tinned iron sheet

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP



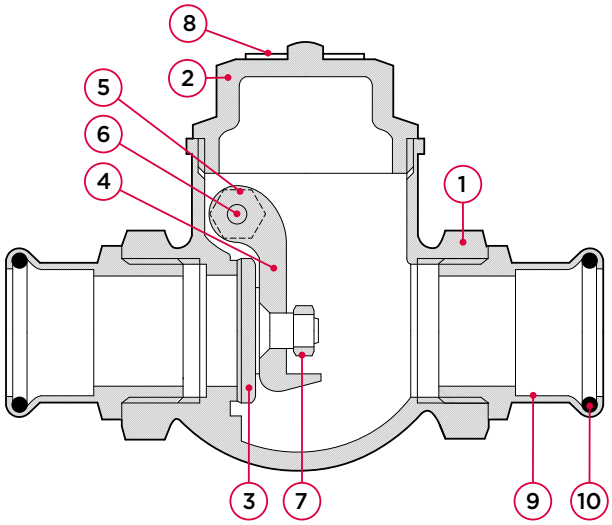
dimension		article no.	weight [kg]	Kvs [m³/h]	l1/l2	z1/z2	slw0	slw2	slw3	V	Vh	U
G½"	(DN15)	122047	0.38	5.7	29	16	22	26	8	62	62	32
G¾"	(DN20)	122048	0.58	15.3	33	19	28	33	8	77	77	41
G1"	(DN25)	122049	0.86	25.3	38	21	34	40	8	86	86	48
G1¼"	(DN32)	122050	1.26	32.6	44	26	41	48	8	96	96	58
G1½"	(DN40)	122051	1.66	54.4	48	29	48	56	8	110	110	67
G2"	(DN50)	122052	2.66	98.0	56	37	59	69	8	134	134	82

PS1060A Apollo swing check valve

(2 x press)

specifications

- maximum pressure 16 bar
- operating temperature -10 to 110°C
- VSH XPress gunmetal connections for carbon steel, stainless steel and copper tube
- M-profile
- metal seat and swing type metal disk
- horizontal or vertical mounting orientation (upward flow only)
- body arrow indicates direction of flow
- with inspection point

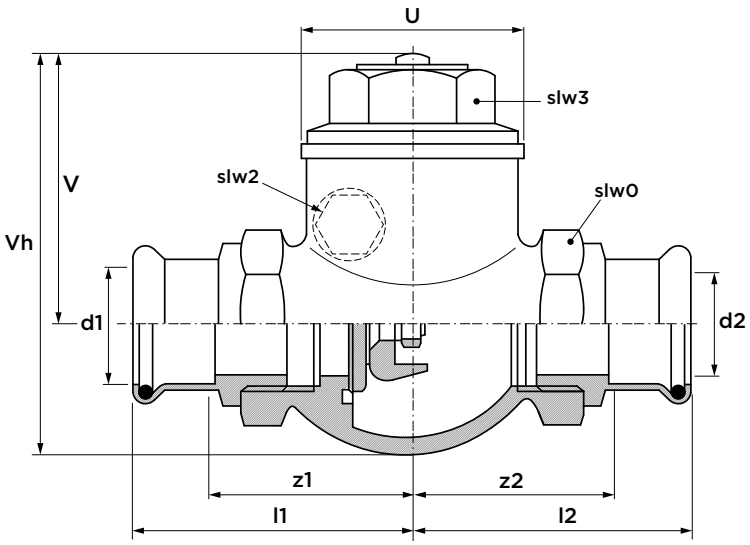


no.	component	material
1	body	gunmetal (C83600)
2	body cap	brass (CW617N)
3	valve	gunmetal (C83600)
4	swinger	brass/gunmetal (CW614N)
5	swinger pin cap	brass (CW614N)
6	swinger pin	brass (CW614N)
7	nut	brass (CW614N)
8	rating disk	tinned iron sheet
9	press connection	gunmetal (CC499K)
10	o-ring	EPDM

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

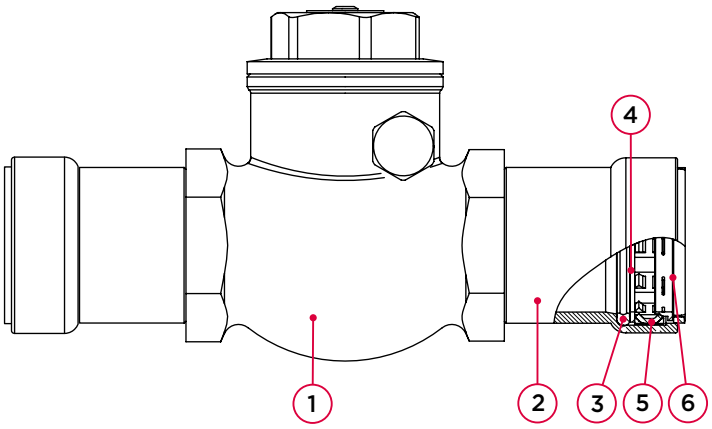
pressure equipment directive category	
all sizes	SEP



dimension	article no.	weight [kg]	Kvs [m³/h]	l1	l2	z1	z2	slw0	slw2	slw3	U	Vh	V
15 (DN12)	122310	0.47	5.7	54	77	36	54	22	8	26	32	62	62
22 (DN20)	122312	0.7	15.3	62	93	43	69	28	8	33	41	77	77
28 (DN25)	122313	1.0	25.3	68	97	47	71	34	8	40	48	86	86
35 (DN32)	122314	1.53	32.6	76	102	52	73	41	8	48	58	96	96
42 (DN40)	122315	1.95	54.4	85	115	58	83	48	8	56	67	110	110
54 (DN50)	122316	3.0	98.0	100	134	68	97	59	8	69	82	134	134

