

CATALOGUE

2024

LAT
PONAD
30
NA RYNKU

100%
POLSKIEGO KAPITAŁU



PERFEKT²SYSTEM

PERFEXIM

www.perfexim.pl

CATALOGUE SYSTEMS 2024

PERFEXIM

LEGEND



quality



central heating



year warranty



cooling systems



technical approval



glycol



durability



air



brass



hot and cold water



frost resistance



compatibility



without deburring



hygienic certificate



construction product mark



meets the requirements for CE marking



GOLDEN CONSUMER'S LAUREL



CONSUMER'S LAUREL - DISCOVER OF THE YEAR

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PERFEXIM



PERFEXIM

The company PERFEXIM Spółka z ograniczoną odpowiedzialnością is a Polish family company, which for more than 30 years has been continuously operating in the market among the leading **manufacturers and importers of the heating, bathroom and sanitary fittings and fixtures industry**. Our guiding principle is **full technological, quality and durability control** from design through to testing and product implementation, mainly through our own design team. Pre-implementation testing is carried out in our own laboratory with state-of-the-art equipment so we can test. In addition, we also cooperate with research and scientific bodies such as: Poznan University of Technology, INiG in Krakow, PALAB Research and Development Centre, OTGS in Radom, ITB in Poznan and Warsaw. We were also involved in the creation of the standards that are now in force in Poland.

Through our own technical staff and by working with independent specialists, we boast a state-of-the-art testing laboratory, which is equipped with, among other things:

- **a ball valves testing station**, where we can check the strength, performance and properties of ball valves and other products
- **test rig for hydraulic shock resistance and strength of flexible hoses**
- **battery leakage test station**
- **pressure and tightness test bench for through-hole fittings**
- **testing machine**
- **optical spectrometer**
- **salt chamber**
- **3D printer**

The company's offer is present in programmes for designers of heating, water and sanitary installations provided by InstalSoft and Sankom, which are made available free of charge. We also run a number of product training courses to improve knowledge and awareness of our products, as well as the applications of our products in installations.

PROPRIETARY BRANDS

Every day we look for new inspiration and modern and technological solutions to improve our products and create our own brands. Having our proprietary brands is a responsibility we take on in order to produce products of the highest quality - this is how, among other things, we came into existence: **PERFEKT^{SYSTEM}**, **KROS** or **NEXE^{NEW LINE}**, **PERFEKT^{SYSTEM}+**, **PERFEKT^{SYSTEM} HEAT**

The most extensive brand is **PERFEKT^{SYSTEM}** a brand that meets the expectations of the installer combining values such as:

- **trust**
- **reliability**
- **high quality**

The wide range of products in the brand gives the installer the confidence that they can handle any investment; through steel radiators, ballcocks or other plumbing products to the PERT/EVOH/PERT multilayer pipe system offering a consistent and complete investment guarantee. The brand is guaranteed to be reliable for years to come.

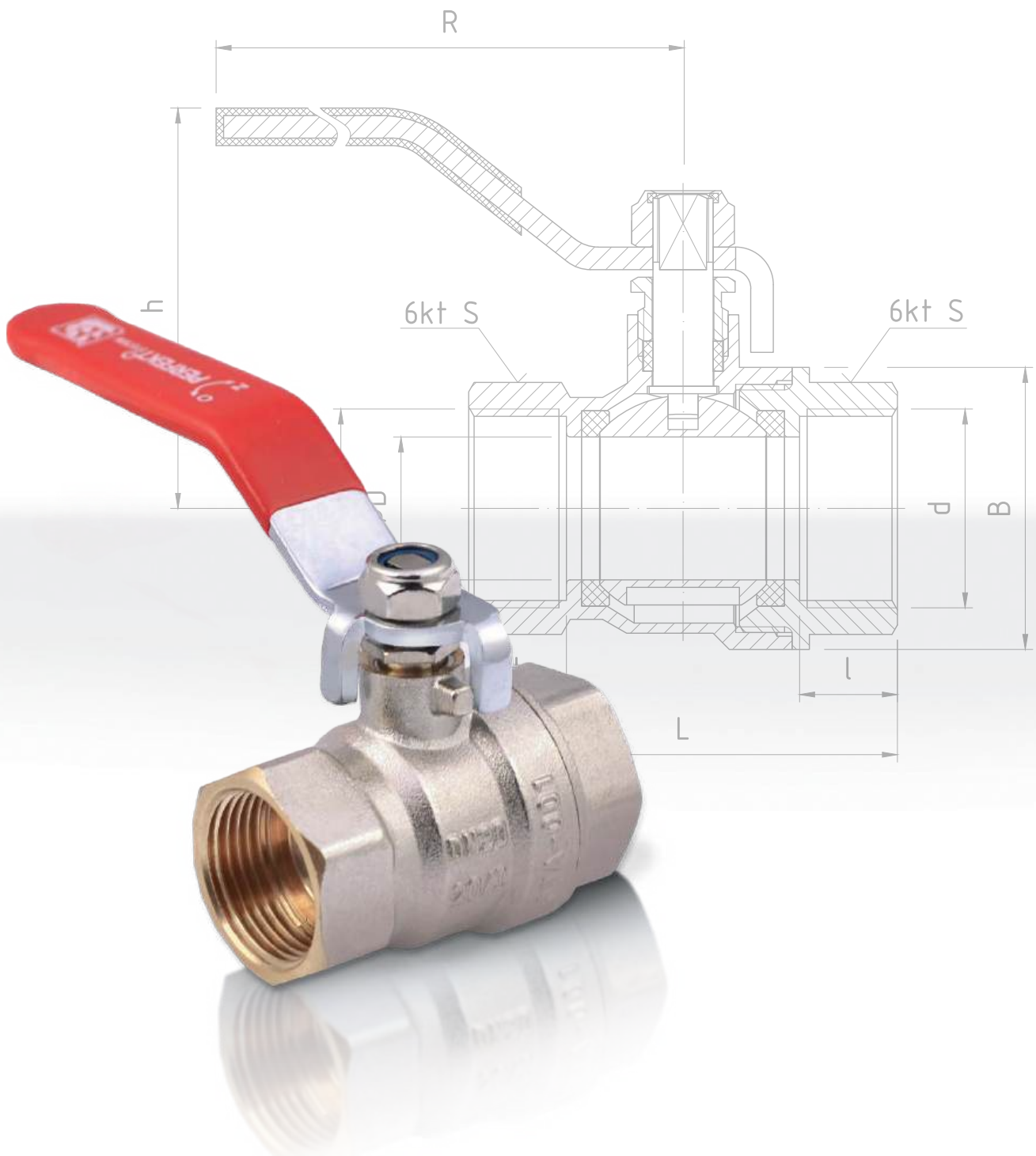
ECOLOGICAL SOLUTIONS

Ecological solutions adapted to the needs of a changing world are the way forward for our company. Based on a concern for the environment, the brand **PERFEKT^{SYSTEM} HEAT** was created, which includes the PHA-50 inverter heat pumps running on natural refrigerant R290, or propane.

CONSUMER LAUREL

Thanks to the trust you have placed in us, PERFEXIM Limited liability company has been **awarded in a nationwide plebiscite evaluating the popularity of the brand and the quality of products and services provided** in the awareness of Polish consumers, and thus won the titles:

- **Consumer Laurel - Discovery 2018** in the category Polish quality of the construction industry
- **Consumer Golden Laurel 2019 and 2020** in the category Manufacturer and importer of the plumbing, heating, bathroom and sanitary ware industry.



WATER FITTINGS

PERFEXIM

4-91



Safe, complete and diverse water fittings

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STRAIGHT-THROUGH BALL VALVES PERFEKT^{SYSTEM}

USE

Ball valves **PERFEKT^{SYSTEM}** are designed to open and close the flow in installations:

- hot and cold water pipes (including drinking water)
- central heating (water in the central heating system should meet the requirements of PN-C-04607:1993)
- refrigeration and solar systems filled with 50% glycol solution
- compressed air systems

Ball valves **PERFEKT^{SYSTEM}** can be installed in vertical, horizontal and inclined pipelines in any position. Ball valves **PERFEKT^{SYSTEM}** as a shut-off fittings, can operate in the "fully open" or "fully closed" position.



Ball valves **PERFEKT^{SYSTEM}** are products that meet their requirements. The basic range of ball valves **PERFEKT^{SYSTEM}** are ballcocks with threads on both sides WW: PHA-001, PHA-002 and WZ: PHA-003, PHA-004, solution PHA-005 with pipe joint, as well as ball valve PHA-006 equipped with a filter cartridge, which allows the capture of contaminants in a mechanical manner (it should be installed in accordance with the direction of flow, the installation must allow free, gravitational separation of contaminants in the filtering section, recommended position of the ball valve: "the plug of the filter element faces downwards"). The requirements of the installation market demanded a solution with a longer screw body, which resulted in the introduction of such a solution and expanded the range to include ball valves PHA-007, PHA-007A, PHA-007/R and PHA-007/O, which are characterised by extended threads that allow for convenient, trouble-free assembly in installations. Recently, the range of ball valves **PERFEKT^{SYSTEM}** has also been expanded by the PHA-008 ball valves with additional drain valve (with the possibility of moving the drain valve to a convenient side of the valve), which are useful in central heating and hot water installations where cyclic draining of the system must be taken into account. PHA-010, PHA-010A and PHA-010/O ball valves with pipe joint extend the capabilities of the PHA-010 series to include angled connections. **PERFEKT^{SYSTEM}** The angled design reduces the connection space required. In addition, the solutions with self-sealing threads on the screw connections of the PHA-007A and PHA-010A valves make work quicker and easier, and the improved aesthetics of the connection is another visual aspect.

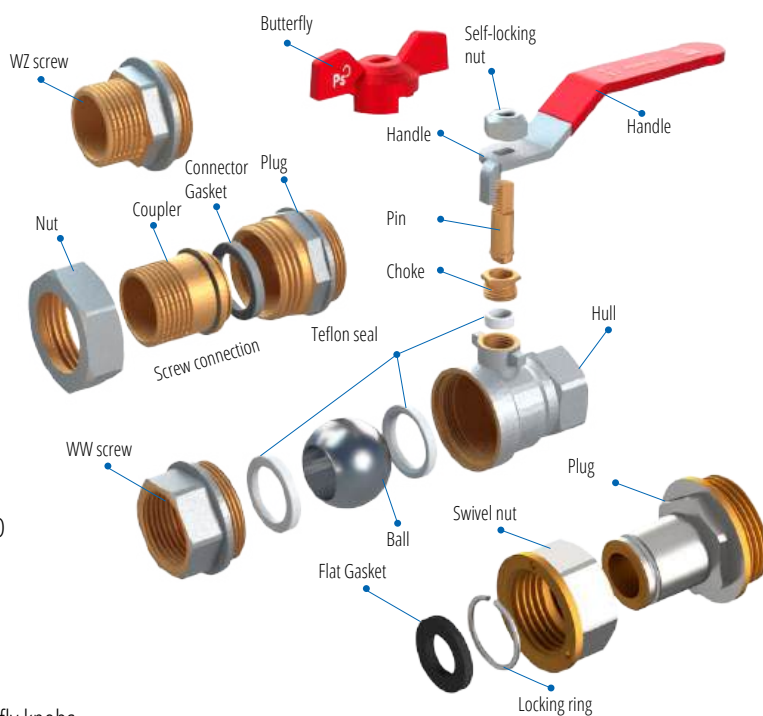
ADVANTAGES

- High quality and wide range of applications
- Working parameters and application supported by studies resulting in a National Technical Assessment
- Product performance confirmed by tests in an independent, reputable, accredited laboratory
- Reliable installation equipment
- 100% of valves tested by tightness test
- Environmentally friendly, fully recyclable
- Self-locking nut to prevent loosening handles (not applicable to PHA-010)
- Possibility to operate in systems filled with 50% glycol solution /temperature +140°C / at 30 bar pressure/ PHA-007/O and PHA-010/O valves +120°C

SPECIAL FEATURES

- Knurled external threads to facilitate installation work
 - **Ergonomic and robust** Ergonomic and robust handles and butterfly knobs.
 - Robust thickened **bending and torsion-resistant walls to increase the strength of the valve** confirmed by tests in our laboratory on a testing machine for ball valves in accordance with EN 13828 and additional tests at the Oil and Gas Institute in Krakow and received National Technical Assessment issued by the Building Research Institute in Warsaw*.
 - Massive **solid body with high safety factor** resistant to internal pressure
 - **High throughput** - higher than the standard, confirmed by INiG tests
 - High-grade European brass CW617N
 - Protective coatings on the outside of the valve, protecting the valve from the effects of adverse external influences.
- No nickel on surfaces in contact with drinking water - allergy-friendly product**

* National Technical Assessment does not apply to PHA-007, PHA-008 and PHA-010 valves.



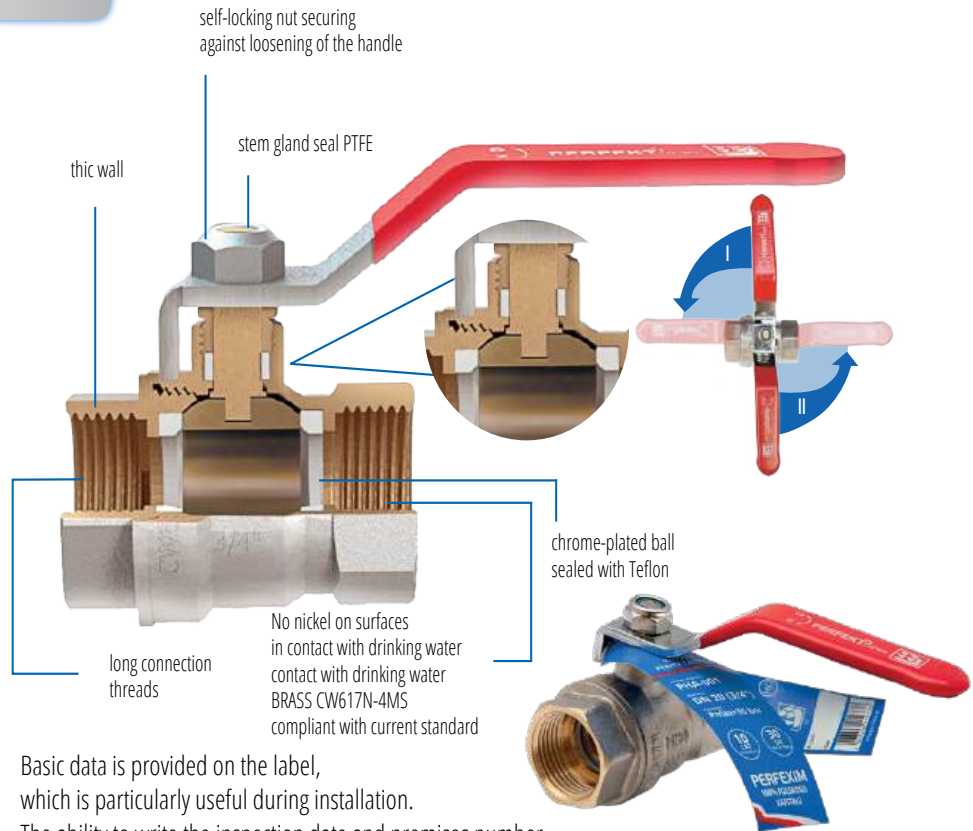
STRAIGHT-THROUGH BALL VALVES PERFEKT² SYSTEM

EXAMPLE OF BALL VALVE CROSS-SECTION

Ball valves **PERFEKT² SYSTEM** are characterised by increased strength through the use of thicker walls visible in the cross-section of the valve. The design of the stem (stuffing box) and the high chimney, which contains a Teflon gasket, allows for additional sealing (compensation of the resulting backlash during operation of the valve) extending its service life.

This action allows the stem to be resealed without having to replace the valve. The more solid body of the valve allows the use of longer connections to stabilise the connections by using more threads than standard, which is important when installing a ball valve in a system, giving great comfort to the installer.

Maintaining the correct 'sealing angle' between the Teflon (PTFE) seals and the chrome-plated brass ball ensures that the ball valve operates tightly, and thanks to the clever design, the sealing angle is ensured in both the open and closed positions.



Basic data is provided on the label, which is particularly useful during installation. The ability to write the inspection date and premises number on the back of the label is an aid to periodic inspections.

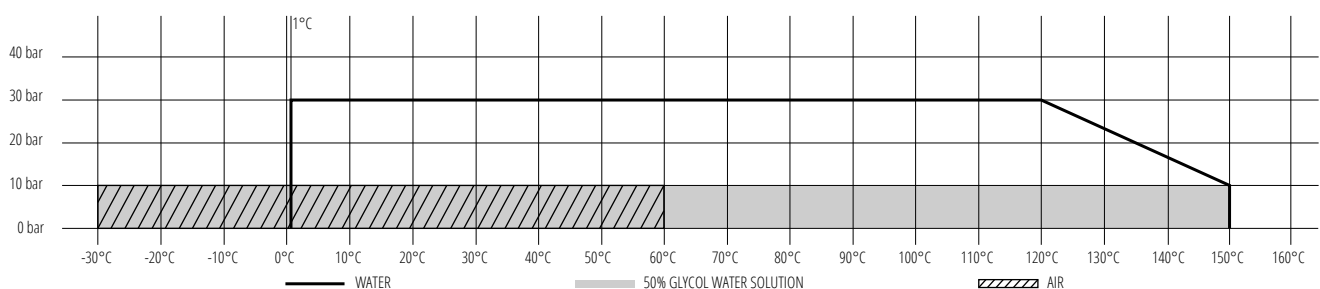
MAXIMUM OPERATING PARAMETERS (PHA-001 - PHA-006)

- temperature +150°C
- pressure 3.0 MPa (30 bar)

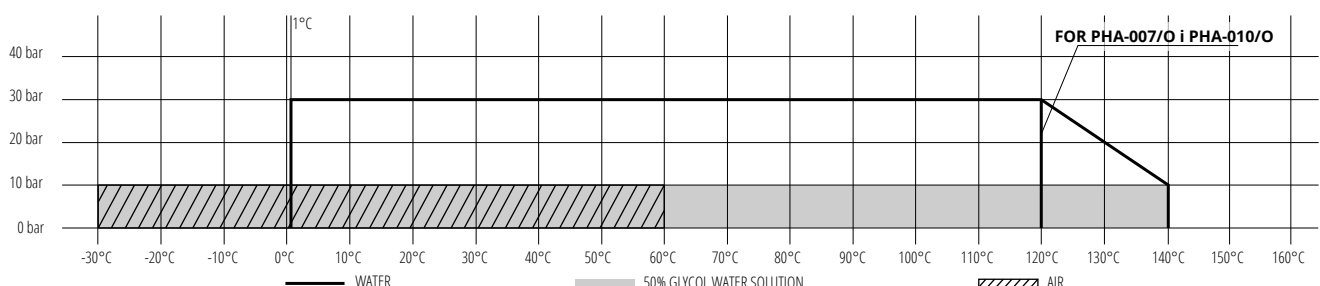
OPERATING PARAMETERS FOR (PHA-007, PHA-008, PHA-010)

- temperature +140°C (+120°C PHA-007/O and PHA-010/O)
- pressure 3.0 MPa (30 bar)

P-T DIAGRAM FOR PERFEKT² SYSTEM (PHA-001 - PHA-006) BALL VALVES



P-T DIAGRAM FOR FOR PERFEKT² SYSTEM (PHA-007, PHA-008, PHA-010) BALL VALVES



STRAIGHT-THROUGH BALL VALVES PERFEKT² SYSTEM

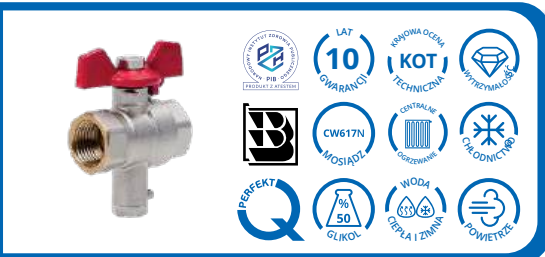
MATERIALS



BALL VALVE SERIES PERFEKT² SYSTEM PARAMETERS FOR ALL PRODUCTS IN THE SERIES:

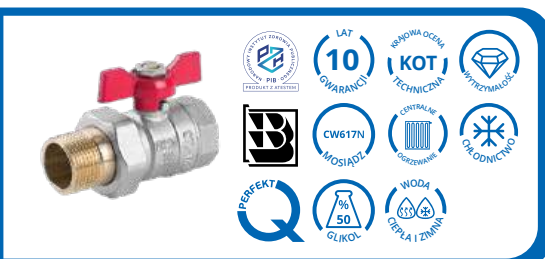
- **BODY AND SCREW PLUG** - CW617N brass with outside nickel plating*
- **BALL** - CW617N brass with chrome plating
- **STEM AND GLAND** - CW614N brass
- **BALL AND STEM SEALS** - PTFE (Teflon)
- **HANDLE** - Carbon steel with red or blue PVC lining or aluminium with red or blue paint coating

* Not applicable to PHA-006



FOR PHA-002C

- **PLUG** - CW617N brass with outside nickel plating
- **PLUG SEAL** - PTFE (Teflon)



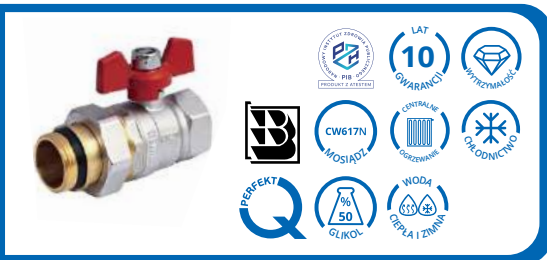
FOR PHA-005, PHA-005/SM, PHA-005/R

- **CONNECTOR** - CW617N brass
- **NUT** - CW617N brass with nickel plating
- **COUPLING GASKET** - O-ring - NBR



FOR PHA-006

- **FILTER PLUG** - CW617N brass
- **FILTER ELEMENT** (0.4 mm mesh) - stainless steel
- **PLUG GASKET** - special fibre



FOR PHA-007, PHA-007A, PHA-007R, PHA-007/O

- **CONNECTOR** - CW617N brass
- **NUT** - brass CW617N with nickel plating
- **SWIVEL NUT** - brass CW617N, nickel-plated**.
- **COUPLING GASKET** - O-ring - NBR
- **THREAD SEAL G1**- NBR*
- **FLAT SEAL**- NBR**
- **THRUST RING FOR THREAD SEALING G1** - CW617N*
- **LOCKING RING** - stainless steel**

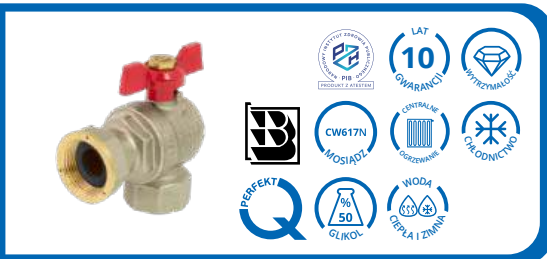
* Applies to PHA-007A

** Applies to PHA-007/O



FOR PHA-008

- **DRAIN VALVE COMPONENTS: BODY, PLUG:** CW617N brass nickel-plated
- **DRAIN VALVE COMPONENTS: STEM, GLAND, PLUG:** CW617N BRASS
- **WASHER :** CW617N BRASS
- **SEALING OF THE DRAIN VALVE STEM:** PTFE(Teflon)
- **SEALING OF THE DRAIN VALVE BODY, SEALING OF THE PLUG:** sealing ring type"O" -NBR



FOR PHA-010, PHA-010A, PHA-010/O

- **CONNECTOR** - CW617N brass
- **NUT** - brass CW617N with nickel plating
- **SWIVEL NUT** - brass CW617N, nickel-plated**.
- **COUPLING GASKET** - O-ring - NBR
- **THREAD SEAL G1**- NBR*
- **FLAT SEAL**- NBR**
- **THRUST RING FOR THREAD SEALING G1** - CW617N*
- **LOCKING RING** - stainless steel**

* Applies to PHA-010A

** Applies to PHA-010/O

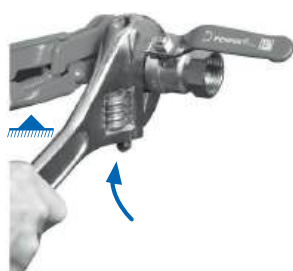
INSTALLATION OF BALL VALVES FOR WATER AND GAS - INSTRUCTIONS

Ball valves can be installed in vertical, horizontal and inclined pipelines in any position; they are designed to operate in the 'fully open' or 'fully closed' position. Check the cleanliness of the components to be assembled before installation. The threaded connection is to be sealed in such a way as to ensure a permanent tight connection (example sealants: Teflon tape, thread sealing yarn, thread paste), the sealant is to be applied to the part of the installation with an external thread. Valves should be fitted in the "fully open" position, acting with a spanner with non-clamping jaws only on that threaded cup into which the pipe is screwed. Loading both threaded cups at the same time with opposite torsional moments can cause permanent damage to the valve (unsealing). The valves with nut cups should not be screwed up to the shelf at the end of the thread. The valves should not be subjected to bending stress during installation, and if there is a possibility of bending moments, the valve should be supported on both sides.

VALVES WITH WW THREAD



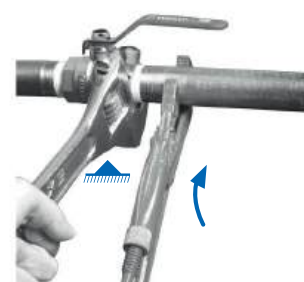
1. The correctness of the connecting threads must be checked and the male thread sealed before installation.



2. A valve is screwed onto the sealed thread - acting on its threaded cup with the tightening torque with a spanner with non-clamping jaws. When tightening, hold the part of the installation to which the valve is mounted.



3. A valve screwed onto the pipe (installation).



4. When proceeding with the further assembly of the installation, hold the threaded socket of the valve with a spanner of non-clamping jaws, then screw the pipe into the threaded socket of the valve (part of the installation).

VALVES WITH WZ THREAD



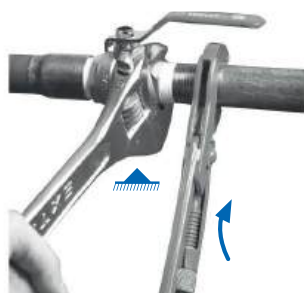
1. Before installation, check the correctness of the threads to be joined and use a sealant to external thread seals.



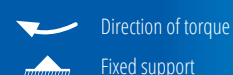
2. Screw the sealed threaded spigot of the valve into the female threaded part of the system. During screwing, hold the part of the installation into which the valve is screwed and apply torque to the valve with a spanner with non-clamping jaws.



3. A valve screwed into the installation.

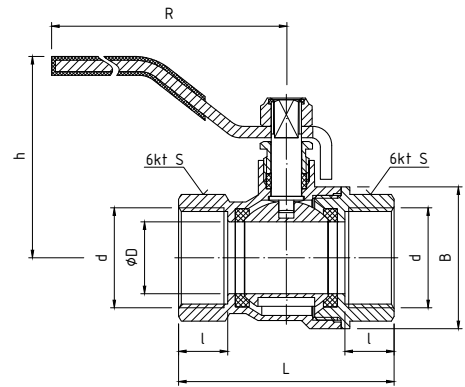


4. When proceeding with the further assembly of the installation, hold the threaded socket of the valve with a spanner of non-clamping jaws and then screw the pipes (part of the installation) into it.