PP1060A Apollo swing check valve

(2 x press)



specifications

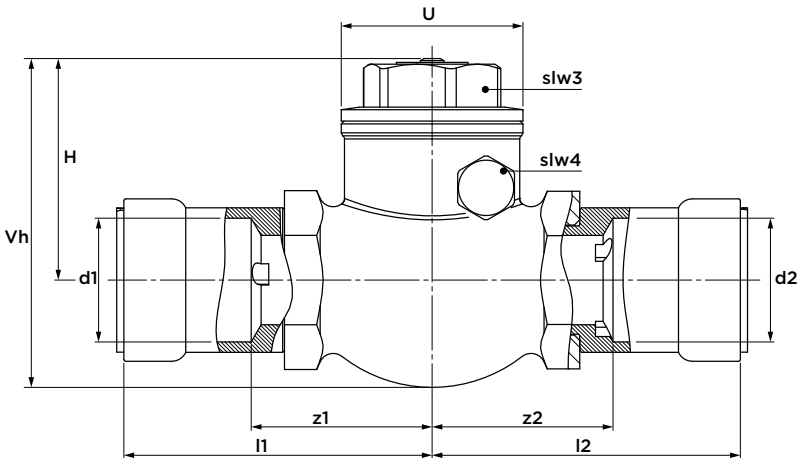
- maximum pressure 16 bar
- operating temperature 0 to 65°C
- VSH PowerPress® connections
- DW-profile
- bronze metal seated check valve
- horizontal and vertical fixing, indicated by flow directional arrow

no.	part	material
1	body	gunmetal
2	press end	carbon steel zinc nickel plated
3	o-ring	EPDM
4	spacer ring	stainless steel
5	grab ring	stainless steel
6	Visu-Control® ring	polypropylene

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP



dimension	flow [l/s]	Kv [m³/h]
½" (DN15)	0.04	1.8
	0.1	3.7
	0.2	5.1
	0.4	5.7
¾" (DN20)	0.04	2.7
	0.1	5.5
	0.4	13.6
	1	15.3
1" (DN25)	0.01	7.7
	0.2	13.9
	0.3	18.4
	1	25.3
1¼" (DN32)	0.2	15
	0.3	26.6
	0.4	25.3
	1	32.6
1½" (DN40)	0.4	30.3
	0.6	40.2
	0.8	48.5
	3	54.4
2" (DN50)	0.6	42
	0.8	54
	1.5	86.2
	4	98

flow rate

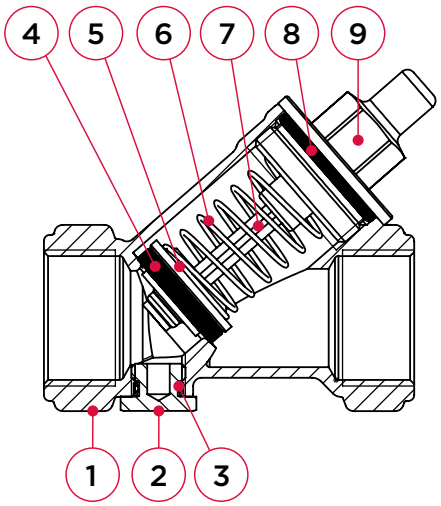
dimension	article no.	weight [kg]	Kvs [m³/h]	l1	z1	l2	z2	slw3	slw4	U	H	Vh
½" (DN15)	PWR9440244	0.555	5.7	69	41	69	41	26	13	40	46	68
¾" (DN20)	PWR9440255	0.835	15.3	78	48	78	48	31	14	48	54	81
1" (DN25)	PWR9440266	1.208	25.3	86	51	86	51	35	16	51	62	92
1¼" (DN32)	PWR9440277	1.837	32.6	107	59	107	59	38	16	57	68	103
1½" (DN40)	PWR9440288	2.357	54.4	116	68	116	68	43	16	65	77	120
2" (DN50)	PWR9440299	3.551	98.0	129	76	129	76	51	18	85	93	143

1551 SEPP DIN-Basis check valve

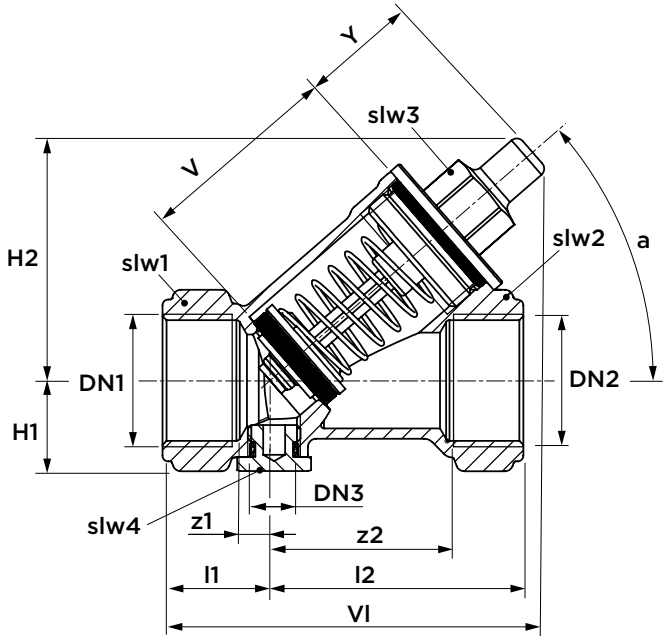
(2 x female thread)

specifications

- maximum pressure 16 bar
- maximum temperature 90°C
- without drain

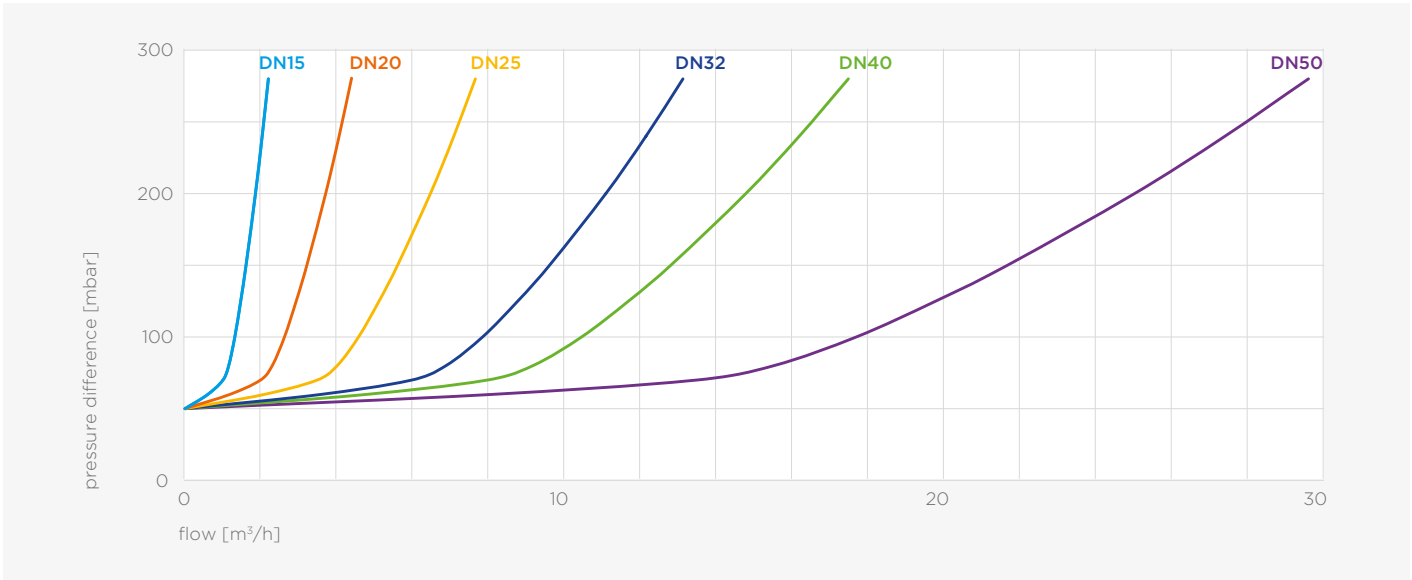


no.	component	material
1	body	brass (CW617N)
2	control plug	brass
3	plug seal	PTFE
4	valve seal	EPDM
5	valve disc	brass
6	spring	stainless (1.4309)
7	stem	POM
8	o-ring	EPDM
9	bonnet	brass



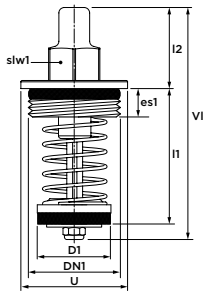
maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
16	25	24
pressure equipment directive category (PED)		
all dimensions	SEP	

dimension	article no.	weight [kg]	Kvs [m³/h]	DN3	l1	l2	z1	z2	slw1/2	slw3	slw4	Y	V	Vl	H1	H2	a [°]
Rp½" (DN15)	0201029	0.3	4.1	8	19	48	5	31	27	13	17	19	96	65	15	41	41
Rp¾" (DN20)	0201030	0.4	8.3	8	22	54	6	38	32	17	17	21	110	77	18	49	41
Rp1" (DN25)	0201031	0.7	14.5	8	27	64	8	45	40	21	17	30	128	96	23	61	41
Rp1¼" (DN32)	0201032	1	24.9	8	31	81	10	60	50	24	17	45	164	127	26	85	41
Rp1½" (DN40)	0201033	1.3	33.2	8	35	89	12	68	55	24	17	49	172	134	29	89	41
Rp2" (DN50)	0201034	2.3	56	8	41	112	15	86	70	32	17	67	224	169	38	113	41



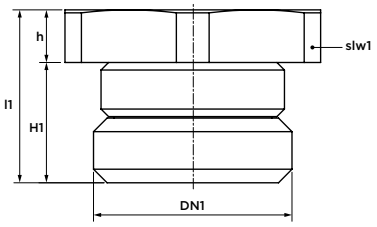
flow range

1928 SEPP DIN-Basis check valve bonnet assembly



dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Vl	U
G½″ DN15	0201074	0.1	16	20-35	19	13	9	57	26
G¾″ DN20	0017977	0.14	22	23-43	22	17	8	68	32
G1″ DN25	0017978	0.29	28	27-52	30	19	11	85	36
G1¼″ DN32	0017979	0.54	35	29-63	52	22	12	118	49
G1½″ DN40	0017980	0.64	41	35-72	49	27	13	124	56
G2″ DN50	0017981	1.09	53	34-92	67	30	13	162	68

1937 SEPP plug



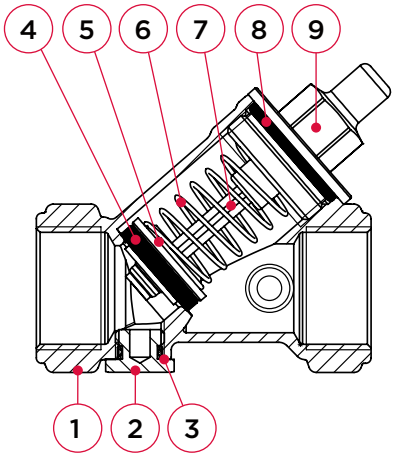
dimension	article no.	weight [kg]	l1	slw1	h	H1
G¼″ (DN8)	0022828	0.01	17	17	4	12

1556 SEPP DIN-Basis check valve with drain

(2 x female thread)