PHA-001

PERFEKT^{SYSTEM}
BALL VALVE
FULL STRAIGHT-THROUGH¹⁾
(WW THREAD)



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+150°C	-30°C	3.0 MPa	ISO 228

Technical data

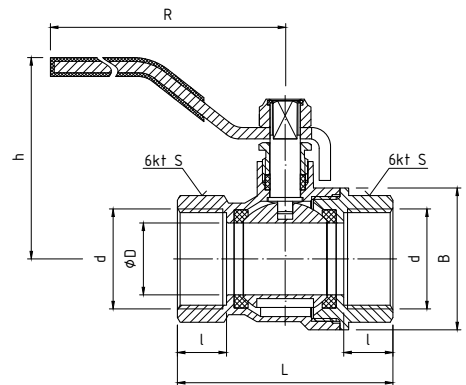


*Kv factor calculated based on Q values.
 Dimensions in mm

index (red handle)	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	ØD	L	l	h	B	S	R
00-001-0100-000	3/8"	10	1.31	4.14	G3/8	10.0	42.5	10.0	40.3	23.5	20.0	87.0
00-001-0150-000	1/2"	15	2.42	7.65	G1/2	14.0	48.6	11.5	50.8	29.8	25.0	98.0
00-001-0200-000	3/4"	20	4.94	15.62	G3/4	19.0	57.0	13.0	53.3	37.5	30.0	98.0
00-001-0250-000	1"	25	8.20	25.93	G1	23.0	65.0	15.0	60.8	43.8	37.5	115.0
00-001-0320-000	1 1/4"	32	14.65	46.33	G1 1/4	29.0	75.5	16.0	76.0	51.5	46.5	150.0
00-001-0400-000	1 1/2"	40	22.30	70.52	G1 1/2	36.0	87.9	18.0	82.5	63.0	53.5	150.0
00-001-0500-000	2"	50	--	-	G2	45.0	103.0	20.3	93.3	78.5	66.0	173.0
00-001-0650-000	2 1/2"	65	--	-	G2 1/2	61.0	140.0	27.0	111.5	101.0	81.0	216.5
00-001-0800-000	3" ²⁾	80	--	-	G3	71.0	152.5	28.0	122.5	119.5	97.3	216.5
00-001-1000-000	4" ²⁾	100	--	-	G4	86.0	176.0	29.0	133.5	144.0	124.5	265.0

PHA-001

PERFEKT^{SYSTEM}
BALL VALVE
FULL STRAIGHT-THROUGH¹⁾
(WW THREAD)



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+150°C	-30°C	3.0 MPa	ISO 228

Technical data



*Kv factor calculated based on Q values.
 Dimensions in mm

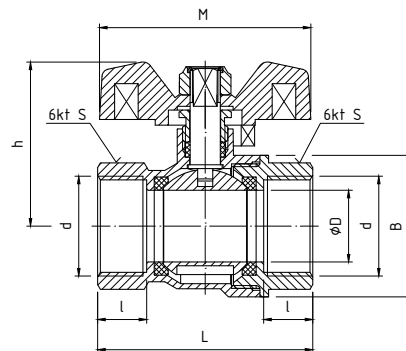
index (blue handle)	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	ØD	L	l	h	B	S	R
00-001-0100-001	3/8"	10	1.31	4.14	G3/8	10.0	42.5	10.0	40.3	23.5	20.0	87.0
00-001-0150-001	1/2"	15	2.42	7.65	G1/2	14.0	48.6	11.5	50.8	29.8	25.0	98.0
00-001-0200-001	3/4"	20	4.94	15.62	G3/4	19.0	57.0	13.0	53.3	37.5	30.0	98.0
00-001-0250-001	1"	25	8.20	25.93	G1	23.0	65.0	15.0	60.8	43.8	37.5	115.0
00-001-0320-001	1 1/4"	32	14.65	46.33	G1 1/4	29.0	75.5	16.0	76.0	51.5	46.5	150.0
00-001-0400-001	1 1/2"	40	22.30	70.52	G1 1/2	36.0	87.9	18.0	82.5	63.0	53.5	150.0
00-001-0500-001	2"	50	-	-	G2	45.0	103.0	20.3	93.3	78.5	66.0	173.0
00-001-0650-001	2 1/2"	65	-	-	G2 1/2	61.0	140.0	27.0	111.5	101.0	81.0	216.5
00-001-0800-001	3" ²⁾	80	-	-	G3	71.0	152.5	28.0	122.5	119.5	97.3	216.5
00-001-1000-001	4" ²⁾	100	-	-	G4	86.0	176.0	29.0	133.5	144.0	124.5	265.0

1) acc. to PN-EN 1074

2) straight-through ball valve

PHA-002

PERFEKT^{SYSTEM}
BALL VALVE
FULL STRAIGHT-THROUGH¹⁾
(WW THREAD)



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+150°C	-30°C	3.0 MPa	ISO 228

Technical data



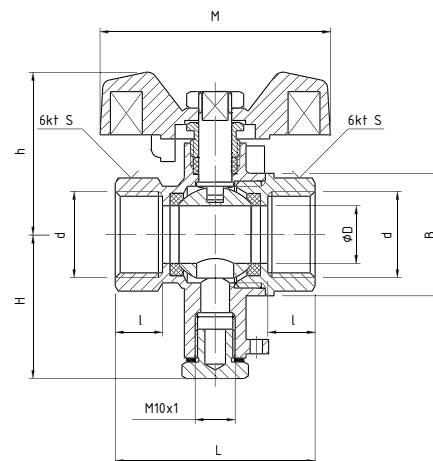
*Kv factor calculated based on Q values.
 Dimensions in mm

index (red butterfly)	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	ØD	L	l	h	B	S	M
00-002-0150-000	½"	15	2.42	7.65	G½	14.0	48.6	11.5	40.0	29.8	25.0	56
00-002-0200-000	¾"	20	4.94	15.62	G¾	19.0	57.0	13.0	43.5	37.5	30.0	56
00-002-0250-000	1"	25	8.20	25.93	G1	23.0	65.0	15.0	53.1	43.8	37.5	66.5
00-002-0320-000	1¼"	32	14.65	46.33	G1¼	29.0	75.5	16.0	62.0	51.5	46.5	75

index (blue butterfly)	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	ØD	L	l	h	B	S	M
00-002-0150-001	½"	15	2.42	7.65	G½	14.0	48.6	11.5	40.0	29.8	25.0	56
00-002-0200-001	¾"	20	4.94	15.62	G¾	19.0	57.0	13.0	43.5	37.5	30.0	56
00-002-0250-001	1"	25	8.20	25.93	G1	23.0	65.0	15.0	53.1	43.8	37.5	66.5

PHA-002C

PERFEKT^{SYSTEM}
BALL VALVE FULL
STRAIGHT-THROUGH¹⁾
WITH PROVISION FOR
SENSOR (WW THREAD)



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+150°C	-30°C	3.0 MPa	ISO 228

Technical data



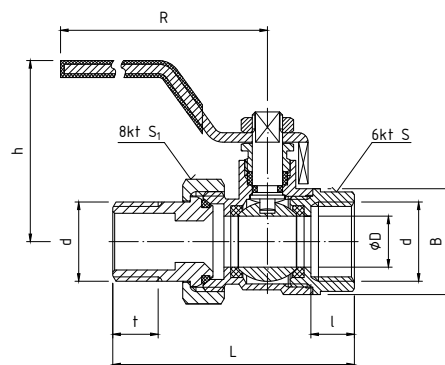
*Kv factor calculated based on Q values.
 Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	ØD	L	l	h	H	B	S	M
00-002-0150-003	½"	15	2.42	7.65	G½	14.0	48.6	11.5	39.5	35.0	30.0	25.0	56.0
00-002-0200-003	¾"	20	4.94	15.62	G¾	19.0	57.0	13.0	42.5	38.5	37.5	30.0	56.0

1) acc. to PN-EN 1074

PHA-005/R

PERFEKT^{SYSTEM}
BALL VALVE
STRAIGHT-THROUGH
WITH PIPE JOINT
(WZ THREAD)



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW/GZ by
+150°C	-30°C	3.0 MPa	ISO 228

Technical data

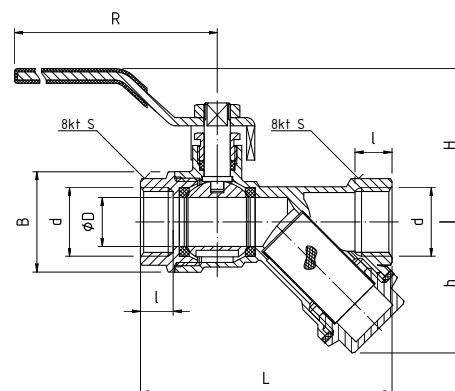


*Kv factor calculated based on Q values.
 Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	øD	L	l	t	h	B	S	S ₁	R
00-005-0150-100	½"	15	2.30	7.27	G½	13.5	64	11.5	12.0	47	28.0	24.7	30.0	80
00-005-0200-100	¾"	20	4.32	13.66	G¾	17.5	73	13.0	13.0	50	33.7	30.7	36.0	80
00-005-0250-100	1"	25	7.16	22.64	G1	23.0	88	14.5	14.5	58	41.5	37.0	46.0	95

PHA-006

PERFEKT^{SYSTEM}
BALL VALVE
STRAIGHT-THROUGH
WITH ANGLED FILTER
(WW THREAD)



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+150°C	-30°C	3.0 MPa	ISO 228

Technical data

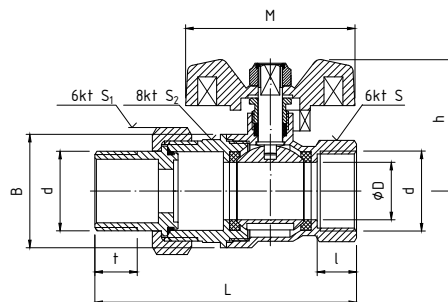


*Kv factor calculated based on Q values.
 Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	øD	L	l	h	H	B	S	R
01-006-0150-000	½"	15	1.30	4.11	G½	15.0	77.0	10	40	47	30.8	25.0	85.0
01-006-0200-000	¾"	20	2.52	7.34	G¾	20.0	94.0	12	47	56	37.0	30.5	114.5
01-006-0250-000	1"	25	3.60	11.38	G1	25.0	111.5	13	56	60	45.0	37.0	114.5
01-006-0320-000	1¼"	32	-	-	G1¼	30	137	15	67	68.8	52.5	47	131.0

PHA-007

PERFEKT^{SYSTEM}
BALL VALVE
STRAIGHT-THROUGH
WITH PIPE JOINT
(WZ THREAD)



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW/GZ by
+140°C	-30°C	3.0 MPa	ISO 228

Technical data

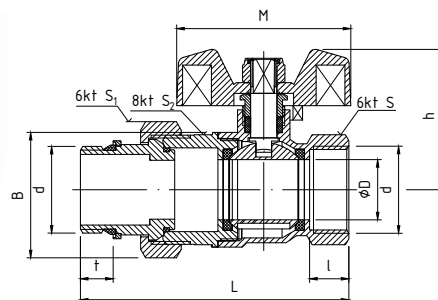


Dimensions in mm

index	size	DN	d	øD	L	l	t	h	B	S	S ₁	S ₂	M
00-007-0150-002	½"	15	G½	14.0	76.8	11.5	14.0	40.0	29.8	25.0	30.0	27.0	56
00-007-0200-002	¾"	20	G¾	19.0	86.5	13.0	14.0	42.5	37.5	30.0	37.0	34.0	56
00-007-0250-002	1"	25	G1	23.0	102.5	15.0	16.0	53.1	42.0	37.5	45.5	42.0	66.5

PHA-007A

PERFEKT^{SYSTEM}
BALL VALVE
STRAIGHT-THROUGH
WITH PIPE JOINT AND
SELF-SEALING THREAD
(WZ THREAD)



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW/GZ by
+140°C	-30°C	3.0 MPa	ISO 228

Technical data

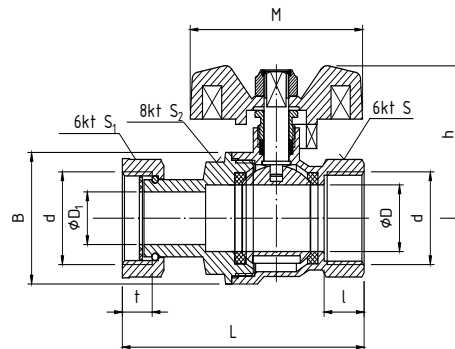


Dimensions in mm

index	size	DN	d	øD	L	l	t	h	B	S	S ₁	S ₂	M
00-007-0250-003	1"	25	G1	23.0	102.5	15.0	6.0	53.1	43.8	37.5	45.5	42.0	66.5

PHA-007/O

PERFEKT^{SYSTEM}
BALL VALVE
WITH SWIVEL
NUT



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW
+120°C	-30°C	3.0 MPa	ISO 228

Technical data

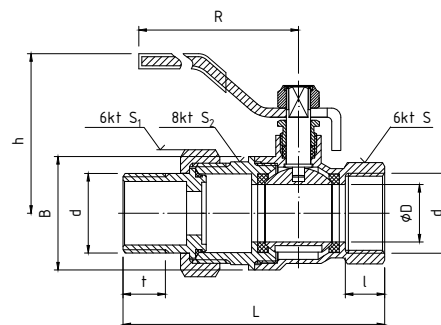


Dimensions in mm

index	size	DN	d	øD	øD1	L	l	t	h	B	S	S ₁	S ₂	M
00-007-0150-001	½"	15	G1/2	14	11	70.7	11.5	11.7	37.8	29.8	25	24	22	52.5
00-007-0200-001	¾"	20	G3/4	19	15	78.8	13	12	41.3	37.5	30	30	28.5	56
00-007-0250-001	1"	25	G1	23	20	94.3	13.5	15.5	53.6	43.8	37.5	37	33	66.5
00-007-0320-001	1¼"	32	G1 1/4	29	27	106.8	16	18	60.3	51.5	46.5	46.5	39	66.5

PHA-007/R

PERFEKT^{SYSTEM}
BALL VALVE
STRAIGHT-THROUGH
WITH PIPE JOINT
(WZ THREAD)



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW/GZ by
+140°C	-30°C	3.0 MPa	ISO 228

Technical data

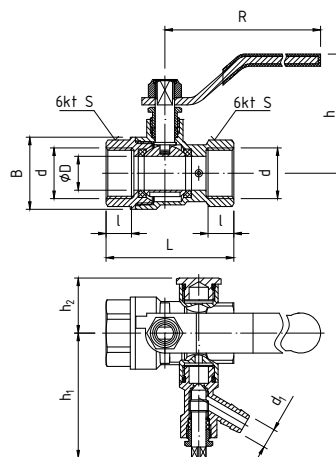


Dimensions in mm

index	size	DN	d	øD	L	l	t	h	B	S	S ₁	S ₂	R
00-007-0150-102	½"	15	G½	14.0	76.8	11.5	14.0	40.0	30.0	25.0	30.0	27.0	98
00-007-0200-102	¾"	20	G¾	19.0	86.5	13.0	14.0	42.5	37.5	30.0	37.0	34.0	98
00-007-0250-102	1"	25	G1	23.0	102.5	15.0	16.0	53.1	42.0	37.5	45.5	42.0	115

PHA-008

PERFEKT^{SYSTEM}
BALL VALVE
STRAIGHT-THROUGH
WITH DRAIN VALVE (WW
THREAD)



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+140°C	-30°C	3.0 MPa	ISO 228

Technical data



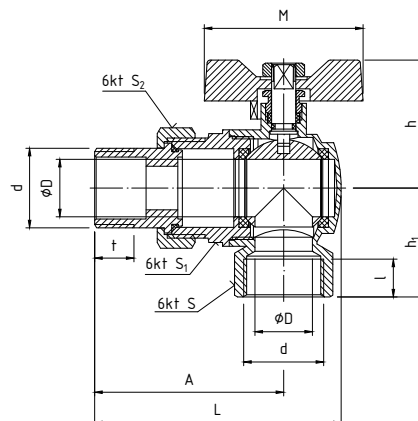
Dimensions in mm

index	size	DN	d	ØD	L	l	h	B	S	R	h ₁	h ₂	d ₁
00-008-0150-002	½"	15	G½	14.0	52.8	11.0	49.8	30.0	25.0	98	39.3	33.4	9.0
00-008-0200-002	¾"	20	G¾	19.0	61.0	13.0	53.2	37.5	30.0	98	53.5	25.2	9.0
00-008-0250-002	1"	25	G1	23.0	69.0	15.0	60.5	43.8	37.5	115	57.2	29.0	9.0
00-008-0320-002	1¼"	32	G1¼	29.0	81	15.5	51.5	46.5	46.5	150	66.5	36.5	9.0
00-008-0400-002	1½"	40	G1½	36.0	93	18	63	53.3	53.5	150	70	40.0	9.0
00-008-0500-002	2"	50	G2	45.0	108.5	19	78.5	66.0	66.0	173	76.5	46.5	9.0

The drain valve mounting side can be easily changed.

PHA-010

PERFEKT^{SYSTEM}
BALL VALVE
STRAIGHT-THROUGH
ANGULAR WITH PIPE
JOINT(WZ THREAD)



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW/GZ by
+140°C	-30°C	3.0 MPa	ISO 228

Technical data

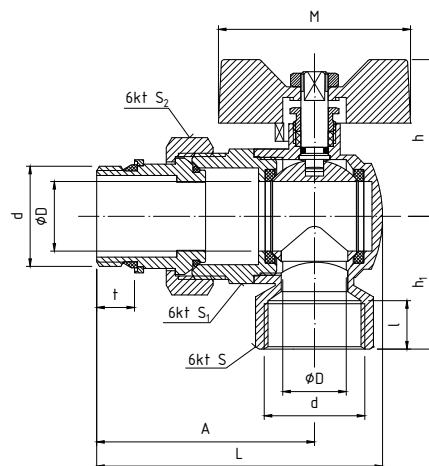


Dimensions in mm

index	size	DN	d	ØD/D1	L	A	l	t	h	h ₁	M	S	S ₁	S ₂
00-010-0150-000	½"	15	G½	14.0/14.0	70.0	54.0	12.0	12.0	37.5	28.8	52.5	25.0	26.8	30
00-010-0200-000	¾"	20	G¾	19.0/19.0	81.5	62.5	13.5	13.0	42.3	36.0	52.5	30.5	33.7	36
00-010-0250-000	1"	25	G1	22.0/22.0	92.3	70.0	16.0	14.5	51.8	43.9	63.5	36.5	41.8	46
00-010-0320-000	1¼"	32	G1	29.0/23.0	111	81.5	16.0	20.0	68.5	56	75	46.5	50	52

PHA-010A

PERFEKT^{SYSTEM}
BALL VALVE
STRAIGHT-THROUGH
ANGLED WITH PIPE JOINT
WITH SELF-SEALING THREAD
(WZ THREAD)



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+140°C	-30°C	3.0 MPa	ISO 228

Technical data

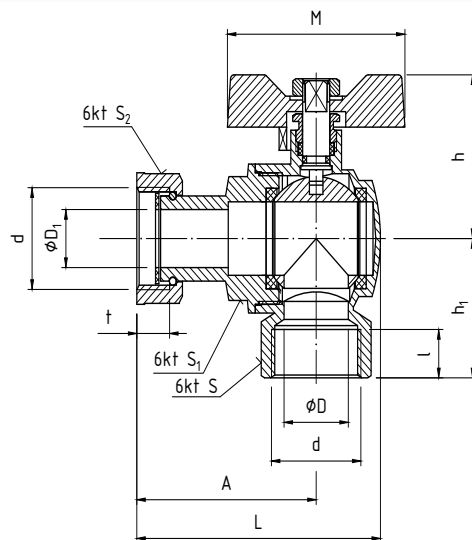


Dimensions in mm

index	butterfly colour	size	DN	d	øD	L	A	l	t	h	h ₁	M	S	S ₁	S ₂
00-010-0250-002	red	1"	25	G1	22.0	92.3	34.9	16.0	14.5	51.8	43.9	63.5	36.5	41.8	46.0
00-010-0250-003	blue	1"	25	G1	22.0	92.3	34.9	16.0	14.5	51.8	43.9	63.5	36.5	41.8	46.0

PHA-010/O

PERFEKT^{SYSTEM}
BALL VALVE
ANGULAR
WITH SWIVEL NUT



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+120°C	-30°C	3.0 MPa	ISO 228

Technical data



Dimensions in mm

index	size	DN	d	øD	øD1	L	A	l	t	h	h ₁	M	S	S ₁	S ₂
00-010-0150-001	½"	15	G1/2	14	11	64.2	48.2	12	11.7	37.3	28.8	52.5	25	22	24
00-010-0200-001	¾"	20	G3/4	19	15	72.8	54.8	13.5	12	40.8	36.1	52.5	30.5	28.5	30
00-010-0250-001	1"	25	G1	22	20	86.8	66.8	15	15.5	53.7	44.4	66.5	36.5	33	37
00-010-0320-001	1¼"	32	G1 1/4	23	27	98.3	79.8	16	18	68.5	56	75	46.5	39	46.5

KROS BALL VALVES

DESCRIPTION

KROS Ball valves: **KX01, KX02, KX03, KX04 and KX06** can be used as stop valves in cold and hot water supply systems, central heating and cooling systems filled with 50% glycol solution. Unlike others on the market, KROS ball valves have a unique ergonomic shape that increases the strength of the body and makes installation much easier. In addition, KROS valves, are equipped with standard threaded connections with cylindrical pipe threads (type G) and a gland seal on the stem, which greatly facilitates servicing of the valves and increases their service life.

MATERIALS

BODY, SCREW PLUG: CW617N brass with nickel-plated exterior

BALL: CW617N brass with chrome plating

STEM: CW617N brass

BALL AND STEM SEAL: PTFE

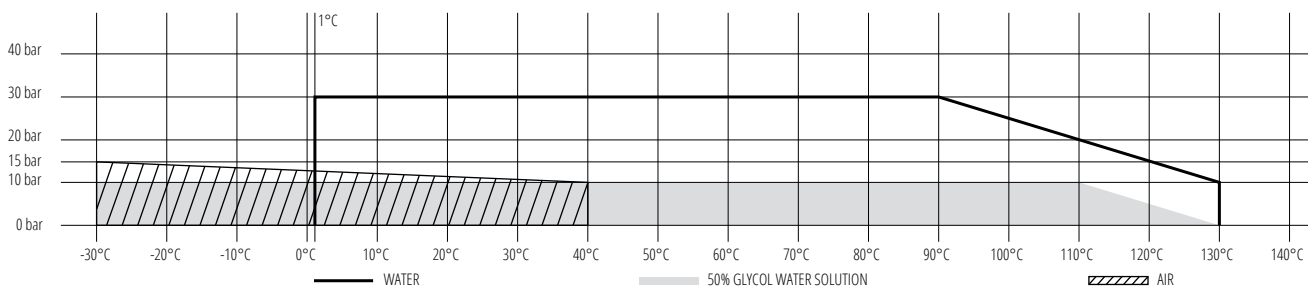
HANDLES: carbon steel with red plastic lining or aluminium with red paint finish

FOR KX06

BODY, SCREW, PLUG: CW617N brass

FILTER ELEMENT: stainless steel

CHART

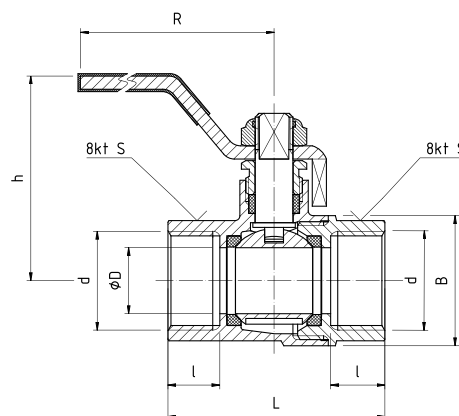


ADVANTAGES

- Ergonomic design for increased body strength
- Easy installation
- Increased service life

KX01

BALL VALVE KROS (WW THREAD)



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+130°C	-30°C	3.0 MPa	ISO 228

Technical data

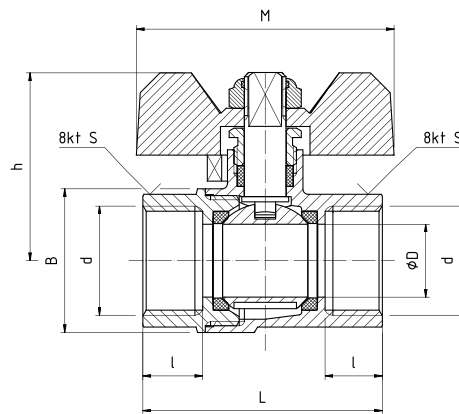


*Kv factor calculated based on Q values. Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	øD	L	l	h	B	S	R
KX01-0150-000	1/2"	15	2.47	7.81	G1/2	14	46.0	11.0	43.5	27.6	24.0	91.0
KX01-0200-000	3/4"	20	5.11	16.16	G3/4	18	53.6	13.0	47.0	33.0	30.0	91.0
KX01-0250-000	1"	25	7.94	25.11	G1	22	64.0	15.0	54.2	39.5	36.5	95.5
KX01-0320-000	1 1/4"	32	15.04	47.56	G1 1/4	30	73.0	15.5	60.2	52.0	46.5	95.5
KX01-0400-000	1 1/2"	40	19.25	60.87	G1 1/2	33	81.2	17.0	68.0	60.3	53.0	148.0
KX01-0500-000	2"	50	-	-	G2	45	101.0	20.0	76.2	76.0	65.0	148.0
KX01-0650-000	2 1/2"	65	-	-	G2 1/2	59	129.0	25.0	95.8	100.0	81.0	190.0

KX02

BALL VALVE KROS (WW THREAD)



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+130°C	-30°C	3.0 MPa	ISO 228

Technical data

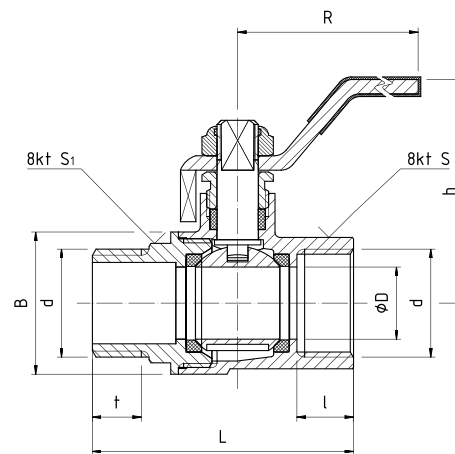


*Kv factor calculated based on Q values.
Dimensions in mm

index	size	DN	Q[m³/h]	Kv*[m³/h]	d	øD	L	l	h	B	S	M
KX02-0150-000	½"	15	2.47	7.81	G½	14	46.0	11.5	36.0	27.6	24.0	49.5
KX02-0200-000	¾"	20	5.11	16.16	G¾	18	53.6	13.0	39.0	33.0	30.0	49.5
KX02-0250-000	1"	25	7.94	25.11	G1	22	64.0	15.0	47.25	39.5	36.5	64.0

KX03

BALL VALVE KROS (WZ THREAD)



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW/GZ by
+130°C	-30°C	3.0 MPa	ISO 228

Technical data

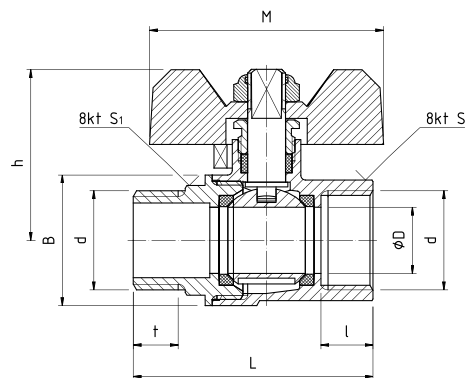


*Kv factor calculated based on Q values.
Dimensions in mm

index	size	DN	Q[m³/h]	Kv*[m³/h]	d	øD	L	l	t	h	B	S	S ₁	R
KX03-0150-000	½"	15	2.47	7.81	G½	14	50.2	11.5	11.0	43.4	27.6	24.0	22	91.0
KX03-0200-000	¾"	20	5.11	16.16	G¾	18	58.7	13.0	12.0	47.0	33.0	30.0	28	91.0
KX03-0250-000	1"	25	7.94	25.11	G1	22	69.0	15.0	13.5	54.2	39.5	36.5	35	95.5

KX04

BALL VALVE KROS (WZ THREAD)



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW/GZ by
+130°C	-30°C	3.0 MPa	ISO 228

Technical data

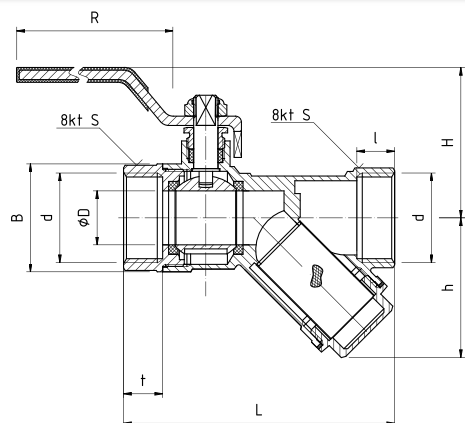


*Kv factor calculated based on Q values.
Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	øD	L	l	t	h	B	S	S ₁	M
KX04-0150-000	1/2"	15	2.47	7.81	G1/2	14	50.2	11.5	11.0	36.0	27.6	24.0	22	49.5
KX04-0200-000	3/4"	20	5.11	16.16	G3/4	18	58.7	13.0	12.0	39.0	33.0	30.0	28	49.5
KX04-0250-000	1"	25	7.94	25.11	G1	22	69.0	15.0	13.5	47.25	39.5	36.5	35	64.0

KX06

BALL VALVE KROS WITH ANGULAR FILTER (THREAD WW)



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+130°C	-30°C	3.0 MPa	ISO 228

Technical data



Dimensions in mm

index	size	DN	d	øD	L	l	t	h	H	B	S	R
KX06-0250-000	1"	25	G1	20	100.5	14.5	14	51.5	55.7	40	37	114.5

BALL VALVES 1040 and 1041

DESCRIPTION

The 1040 and 1041 ball valves are ideal investment valves. Thanks to their parameters, they are ideal for water installations in single-family and multi-family housing.