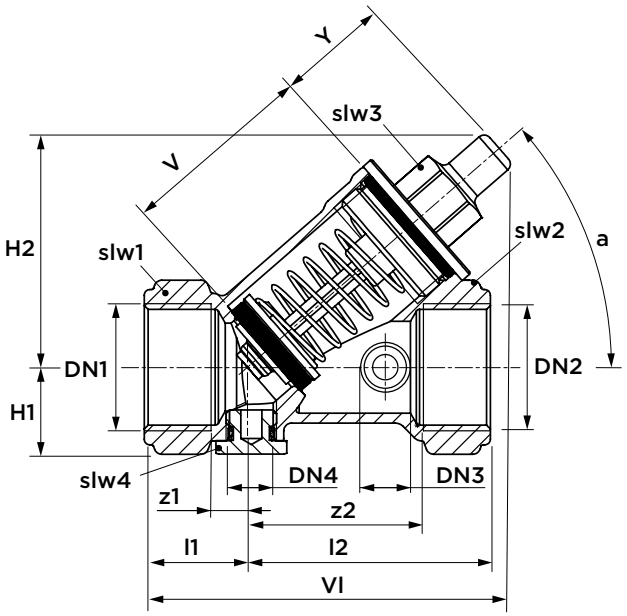
specifications

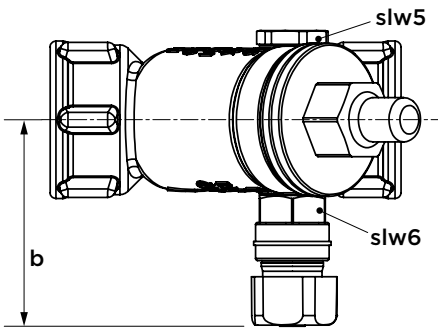
- maximum pressure 16 bar
- maximum temperature 90°C
- with drain



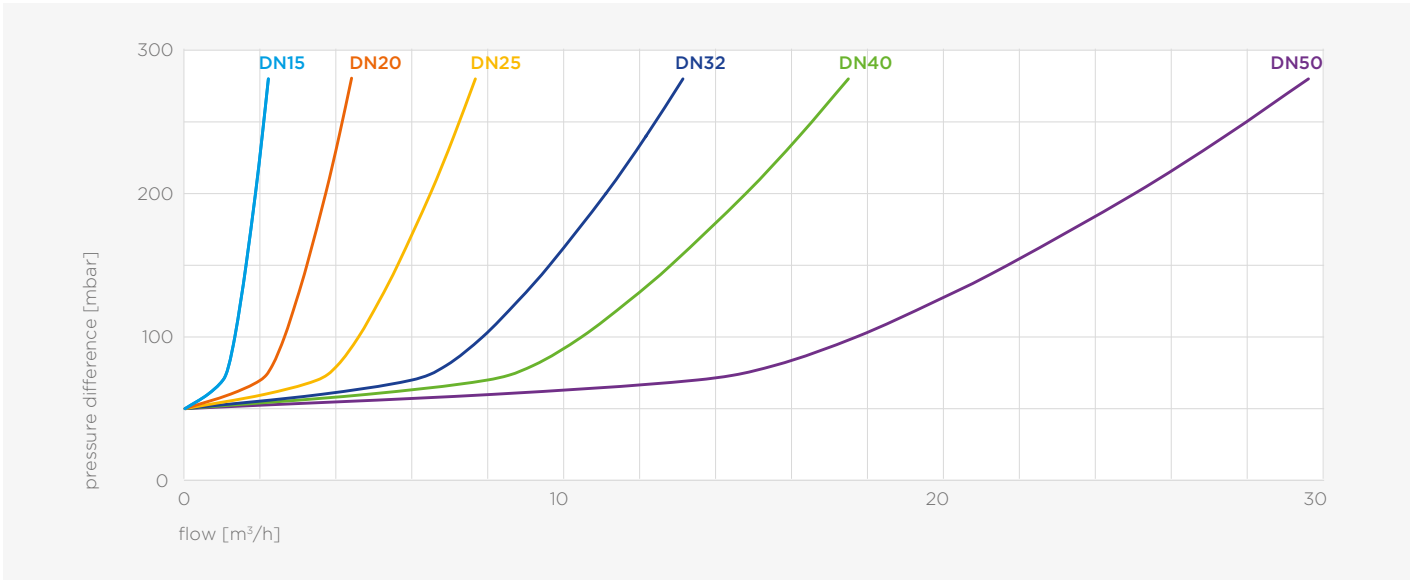
no.	component	material
1	body	brass (CW617N)
2	control plug	brass
3	plug seal	PTFE
4	valve seal	EPDM
5	valve disc	brass
6	spring	stainless (1.4309)
7	stem	POM
8	o-ring	EPDM
9	bonnet	brass

maximum pressure [bar]		
operating pressure	**test pressure body**	**test pressure seat**
16	25	24
pressure equipment directive category (PED)		
all dimensions	SEP	



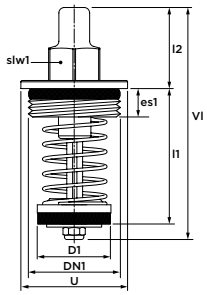


dimension	article no.	weight [kg]	Kvs [m³/h]	DN3/4	l1	l2	z1	z2	slw1/2	slw3	slw4/5/6	Y	V	Vl	H1	H2	b	a [°]
Rp½" (DN15)	0201037	0.34	4.1	8	19	48	5	31	27	13	17	19	96	65	15	41	49	41
Rp¾" (DN20)	0201038	0.44	8.3	8	22	54	6	38	32	17	17	21	110	77	18	49	52	41
Rp1" (DN25)	0201039	0.74	14.5	8	27	64	8	45	40	21	17	30	128	96	23	61	54	41
Rp1¼" (DN32)	0201040	1.04	24.9	8	31	81	10	60	50	24	17	45	164	127	26	85	60	41
Rp1½" (DN40)	0201041	1.34	33.2	8	35	89	12	68	55	24	17	49	172	134	29	89	63	41
Rp2" (DN50)	0201042	2.34	56	8	41	112	15	86	70	32	17	67	224	169	38	113	71	41



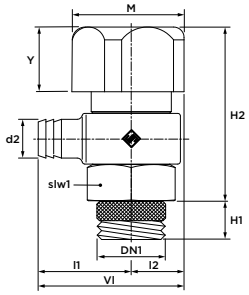
flow range

1928 SEPP DIN-Basis check valve bonnet assembly



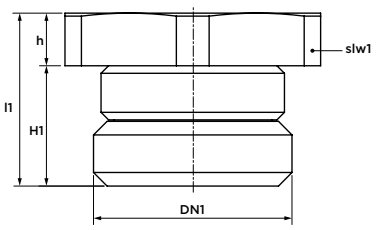
dimension	article no.	weight [kg]	D1	l1	l2	slw1	es1	Vl	U
G½" DN15	0201074	0.1	16	20-35	19	13	9	57	26
G¾" DN20	0017977	0.14	22	23-43	22	17	8	68	32
G1" DN25	0017978	0.29	28	27-52	30	19	11	85	36
G1¼" DN32	0017979	0.54	35	29-63	52	22	12	118	49
G1½" DN40	0017980	0.64	41	35-72	49	27	13	124	56
G2" DN50	0017981	1.09	53	34-92	67	30	13	162	68

1932 SEPP drain valve



dimension	article no.	weight [kg]	d2	l1	l2	slw1	Y	Vl	H1	H2	M
G¼" (DN8)	0018905	0.04	7	18	11	17	13	29	7	34	23

1937 SEPP plug



dimension	article no.	weight [kg]	l1	slw1	h	H1
G¼" (DN8)	0022828	0.01	17	17	4	12

Apollo Valves

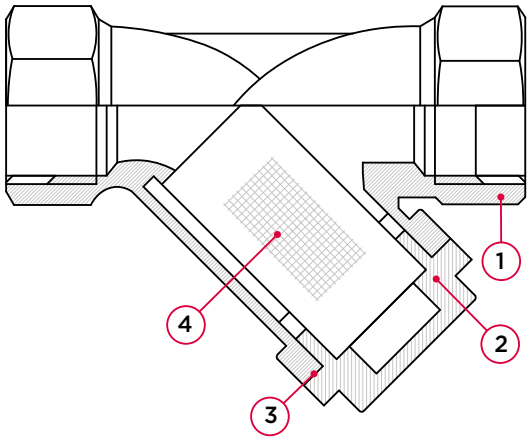
strainers

1059PT Apollo y-strainer

(2 x female thread)

specifications

- maximum pressure 16 bar
- operating temperature -10 to 150°C
- stainless steel 0.92 mm aperture mesh
- highly effective protection from system debris

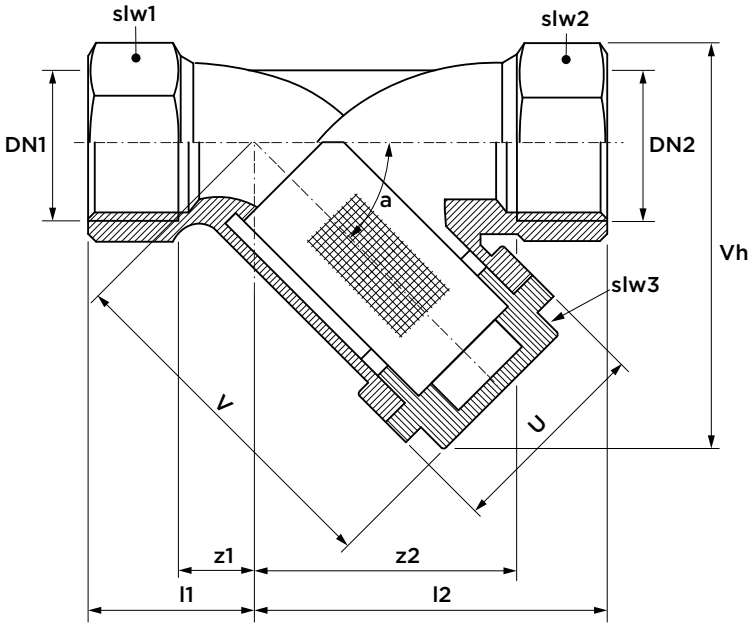


no.	component	material
1	body	brass (CW617N)
2	body cap	brass (CW617N)
3	gasket	PTFE
4	mesh	stainless steel (1.4301)

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP



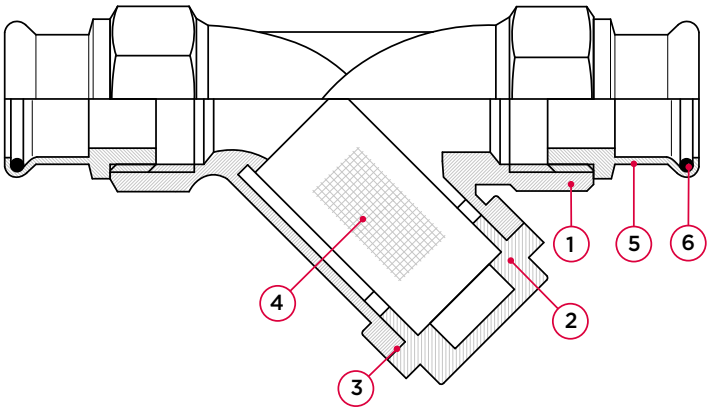
dimension	article no.	weight [kg]	l1	l2	z1	z2	slw1/2	slw3	V	Vh	U	a [°]
½" (DN15)	120011	0.14	40	18	28	6	25	20	54	59	26	45
¾" (DN20)	120012	0.21	50	21	34	5	31	26	54	59	26	45
1" (DN25)	120013	0.38	60	28	42	10	38	32	61	71	34	45
1¼" (DN32)	120014	0.57	70	26	52	8	48	37	75	86	41	45
1½" (DN40)	120015	0.81	76	30	57	11	55	38	86	101	48	45
2" (DN50)	120016	1.1	94	32	74	12	72	46	100	117	56	45
2½" (DN65)	120017	1.95	116	34	88	6	89	55	96	125	70	45
3" (DN80)	120018	3.04	132	38	98	4	106	60	141	169	75	45
4" (DN100)	120019	5.64	168	52	131	15	134	100	179	219	115	45

PS913 Apollo y-strainer

(2 x press)

specifications

- maximum pressure 16 bar
- operating temperature -10 to 110°C
- VSH XPress gunmetal connections for carbon steel, stainless steel and copper tube
- M-profile
- stainless steel 0.92 mm aperture mesh
- highly effective protection from system debris