ADVANTAGES

- Ideal investment valves
- Single-family and multi-family residential buildings

MATERIALS

BODY, SCREW-PLUG: CW617N brass with nickel-plated exterior

BALL: CW617N brass with chrome plating

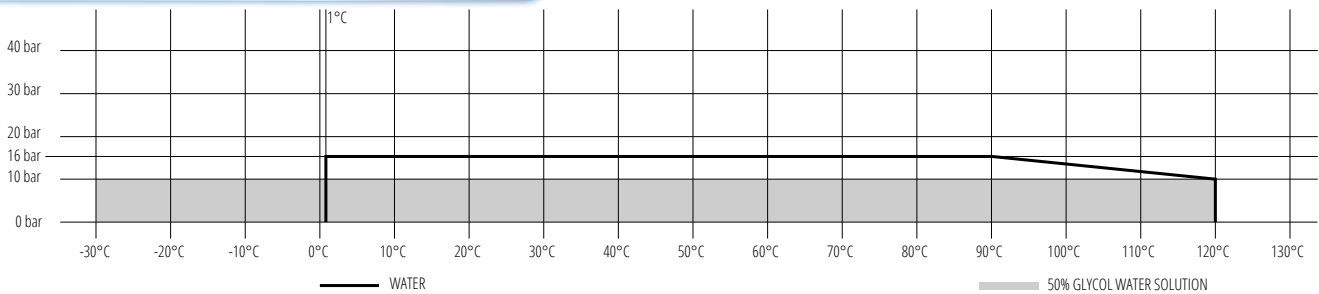
STEM: CW617N brass

GLAND: CW614N brass

BALL AND STEM SEALS: PTFE

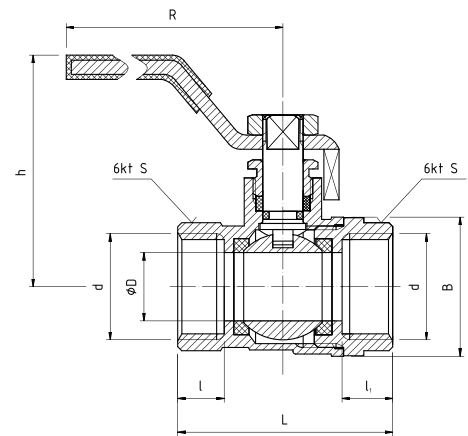
HANDLE: carbon steel with PVC or aluminium cladding, red paint finish

CHART



1040WW

BALL VALVE WW



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+120°C	-30°C	1.6 MPa	ISO 228

Technical data

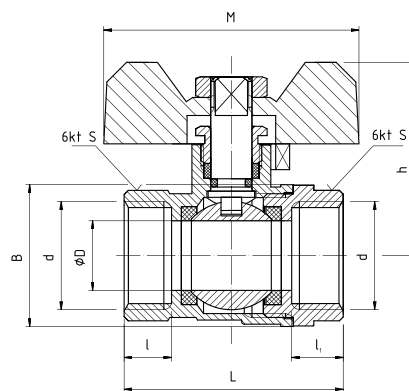


*Kv factor calculated based on Q values. Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	øD	L	l	li	h	B	S	R
00-200-0150-010	½"	15	2.52	7.97	G½	13.5	42.5	9.2	10.0	44.5	27.5	23.8	80.0
00-200-0200-010	¾"	20	4.86	15.37	G¾	17.0	50.2	11.0	11.0	48.0	33.0	29.5	80.0
00-200-0250-010	1"	25	7.60	24.03	G1	21.0	60.0	12.5	14.0	55.0	39.0	36.5	95.5
00-200-0320-010	1¼"	32	13.14	41.55	G1¼	27.0	68.0	13.0	13.5	60.0	49.8	45.8	126.5
00-200-0400-010	1½"	40	18.29	57.84	G1½	32.0	78.6	14.5	14.5	64.0	58.5	51.8	148.0
00-200-0500-010	2"	50	-	-	G2	45.0	94.0	14.0	16.0	73.5	76.5	63.8	148.0

1041WW

BALL VALVE WW



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+120°C	-30°C	1.6 MPa	ISO 228

Technical data

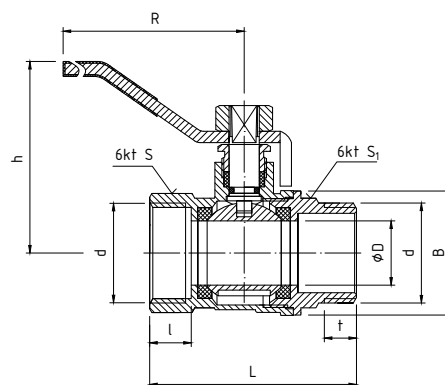


*Kv factor calculated based on Q values.
Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	øD	L	l	L ₁	h	B	S	M
00-220-0150-010	½"	15	2.52	7.97	G½	13.5	42.5	9.2	10	37.2	27.5	23.8	49.5
00-220-0200-010	¾"	20	4.86	15.37	G¾	17.0	50.2	11.0	11	39.5	33.0	29.5	49.5
00-220-0250-010	1"	25	7.60	24.03	G1	21.0	60.0	12.5	14	48.0	39.0	36.5	64.0

1040WZ

BALL VALVE WZ



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW/GZ by
+120°C	-30°C	1.6 MPa	ISO 228

Technical data

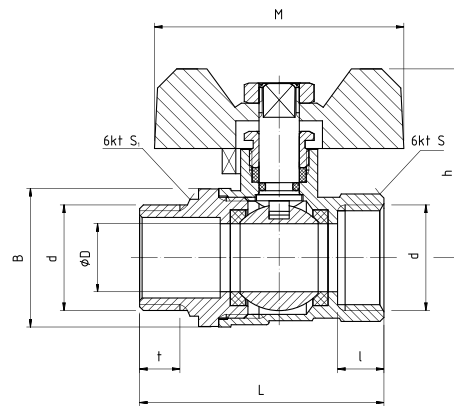


*Kv factor calculated based on Q values.
Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	øD	L	l	t	h	B	S	S ₁	R
00-202-0150-010	½"	15	2.52	7.97	G½	13.5	48.5	9.2	9.5	44.5	27.5	23.8	21.5	80.0
00-202-0200-010	¾"	20	4.86	15.37	G¾	17.0	54.7	11.0	10.0	48.0	33.0	29.5	27.0	80.0
00-202-0250-010	1"	25	7.60	24.03	G1	21.0	63.8	12.5	11.5	55.0	39.0	36.5	34.0	95.5

1041WZ

BALL VALVE WZ



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW/GZ by
+120°C	-30°C	1.6 MPa	ISO 228

Technical data

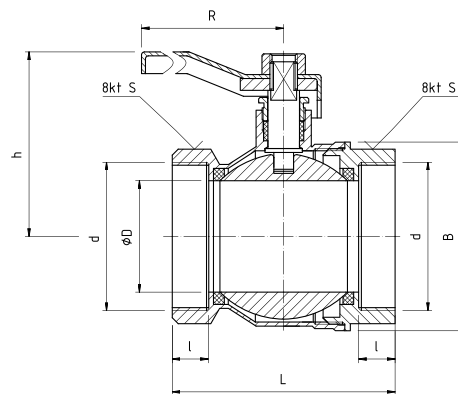


*Kv factor calculated based on Q values. Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	øD	L	l	t	h	B	S	S _t	M
00-222-0150-010	½"	15	2.52	7.97	G½	13.5	48.5	9.2	9.5	37.2	27.5	23.8	21.5	49.5
00-222-0200-010	¾"	20	4.86	15.37	G¾	17.0	54.7	11.0	10.0	39.5	33.0	29.5	27.0	49.5
00-222-0250-010	1"	25	7.60	24.03	G1	21.0	63.8	12.5	11.5	48.0	39.0	36.5	34.0	64.0

1410WW

BALL VALVE WW



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+120°C	+1°C	1.0 MPa	ISO 228

Technical data

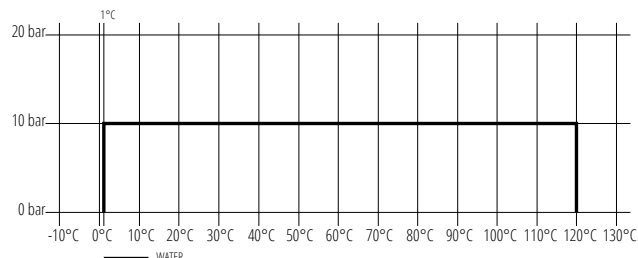


Dimensions in mm

index	size	DN	d	øD	L	l	h	B	R	S
00-200-0650-000	2½"	65	G2½	56.5	113	18.5	89	96.0	190	82.5
00-200-0800-000	3"	80	G3	67.5	134	22.0	112	113.0	245	94.5
00-200-1000-000	4"	100	G4	83.5	158	25.0	124	138.0	245	120.0

MATERIALS

- BODY, SCREW-PLUG:** brass with nickel-plated exterior
- BALL:** brass with chrome plating
- STEM, GLAND:** brass
- BALL SEALS, STEM SEALS:** PTFE (Teflon)
- HANDLE:** carbon steel with red paint finish



65RU

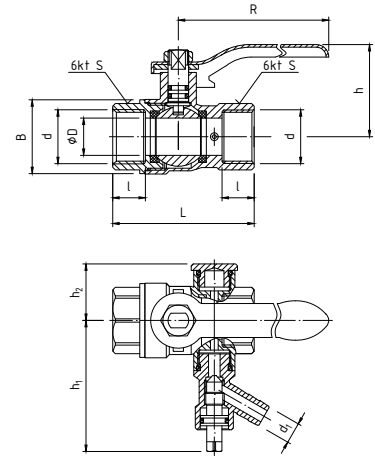
BALL VALVE WITH DRAIN VALVE

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)
For DN 15; 20; 25

TMAX	TMIN	PMAX	GW by
+120°C	-30°C	3.0 MPa	ISO 228

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)
For DN 32; 40; 50

TMAX	TMIN	PMAX	GW by
+120°C	-30°C	2.5 MPa	ISO 228



*Kv factor calculated based on Q values.
Dimensions in mm

Technical data

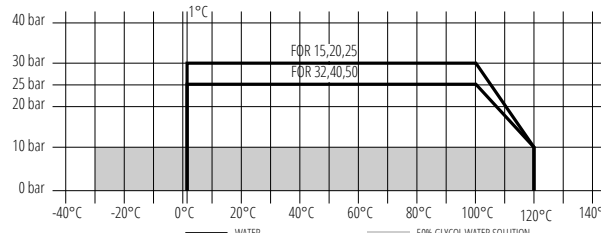


index	size	DN	Q[m³/h]	Kv*[m³/h]	d	øD	L	l	h	h _{1MAX}	h _{2MAX}	B	d ₁	S	R
01-303-0150-000	½"	15	2.48	7.84	G½	14.5	55.0	12.5	44.0	51.5	22.0	29.0	9	24.5	85
01-303-0200-000	¾"	20	5.18	16.38	G¾	19.0	61.5	13.0	47.3	55.0	24.5	36.5	9	29.5	85
01-303-0250-000	1"	25	8.14	25.74	G1	24.0	70.0	14.5	53.0	56.0	28.0	42.7	9	36.5	110
01-303-0320-000	1¼"	32	14.72	46.55	G1¼	29.0	78.5	15.5	61.0	61.0	36.5	52.7	9	46.0	124
01-303-0400-000	1½"	40	17.86	56.48	G1½	32.0	88.5	16.5	69.0	67.0	40.0	56.8	9	52.0	144
01-303-0500-000	2"	50	-	-	G2	45.0	105.0	17.5	79.0	75.0	46.5	76.8	9	64.0	144

MATERIALS

- BODY, SCREW, STEM, DRAIN VALVE BODY, SPINDLE, PLUG: brass with nickel-plated exterior
- BALL: brass with chrome plating
- BALL SEALS: PTFE (Teflon)
- STEM SEALS: O-rings - NBR
- HANDLE: carbon steel with red paint finish

The drain valve mounting side can be easily changed.



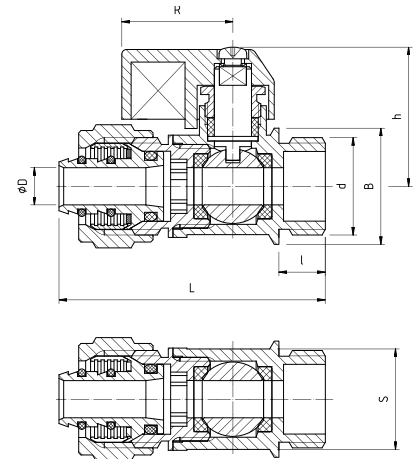
PHA-019D

PERFEKT^{SYSTEM} BALL VALVE WITH GLAND AND COUPLING FOR MULTILAYER PIPES Ø16X2



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GZ by
+120°C	-30°C	1.6 MPa	ISO 228



*Kv factor calculated based on Q values.
Dimensions in mm

Technical data

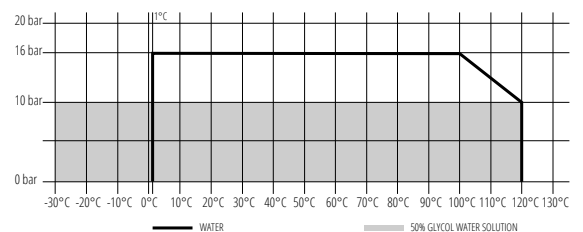


index (red handle)	size	DN	Q[m³/h]	Kv*[m³/h]	d	øD	L	l	h	B	S	R
01-019-0000-001	½"	15	0.79	2.50	G½	8.0	57.0	10.0	30.0	25.0	20.8	23.9

index (blue handle)	size	DN	Q[m³/h]	Kv*[m³/h]	d	øD	L	l	h	B	S	R
01-019-1000-001	½"	15	0.79	2.50	G½	8.0	57.0	10.0	30.0	25.0	20.8	23.9

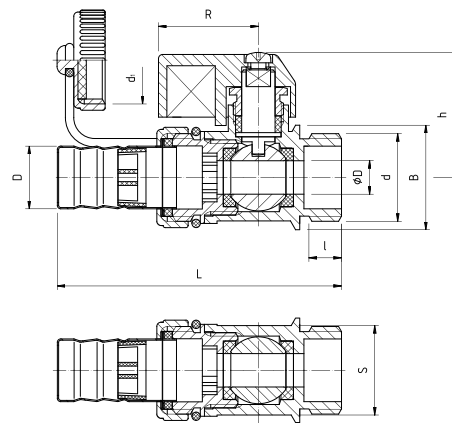
MATERIALS

- BODY, SCREW-PLUG, NUT, PIPE COUPLING: nickel-plated brass
- BALL: nickel-plated brass
- STEM, STEM SEAL, CLAMPING RING, GLAND: brass
- BALL SEALS, WASHER: PTFE (Teflon)
- HANDWHEEL: aluminium alloy with red or blue paint finish



PHA-019S

PERFEKT^{SYSTEM}
BALL VALVE
DRAIN VALVE WITH GLAND



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	-30°C	1.6 MPa	ISO 228

Technical data

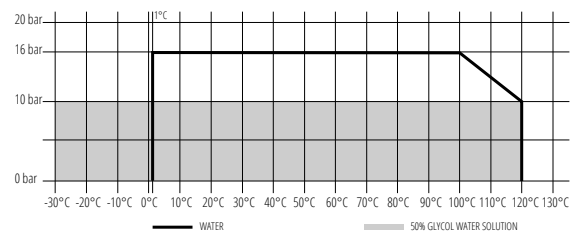


*Kv factor calculated based on Q values.
 Dimensions in mm

index (red handle)	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	d ₁	øD	D	L	l	h	B	S	R
01-019-0000-002	1/2"	15	0.79	2.5	G1/2	G1/2	8	15	68	10	30	25	20.8	23.9
index (blue handle)	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	d ₁	øD	D	L	l	h	B	S	R
01-019-1000-002	1/2"	15	0.79	2.5	G1/2	G1/2	8	15	68	10	30	25	20.8	23.9

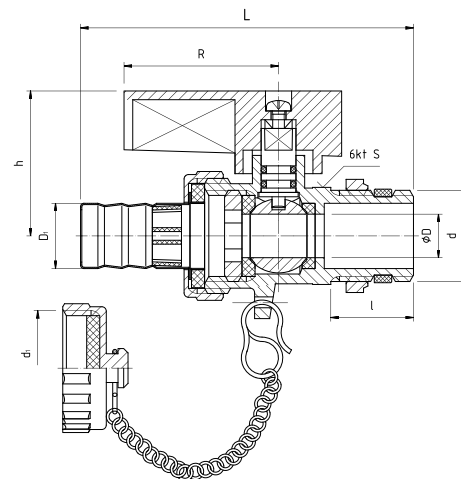
MATERIALS

BODY, SCREW, COUPLING NUT, BLIND NUT: brass with nickel-plated exterior
BALL: brass with chrome plating
STEM, GLAND: brass
FLAT GASKETS, CONNECTOR GASKETS, BLIND NUT GASKETS: NBR
HANDWHEEL: aluminium alloy with red or blue paint finish
HOSE END: stainless steel



1809

DRAIN BALL VALVE



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+150°C	-30°C	2.5 MPa	ISO 228

Technical data

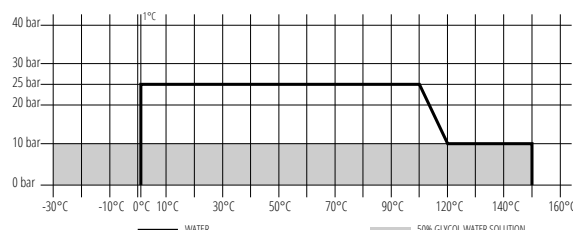


*Kv factor calculated based on Q values.
 Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	d ₁	øD	D ₁	L	l	h	S	R
20-205-0150-000	1/2"	15	1.08	3.42	G1/2	G3/4	10.0	15.0	74	19	33	22.3	35.5
20-205-0200-000	3/4"	20	1.62	5.12	G3/4	G1	14.5	20.0	77	13	33	29.0	21.4

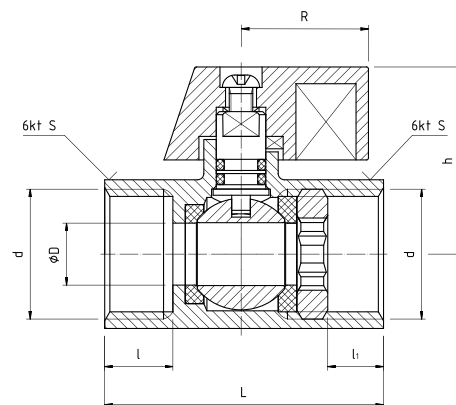
MATERIALS

BODY, SCREW-PLUG, COUPLING NUT, BLIND NUT, UNION NUT: nickel-plated brass
BALL: brass with chrome plating
STEM, SCREW-PLUG: brass
BALL SEAL, CONNECTION SEAL: PTFE (Teflon)
STEM SEAL (O-RINGS): NBR
CONNECTOR GASKET, BLIND NUT GASKET: NBR flat gaskets
HANDWHEEL: aluminium alloy with red or blue paint finish
HOSE END: stainless steel



3021WW

BALL VALVE MINI TYPE



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+120°C	+1°C	1.6 MPa	ISO 228

Technical data

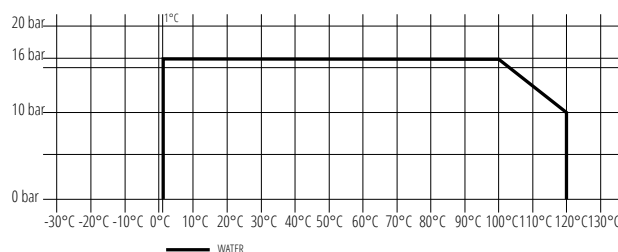


*Kv factor calculated based on Q values. Dimensions in mm.

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	øD	L	l	Li	h	S	R
01-301-0150-000	1/2"	15	1.40	4.43	G1/2	10	45	11	9	30	24	20.5

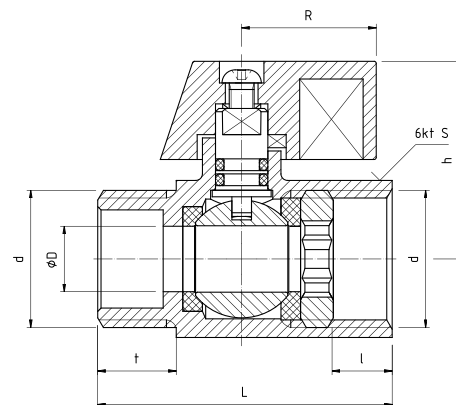
MATERIALS

- BODY, BALL:** brass with chrome plating
- STEM, SCREW-PLUG:** brass
- BALL SEAL:** PTFE (Teflon)
- STEM SEALING:** "O"-type sealing rings - NBR
- WING KNOB:** aluminium alloy with red paint finish



3021WZ

BALL VALVE MINI TYPE



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW/GZ by
+120°C	+1°C	1.6 MPa	ISO 228

Technical data

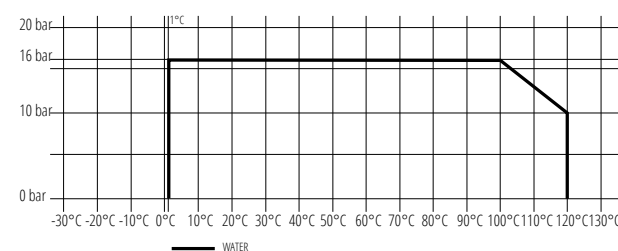


*Kv factor calculated based on Q values. Dimensions in mm.

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	øD	L	l	t	h	S	R
01-302-0150-001	1/2"	15	1.40	4.43	G1/2	10	45	9	12	30	24	20.5

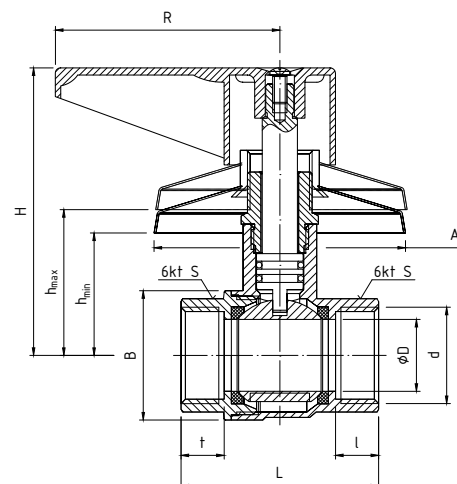
MATERIALS

- BODY, BALL:** brass with chrome plating
- STEM, SCREW-PLUG:** brass
- BALL SEAL:** PTFE (Teflon)
- STEM SEALING:** "O"-type sealing rings - NBR
- WING KNOB:** aluminium alloy with red paint finish



428CH

BALL VALVE FLUSH-MOUNTED



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+120°C	-30°C	3.0 MPa	ISO 228

Technical data

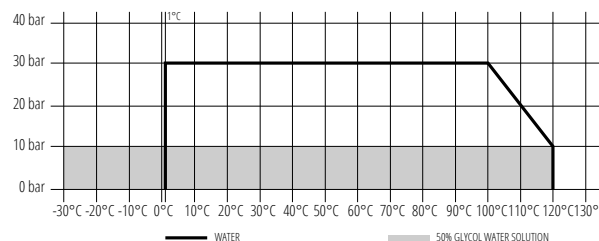


*Kv factor calculated based on Q values.
Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	øD	L	l	t	H	h _{min}	h _{max}	B	S	R	A
01-305-0150-000	1/2"	15	2.45	7.75	G1/2	14.8	50.0	12.3	11.8	78.5	24.8	31.5	30.5	24.5	62.5	70
01-305-0200-000	3/4"	20	5.11	16.16	G3/4	20.0	54.5	11.8	11.8	85.0	28.3	35.1	36.0	30.0	62.5	70

MATERIALS

- BODY, SCREW-PLUG:** brass with nickel-plated exterior
- BALL:** brass with chrome plating
- STEM:** brass
- BALL SEAL:** PTFE (Teflon)
- STEM GASKET:** O-rings - NBR
- HANDWHEEL:** zinc alloy



US-060

SEAL AND STRAINER FOR FILTER PHA-060 AND PHA-060M

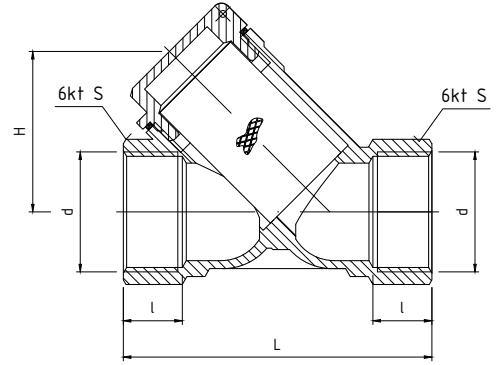


Technical data

index	size
03-200-0000-150	1/2"
03-200-0000-200	3/4"
03-200-0000-250	1"
03-200-0000-320	1 1/4"
03-200-0000-400	1 1/2"
03-200-0000-500	2"
03-200-0000-650	2 1/2"
03-200-0000-800	3"

PHA-060

PERFEKT^{SYSTEM} SLANTED STRAINER FILTER



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)
For DN 15; 20; 25; 32; 40; 50

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+150°C	-30°C	2.5 MPa	ISO 228

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)
For DN 65; 80

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+150°C	-30°C	2.0 MPa	ISO 228

Technical data

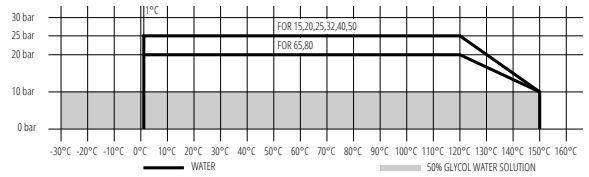


1) K - diameter of the hole inscribed in the mesh
2) J - number of holes per cm²
*Kv factor calculated based on Q values.
Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	L	l	H	S	K ¹	J ²
03-060-0150-000	1/2"	15	0.92	2.91	G1/2	57.0	11.5	31.3	24.0	0.5	80
03-060-0200-000	3/4"	20	1.91	6.07	G3/4	68.0	13.0	37.0	30.0	0.5	80
03-060-0250-000	1"	25	2.45	7.75	G1	75.0	16.0	42.5	37.0	0.5	80
03-060-0320-000	1 1/4"	32	4.75	15.02	G1 1/4	93.0	17.0	56.2	48.5	0.5	80
03-060-0400-000	1 1/2"	40	8.50	26.88	G1 1/2	107.0	19.0	60.0	54.0	0.5	80
03-060-0500-000	2"	50	10.48	34.28	G2	126.0	22.0	72.5	67.0	0.5	80
03-060-0650-000	2 1/2"	65	--	-	G2 1/2	144.0	24.0	84.5	82.0	0.9	36
03-060-0800-000	3"	80	--	-	G3	158.0	26.0	101.0	95.0	0.9	36

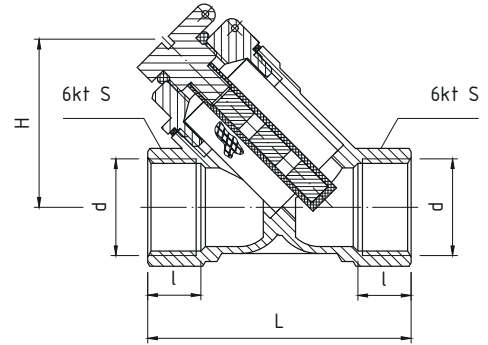
MATERIALS

BODY, COVER: CW617N brass surface sandblasted
FILTER ELEMENT (SCREEN): stainless steel
COVER GASKET: technical fibre/PTFE



PHA-060M

PERFEKT^{SYSTEM} ANGULAR STRAINER FILTER WITH MAGNETIC INSERT



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)
For DN 15; 20; 25;

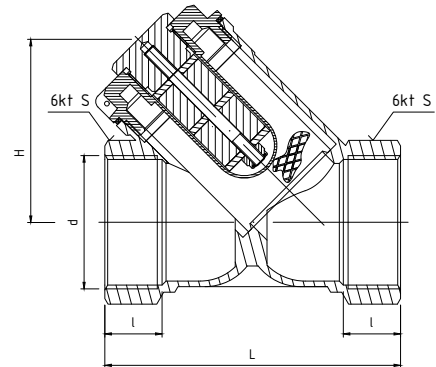
T _{MAX}	T _{MIN}	P _{MAX}	GW by
+150°C	-30°C	2.5 MPa	ISO 228

Technical data



1) K - diameter of the hole inscribed in the mesh
2) J - number of holes per cm²
*Kv factor calculated based on Q values.
Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	L	l	H	S	K ¹	J ²
03-060-0150-100	1/2"	15	> 0.72	2.28	G1/2	57.0	11.5	35.6	24.0	0.5	80
03-060-0200-100	3/4"	20	> 1.44	4.56	G3/4	68.0	13.0	40.0	30.0	0.5	80
03-060-0250-100	1"	25	> 2.52	7.97	G1	75.0	16.0	47.0	37.0	0.5	80



Technical data



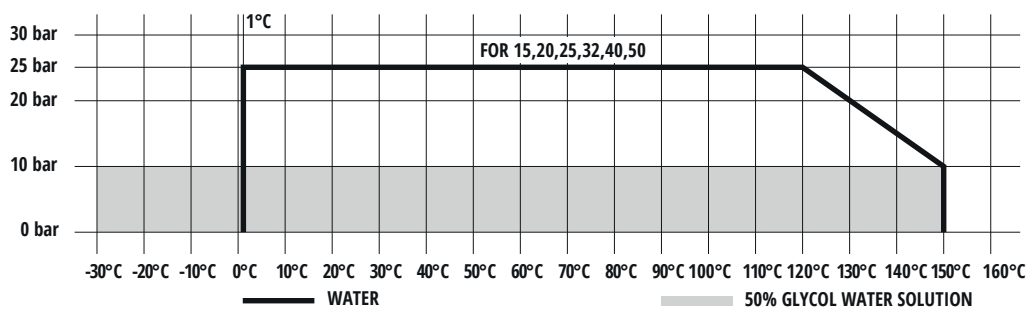
1) K - diameter of the hole inscribed in the mesh
2) J - number of holes per cm²
*Kv factor calculated based on Q values.
Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	L	l	H	S	K ¹	J ²
03-060-0320-100	1 1/4"	32	--	-	G1 1/4	93.0	17.0	58	48.5	0.5	80
03-060-0400-100	1 1/2"	40	--	-	G1 1/2	107.0	19.0	62.5	54.0	0.5	80
03-060-0500-100	2"	50	--	-	G2	126.0	22.0	75.5	67.0	0.5	80

MATERIALS

BODY, COVER, MAGNETIC SYSTEM SCREW: CW617N brass surface sandblasted
FILTER ELEMENT (SCREEN): stainless steel
GASKETS: PTFE/NBR
MAGNETIC SYSTEM COVER: POM*
MAGNET: 5000 Gs neodymium magnet

P-T CHART



*FOR DN15, DN20, D N25

PHA-020

PERFEKT^{SYSTEM}
CHECK VALVE



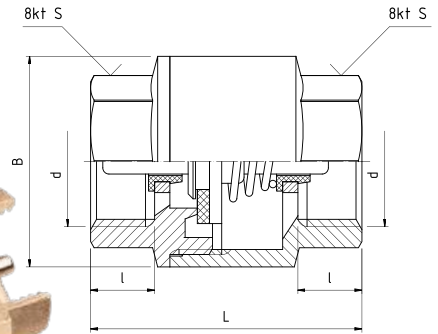
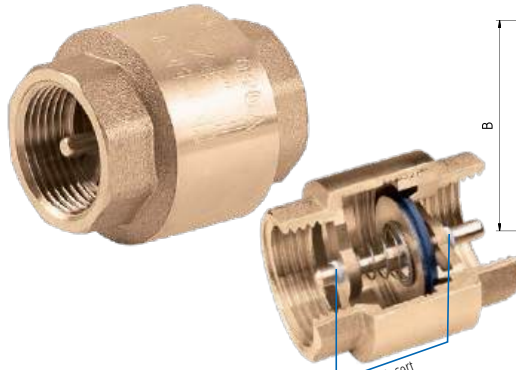
WITH BRASS VALVE HEAD

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)
For DN 15; 20; 25

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+120°C	-30°C	1.6 MPa	ISO 228

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)
For DN 32; 40; 50; 65; 80; 100;

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+120°C	+30°C	1.0 MPa	ISO 228



Technical data

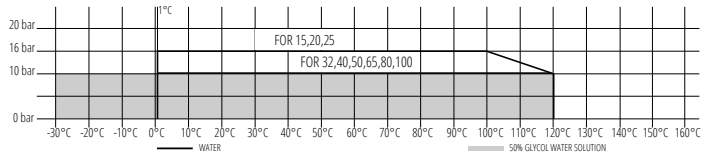


*Kv factor calculated based on Q values.
Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	L	l	B	S
04-020-0150-000	1/2"	15	0.82	2.59	G1/2	44.5	10.5	34.0	26.0
04-020-0200-000	3/4"	20	1.84	5.82	G3/4	48.0	12.0	42.5	32.0
04-020-0250-000	1"	25	3.10	9.80	G1	55.5	13.5	47.5	38.0
04-020-0320-000	1 1/4"	32	5.11	16.16	G1 1/4	61.0	15.0	58.5	46.0
04-020-0400-000	1 1/2"	40	7.13	22.55	G1 1/2	68.0	16.0	66.5	52.0
04-020-0500-000	2"	50	11.74	37.13	G2	76.5	18.0	79.6	66.0
04-020-0650-000	2 1/2"	65	--	-	G2 1/2	104.0	24.0	93.0	81.0
04-020-0800-000	3"	80	--	-	G3	102.0	25.0	109.5	93.5
04-020-1000-000	4"	100	--	-	G4	112.0	26.0	139.0	121.5

MATERIALS

BODY, SCREW, VALVE HEAD: CW617N brass
VALVE HEAD GASKET: flat gasket - NBR
SPRING: stainless steel
SILENCER INSERT: Plastic (not applicable for DN65, DN80, DN100)



5503

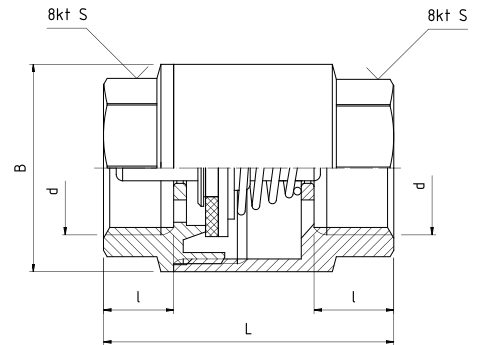
CHECK VALVE
WITH BRASS VALVE HEAD

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)
For DN 15; 20; 25; 32; 40; 50

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+120°C	+1°C	1.0 MPa	ISO 228

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)
For DN 65

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+120°C	+1°C	0.8 MPa	ISO 228



Technical data

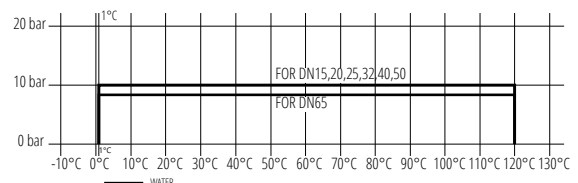


*Kv factor calculated based on Q values.
Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	L	l	B	S
04-100-0150-000	1/2"	15	1.01	3.19	G1/2	45.5	11.0	32.5	26
04-100-0200-000	3/4"	20	1.73	5.47	G3/4	52.0	13.0	37.5	30
04-100-0250-000	1"	25	2.77	8.76	G1	54.0	13.5	44.0	37
04-100-0320-000	1 1/4"	32	4.93	15.59	G1 1/4	61.0	15.0	58.5	46
04-100-0400-000	1 1/2"	40	7.42	23.46	G1 1/2	70.0	16.5	66.5	52
04-100-0500-000	2"	50	10.12	32.00	G2	78.0	16.5	79.5	66
04-100-0650-000	2 1/2"	65	--	-	G2 1/2	104.0	24.0	93.0	81

MATERIALS

BODY, SCREW, VALVE HEAD: brass
VALVE HEAD GASKET: flat gasket - NBR
SPRING: stainless steel



5503/P

CHECK VALVE WITH PLASTIC VALVE HEAD

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

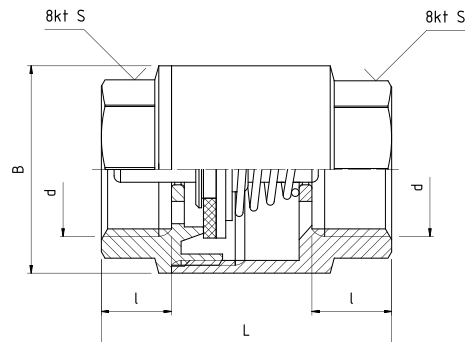
For DN 15; 20; 25; 32; 40; 50

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+120°C	+1°C	1.0 MPa	ISO 228

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

For DN 65

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+120°C	+1°C	0.8 MPa	ISO 228



Technical data

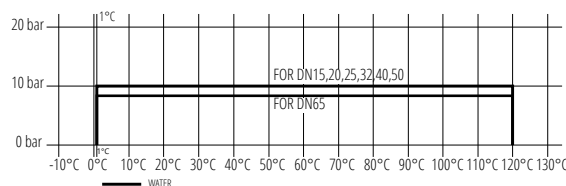


*Kv factor calculated based on Q values.
Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	L	l	B	S
04-100-0150-100	1/2"	15	1.01	3.19	G1/2	45.5	11.0	32.5	26
04-100-0200-100	3/4"	20	1.73	5.47	G3/4	52.0	13.0	37.5	30
04-100-0250-100	1"	25	2.77	8.76	G1	54.0	13.5	44.0	37
04-100-0320-100	1 1/4"	32	4.93	15.59	G1 1/4	61.0	15.0	58.5	46
04-100-0400-100	1 1/2"	40	7.42	23.46	G1 1/2	70.0	16.5	66.5	52
04-100-0500-100	2"	50	10.12	32.00	G2	78.0	16.5	79.5	66
04-100-0650-100	2 1/2"	65	--	-	G2 1/2	104.0	24.0	93.0	81

MATERIALS

- BODY, SCREW-PLUG: brass
- VALVE HEAD: polyamide
- VALVE HEAD GASKET: flat gasket
- SPRING: stainless steel

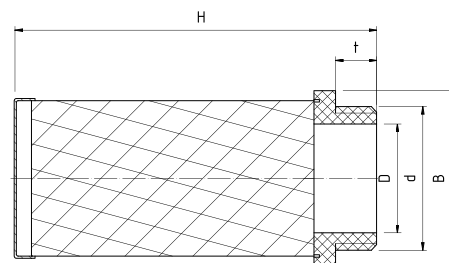


PHA-KS1

PERFEKT^{SYSTEM} SUCTION ROSE TO CHECK VALVE



ART. PHA-020



Technical data



Dimensions in mm

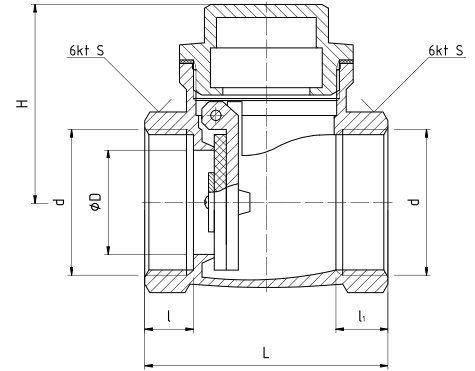
index	size	DN	d	øD	t	H	B
04-901-0150-000	1/2"	15	G1/2	15.0	8.0	49.0	27.0
04-901-0200-000	3/4"	20	G3/4	19.0	7.0	58.0	34.0
04-901-0250-000	1"	25	G1	24.0	10.0	68.0	40.5
04-901-0320-000	1 1/4"	32	G1 1/4	34.5	10.0	68.0	48.0
04-901-0400-000	1 1/2"	40	G1 1/2	40.0	10.0	77.5	57.5
04-901-0500-000	2"	50	G2	49.5	11.5	95.0	68.0
04-901-0650-000	2 1/2"	65	G2 1/2	63.0	14.0	102.0	83.0
04-901-0800-000	3"	80	G3	76.0	12.5	106.0	98.0
04-901-1000-000	4"	100	G4	98.0	14.0	118.0	127.0

MATERIALS

- SUCTION ROSE HOLDER: plastic
- SUCTION ROSE: stainless steel

PHA-021

PERFEKT^{SYSTEM}
CHECK FLAP VALVE



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)
For DN 15; 20; 25

TMAX	TMIN	PMAX	GW by
+120°C	-30°C	1.6 MPa	ISO 228

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)
For DN 32; 40; 50; 65; 80

TMAX	TMIN	PMAX	GW by
+120°C	-30°C	1.0 MPa	ISO 228

Technical data

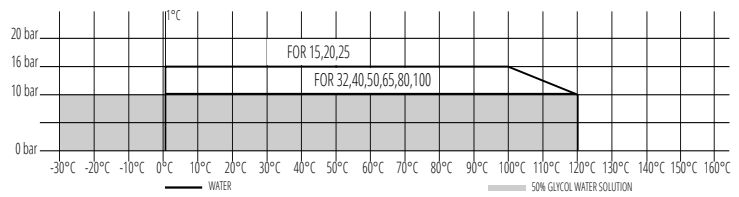


*Kv factor calculated based on Q values.
Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	ØD	L	l	l ₁	H	S
04-021-0150-000	½"	15	1.87	5.91	G½	14.0	49.5	11.0	10.0	31.0	24.0
04-021-0200-000	¾"	20	3.06	9.68	G¾	17.0	57.5	12.0	11.0	35.0	30.5
04-021-0250-000	1"	25	5.22	16.51	G1	21.5	61.5	14.0	11.5	39.0	37.5
04-021-0320-000	1¼"	32	8.89	28.11	G1¼	27.0	77.0	17.5	15.0	49.0	47.0
04-021-0400-000	1½"	40	11.70	37.00	G1½	35.0	83.0	18.0	16.0	56.0	53.5
04-021-0500-000	2"	50	17.71	56.00	G2	47.0	90.0	19.0	16.0	59.0	65.0
04-021-0650-000	2½"	65	--	-	G2½	57.0	120.0	21.0	19.0	77.0	82.0
04-021-0800-000	3"	80	--	-	G3	68.0	134.0	23.0	22.0	84.0	96.0

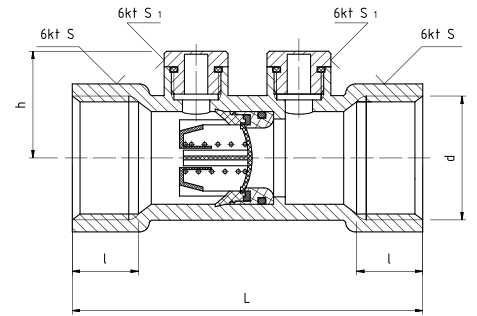
MATERIALS

BODY, FLAP, PLUG: CW617N brass
WASHER: stainless steel
SEAL: FIBRE
FLAP SEAL: flat seal-NBR



PHA-013

PERFEKT^{SYSTEM}
VALVE
ANTI-CONTAMINATION
TYPE "EA"



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+65°C	+1°C	1.0 MPa	ISO 228

* and +90°C for 1 hour

Technical data

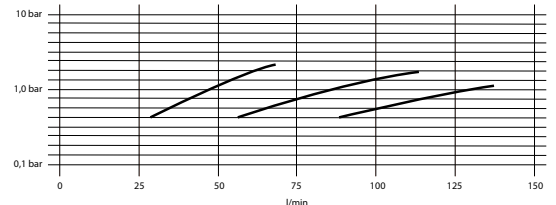
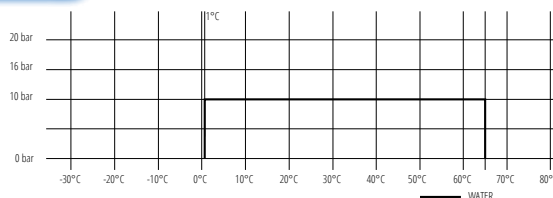


1) Flow resistance coefficient
Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	L	l	h	S	S ₁	ξ ₁
01-013-0150-000	½"	15	0.88	2.78	G½	65	12	23.5	25	16.8	4.48
01-013-0200-000	¾"	20	1.64	5.2	G¾	75	14	23.5	31	16.8	2.28
01-013-0250-000	1"	25	2.59	8.2	G1	90	17	27.0	38	16.8	1.91

MATERIALS

BODZ, PLUG: CW617N brass
VALVE HEAD, VALVE HEAD SOCKET,
VALVE HEAD GUIDE: polyamide
VALVE HEAD, PLUG GASKET:
O-ring - EPDM



OTHER PARAMETERS

OPENING PRESSURE: 1000 Pa
PROTECTION SUITABLE FOR LIQUIDS: Category 1 and 2
SAFETY ASSEMBLY SYMBOL:



PHA-022

PERFEKT^{SYSTEM}
GATE VALVE
BRASS



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+100°C	+1°C	1.6 MPa	ISO 228

Technical data



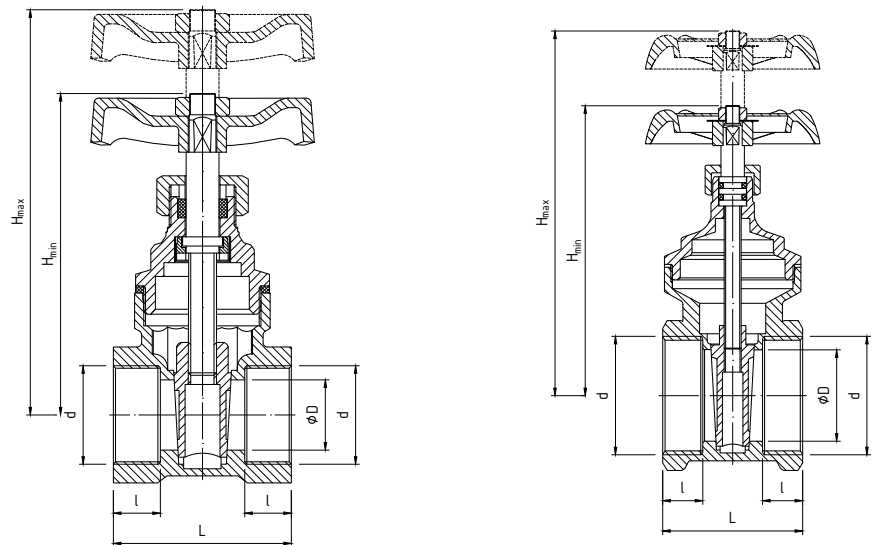
*Kv factor calculated based on Q values.
Dimensions in mm

index	size	DN	Q[m ³ /h]	Kv*[m ³ /h]	d	øD	L	l	H	S
01-022-0150-000	½"	15	2.53	8.00	G½	15	38.0	10.0	68.0	26.0
01-022-0200-000	¾"	20	4.84	15.30	G¾	19	43.0	12.0	75.0	31.0
01-022-0250-000	1"	25	8.10	25.61	G1	24	47.5	13.0	85.0	38.0
01-022-0320-000	1¼"	32	14.71	46.52	G1¼	32	52.0	14.0	98.0	47.0
01-022-0400-000	1½"	40	22.47	71.06	G1½	39	57.0	15.0	115.0	53.0
01-022-0500-000	2"	50	26.94	85.19	G2	50	65.0	17.0	147.0	65.0
01-022-0650-000	2½"	65	--	-	G2½	60	66.0	17.0	159.0	84.5
01-022-0800-000	3"	80	--	-	G3	68	84.0	23.0	185.0	100.0

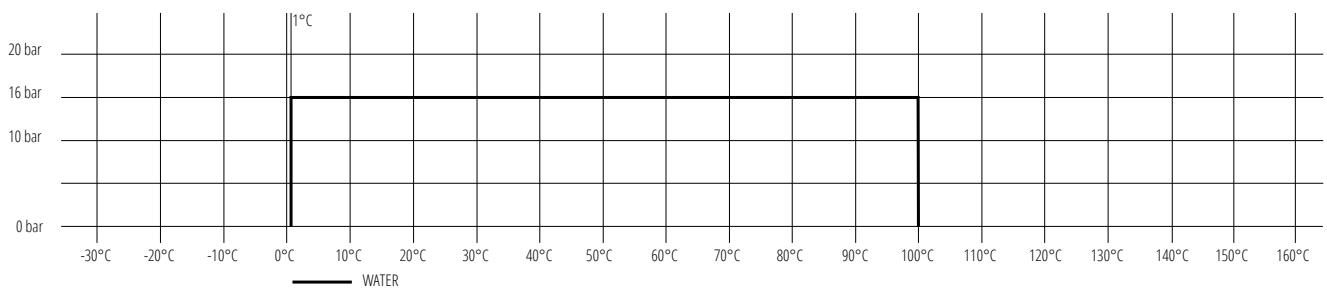
MATERIALS

BODY, COVER, STEM, WEDGE: CW617N brass
GLAND NUT, STEM LOCK NUT, GLAND BUSHING, NUT: brass
COVER SEAL, GLAND INSERT: PTFE (Teflon)
HANDWHEEL: aluminium alloy with red paint finish

TECHNICAL DRAWING



P-T CHART

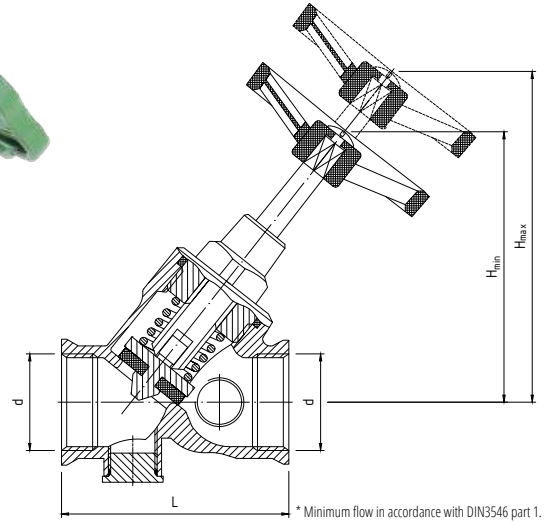


1620

ANTI-CONTAMINATION VALVE CUT-OFF ANGULAR

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+90°C	+1°C	1.0 MPa	ISO 228 / EN 10226



* Minimum flow in accordance with DIN3546 part 1. Dimensions in mm

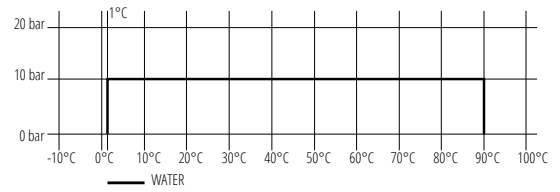
Technical data



index	size	DN	Q[m ³ /h]	d	L	H _{max}	H _{min}
01-402-0150-000	1/2"	15	1.8.	RP1/2	65	84.3	69.5
01-402-0200-000	3/4"	20	3.6	RP 3/4	75	118.0	100.7
01-402-0250-000	1"	25	6.3	RP 1	90	132.0	106.4
01-402-0320-000	1 1/4"	32	10.8	G1 1/4	110	150.6	125
01-402-0400-000	1 1/2"	40	14.4	G1 1/2	120	160.2	125
01-402-0500-000	2"	50	24.3	G2	150	197.0	155.5

MATERIALS

BODY, STEM: brass
 HEAD, STEM GASKET: EPDM
 HANDLE: plastic

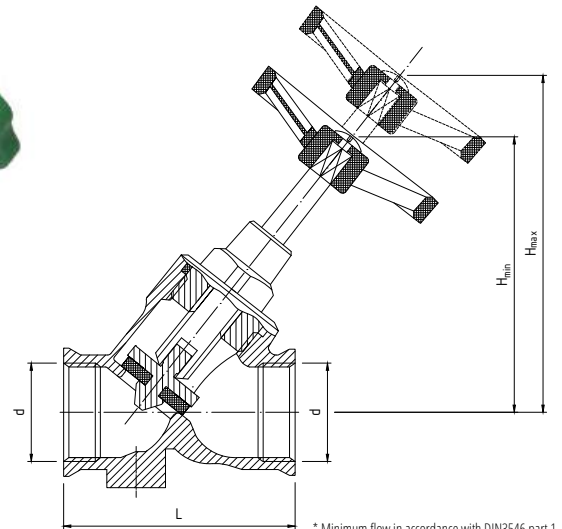


1505

ANGLE POPPET FLOW-THROUGH VALVE

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+90°C	+1°C	1.0 MPa	ISO 228 / EN 10226



* Minimum flow in accordance with DIN3546 part 1. Dimensions in mm

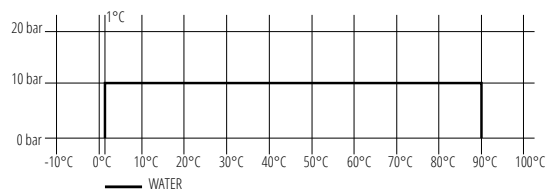
Technical data



index	size	DN	Q[m ³ /h]	d	L	H _{max}	H _{min}
01-401-0150-000	1/2"	15	1.8.	RP1/2	65	84.3	69.5
01-401-0200-000	3/4"	20	3.6	RP 3/4	75	118.0	100.7
01-401-0250-000	1"	25	6.3	RP1	90	132.0	106.4
01-401-0320-000	1 1/4"	32	10.8	G1 1/4	110	150.6	125
01-401-0400-000	1 1/2"	40	14.4	G1 1/2	120	160.2	125
01-401-0500-000	2"	50	24.3	G2	150	197.0	155.5

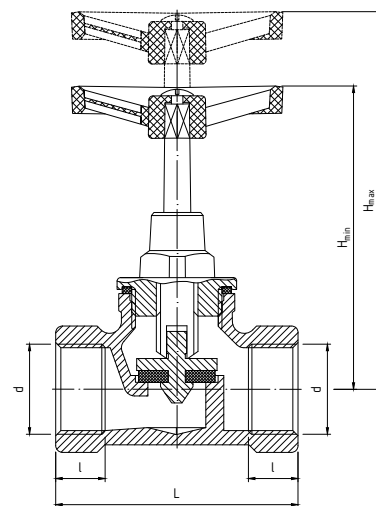
MATERIALS

BODY, STEM: brass
 HEAD, STEM GASKET: EPDM
 HANDLE: plastic



1105

STRAIGHT POPPET FLOW-THROUGH VALVE



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+90°C	+1°C	1.0 MPa	ISO 228 / EN 10226

Technical data

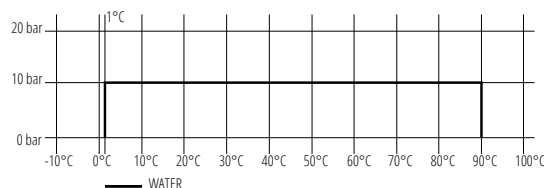


* Minimum flow in accordance with DIN3546 part 1. Dimensions in mm

index	size	DN	Q[m³/h]	d	L	H _{max}	H _{min}
01-400-0150-000	½"	15	1.8.	RP½	65	70.0	65.0
01-400-0200-000	¾"	20	3.6	RP¾	74	82.7	77.7
01-400-0250-000	1"	25	6.3	RP1	85	103.5	96.5
01-400-0320-000	1¼"	32	10.8	G1¼	103	77.5	66.5
01-400-0400-000	1½"	40	14.4	G1½	115	85.0	73.0
01-400-0500-000	2"	50	24.3	G2	145	98.7	85.2

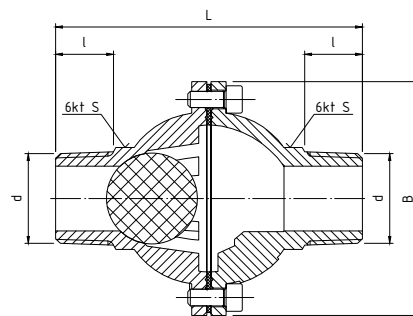
MATERIALS

BODY, STEM: brass
 HEAD, STEM GASKET: EPDM
 HANDLE :Plastic



ZKR-111

DIFFERENTIAL CHECK BALL VALVE



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GZ by
+120°C	+1°C	0.6 MPa	ISO 228

Technical data

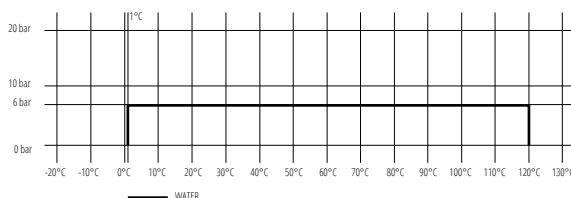


Dimensions in mm

index	size	DN	d	L	l	B	S
04-101-0250-000	1"	25	G1	112	18	85	37.0
04-101-0320-000	1¼"	32	G1¼	118	22	92	47.5
04-101-0400-000	1½"	40	G1½	140	25	108	51.0
04-101-0500-000	2"	50	G2	150	28	120	63.0

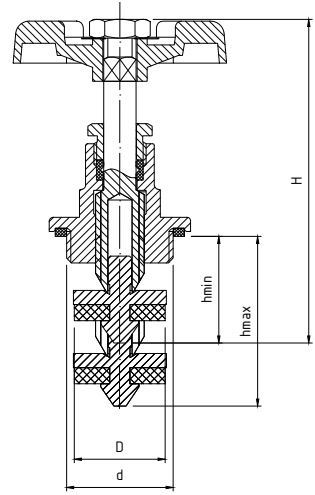
MATERIALS

BODY: cast iron with paint coating
 BALL, BODY SEAL: NBR
 BOLTS: carbon steel with galvanic coating



G02

HEAD FOR CAST IRON VALVES WITH FLAT FIBRE GASKET



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+120°C	+1°C	1.0 MPa	ISO 228

Technical data

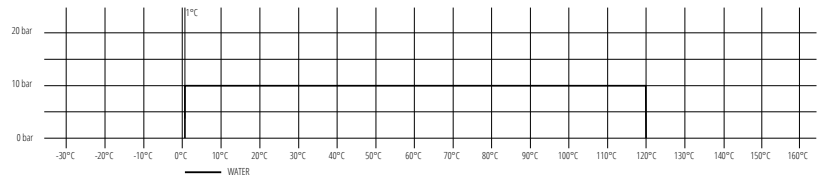


Dimensions in mm

index	size	DN	d	D	H	h _{min}	h _{max}
01-500-0150-000	1/2"	15	G1/2	17	78	22	29.5
01-500-0200-000	3/4"	20	G3/4	23	83	23	36
01-500-0250-000	1"	25	G1	29	93	25	44.5
01-500-0320-000	1 1/4"	32	G1 1/4	35	107	27	52.8
01-500-0400-000	1 1/2"	40	G1 1/2	43	114	29	58
01-500-0500-000	2"	50	G2	55	129	29	58

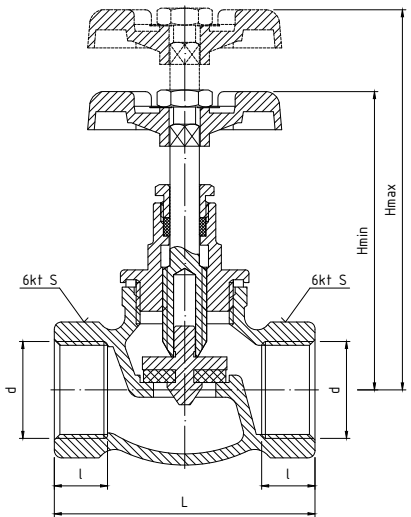
MATERIALS

HEAD BODY, STEM, CHOKE NUT, ROTARY VALVE HEAD: CWG617N brass
 WASHER, NUT : brass
 VALVE HEAD GASKET, GLAND GASKET: NBR
 HANDWHEEL: steel with blue lacquer coating
 HEAD GASKET: technical fibre



3098

CAST IRON VALVE GALVANISED STRAIGHT THROUGH



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+120°C	+1°C	1.0 MPa	ISO 228

Technical data

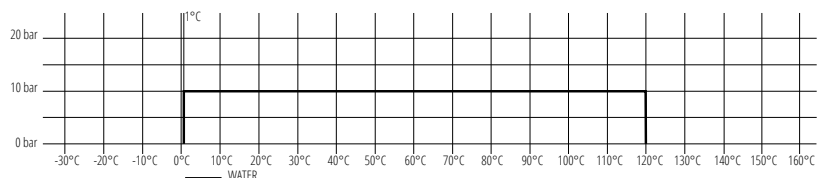


Dimensions in mm

index	size	DN	d	L	l	H _{min}	H _{max}	S
01-400-0150-100	1/2"	15	G1/2	62.5	14.0	69.7	79.7	27.0
01-400-0200-100	3/4"	20	G3/4	72.0	14.0	81.7	93.7	31.0
01-400-0250-100	1"	25	G1	87.0	16.5	85.2	99.2	41.0
01-400-0320-100	1 1/4"	32	G1 1/4	102.5	19.0	110.25	124.25	49.5
01-400-0400-100	1 1/2"	40	G1 1/2	117.5	19.5	125.5	139.5	58.5
01-400-0500-100	2"	50	G2	143.0	22.5	148.0	168.0	71.5

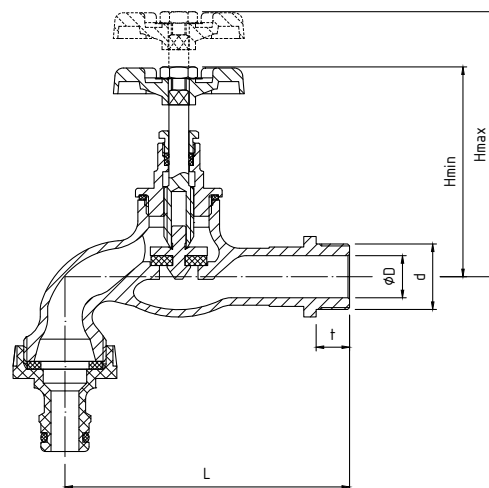
MATERIALS

BODY: cast iron
 HEAD BODY, STEM, GLAND, PLUG: brass
 HEAD GASKET: technical fibre
 VALVE HEAD GASKET: NBR
 GLAND SEAL: NBR for DN15, DN20, DN25, PTFE for DN32, DN40, DN50 HANDLE: aluminium with black paint coating for DN15, DN20, DN25, cast iron with black paint coating for DN32; DN40; DN50.