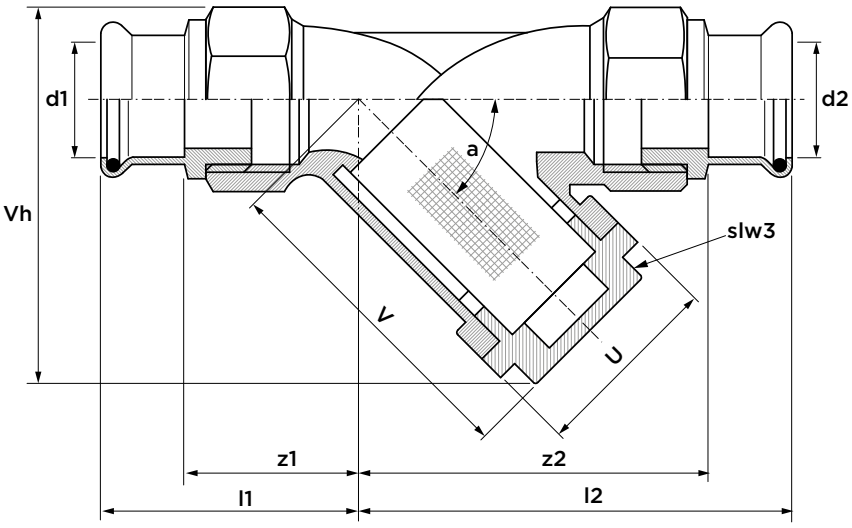


no.	component	material
1	body	gunmetal (C83600)
2	body cap	gunmetal (C35200)
3	gasket	PTFE
4	mesh	stainless steel (1.4301)
5	press connection	gunmetal (CC499K)
6	o-ring	EPDM

maximum pressure [bar]

operating pressure	test pressure shell	test pressure seat
16	24	17.6

pressure equipment directive category	
all sizes	SEP



dimension	article no.	weight [kg]	l1	l2	z1	z2	slw3	V	Vh	U	a [°]
15 (DN12)	15472	0.30	46	63	28	45	26	54	59	26	45
18 (DN15)	15473	0.30	46	63	28	45	20	54	59	26	45
22 (DN20)	15474	0.41	48	67	29	48	26	61	71	34	45
28 (DN25)	15475	0.59	54	78	33	57	32	75	86	41	45
35 (DN32)	15476	0.96	66	105	43	81	37	86	101	48	45
42 (DN40)	15477	1.19	73	112	46	84	38	100	117	56	45
54 (DN50)	15478	2.00	84	128	52	95	46	96	125	70	45

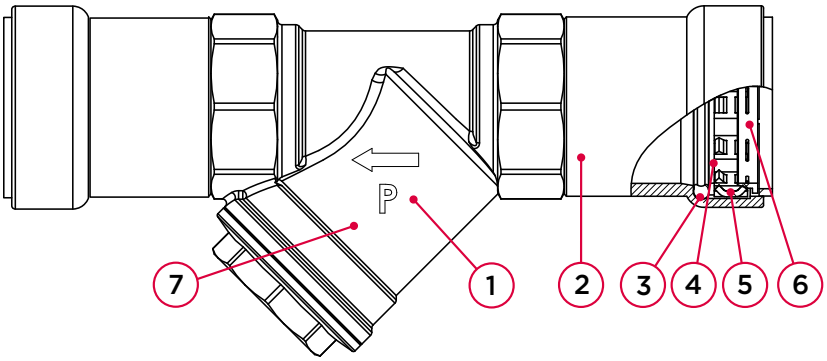
PP913 Apollo y-strainer

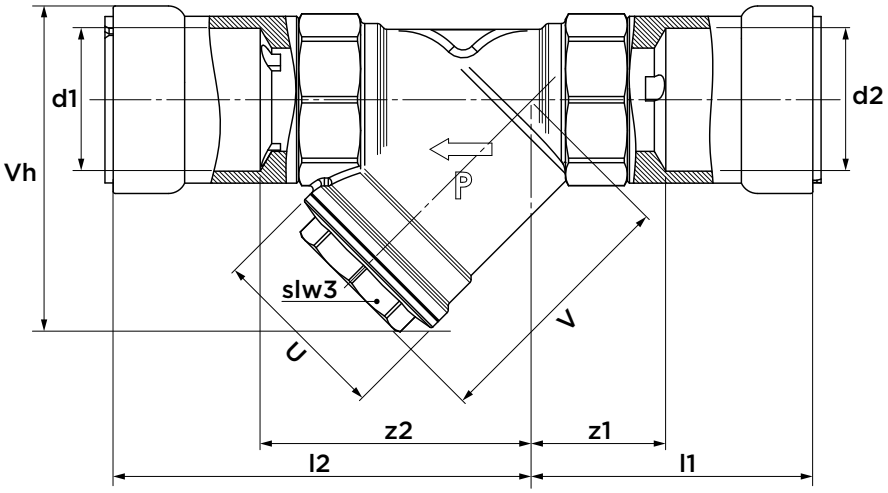
(2 x press)

specifications

- maximum pressure 16 bar
- operating temperature -10 to 120°C
- VSH PowerPress® connections
- DW-profile
- high effective protection from system debris
- y pattern
- stainless steel mesh (0.92 mm)

nr	part	material
1	body	gunmetal
2	press end	carbon steel zinc nickel plated
3	o-ring	EPDM
4	spacer ring	stainless steel
5	grab ring	stainless steel
6	Visu-Control® ring	polypropylene





dimension	article no.	weight [kg]	l1	l2	z1	z2	slw3	V	Vh	U	H
½" (DN15)	PWR9440961	0.59	59	80	31	52	22	45	56	31	40
¾" (DN20)	PWR9440970	0.74	58	88.1	28	58	26	54	67	37	48
1" (DN25)	PWR9440981	1.02	68	102	33	66	32	63	79	44	56
1¼" (DN32)	PWR9440992	1.87	96	138	48	89	35	73	96	50	65
1½" (DN40)	PWR9441003	2.32	97	148	48	99	38	86	105	59	75
2" (DN50)	PWR9441014	3.33	101	164	48	111	45	106	129	70	92

Apollo Valves

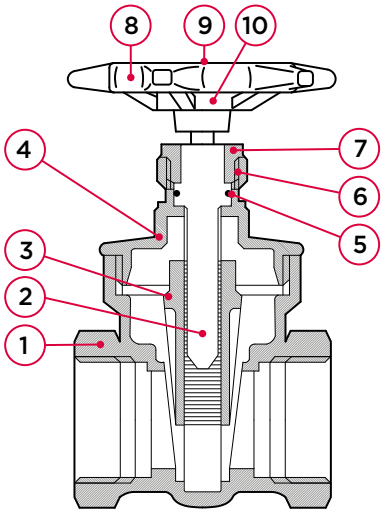
gate valves

1068 Apollo gate valve

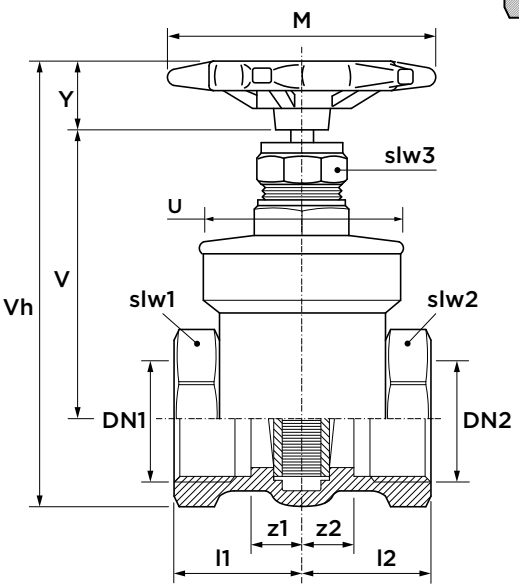
(2 x female thread)

specifications

- maximum pressure 20 bar
- operating temperature -10°C to 150°C
- full bore
- metal seated
- non-rising stem



no.	component	material
1	body	brass (CW617N)
2	stem	brass
3	wedge	brass (CW617N)
4	bonnet	brass (CW617N)
5	gland packing	PTFE
6	gland	brass
7	gland nut	brass
8	handwheel	aluminium
9	handwheel nut	brass
10	rating disc	aluminium



maximum pressure [bar]		
operating pressure	**test pressure shell**	**test pressure seat**
20	30	22

pressure equipment directive category	
all sizes	SEP

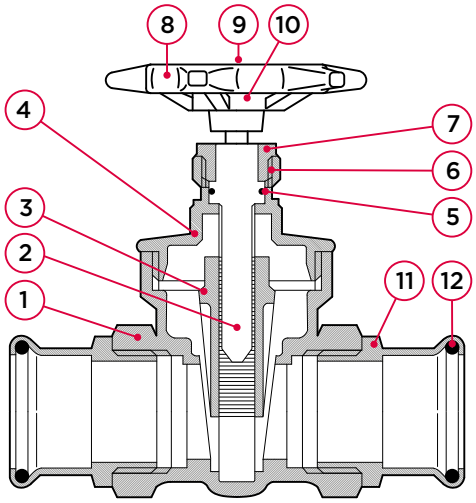
dimension	art number	weight	Kv [m³/h]	l1/l2	z1/z2	slw1/2	slw3	Vh	Y	V	U	M
G½‴ (DN15)	1234260342	0.3	14	26	16	29	5	100	11	66	38	59
G¾″ (DN20)	1234260343	0.5	32	28	17	35	17	110	12	72	45	59
G1″ (DN25)	1234260344	0.7	57	33	20	40	20	130	14	82	53	68
G1¼″ (DN32)	1234260345	1.1	90	37	22	48	24	160	16	92	61	72
G1½″ (DN40)	1234260346	1.4	129	38	23	56	28	175	18	101	68	91
G2″ (DN50)	1234260347	2.3	230	45	27	67	34	200	20	117	82	101
G2½″ (DN65)	203053	3.6	428	51	31	83	42	260	20	137	94	120
G3″ (DN80)	203054	5	680	57	34	100	50	310	20	156	110	155
G4″ (DN100)	203055	9	1088	67	40	121	61	270	20	185	144	155

PS1068 Apollo gate valve

(2 x press)

specifications

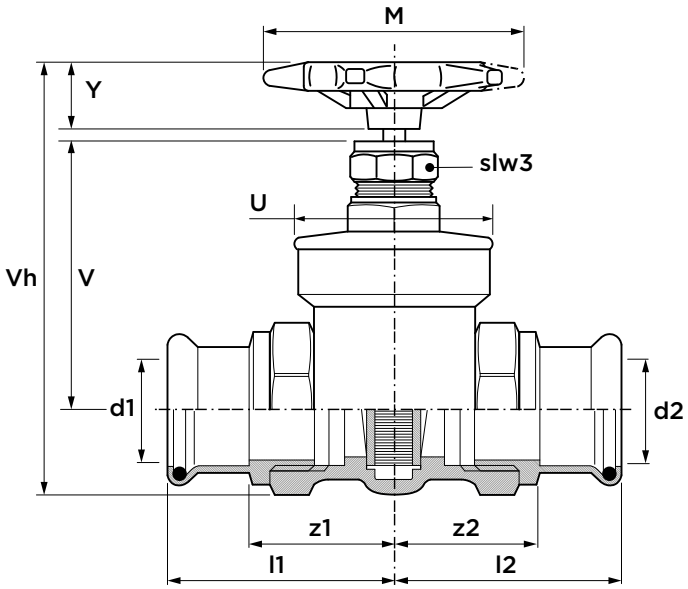
- maximum pressure 20 bar
- operating temperature -10°C to 110°C
- VSH XPress gunmetal connections for carbon steel, stainless steel and copper tube
- M-profile



no.	component	material
1	body	brass (CW617N)
2	stem	brass
3	wedge	brass (CW617N)
4	bonnet	brass (CW617N)
5	gland packing	PTFE
6	gland	brass
7	gland nut	brass
8	handwheel	aluminium
9	handwheel nut	brass
10	rating disc	aluminium
11	press connection	gunmetal (CC499K)
12	o-ring	EPDM

maximum pressure [bar]		
operating pressure	test pressure shell	test pressure seat
20	30	22

pressure equipment directive category	
all sizes	SEP



dimension	article no.	weight [kg]	Kv [m³/h]	l1/l2	z1/z2	slw3	Y	V	Vh	U	M
15 (DN12)	203301	0.38	14	49	29	15	20	45	100	38	59
22 (DN20)	203303	0.56	32	52	30	18	22	53	113	45	59
28 (DN25)	203304	0.87	57	59	37	22	29	61	133	53	68
35 (DN32)	203305	1.30	90	65	40	25	30	70	151	61	72
42 (DN40)	203306	1.62	129	71	43	29	43	77	174	68	91
54 (DN50)	203307	2.84	230	83	48	36	52	93	208	82	101