3099

GALVANIZED CAST IRON DRAW-OFF TAP WITH QUICK-RELEASE HOSE COUPLING



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GZ by
+120°C	+1°C	1.0 MPa	ISO 228

Technical data

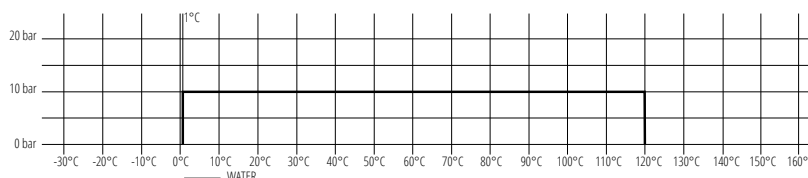


Dimensions in mm

index	size	DN	d	øD	L	t	d ₁	H _{min}	H _{max}
01-009-0150-005	½"	15	G½	11	88.0	12.5	16	55.4	63.4
01-009-0200-005	¾"	20	G¾	16	110.5	14.0	16	74.5	80

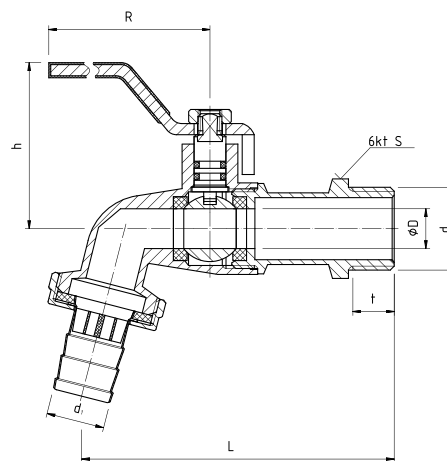
MATERIALS

BODY: cast iron
HEAD BODY, STEM, GLAND, VALVE HEAD: brass
HEAD GASKET: technical fibre
VALVE HEAD GASKET: NBR
GLAND SEAL: PTFE (Teflon)
HANDLE: aluminium with black paint finish



3102

DRAW-OFF BALL TAP WITH HOSE CONNECTION



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GZ by
+65°C	+1°C	1.0 MPa	ISO 228

*+90°C occasionally for one hour

Technical data

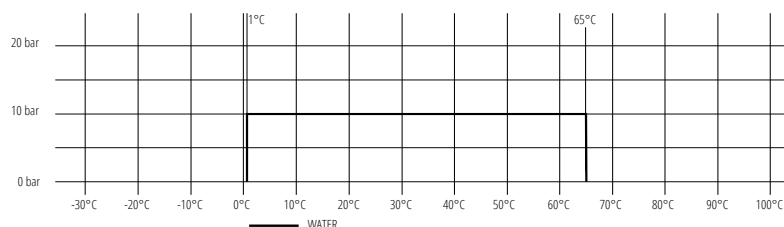


Dimensions in mm

index	size	DN	d	d ₁	øD	L	t	h	S	R
01-009-0150-002	½"	15	G½	15	10	86	11	39	22.0	95
01-009-0200-002	¾"	20	G¾	20	12	94	12	40	27.5	95
01-009-0250-002	1"	25	G1	28	14	108	14	46	34.5	110

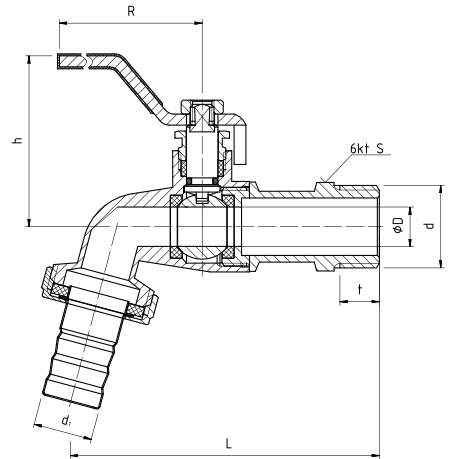
MATERIALS

BODY, SCREW, UNION NUT: brass with nickel-plated exterior
BALL: brass with chrome plating
STEM: brass
BALL SEALS: PTFE (Teflon)
STEM GASKET O-rings: NBR
UNION GASKET: NBR flat gasket
HANDLE: carbon steel with red cladding
HOSE END: stainless steel



PHA-009

DRAW-OFF BALL TAP WITH GLAND WITH HOSE COUPLING



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GZ by
+120°C	-30°C	1.6 MPa	ISO 228

Technical data

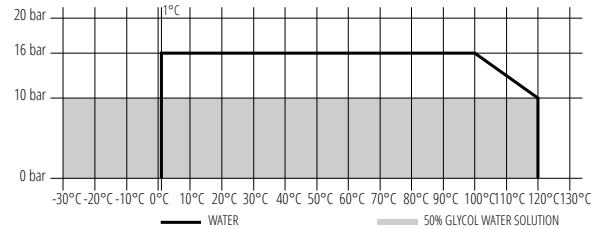


*Kv factor calculated based on Q values. Dimensions in mm

index	size	DN	Q[m³/h]	Kv*[m³/h]	d	d ₁	ØD	L	t	h	S	R
01-009-0150-000	1/2"	15	0.82	2.59	G1/2	15	10.0	78.5	11.5	41.7	22.5	92
01-009-0200-000	3/4"	20	1.65	5.22	G3/4	20	12.0	84	12.0	43.0	28	95
01-009-0250-000	1"	25	2.70	8.54	G1	28	14.5	105.6	14.0	52.3	35	109

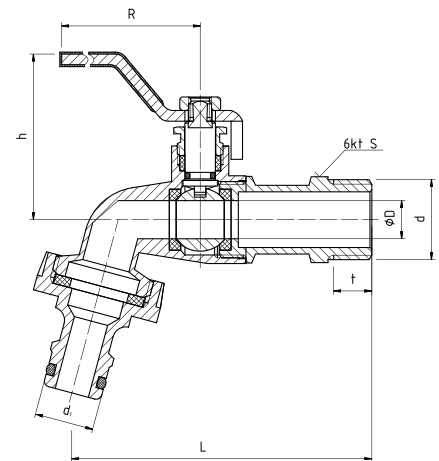
MATERIALS

- BODY, SCREW-PLUG, UNION NUT:** CW617N brass with nickel-plated exterior
- BALL:** CW617N brass with chrome plating
- STEM, GLAND:** brass
- BALL SEALS, STEM SEAL:** PTFE (Teflon)
- UNION GASKET:** NBR flat gasket
- HANDLE:** carbon steel with red cladding
- HOSE END:** stainless steel



PHA-009S

DRAW-OFF BALL TAP WITH GLAND WITH QUICK-RELEASE COUPLING FOR HOSE



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GZ by
+120°C	-30°C	1.6 MPa	ISO 228

Technical data

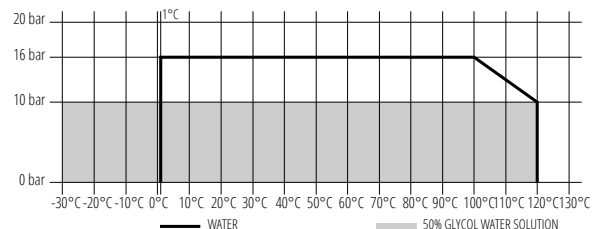


*Kv factor calculated based on Q values. Dimensions in mm

index	size	DN	Q[m³/h]	Kv*[m³/h]	d	d ₁	ØD	h	R	L	t	S
01-009-0150-001	1/2"	15	0.82	2.59	G1/2	15	10	41.7	92	78.5	11.5	22.5
01-009-0200-001	3/4"	20	1.65	5.22	G3/4	15	12	43.0	95	84.0	12.0	28

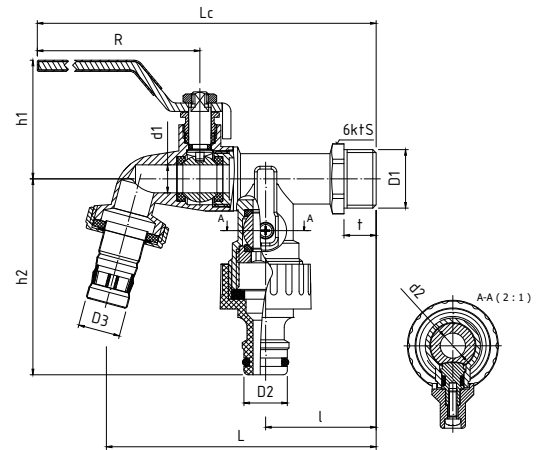
MATERIALS

- BODY, SCREW PLUG:** CW617N brass with nickel-plated exterior
- BALL:** CW617N brass with chrome plating
- BALL SEALS, STEM SEAL:** PTFE (Teflon)
- UNION GASKET:** NBR flat gasket
- HANDLE:** carbon steel with red cladding
- QUICK-RELEASE COUPLING TIP:** ABS plastic



PHA-009 DUO

DRAW-OFF BALL TAP WITH GLAND WITH HOSE COUPLING - DOUBLE



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+120°C	+1°C	1.0 MPa	ISO 228

Technical data

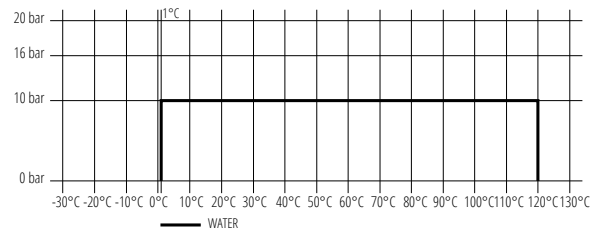


*Kv factor calculated based on Q values. Dimensions in mm

index	size	D1	D2	D3	d1	d2	t	l	L	h1	h2	S	R
01-009-0150-006	1/2"	G1/2	G3/4	Ø15	Ø10	Ø9	11.5	39.5	97.2	42.4	39.5	22.5	92

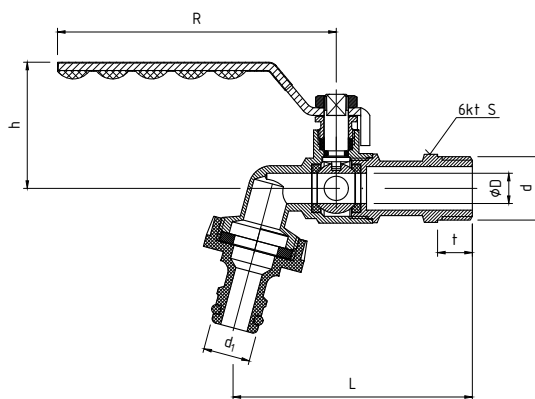
MATERIALS

- BODY, SCREW-PLUG, UNION NUT:** CW617N brass with nickel-plated exterior
- BALLS:** CW617N brass with chrome plating
- STEMS, GLAND, SCREW-PLUG:** brass
- BALL SEALS, STEM SEAL:** PTFE (Teflon)
- STEM SEAL O-rings:** NBR
- UNION GASKET:** NBR flat gasket
- HANDLE:** carbon steel with red cladding
- HOSE END (COUPLING):** stainless steel
- NOZZLE - QUICK-CONNECTOR:** ABS plastic



PHA-070

**FROSTPROOF BALL VALVE
DRAW-OFF WITH GLAND
WITH QUICK-RELEASE
HOSE COUPLING**



PARAMETERS

T _{MAX}	P _{MAX}	GZ by
+120°C	1.0 MPa	ISO 228

Technical data



Dimensions in mm

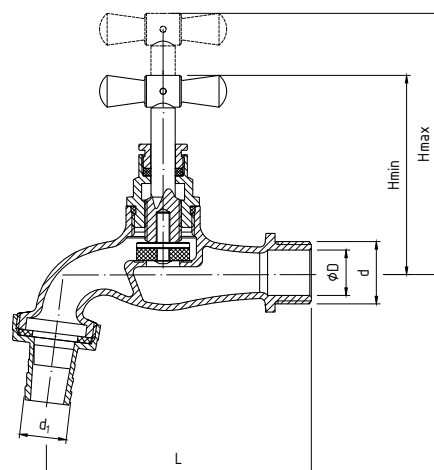
index	size	DN	d	d ₁	øD	h	R	L	t	S	t	S
01-070-0150-000	1/2"	15	G1/2	15	10	43	92	90	11.5	22.5	11.5	22.5
01-070-0200-000	3/4"	20	G3/4	15	12	44	92	100	12.0	28	12.0	28

MATERIALS

BODY, SCREW PLUG: CW617N brass with nickel-plated exterior
BALL: CW617N brass with chrome plating
BALL SEALS, STEM SEAL: PTFE (Teflon)
UNION GASKET: NBR flat gasket
HANDLE: stainless steel with black lining
QUICK-RELEASE COUPLING END: ABS plastic

PHA-015

**DRAW-OFF POPPET
VALVE BRASS
CHROME-PLATED**



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+90°C	+1°C	1.0 MPa	ISO 228

Technical data

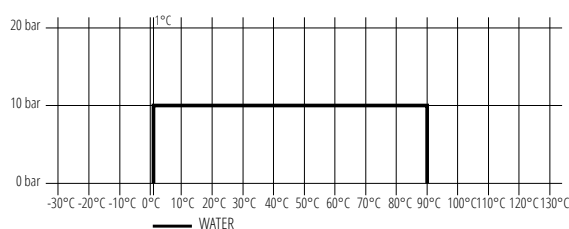


Dimensions in mm

index	size	DN	d	d ₁	øD	L	t	H _{min}	H _{max}
01-015-0150-000	1/2"	15	G1/2	14	15	94	12	65	70

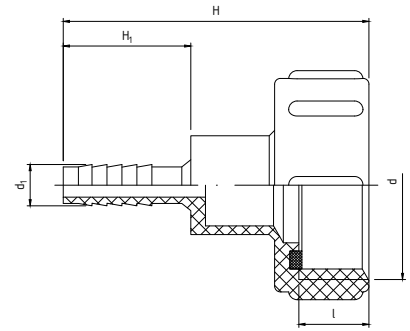
MATERIALS

BODY, STEM, COVER, HOSE COUPLING: CW617N brass with chrome plating
ROTARY PLUG INSERT: CW617N brass
HANDLE: brass with chrome plating
LID SEAL: "O"-type sealing ring - NBR
STEM SEALING: PTFE (Teflon)
VALVE HEAD GASKET, COUPLING GASKET: NBR



ADAPTER WITH PIPE CONNECTOR

ADAPTER (REDUCTION) FOR IBC TANK WITH HOSE CONNECTOR



Technical data



Dimensions in mm

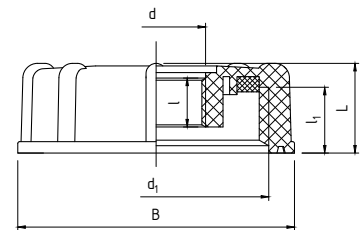
index	size	DN	d ₁	d	H	H ₁	L
01-009-0140-010	Φ 14	S60x6	S60x6	Ø 13.8	102.1	42.6	18

MATERIALS

ADAPTER: polypropylene

ADAPTER

ADAPTER (REDUCTION) FOR IBC TANK



Technical data



Dimensions in mm

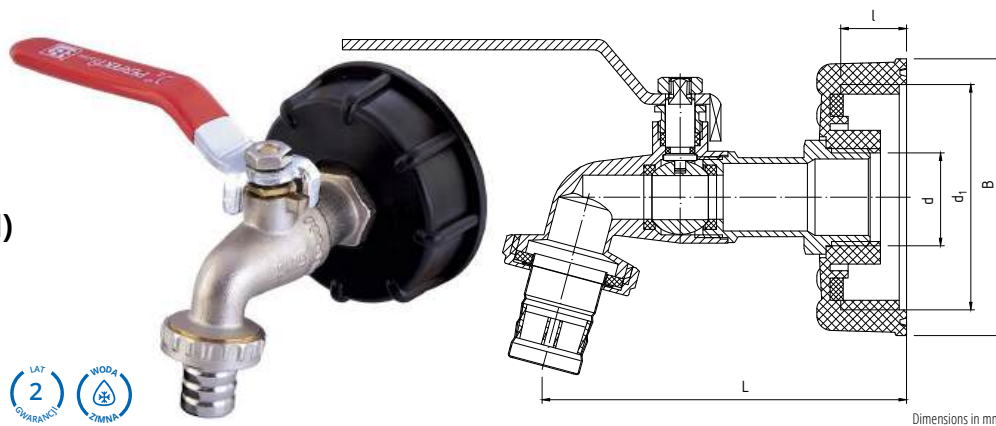
index	size	DN	d	d ₁	l	l ₁	L	B
01-009-0150-010	1/2"	15	G1/2	S60x6	13.3	17.9	24.4	73
01-009-0200-010	3/4"	20	G3/4	S60x6	13.3	17.9	24.4	75.3
01-009-0250-010	1"	25	G1	S60x6	13.3	17.9	24.4	75.3

MATERIALS

ADAPTER: polypropylene

09 - TAP WITH ADAPTER

DRAW-OFF BALL TAP WITH ADAPTER (REDUCTION) FOR IBC TANK



Technical data

index	size	d	d ₁	L	l	B
01-009-0150-011	1/2"	G1/2	S60x6	89.3	18	73
01-009-0200-011	3/4"	G3/4	S60x6	99.4	18	75.3

MATERIALS

BODY, SCREW-PLUG, UNION NUT: CW617N brass with nickel-plated exterior

BALL: CW617N brass with chrome plating

STEM, GLAND: brass

BALL SEALS, STEM SEAL: PTFE (Teflon)

UNION GASKET: NBR flat gasket

HANDLE: carbon steel with red cladding

HOSE END: stainless steel

ADAPTER: polypropylene

BRASS COUPLINGS

USE

Brass and chrome-plated brass couplings are designed for connecting tubes and fittings made of copper, copper alloys, steel or cast iron with threaded ends according to the PN-EN ISO 228-1:2005 standard and are used in installations of:

- central heating
- cold and hot water supply (including drinking water)
- refrigeration and solar systems filled with 50% glycol (chilled water) solution

Brass fittings **can be installed in vertical, horizontal and inclined pipelines in any position.** In case of fasteners without gaskets on threaded ends, sealing agents meeting the requirements of PN-EN 751-1:2005, PN-EN 751-2:2005, PN-EN 751-3:2005 should be used to seal the connections.

PARAMETERS

Brass and chrome-plated brass connectors from Perfexim have the adequate documents which are confirmations of tests carried out by the Oil and Gas Institute - National Research Institute in Krakow.

Due to the positive test results - the application of brass fittings is much wider at the following operating parameters:

- minimum operating temperature: -30°C
- maximum operating pressure: 1.6MPa (16 bar)
- maximum operating temperature: +180°C for connectors with a solid body, and +120°C for pipe unions.

SPECIAL FEATURES

- robust thickened **walls to increase strength** of connectors
- thread lengths selected to allow **easy and robust joining**
- **high-grade brass** European CW617N and CW614N
- **wide range of applications** in terms of temperature (-30°C ÷ +180°C)
- can be **used in solar and refrigeration systems**

ADVANTAGES

- wide range of applications for high quality products
- **10 year guarantee PERFEKT^{SYSTEM} 6 year guarantee for remaining ones**
- performance and application **confirmed by tests** carried by the Oil and Gas Institute - National Research Institute in Krakow
- Temperature range from -30°C to as high as +180°C
- can operate at 16 bar
- approved for **contact with drinking water** - Certified by the National Institute of Hygiene
- Possibility to operate in systems filled with 50% glycol solution

MATERIALS

BODY, CONNECTOR*, NUT*: CW617N brass
(for chrome-plated connectors)

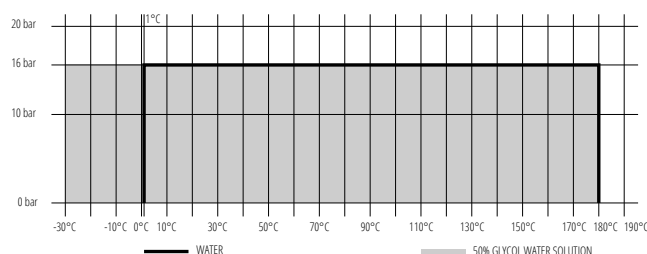
COUPLING GASKET*: O-ring - NBR

* - pipe unions

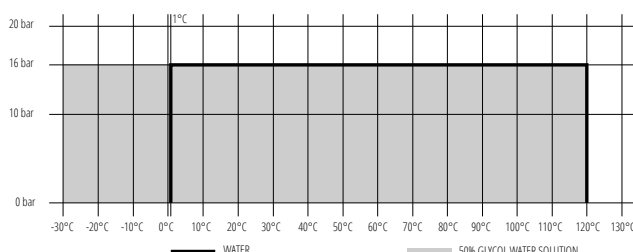


* 10 years guarantee **PERFEKT^{SYSTEM}**
6 year guarantee for remaining ones

BRASS COUPLINGS WITH SOLID BODY

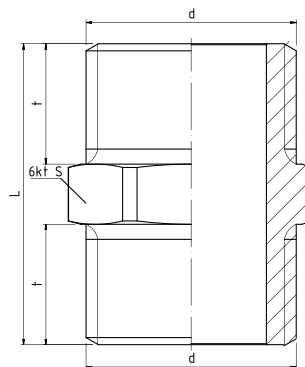


BRASS COUPLINGS - PIPE UNIONS



PHA-304

**PERFEKT^{SYSTEM}
BRASS NIPPLE
STRENGTHENED**



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GZ by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

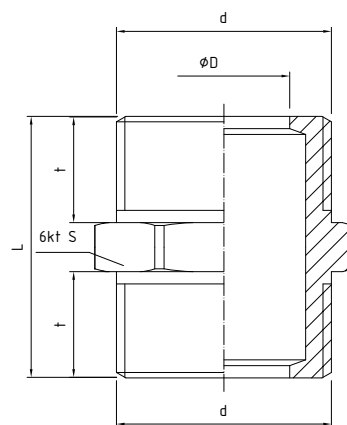


Dimensions in mm

index	size	d	L	t	S
07-004-0100-000	3/8"	G3/8	24	10	18
07-004-0150-000	1/2"	G1/2	30	12	22
07-004-0200-000	3/4"	G3/4	32	13	28
07-004-0250-000	1"	G1	38	15	34
07-004-0320-000	1 1/4"	G1 1/4	40	16	42
07-004-0400-000	1 1/2"	G1 1/2	46	18	48
07-004-0500-000	2"	G2	52	20	60

PHA-304/S

**PERFEKT^{SYSTEM}
BRASS NIPPLE
STRENGTHENED
ADAPTED FOR THE
FLAT GASKET**



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GZ by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

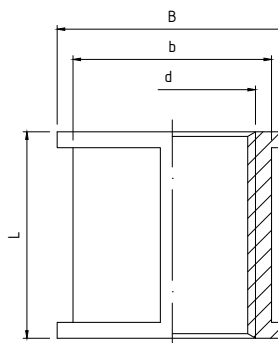


Dimensions in mm

index	size	d	phi D	L	t	S
07-004-0150-100	1/2"	G1/2	13.1	30	12	22
07-004-0200-100	3/4"	G3/4	16.1	32	13	28
07-004-0250-100	1"	G1	21.1	35	14.5	32

PHA-305

PERFEKT^{SYSTEM}
BRASS MUFF
STRENGTHENED



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

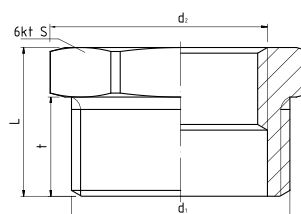


Dimensions in mm

index	size	d	L	B	b
07-005-0100-000	3/8"	G3/8	22	22.5	20
07-005-0150-000	1/2"	G1/2	26	29.0	25
07-005-0200-000	3/4"	G3/4	28	35.0	31
07-005-0250-000	1"	G1	32	44.0	39
07-005-0320-000	1 1/4"	G1 1/4	36	54.0	49
07-005-0400-000	1 1/2"	G1 1/2	40	59.0	54
07-005-0500-000	2"	G2	44	71.0	66

PHA-306

PERFEKT^{SYSTEM}
REDUCTION
BRASS STRENGTHENED



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

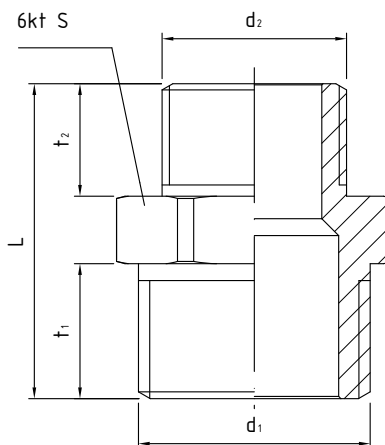


Dimensions in mm

index	size	d ₁	d ₂	L	t	S
07-006-1510-000	1/2"x3/8"	G1/2	G3/8	16	10	22
07-006-2015-000	3/4"x1/2"	G3/4	G1/2	18	12	28
07-006-2515-000	1"x1/2"	G1	G1/2	20	12	34
07-006-2520-000	1"x3/4"	G1	G3/4	20	12	34
07-006-3220-000	1 1/4"x3/4"	G1 1/4	G3/4	24	16	42
07-006-3225-000	1 1/4"x1"	G1 1/4	G1	24	16	42
07-006-4025-000	1 1/2"x1"	G1 1/2	G1	30	20	48
07-006-4032-000	1 1/2"x1 1/4"	G1 1/2	G1 1/4	30	20	48
07-006-5025-000	2"x1"	G2	G1	34	22	60
07-006-5032-000	2"x1 1/4"	G2	G1 1/4	34	22	60
07-006-5040-000	2"x1 1/2"	G2	G1 1/2	34	22	60

PHA-307

PERFEKT^{SYSTEM}
REDUCTION
NIPPLE BRASS
STRENGTHENED



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

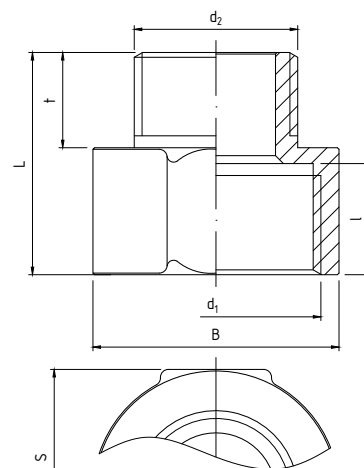


Dimensions in mm

index	size	d ₁	d ₂	L	t ₁	t ₂	S
07-007-1510-000	½"x¾"	G½	G¾	28	12	10	22
07-007-2015-000	¾"x½"	G¾	G½	32	14	12	28
07-007-2515-000	1"x½"	G1	G½	35	15	12	34
07-007-2520-000	1"x¾"	G1	G¾	36	15	13	34
07-007-3225-000	1¼"x1"	G1¼	G1	39	16	15	42
07-007-4025-000	1½"x1"	G1½	G1	43	18	15	48
07-007-5025-000	2"x1"	G2	G1	47	20	15	60
07-007-5032-000	2"x1¼"	G2	G1¼	48	20	16	60
07-007-5040-000	2"x1½"	G2	G1½	50	20	18	60

PHA-308

PERFEKT^{SYSTEM}
MUFF-NIPPLE
REDUCTION, BRASS,
STRENGTHENED



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

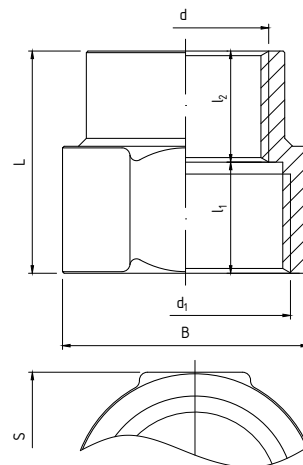


Dimensions in mm

index	size	d ₁	d ₂	L	t	l	B	S
07-008-1510-000	½"x¾"	G½	G¾	24	10	12	25.0	25
07-008-2015-000	¾"x½"	G¾	G½	28	12	14	31.0	31
07-008-2520-000	1"x¾"	G1	G¾	31	13	15	39.0	39