Apollo Valves

tools and accessories

BC3 Apollo ProFlow balancing computer

specifications

- digital compensation of temperature effects
- user app for Android / iOS mobile devices
- correction of antifreese flow calculation
- easy selection of balancing valve according to valve illustration
- capability of saving up to 2000 measured valves
- cover IP65 rated

Verification of flow can be done using a suitable flow measurement device and utilising the built-in test points on the valve.

The Apollo ProFlow BC3 balancing computer is supplied pre-programmed with the loss coefficient data (k values) allowing a direct measurement of flow rate to be obtained ensuring the system is balanced correctly to achieve optimum efficiency.

To download app search for Apollo BC3

GET IT ON Google Play

Download on the App Store

App requires Apollo ProFlow BC3 balancing computer

product specification	
wireless data transfer	Bluetooth low energy 5.0
power supply	AAA Alkaline batteries or NiMH rechargeable batteries
power consumption	25 mA
operating time	45 h Max
zeroing of the pressure measurement	mechanical with hydraulic bypass
water resistance	IP65
calibration validity	24 months

maximum pressure conditions	
normal pressure range	1.000 kPa
max. over pressure	120% of nominal pressure
linearity and hysteresis error	0.15% from nominal pressure range
error for the pressure range 0 till 5 kPa after pressure zero setting	± 50 Pa for nominal pressure range 1 MPa
temperature error	0.25 % from nominal pressure range
medium temperature**	-5 - 90°C
ambient temperature	-5 - 50°C
storage temperature	-5 - 50°C

** measured at the end of measuring hoses, length 1.5 m. Hot water flows through BC3 ProFlow Technics hydraulic parts during pressure zero procedure. Maximum time duration of zeroing when temperature of the medium exceeds 50°C is 10 seconds.

article no.	description	weight [kg]	length [mm]	width [mm]	height [mm]
6401538	Apollo ProFlow BC3	0.420	180	80	52

1600SSP setting key
(for Apollo ProFlow 1600 PICV)

dimension	article no.
DN15 - DN25	16075

*see installation guidelines Apollo ProFlow 1600 PICV, page 36

1600PT operating tool
(for Apollo ProFlow 1600 PICV)

dimension	article no.
DN15	16079
DN20 - DN25	16080

*see installation guidelines Apollo ProFlow 1600 PICV, page 36

1600LPT locking pin and tether
(for Apollo ProFlow 1600 PICV)

dimension	article no.
DN15	16076
DN20 - DN25	16077

1600CRT cartridge
(for Apollo ProFlow 1600 PICV)

dimension	article no.	colour
DN15 low flow	16070	white
DN15 standard flow	16071	red
DN15 high flow	16072	black
DN20 standard flow	16073	white
DN20 high flow / DN25 standard flow	16074	black

more information

Apollo Valves are part of the Aalberts integrated piping systems portfolio and are available with many connections, making them a genuine and integrated part of the piping system.
Installation instructions for our specific connection technologies can be found on our website and in our technical manuals:

All approved machines, press jaws and slings to fit the right product are available in our online tool selector on our website: aalberts-ips.eu/tool-selector

integrated
piping systems

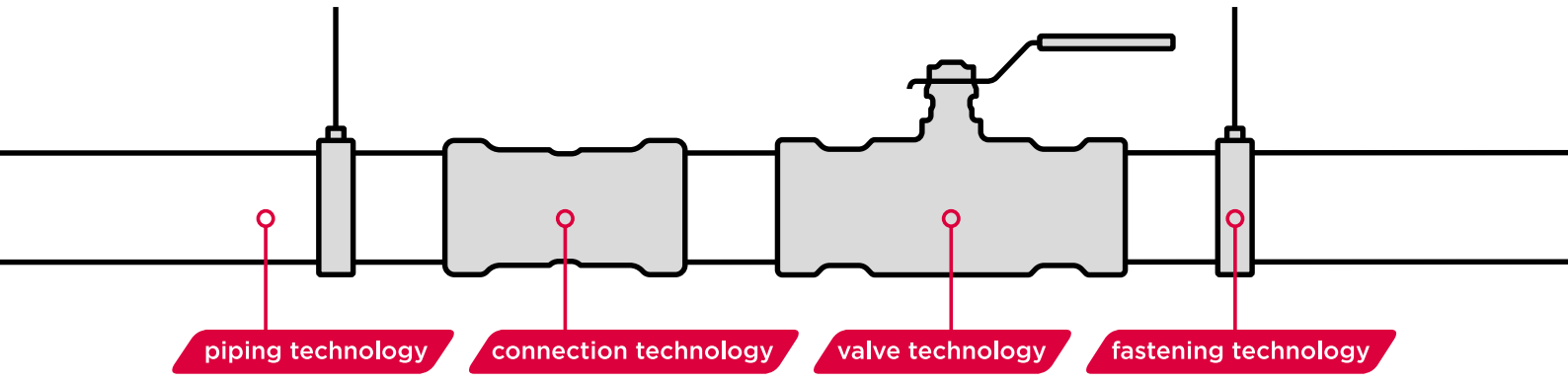
aalberts

more information?

For a complete and up-to-date product range and our additional services, visit: www.aalberts-ips.eu

Would you like to make an appointment to meet an account manager in your region or receive advice and support from one of our experts?
Please contact:

Aalberts integrated piping systems Customer Service
+31 (0)35 68 84 330
salessupport.emea@aalberts-ips.com



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