PHA-309

PERFEKT^{SYSTEM}
REDUCTION MUFF,
BRASS REIN-
FORCED



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

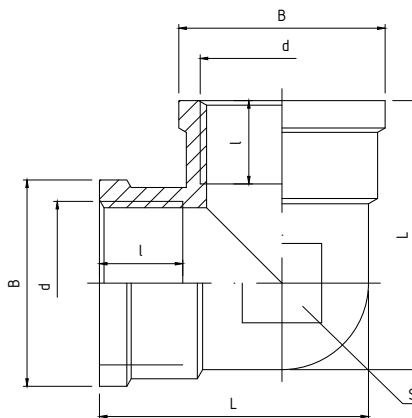


Dimensions in mm

index	size	d ₁	d ₂	L	l ₁	l ₂	B	S
07-009-1510-000	1/2"x3/8"	G1/2	G3/8	24	12	12	25	25
07-009-2015-000	3/4"x1/2"	G3/4	G1/2	28	14	14	31	31
07-009-2520-000	1"x3/4"	G1	G3/4	31	15	16	39	39

PHA-310

PERFEKT^{SYSTEM}
BRASS ELBOW
REINFORCED



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

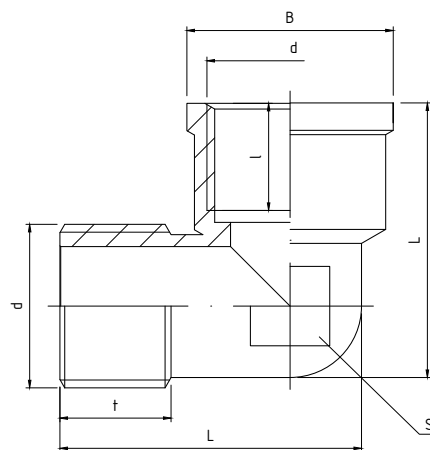


Dimensions in mm

index	size	d	L	l	B	S
07-010-0100-000	3/8"	G3/8	28.8	9.0	22.5	17.8
07-010-0150-000	1/2"	G1/2	33.9	10.5	26.0	21.8
07-010-0200-000	3/4"	G3/4	41.4	11.5	33.5	27.8
07-010-0250-000	1"	G1	51.0	13.5	42.0	35
07-010-0320-000	1 1/4"	G1 1/4	60.0	14.5	50.5	44
07-010-0400-000	1 1/2"	G1 1/2	70.0	16.5	57.0	51
07-010-0500-000	2"	G2	83.4	18.5	69.0	62.8

PHA-311

PERFEKT^{SYSTEM}
ELBOW BRASS
REINFORCED WZ



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ/GW by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

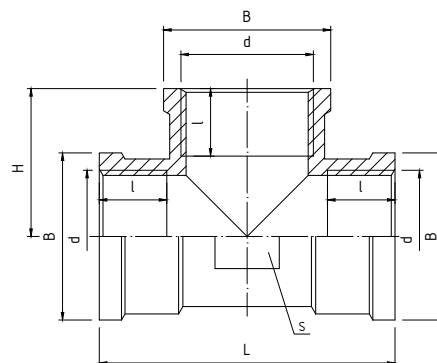


Dimensions in mm

index	size	d	L	t	l	H	B	S
07-011-0100-000	3/8"	G3/8	28.5	10	9.0	27.2	22.5	14.5
07-011-0150-000	1/2"	G1/2	38	14	13.5	34.6	26.0	18.0
07-011-0200-000	3/4"	G3/4	43.8	15	13.5	41.5	33.5	24.0
07-011-0250-000	1"	G1	52.7	16	15	48.5	42.0	30.0
07-011-0320-000	1 1/4"	G1 1/4	60.5	16	14.5	58.5	50.5	38.5
07-011-0400-000	1 1/2"	G1 1/2	68.8	18	16.5	66.8	57.0	44.6
07-011-0500-000	2"	G2	82.5	20	18.5	80.0	69.0	56.0

PHA-312

PERFEKT^{SYSTEM}
BRASS TEE
STRENGTHENED



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

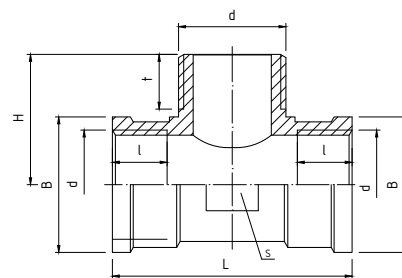


Dimensions in mm

index	size	d	L	l	H	B	S
07-012-0100-000	3/8"	G3/8	39.8	9.0	20.0	22.5	17.8
07-012-0150-000	1/2"	G1/2	46	10.5	23.0	26.0	21.8
07-012-0200-000	3/4"	G3/4	55	11.5	27.5	33.5	27.8
07-012-0250-000	1"	G1	67	13.5	33.5	42.0	35
07-012-0320-000	1 1/4"	G1 1/4	76	14.5	38.0	50.5	44
07-012-0400-000	1 1/2"	G1 1/2	89	16.5	44.5	57.0	51
07-012-0500-000	2"	G2	104	18.5	52.0	69.0	62.8

PHA-313

PERFEKT^{SYSTEM}
BRASS TEE
REINFORCED WZ



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ/GW by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

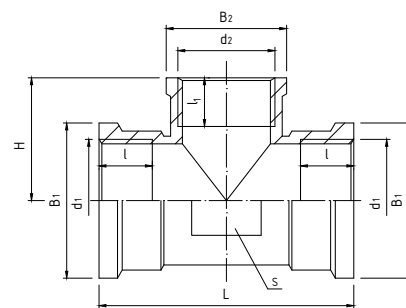


Dimensions in mm

index	size	d	L	t	l	H	B	S
07-013-0100-000	3/8"	G3/8	39.8	10	9.0	21.2	22.5	17.8
07-013-0150-000	1/2"	G1/2	46	12	10.5	25.0	26.0	21.8
07-013-0200-000	3/4"	G3/4	55	13	11.5	30.3	33.5	27.8
07-013-0250-000	1"	G1	67	15	13.5	36.0	42.0	35

PHA-314

PERFEKT^{SYSTEM}
REDUCTION TEE
BRASS STRENGTHENED



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

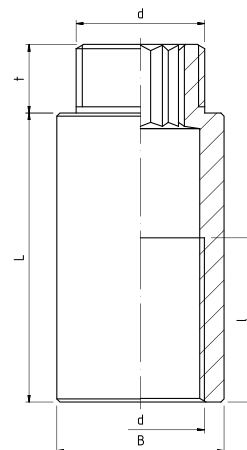


Dimensions in mm

index	size	d ₁	d ₂	L	l	l ₁	H	B ₁	B ₂	S
07-014-2015-000	3/4" x 1/2"	G3/4	G1/2	55	11.5	10.5	26.5	33.5	26.0	27.8
07-014-2515-000	1" x 1/2"	G1	G1/2	67	13.5	10.5	29.8	42.0	26.0	35
07-014-2520-000	1" x 3/4"	G1	G3/4	67	13.5	11.5	30.0	42.0	33.5	35

PHA-315

PERFEKT^{SYSTEM}
PIPE EXTENSION
BRASS STRENGTHENED WZ



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ/GW by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

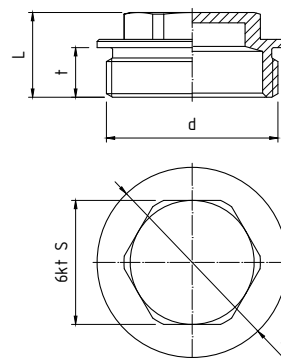


Dimensions in mm

index	size	d	L	l	t	B
07-015-1015-000	1/2"x10	G1/2	11	8.1	10.8	26.6
07-015-1515-000	1/2"x15	G1/2	15	11.5	10.8	26.6
07-015-2015-000	1/2"x20	G1/2	20	16.0	10.8	26.6
07-015-2515-000	1/2"x25	G1/2	25	22.5	10.8	26.6
07-015-3015-000	1/2"x30	G1/2	30	27.5	10.8	26.6
07-015-4015-000	1/2"x40	G1/2	40	37.5	10.8	26.6
07-015-5015-000	1/2"x50	G1/2	50	47.5	10.8	26.6

PHA-316

PERFEKT^{SYSTEM}
PLUG STRENGTHENED



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ/GW by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

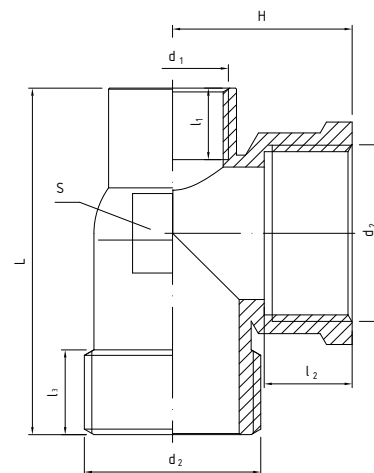


Dimensions in mm

index	size	d	D	L	S	t
07-016-0320-000	1 1/4"	G1 1/4	46	20.5	30	9.5
07-016-0400-000	1 1/2"	G 1 1/2"	54	23	32	11

PHA-318

PERFEKT^{SYSTEM}
REINFORCED TEE
FOR VENT



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ/GW by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

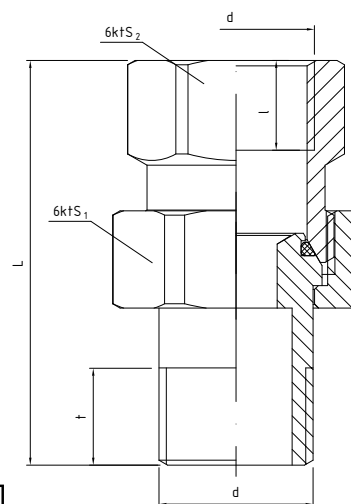


index	size	d1	d2	L	H	l1	l2	l3
07-018-2515-000	1"x1/2"	G1/2	G1	65.4	33.7	13.5	15	16

Dimensions in mm

PHA-300

PERFEKT^{SYSTEM}
PIPE JOINT
STRAIGHT O-RING
BRASS REINFORCED



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ/GW by
+120°C	-30°C	1.6 MPa	ISO 228

Technical data



index	size	d	L	t	l	S ₁	S ₂
07-000-0150-000	1/2"	G1/2	55	13.0	12.0	30	26
07-000-0200-000	3/4"	G3/4	60	14.5	13.5	38	32
07-000-0250-000	1"	G1	65	17.5	15.0	46	40

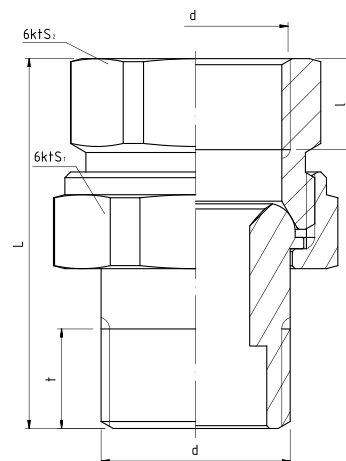
Dimensions in mm

PHA-301

PERFEKT^{SYSTEM}



STRAIGHT PIPE JOINT CONE BRASS STRENGTHENED



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ/GW by
+120°C	-30°C	1.6 MPa	ISO 228

Technical data



Dimensions in mm

index	size	d	L	t	l	S ₁	S ₂
07-001-0150-000	½"	G½	55	13.0	12.0	30	26
07-001-0200-000	¾"	G¾	60	13.5	14.5	38	32
07-001-0250-000	1"	G1	65	15.0	17.5	46	40

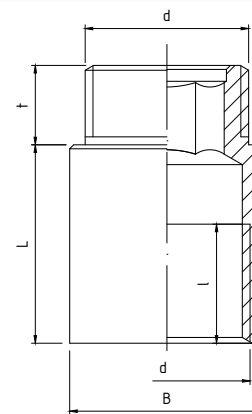
502G

BRASS PIPE EXTENSION WZ



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ/GW by
+180°C	-30°C	1.6 MPa	ISO 228



Dimensions in mm

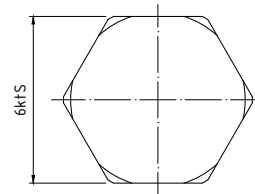
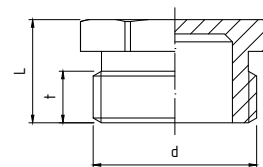
Technical data



index	size	d	L	t	l	B
07-220-1510-000	½"x10	G½	10.5	10	8.0	24.5
07-220-1515-000	½"x15	G½	15.0	10	11.0	24.5
07-220-1520-000	½"x20	G½	20.0	10	15.0	24.5
07-220-1525-000	½"x25	G½	25.0	10	15.0	24.5
07-220-1530-000	½"x30	G½	30.0	10	20.0	24.5
07-220-1540-000	½"x40	G½	40.0	10	26.0	24.5
07-220-1550-000	½"x50	G½	50.0	10	26.0	24.5
07-220-1560-000	½"x60	G½	60.0	10	26.0	24.5
07-220-1580-000	½"x80	G½	80.0	10	26.0	24.5
07-220-1599-000	½"x100	G½	100.0	10	26.0	24.5
07-220-2010-000	¾"x10	G¾	10.0	10	7.5	29.8
07-220-2015-000	¾"x15	G¾	25.0	10	12.0	29.8
07-220-2020-000	¾"x20	G¾	20.0	10	17.0	29.8
07-220-2030-000	¾"x30	G¾	30.0	10	27.0	29.8
07-220-2040-000	¾"x40	G¾	40.0	10	30.0	29.8
07-220-2050-000	¾"x50	G¾	50.0	10	30.0	29.8

5101

BRASS PLUG GZ



Dimensions in mm

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+180°C	-30°C	1.6 MPa	ISO 228

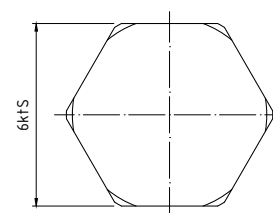
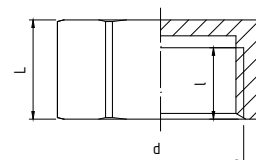
Technical data



index	size	d	L	t	S
07-201-0100-000	3/8"	G3/8	11.0	5.5	17
07-201-0150-000	1/2"	G1/2	13.0	6.5	21
07-201-0200-000	3/4"	G3/4	14.5	7.5	27
07-201-0250-000	1"	G1	16.0	8.5	33

5102

BRASS BLANKING PLUG GW



Dimensions in mm

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+180°C	-30°C	1.6 MPa	ISO 228

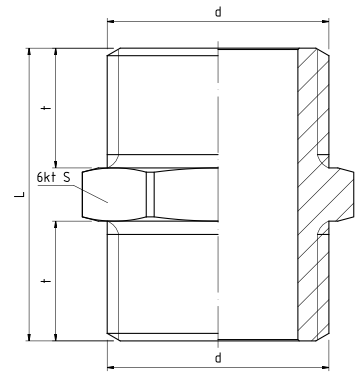
Technical data



index	size	d	L	l	S
07-202-0100-000	3/8"	G3/8	PLN 12.0 -	10.0	19.0
07-202-0150-000	1/2"	G1/2	12.5	10.5	23.0
07-202-0200-000	3/4"	G3/4	14.0	12.0	29.0
07-202-0250-000	1"	G1	15.0	13.0	36.0
07-202-0320-000	1 1/4"	G1 1/4	15.0	12.0	46.5

5105

BRASS NIPPLE



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

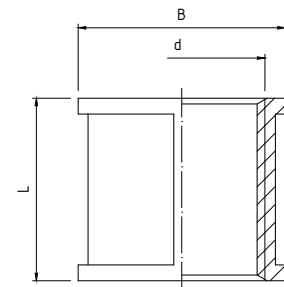


Dimensions in mm

index	size	d	L	t	S
07-205-0100-000	3/8"	G3/8	PLN 22.0 –	9.0	18
07-205-0150-000	1/2"	G1/2	25.0	10.5	22
07-205-0200-000	3/4"	G3/4	29.0	12.0	28
07-205-0250-000	1"	G1	31.5	13.0	34
07-205-0320-000	1 1/4"	G1 1/4	32.0	13.0	42

5108

BRASS MUFF



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

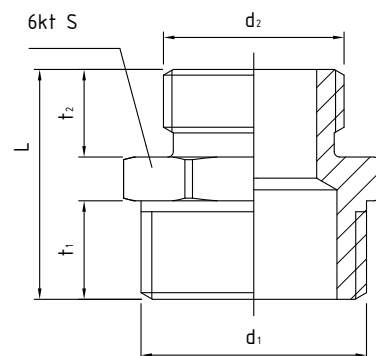
T _{MAX}	T _{MIN}	P _{MAX}	GW by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data



Dimensions in mm

index	size	d	L
07-208-0150-000	1/2"	G1/2	PLN 23.0 –
07-208-0200-000	3/4"	G3/4	26.0
07-208-0250-000	1"	G1	29.5
07-208-0320-000	1 1/4"	G1 1/4	34.0

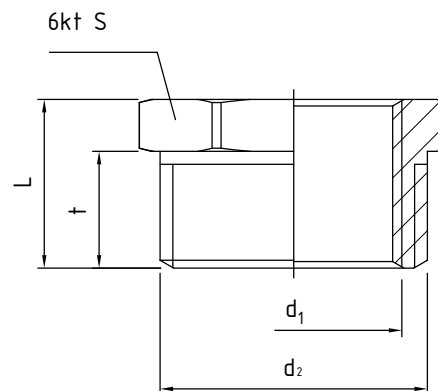
5109**BRASS REDUCTION NIPPLE****PARAMETERS (ACCORDING TO THE P-T DIAGRAM)**

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

Dimensions in mm

index	size	d ₁	d ₂	L	t ₁	t ₂	S
07-209-1510-000	½"x¾"	G½	G¾	PLN 21.0 –	9	5.8	21
07-209-1520-000	¾"x½"	G¾	G½	23.5	10	6.8	26
07-209-2025-000	1"x¾"	G1	G¾	27.0	12	7.8	33

5110**BRASS REDUCTION****PARAMETERS (ACCORDING TO THE P-T DIAGRAM)**

T _{MAX}	T _{MIN}	P _{MAX}	GZ/GW by
+180°C	-30°C	1.6 MPa	ISO 228

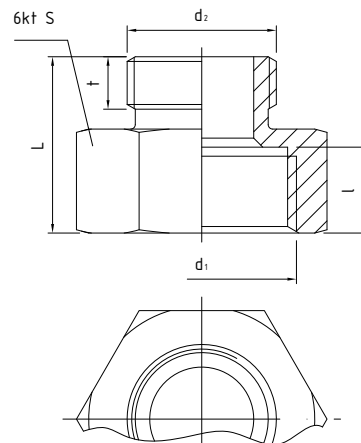
Technical data

Dimensions in mm

index	size	d ₁	d ₂	L	t	S
07-210-1008-000	¾"x¼"	G¼	G¾	PLN 14.5 –	9.5	17.5
07-210-1508-000	½"x¼"	G¼	G½	17.0	11.0	21.0
07-210-1510-000	½"x¾"	G½	G¾	13.0	9.0	21.0
07-210-2015-000	¾"x½"	G¾	G½	15.0	10.0	26.0
07-210-1525-000	½"x1"	G1	G½	17.5	11.8	33.0
07-210-2025-000	¾"x1"	G1	G¾	17.5	11.8	33.0
07-210-2532-000	1"x1¼"	G1¼	G1	20.0	13.0	42.0

5111

BRASS MUFF-NIPPLE REDUCTION



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW/GZ by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

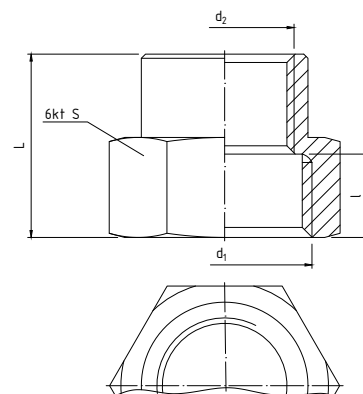


Dimensions in mm

index	size	d ₁	d ₂	L	t	l	S
07-211-1510-000	½"x¾"	G½	G¾	PLN 19.5 –	5.8	9.5	24
07-211-2015-000	¾"x½"	G¾	G½	21.5	6.8	10.5	29
07-211-1525-000	½"x1"	G1	G½	25.0	7.8	12.5	36
07-211-2025-000	¾"x1"	G1	G¾	25.0	7.8	12.5	36
07-211-3225-000	1¼"x1"	G1¼	G1	29.0	9.6	14.0	45

5112

BRASS REDUCTION MUFF



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

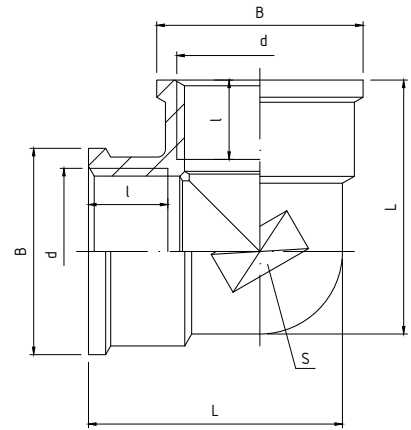
TMAX	TMIN	PMAX	GW/GZ by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data



Dimensions in mm

index	size	d ₁	d ₂	L	l	S
07-212-1510-000	½"x¾"	G½	G¾	PLN 22.0 –	10.3	24
07-212-2015-000	¾"x½"	G¾	G½	23.0	11.3	30
07-212-2515-000	1"x½"	G1	G½	25.5	13.5	37
07-212-2520-000	1"x¾"	G1	G¾	26.5	13.5	37

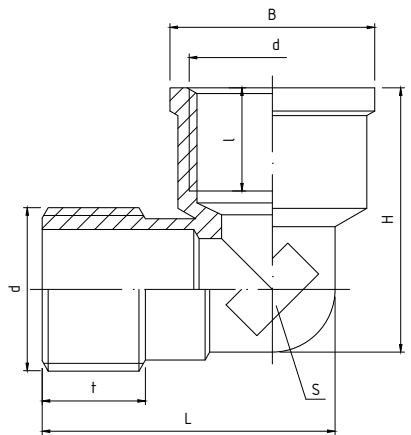
5113**BRASS ELBOW****PARAMETERS (ACCORDING TO THE P-T DIAGRAM)**

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

Dimensions in mm

index	size	d	L	l	B	S
07-213-0100-000	3/8"	G3/8	28	10.0.	22	17
07-213-0150-000	1/2"	G1/2	32	11.5	26	21
07-213-0200-000	3/4"	G3/4	39	13.0	32	27
07-213-0250-000	1"	G1	49	15.0	39	33

5114**BRASS ELBOW WZ****PARAMETERS (ACCORDING TO THE P-T DIAGRAM)**

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+180°C	-30°C	1.6 MPa	ISO 228

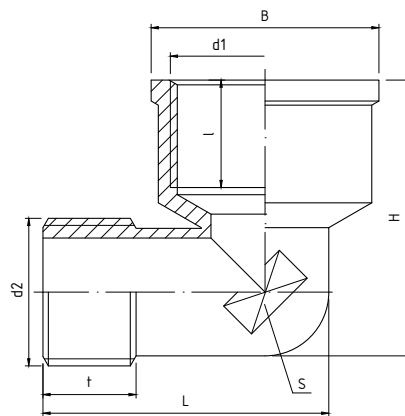
Technical data

Dimensions in mm

index	size	d	L	t	l	H	B	S
07-214-0100-000	3/8"	G3/8	PLN 30.9 –	10	12	29.9	21.5	13.3
07-214-0150-000	1/2"	G1/2	36.9	13	14.5	33.3	25.8	16.3
07-214-0200-000	3/4"	G3/4	42.9	14	16	39.9	31.8	23.3
07-214-0250-000	1"	G1	51.9	15	16	44.4	38.8	27.2

5115

BRASS ELBOW REDUCTION WZ



Dimensions in mm

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data



index	size	d ₁	d ₂	h ₁	h ₂	t	(k)	D
07-215-2015-000	¾" x ½"	¾"	½"	PLN 29,6 –	31	15	13	31.8
07-215-2520-000	1" x ¾"	1"	¾"	31	35	15	14	38.8

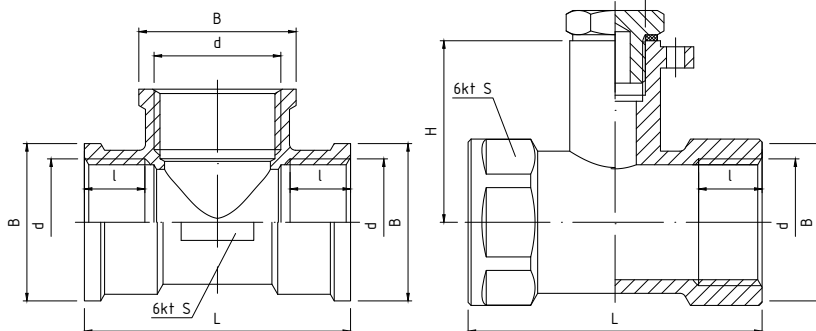
5116

BRASS TEE



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+180°C	-30°C	1.6 MPa	ISO 228



Article 5116 ½"xM10 has a hole ø3 for fitting a seal
Dimensions in mm

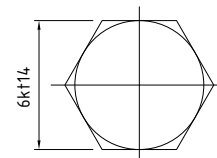
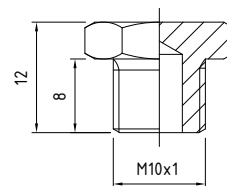
Technical data



index	size	d	M	L	l	H	B	S
07-216-0150-000	½"	G½	x	44.0	11.5	22	26.0	21
07-216-0200-000	¾"	G¾	x	52.0	13.5	26	32.0	27
07-216-0250-000	1"	G1	x	66.0	16.5	34	39.0	32
07-216-1510-000	½"xM10	G½	M10x1	48.6	10.5	30	27.5	25

5116/CZ

M10 PLUG



DATA

index	size
07-216-1510-001	M10x1

MATERIALS

BODY: brass
GASKET: PTFE

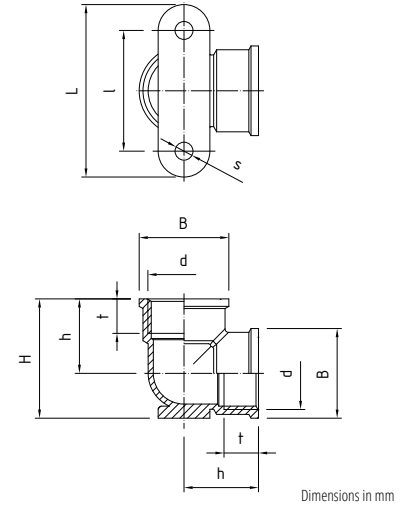


5118

BRASS ELBOW WITH WW ATTACHMENT

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+180°C	-30°C	1.6 MPa	ISO 228



Technical data



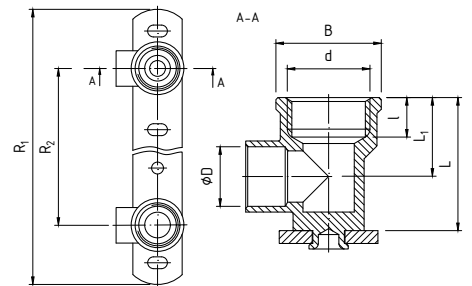
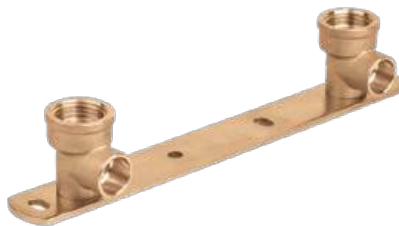
index	size	d	B	t	h	H	l	L	s
07-218-0150-000	½"	½"	26	10	31	34.6	35	50	5

5119

MOUNTING STRIP FOR BATTERIES

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+110°C	+1°C	1.6 MPa	ISO 228



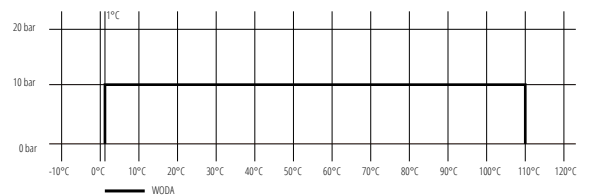
Technical data



index	size	d	ØD	L	L ₁	l	B	R ₁	R ₂
07-221-0100-000	15x½x100	G½	15	33.7	20	10	26.7	100	160
07-221-0150-000	15x½x150	G½	15	33.7	20	10	26.7	150	210

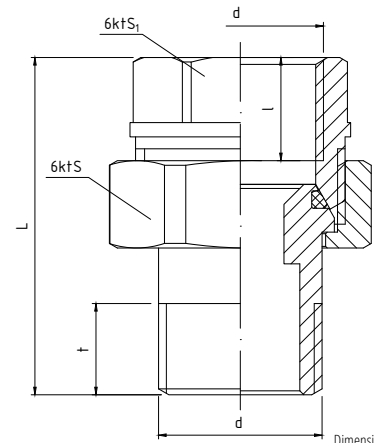
MATERIALS

ELBOWS: CW617N brass
MOUNTING STRIP: galvanised carbon steel



1046

STRAIGHT PIPE JOINT, BRASS O-RING



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW/GZ by
+120°C	-30°C	1.6 MPa	ISO 228

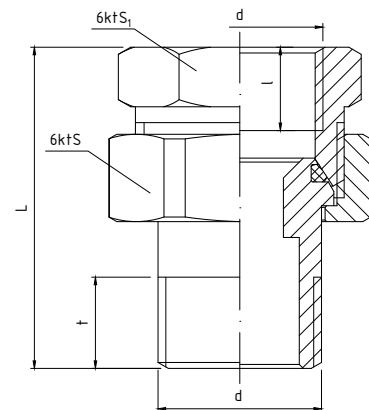
Technical data



index	size	d	L	t	l	s	S ₁
07-146-0100-000	3/8"	G3/8	PLN 39.0 -	13.0	10.5	26	20.0
07-146-0150-000	1/2"	G1/2	42.0	11.5	13.0	30	24.0
07-146-0200-000	3/4"	G3/4	46.5	13.0	13.0	36	30.0
07-146-0250-000	1"	G1	55.0	16.0	14.5	46	37.0
07-146-0320-000	1 1/4"	G1 1/4	61.0	19.0	14.0	53	46.5
07-146-0400-000	1 1/2"	G1 1/2	65.7	16.5	18.0	64	54.0
07-146-0500-000	2"	G2	78.7	21.0	20.0	82	68.0

1046S

STRAIGHT PIPE JOINT, BRASS O-RING



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

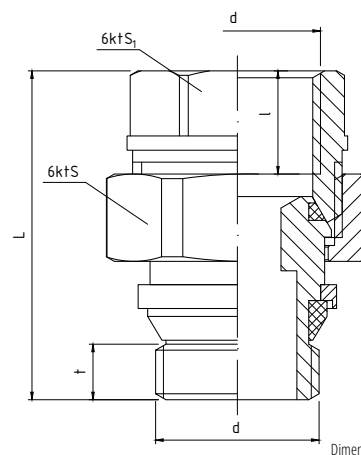
TMAX	TMIN	PMAX	GW/GZ by
+120°C	-30°C	1.6 MPa	ISO 228

Technical data



index	size	d	L	t	l	s	S ₁
07-146-0150-002	1/2"	G1/2	39.5	11.5	10.5	30.0	26.5
07-146-0200-002	3/4"	G3/4	46.8	13.0	13.0	36.0	33.0
07-146-0250-002	1"	G1	49.8	16.0	15.0	46.0	42.0

1046A

STRAIGHT PIPE JOINT,
BRASS O-RING WITH
SELF-SEALING THREAD

Dimensions in mm

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

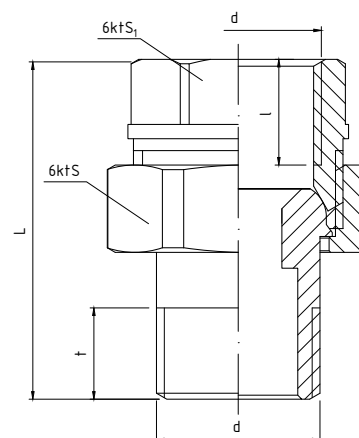
T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	-30°C	1.6 MPa	ISO 228

Technical data



index	size	d	L	t	l	S	S ₁
07-146-0150-001	1/2"	G1/2	42	11.5	13.0	30	24
07-146-0200-001	3/4"	G3/4	47	11.5	13.0	36	30
07-146-0250-001	1"	G1	55	12.5	14.5	46	37

1047

STRAIGHT PIPE JOINT,
BRASS CONE

Dimensions in mm

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	-30°C	1.6 MPa	ISO 228

Technical data



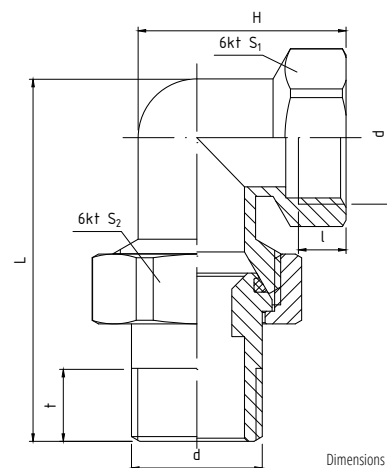
index	size	d	L	t	l	S	S ₁
07-147-0100-000	3/8"	G3/8	40.0	13.0	10.5	26	20.0
07-147-0150-000	1/2"	G1/2	42.5	11.5	13.0	30	24.0
07-147-0200-000	3/4"	G3/4	47.5	13.0	13.0	36	30.0
07-147-0250-000	1"	G1	55.0	16.0	14.5	46	37.0
07-147-0320-000	1 1/4"	G1 1/4	62.0	19.0	14.0	53	46.5
07-147-0500-000	1 1/2"	G1 1/2	66.6	16.5	18	64	54
07-147-0500-000	2"	G2	80	20	21	82	68

1048

ANGLE PIPE UNION, BRASS O-RING

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	-30°C	1.6 MPa	ISO 228



Dimensions in mm

Technical data



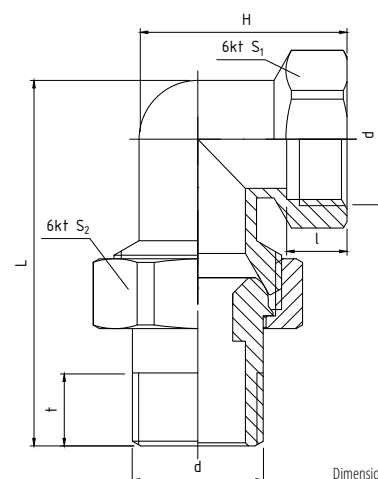
index	size	d	L	t	l	H	S ₁	S ₂
07-148-0100-000	3/8"	G3/8	PLN 52.0 –	13.0	9.0	28.0	20.5	26
07-148-0150-000	1/2"	G1/2	57.0	11.5	9.5	33.0	25.0	30
07-148-0200-000	3/4"	G3/4	68.7	13.0	10.0	37.0	30.5	36
07-148-0250-000	1"	G1	82.0	16.0	11.5	51.0	36.5	46
07-148-0320-000	1 1/4"	G1 1/4	98.0	19.0	14.0	64.5	46.0	53

1049

ANGLE PIPE UNION, BRASS CONE

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	-30°C	1.6 MPa	ISO 228



Dimensions in mm

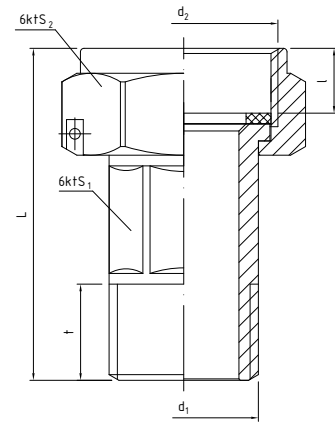
Technical data



index	size	d	L	t	l	H	S ₁	S ₂
07-149-0150-000	1/2"	G1/2	PLN 57.0 –	11.5	9.5	33	25.0	30
07-149-0200-000	3/4"	G3/4	68.7	13.0	10.0	37	30.5	36
07-149-0250-000	1"	G1	82.0	16.0	11.5	51	36.5	46

5120

PIPE UNION FOR WATER METER, BRASS



Dimensions in mm

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+90°C	+1°C	1.6 MPa	ISO 228

Technical data

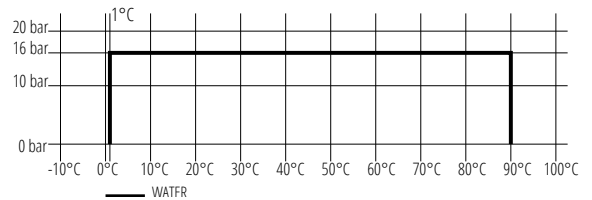


index	size	d ₁	d ₂	L	t	l	S ₁	S ₂
07-190-0150-000	½"	G½	G¾	PLN 47.0 –	13.5	9.5	18.7	30.0
07-190-0200-000	¾"	G¾	G1	54.0	12.5	9.5	22.0	36.5
07-190-0250-000	1"	G1	G1¼	65.0	16.0	10.6	30.0	45.0

MATERIALS

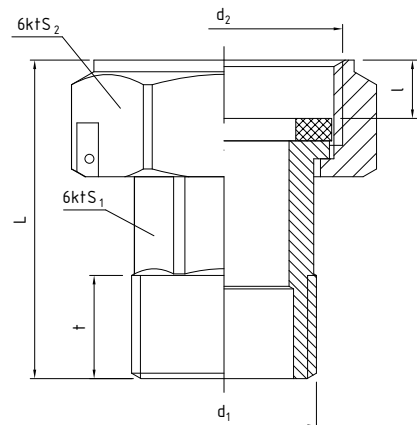
CONNECTOR, NUT: CW617N brass
 FLAT GASKET: technical fibre

The nuts of pipe joints have special holes to allow the seal to be fitted



5120S

PIPE UNION FOR WATER METER, BRASS



Dimensions in mm

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+90°C	+1°C	1.6 MPa	ISO 228

Technical data

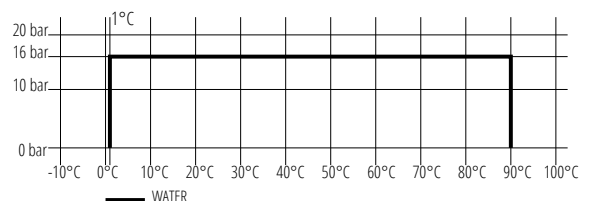


index	size	d ₁	d ₂	L	t	l	S ₁	S ₂
07-190-0151-000	½"	G½	G¾	35	11.5	9	18	30

MATERIALS

CONNECTOR, NUT: CW617N brass
 FLAT GASKET: NBR/EPDM

The nuts of pipe joints have special holes to allow the seal to be fitted

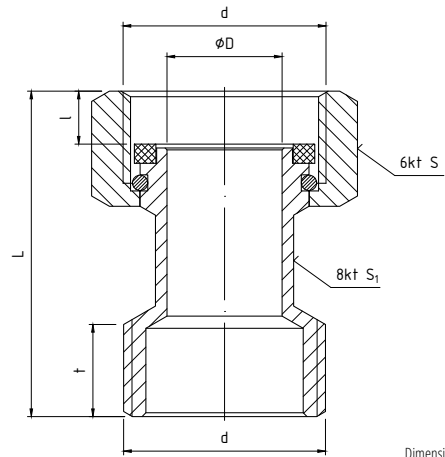


5122

STRAIGHT PIPE JOINT WITH SWIVEL NUT

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+90°C	+1°C	1.6 MPa	ISO 228



Dimensions in mm

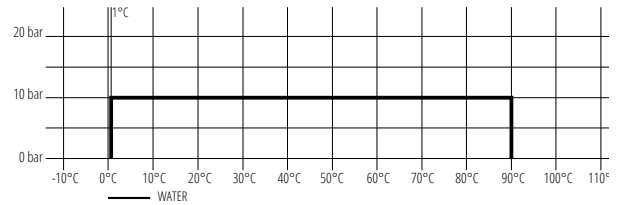
Technical data

index	size	d	D	L	l	t	S	S ₁
07-150-0150-000	½"	G½	10	40.4	7.4	12	24	13
07-150-0200-000	¾"	G¾	15	42.4	7.4	12	30	18
07-150-0250-000	1"	G1	20	46.9	8.9	12	36	24

MATERIALS

BODY, NUT: CW617N brass
RETAINING RING: AISI304 stainless steel technical fibre

SEALING: NBR or

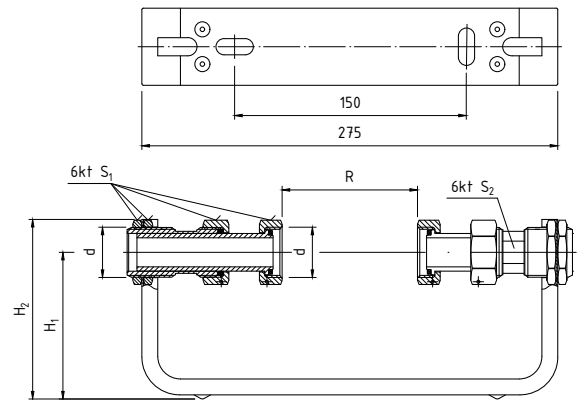
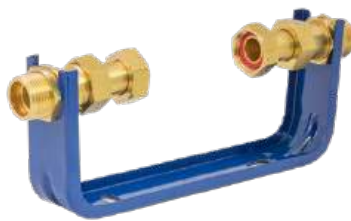


5000

WATER METER CONSOLE CARBON STEEL, WITH PAINTED COAT

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+90°C	+1°C	1.6 MPa	ISO 228



Dimensions in mm

Technical data

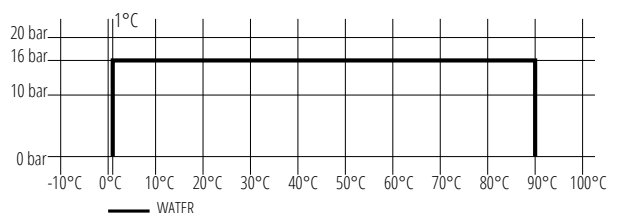
index	size	d	H ₁	H ₂	R	S ₁	S ₂
07-195-0150-000	DN15	G¾	PLN 98.4 –	119	50 to 150	30	21.8
07-195-0200-000	DN20	G1	97.2	119	50 to 150	37	27.8

MATERIALS

BODY, CONNECTOR, NUT: CW617N brass, CW614N (nut)
O-RING: EPDM/NBR technical fibre
FIXING BRACKET: carbon steel with paint finish

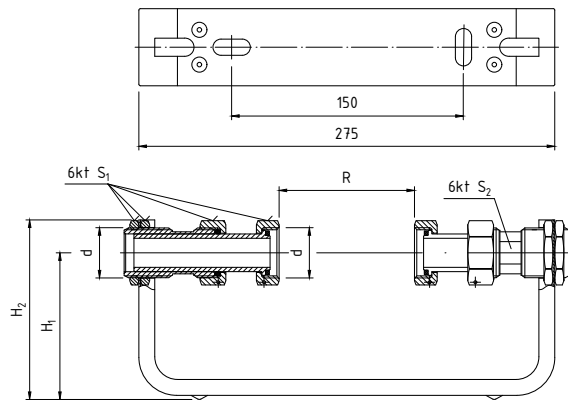
FLAT GASKET

The nuts of pipe joints have special holes to allow the seal to be fitted, mounting kit included.



5000 N

WATER METER CONSOLE OF STAINLESS STEEL



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+90°C	+1°C	1.6 MPa	ISO 228

Technical data



Dimensions in mm

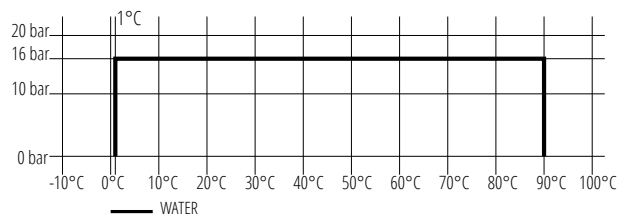
index	size	d	H ₁	H ₂	R	S ₁	S ₂
07-195-0150-001	DN15	G3/4	98,4	119	50 to 150	30	21,8
07-195-0200-001	DN20	G1	97,2	119	50 to 150	37	27,8

MATERIALS

BODY, CONNECTOR, NUT: CW617N brass, CW614N (nut)
O-RING: EPDM/NBR
 technical fibre
FIXING BRACKET: stainless steel

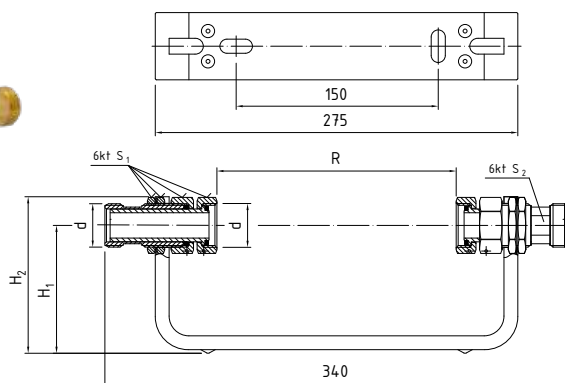
FLAT GASKET

The nuts of pipe joints have special holes to allow the seal to be fitted, mounting kit included.



5000N/A

WATER METER CONSOLE OF STAINLESS STEEL



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+90°C	+1°C	1.6 MPa	ISO 228

Technical data



Dimensions in mm

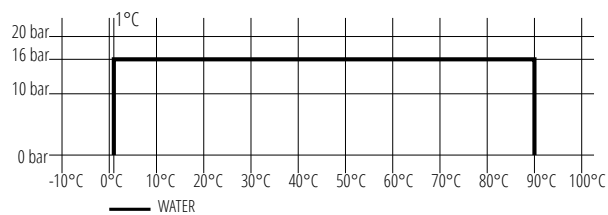
index	size	d	H ₁	H ₂	R	S ₁	S ₂
07-195-0200-002	DN20	G1	98,4	119	90 to 190	37	27,8

MATERIALS

BODY, CONNECTOR, NUT: CW617N brass
O-RING: EPDM/NBR
 technical fibre
FIXING BRACKET: stainless steel

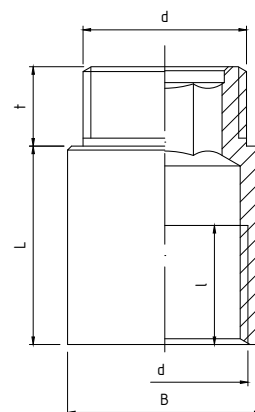
FLAT GASKET

The nuts of pipe joints have special holes to allow the seal to be fitted, mounting kit included.



502

BRASS PIPE EXTENSION CHROME PLATED WZ



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

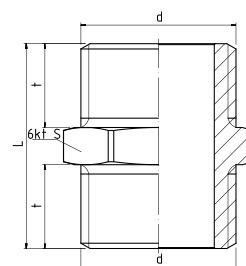


Dimensions in mm

index	size	d	L	t	l	B
07-521-1510-000	½"x10	G½	10.5	10	8.0	24.5
07-521-1515-000	½"x15	G½	15	10	12.0	24.5
07-521-1520-000	½"x20	G½	20	10	17.0	24.5
07-521-1525-000	½"x25	G½	25	10	22.0	24.5
07-521-1530-000	½"x30	G½	30	10	22.0	24.5
07-521-1540-000	½"x40	G½	40	10	26.0	24.5
07-521-1550-000	½"x50	G½	50	10	26.0	24.5
07-521-1560-000	½"x60	G½	60	10	30.0	24.5
07-521-1580-000	½"x80	G½	80	10	30.0	24.5
07-521-1599-000	½"x100	G½	100	10	30.0	24.5
07-521-2010-000	¾"x10	G¾	10	10	7.5	29.5
07-521-2020-000	¾"x20	G¾	20	10	17.0	29.5
07-521-2030-000	¾"x30	G¾	30	10	27.0	29.5
07-521-2040-000	¾"x40	G¾	40	10	30.0	29.5
07-521-2050-000	¾"x50	G¾	50	10	30.0	29.5

520

BRASS NIPPLE CHROME PLATED



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data



Dimensions in mm

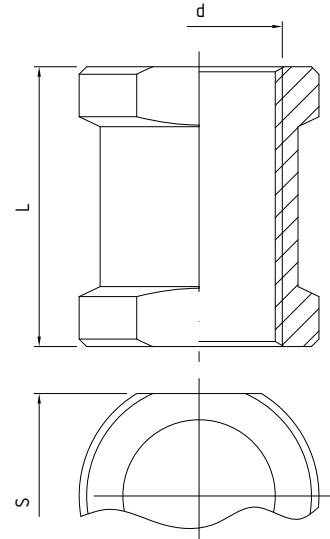
index	size	d	L	t	S
07-520-0100-000	¾"	G¾	22.7	9	17
07-520-0150-000	½"	G½	27.0	11	22
07-520-0200-000	¾"	G¾	30.0	12	26

454

BRASS MUFF CHROME PLATED

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+180°C	-30°C	1.6 MPa	ISO 228



Technical data



Dimensions in mm

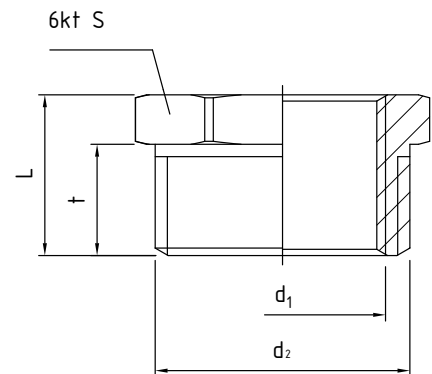
index	size	d	L	S
07-454-0100-000	3/8"	G3/8	28	20.5
07-454-0150-000	1/2"	G1/2	28	24.5
07-454-0200-000	3/4"	G3/4	33	30.8

511

BRASS REDUCTION CHROME PLATED

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+180°C	-30°C	1.6 MPa	ISO 228



Technical data

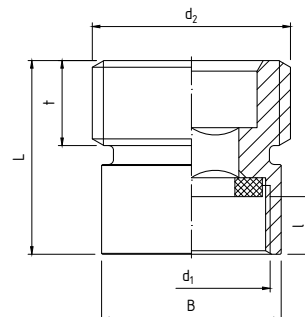


Dimensions in mm

index	size	d ₁	d ₂	L	t	S
07-511-1015-000	1/2" x 3/8"	G1/2	G3/8	16.8	12	21
07-511-1520-000	3/4" x 1/2"	G3/4	G1/2	18.5	13	26

512

BRASS REDUCTION, CHROME-PLATED WITH GASKET



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW/GZ by
+120°C	-30°C	1.6 MPa	ISO 228

Technical data



Dimensions in mm

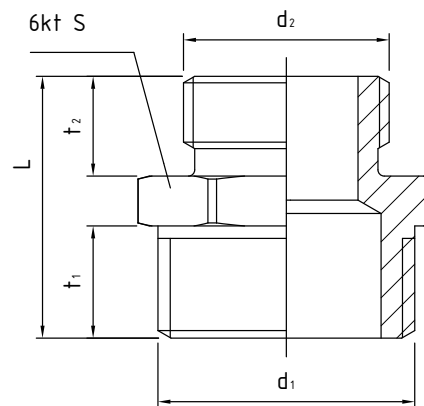
index	size	d ₁	d ₂	L	l	t	B
07-512-1015-000	3/8"x1/2"	G3/8	G1/2	20.5	6.1	9	19

DESCRIPTION

Article 512 is used to change the thread size from G3/8 to G1/2 on the connection valves.

515

BRASS REDUCTION NIPPLE CHROME PLATED



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GZ by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

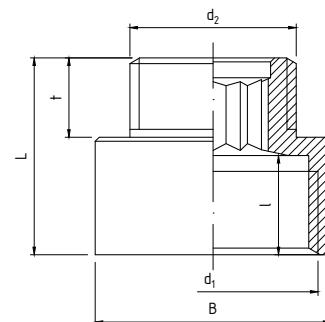


Dimensions in mm

index	size	d ₁	d ₂	L	t ₁	t ₂	S
07-515-1015-000	1/2"x3/8"	G1/2	G3/8	23.8	10	9	21
07-515-1520-000	3/4"x1/2"	G3/4	G1/2	26.0	11	10	27

506

MUFF-NIPPLE REDUCTION BRASS CHROME PLATED



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

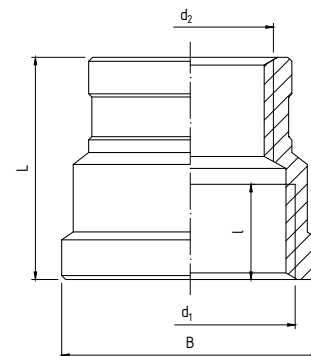


Dimensions in mm

index	size	d ₁	d ₂	L	t	l	B	S
07-506-1015-000	1/2"x3/8"	G1/2	G3/8	22.7	9	12.0	24.0	10
07-506-1520-000	3/4"x1/2"	G3/4	G1/2	24.8	10	12.5	29.7	12

510

MUFF REDUCTION BRASS CHROME PLATED



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

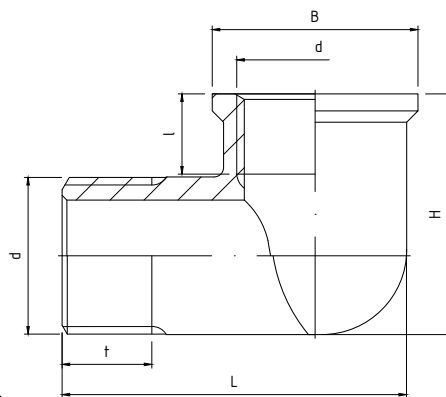


Dimensions in mm

index	size	d ₁	d ₂	L	l	B
07-510-1015-000	1/2"x3/8"	G1/2	G3/8	27	13.5	26.0
07-510-1520-000	3/4"x1/2"	G3/4	G1/2	28	14.0	32.4

451

BRASS ELBOW CHROME PLATED WZ



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

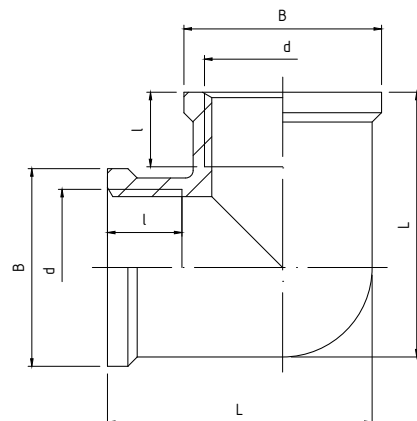


Dimensions in mm

index	size	d	L	t	l	H	B
07-451-0100-000	3/8"	G3/8	36.0	9.5	8	25.5	21.8
07-451-0150-000	1/2"	G1/2	42.5	10.0	12	31.0	26.5
07-451-0200-000	3/4"	G3/4	50.5	10.0	15	38.5	32.5

452

BRASS ELBOW CHROME PLATED WW



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

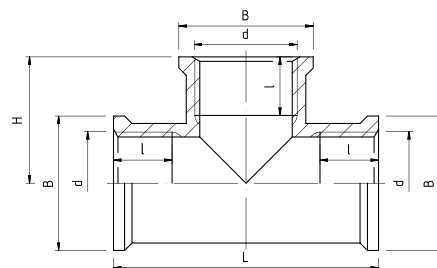
T _{MAX}	T _{MIN}	P _{MAX}	GW by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data



Dimensions in mm

index	size	d	L	l	B
07-452-0100-000	3/8"	G3/8	30.5	11.0	21.8
07-452-0150-000	1/2"	G1/2	35.5	11.5	26.5
07-452-0200-000	3/4"	G3/4	42.5	12.5	32.5

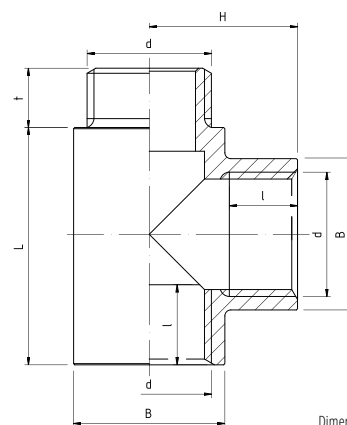
453**BRASS TEE
CHROME PLATED****PARAMETERS (ACCORDING TO THE P-T DIAGRAM)**

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

Dimensions in mm

index	size	d	L	l	H	B
07-453-0100-000	3/8"	G3/8	43.0	9.5	20.5	21.8
07-453-0150-000	1/2"	G1/2	45.8	10.0	22.7	26.5
07-453-0200-000	3/4"	G3/4	54.5	14.5	27.0	32.5

453WWZ**BRASS TEE
CHROME PLATED
WWZ****PARAMETERS (ACCORDING TO THE P-T DIAGRAM)**

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+180°C	-30°C	1.6 MPa	ISO 228

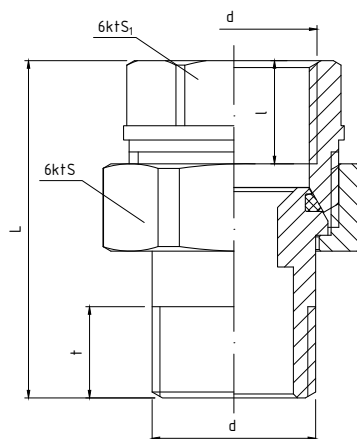
Technical data

Dimensions in mm

index	size	d	L	t	l	H	B
07-453-0150-001	1/2"	G1/2	40	10	11.5	25	25.5

1046CH

**STRAIGHT PIPE JOINT
BRASS O-RING
CHROME PLATED**



Dimensions in mm

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW/GZ by
+120°C	-30°C	1.6 MPa	ISO 228

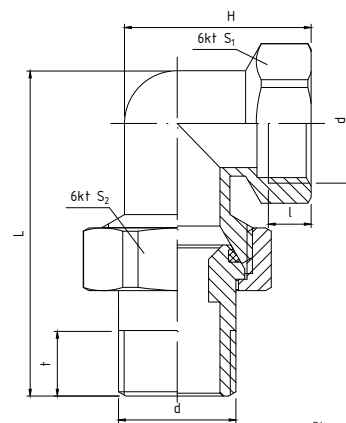
Technical data



index	size	d	L	t	l	S	S ₁
07-450-0100-000	3/8"	G3/8	39	13.0	10.5	26	20
07-450-0150-000	1/2"	G1/2	42	11.5	13.0	30	24

1048CH

**ANGLE PIPE JOINT BRASS
O-RING
CHROME PLATED**



Dimensions in mm

PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW/GZ by
+120°C	-30°C	1.6 MPa	ISO 228

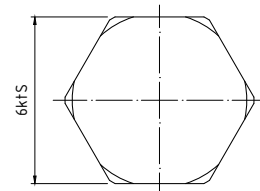
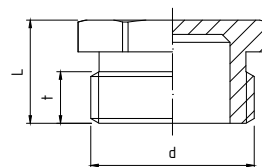
Technical data



index	size	d	L	t	l	H	S ₁	S ₂
07-449-0150-000	1/2"	G1/2	57.0	11.5	9.5	33	25.0	30
07-449-0200-000	3/4"	G3/4	68.7	13.0	10.0	37	30.5	36

5101CH

BRASS PLUG CHROME PLATED GZ



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

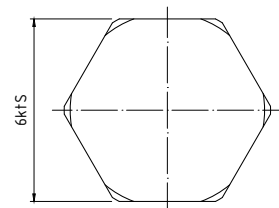
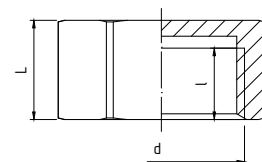


Dimensions in mm

index	size	d	L	t	S
07-456-0150-000	1/2"	G1/2	13.0	6.5	21
07-456-0200-000	3/4"	G3/4	14.5	7.5	27

5102CH

BRASS HOLE PLUG CHROME PLATED GW



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

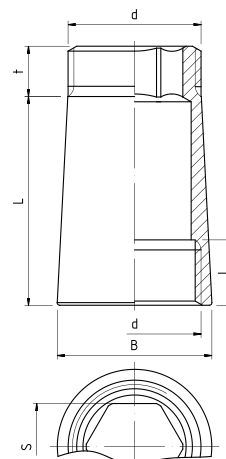


Dimensions in mm

index	size	d	L	l	S
07-457-0150-000	1/2"	G1/2	12.5	10.5	23
07-457-0200-000	3/4"	G3/4	14.0	12.0	29

PHA-351

**PIPE EXTENSION
FOR BATTERY
SURFACE MOUNT, BRASS
CHROME-PLATED WZ**



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data

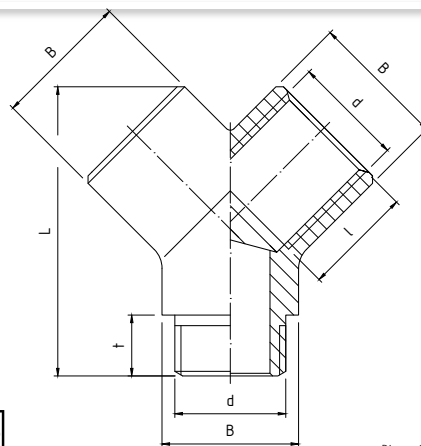


index	size	d	L	t	l	B	S
07-351-0200-000	3/4"	G3/4	41.5	10	13	30.7	17

Dimensions in mm

PHA-352

**Y-TYPE TEE
BRASS CHROME
PLATED WZ**



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+180°C	-30°C	1.6 MPa	ISO 228

Technical data



index	size	d	L	l	t	B
07-352-0150-000	1/2"	G1/2	54.6	23	11.5	25.8

Dimensions in mm

CONNECTION BALL VALVES PHA-011 AND PHA-012

DESCRIPTION

PERFEXIM ball taps and connection valves are an essential part of any efficient and safe bathroom installation. Thanks to their robust and compact design, they guarantee that the cold or hot water supply in the system is shut off quickly. Connection valves are also great for replacing sanitary appliances. They provide high resistance to scale present in water, which is the main enemy of water installations. The great advantage of ball connection taps is not only the design, but also their modern appearance, which will blend in with the style of any room. With a durability of 5,000 cycles according to the standard, leak-testing, nickel exclusion and allergy-friendliness, these are reliable products.

DESCRIPTION-DATA

BODY, FILTER SCREW, BALL: CW617N brass with chrome plating

STEM, SCREW-PLUG: brass

STEM SEAL, SCREW-PLUG, FILTER SCREW-PLUG: type "O" sealing rings - NBR

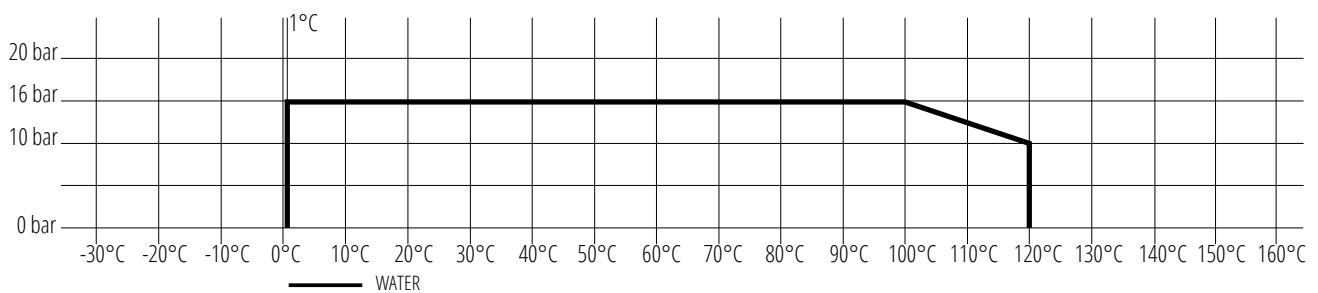
BALL SEAL: PTFE

FILTER ELEMENT: stainless steel

HANDLE: zinc alloy with chrome plating

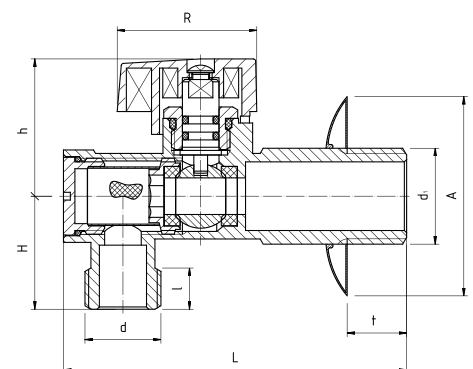
ESCUTCHEON: stainless steel with chrome plating

CHART



PHA-011

PERFEKT^{SYSTEM}
BALL VALVE
CONNECTING
WITH FILTER
AND METAL KNOB



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GZ by
+120°C	+1°C	1.6 MPa	ISO 228

Technical data

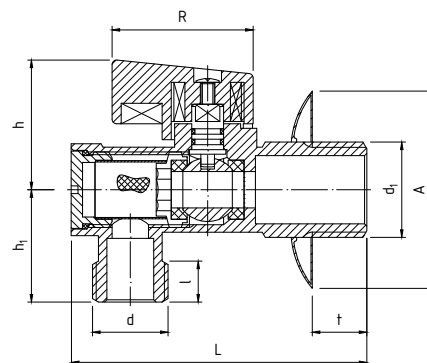


Dimensions in mm

index	size	d	d ₁	L	l	t	h	H	R	A
02-011-1510-000	1/2"x3/8"	G3/8	G1/2	75	9.0	14	30	24.7	30.4	54
02-011-1515-000	1/2"x1/2"	G1/2	G1/2	75	9.0	14	30	24.7	30.4	54
02-011-1520-000	1/2"x3/4"	G3/4	G1/2	75	9.5	14	30	24.7	30.4	54

PHA-012

PERFEKT^{SYSTEM}
CONNECTION BALL
VALVE SHORT WITH
FILTER AND WITH
METAL KNOB



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GZ by
+120°C	+1°C	1.6 MPa	ISO 228

Technical data

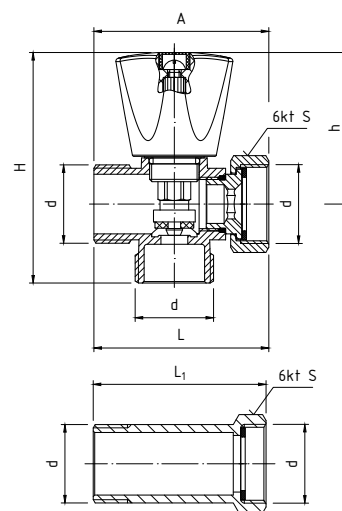


Dimensions in mm

index	size	d	d ₁	L	l	t	h	h ₁	R	A
02-012-1510-000	1/2"x3/8"	G3/8	G1/2"	65	9.0	12	28.5	24.7	31	54
02-012-1515-000	1/2"x1/2"	G1/2	G1/2"	65	9.0	12	28.5	24.7	31	54
02-012-1520-000	1/2"x3/4"	G3/4	G1/2"	65	9.5	12	28.5	24.7	31	54

PHA-0140

PERFEKT^{SYSTEM}
PROLUNGA - CONNECTION
POPPET VALVE WITH
SWIVEL NUT AND EXTENSION



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GZ/GW by
+90°C	+1°C	1.0 MPa	ISO 228

Technical data

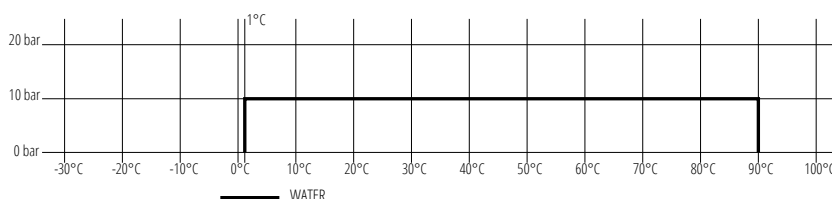


Dimensions in mm

index	size	d	L	L ₁	h	H	A
02-014-0200-001	3/4"x3/4"x3/4"	G3/4	62	58.0	50.8	77.4	51.2

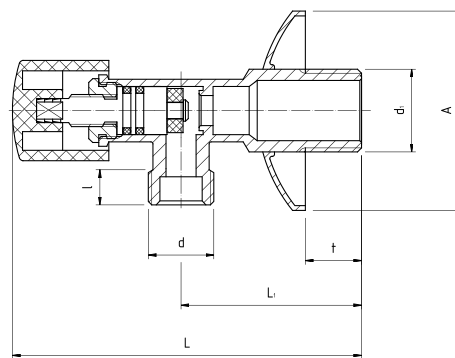
MATERIALS

BODY, EXTENSION: CW617N brass
 chrome plated
NUT, SCREW: only for article PHA-0140 brass
 with chrome-plated coating
STEM, VALVE HEAD, HEAD: brass
VALVE HEAD SEAL: NBR
SCREW-PLUG AND STEM SEALING: "O" type sealing rings - NBR
HEAD GASKET:
 for PHA-014 - fibre,
 for PHA-0140 - sealing rings type "O" - NBR
HANDWHEEL: plastic with chrome coating



PHA-018

PERFEKT^{SYSTEM}
CONNECTION POPET VALVE



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+120°C	+1°C	1.6 MPa	ISO 228

Technical data

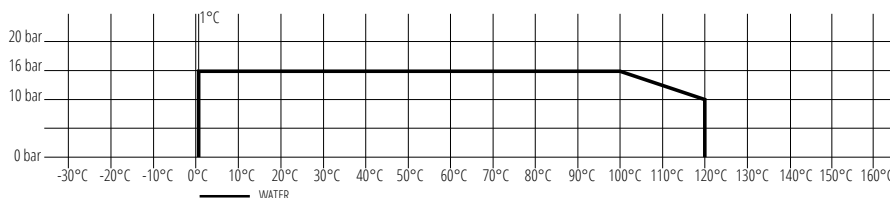


Dimensions in mm

index	size	d	d ₁	L	L ₁	l	t	A
02-018-1510-000	1/2"x3/8"	G3/8	G1/2	82-87	45	8.0	16	ø54
02-018-1515-000	1/2"x1/2"	G1/2	G1/2	82-87	45	7.5	16	ø54
02-018-1520-000	1/2"x3/4"	G3/4	G1/2	82-87	45	10.0	16	ø54

MATERIALS

BODY: CW617N brass with chrome plating
STEM, HEAD: brass
VALVE HEAD SEAL: NBR
STEM SEALING: "O"-type sealing rings - NBR
HANDWHEEL: plastic with chrome coating
ESCUTCHEON: stainless steel with chrome plating

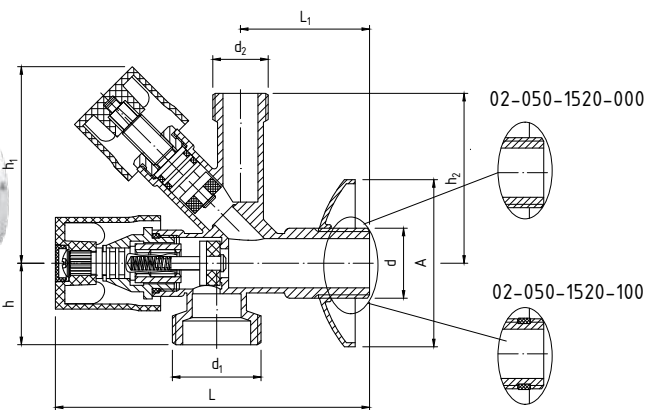


PHA-050 and PHA-050/U

PERFEKT^{SYSTEM}
VALVE COMBINED CONNECTION TYPE



Dwa warianty wykonania



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+90°C	+1°C	1.0 MPa	ISO 228

Technical data



Dimensions in mm

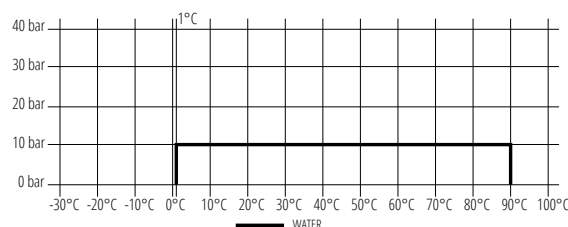
Article	index	size	d	d ₁	d ₂	L	L ₁	h	h ₁	h ₂	A
PHA-050	02-050-1520-000	1/2"x3/8"x3/4"	G1/2	G3/4	G3/8	92.5	38	24	45-58	50	ø55
PHA-050/U	02-050-1520-100	1/2"x3/8"x3/4"	G1/2	G3/4	G3/8	92.5	38	24	45-58	50	ø55

MATERIALS

BODY: CW617N brass with chrome plating
STEM, VALVE HEAD, HEAD: brass
STEM SEALING: O-ring - NBR
VALVE HEAD GASKET: flat gasket - NBR
THREAD SEAL: PTFE
SPRING: stainless steel
HANDWHEEL: plastic with chrome coating
ESCUTCHEON: stainless steel with chrome plating

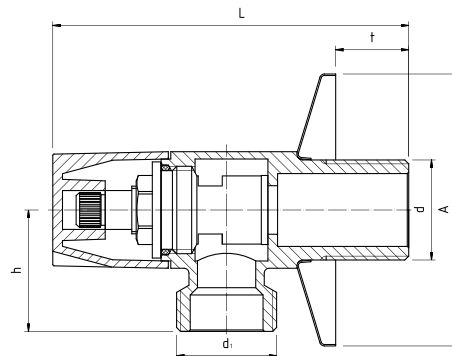
DESCRIPTION

A non-return valve combined with a closing element on a 3/4" stub protects against the ingress of chemicals used in washing machines/dishwashers (protection against secondary contamination of drinking water). Valve available in two versions: with gasket



PHA-051

PERFEKT^{SYSTEM}
VALVE CONNECTION
TYPE ANGULAR WITH
CERAMIC HEAD



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+90°C	+1°C	1.0 MPa	ISO 228

Technical data

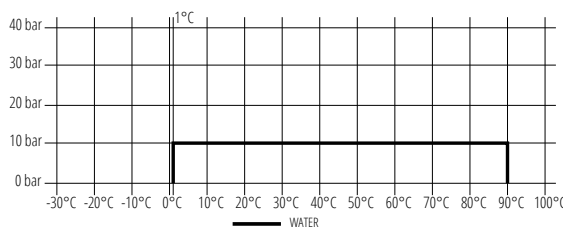


Dimensions in mm

index	size	d	d ₁	L	t	h	A
02-051-1510-000	1/2"x3/8"	G1/2	G3/8	76	16	25.0	ø50
02-051-1515-000	1/2"x1/2"	G1/2"	G1/2"	76	16	26.0	ø50
02-051-1520-000	1/2"x3/4"	G1/2"	G3/4	76	13	26.0	ø50

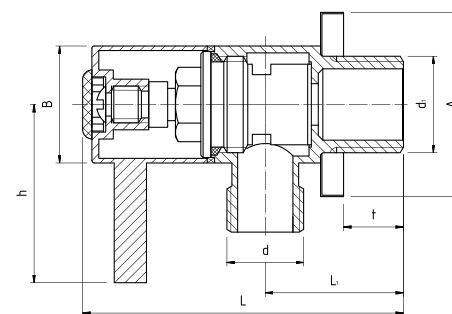
MATERIALS

BODY: CW617N brass with chrome plating
CERAMIC HEAD: brass and ceramic
HEAD GASKET: O-rings - NBR
HANDWHEEL: zinc alloy with chrome plating
ESCUTCHEON: stainless steel with chrome plating



PHA-052

PERFEKT^{SYSTEM}
ANGLE VALVE
WITH CERAMIC HEAD



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+90°C	+1°C	1.0 MPa	ISO 228

Technical data

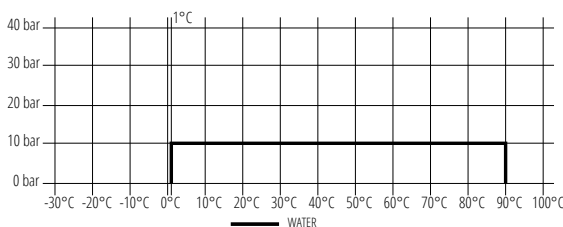


Dimensions in mm

index	size	d	d ₁	L	L ₁	t	h	B	A
02-052-1510-000	1/2"x3/8"	G3/8	G1/2	70	31	13	38	ø25,4	ø40
02-052-1515-000	1/2"x1/2"	G1/2"	G1/2"	71	33	13	38	ø25,4	ø40
02-052-1520-000	1/2"x3/4"	G3/4	G1/2	74	36	13	38	ø25,4	ø40

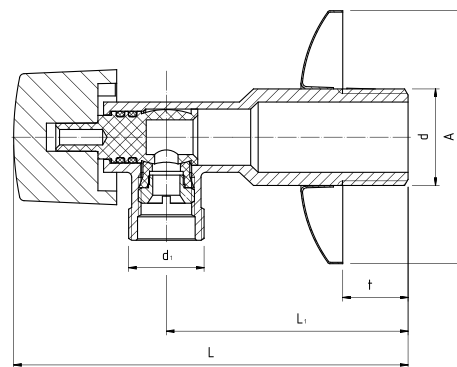
MATERIALS

BODY: CW617N brass with chrome plating
CERAMIC HEAD: brass and ceramic
HEAD GASKET: O-rings - NBR
HANDWHEEL: zinc alloy with chrome plating
WASHER, STOPPER: ABS
ESCUTCHEON: stainless steel with chrome plating



PHA-055

PERFEKT^{SYSTEM} ANTI-SCALE BALL CONNECTION VALVE, METAL KNOB



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+90°C	+1°C	1.0 MPa	ISO 228

Technical data

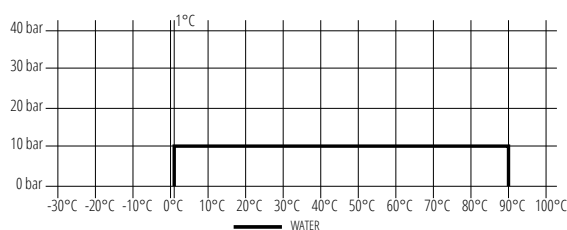


Dimensions in mm

index	size	d	d ₁	L	L ₁	t	A
02-055-1510-000	½"x¾"	G½	G¾	84,5	51,6	14	ø54
02-055-1515-000	½"x½"	G½	G½	84,5	51,6	14	ø54
02-055-1520-000	½"x¾"	G½	G¾	84,5	51,6	14	ø54

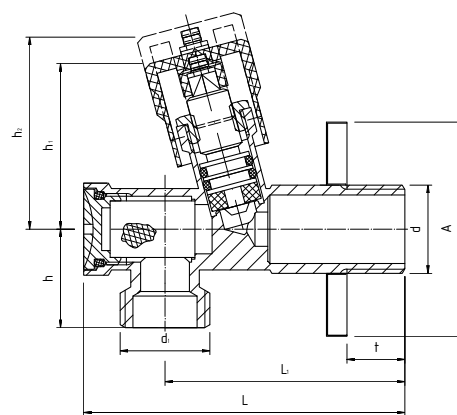
MATERIALS

BODY, SCREW-PLUG: brass with chrome plating
MANDREL WITH BALL: POM
STEM SEALING: "O"-type sealing rings - NBR
STEM SEALING: NBR
HANDWHEEL: zinc alloy with chrome plating
ESCUTCHEON: stainless steel



PHA-056

PERFEKT^{SYSTEM} CONNECTION POPPET VALVE ANGULAR WITH FILTER



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+90°C	+1°C	1.0 MPa	ISO 228

Technical data

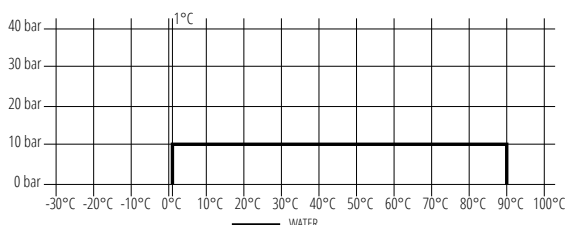


Dimensions in mm

index	size	d	d ₁	L	L ₁	t	h	h ₁	h ₂	A
02-056-1510-000	½"x¾"	G½	G¾	75	56	15	23	40,5	46,00	ø50
02-056-1515-000	½"x½"	G½	G½	75	56	15	23	40,5	46,00	ø50

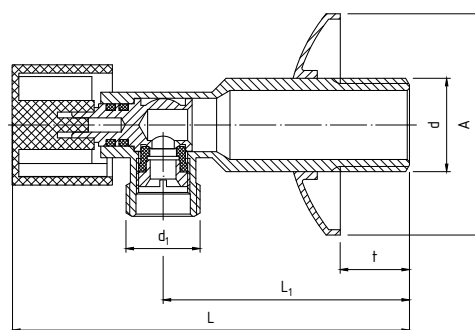
MATERIALS

BODY, FILTER SCREW-PLUG: brass with chrome plating
SCREW-PLUG, STEM: brass
STEM SEALING, FILTER SCREW-PLUGS: "O" type sealing rings - NBR
FLAT GASKET: NBR
FILTER, ESCUTCHEON: stainless steel
Knob: ABS
ESCUTCHEON: stainless steel with chrome plating



3003

CONNECTION BALL VALVE ANGLE



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+120°C	+1°C	1.6 MPa	ISO 228

Technical data

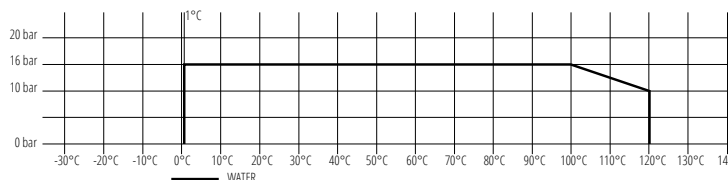


Dimensions in mm

index	size	d	d ₁	L	L ₁	l	t	h	A
02-200-1510-000	1/2"x3/8"	G1/2	G3/8	80	47	9.5	12	20.5	ø54
02-200-1515-000	1/2"x1/2"	G1/2	G1/2	80	47	9.5	12	24.5	ø54
02-200-1520-000	1/2"x3/4"	G1/2	G3/4	80	47	9.5	12	25.5	ø54

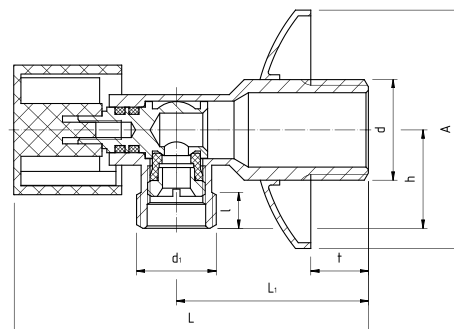
MATERIALS

BODY, SCREW-PLUG: brass with chrome plating
MANDREL WITH BALL: brass
STEM SEALING: sealing rings type: "O"-NBR
BALL SEAL: NBR
HANDWHEEL: plastic with chrome coating
ESCUTCHEON: stainless steel with chrome plating



3003S

CONNECTION BALL VALVE SHORT ANGLE



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+90°C	+1°C	1.0 MPa	ISO 228

Technical data

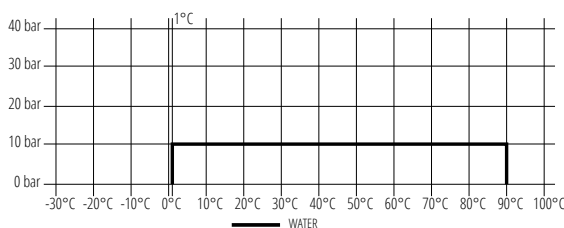


Dimensions in mm

index	size	d	d ₁	L	L ₁	t	l	h	A
02-204-1510-000	1/2"x3/8"	G1/2	G3/8	74.0	40	14	7.5	20.5	ø54

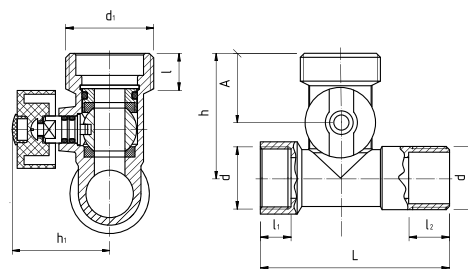
MATERIALS

BODY, SCREW-PLUG: brass with chrome plating
MANDREL WITH BALL: brass
STEM SEALING: sealing rings type: "O"-NBR
BALL SEAL: NBR
HANDWHEEL: plastic with chrome coating
ESCUTCHEON: stainless steel with chrome plating



3026

BALL VALVE THREE-WAY CONNECTING ANGLE



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+90°C	+1°C	1.0 MPa	ISO 228

Technical data

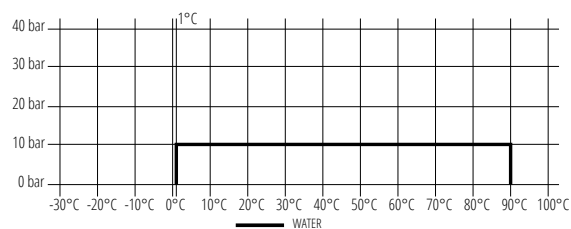


Dimensions in mm

index	size	d	d ₁	L	l	l ₁	l ₂	h	h ₁	A
02-302-1515-000	1/2"x1/2"x3/4"	G1/2	G3/4	PLN 61,5 -	10,5	11,5	12	40,5	29	22,5

MATERIALS

BODY, BALL: brass with chrome plating
STEM, SCREW-PLUG: brass
BALL SEAL: NBR
STEM SEALING: sealing rings type: "O" - NBR
HANDWHEEL: plastic with chrome coating

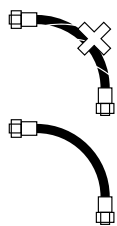


FLEXIBLE CONNECTION HOSES AND ANTI-VIBRATION HOSES PERFECT SYSTEM IN CORROSION-RESISTANT STEEL BRAID

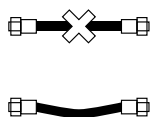
USE

Flexible connection hoses and anti-vibration hoses **PERFEKT^{SYSTEM}** are designed for making connections with fittings and installation equipment and are used in the following installations: central heating, hot and cold water supply (including drinking water), refrigeration systems filled with 50% glycol solution.

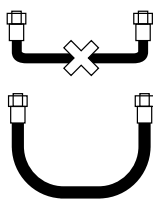
Flexible connection hoses **PERFEKT^{SYSTEM}** are available with a wide range of connections from M10 to G $\frac{3}{4}$, with straight connections with female and male threads, as well as an elbow with nut with female thread. Anti-vibration hoses **PERFEKT^{SYSTEM}** are available in a wide range of connections from G $\frac{1}{2}$ to G1 $\frac{1}{4}$. This gives great possibilities for configuration and selection of the appropriate connecting cable. The connection lines can be installed in vertical, horizontal and inclined installations in any position; however, care must be taken during installation. In order to avoid mistakes, care should be taken to:



during and after installation, do not allow any axial twisting of the cable



no tensile force is applied (by using too short line)



no kinks have formed in the routing of the cable (ensure smooth radii when routing the line)

Due to their corrosion resistance requirements, flexible hoses and anti-vibration hoses **PERFEKT^{SYSTEM}** can be used indoors and outdoors, in environments with corrosivity category 1÷3 according to the PN-EN 1456:2009 standard - (TEST: 5% concentration of sodium chloride at 35°C for 96h - no signs of corrosion after the test on metal parts of the lines).

PARAMETERS

Maximum operating parameters for connection lines with nominal diameters **DN8** are as follows:

- temperature + 70°C
- pressure 1.0MPa (10 bar)

Maximum operating parameters of anti-vibration hoses with nominal diameters **DN13** i **DN18** are as follows:

- temperature + 110°C
- pressure 1.2MPa (12 bar)

Maximum operating parameters of anti-vibration hoses with nominal diameters **DN25** i **DN32** are as follows:

- temperature + 110°C
- pressure 1.0MPa (10 bar)



MATERIALS

- **Nut:** CW614N brass with nickel plating
- **Nut end:** CW617N brass
- **Male threaded end:** CW617N brass with coating nickel-plated on the outside
- **Elbow 90°:** CW602N or CW609L brass with nickel plating outside
- **External wire braid:** corrosion-resistant steel grade 1.4301
- **Collet:** corrosion-resistant steel grade 1.4301
- **Hose (line tube):** EPDM rubber compound
- **Flat and o-ring seals:** EPDM rubber compound

ADVANTAGES

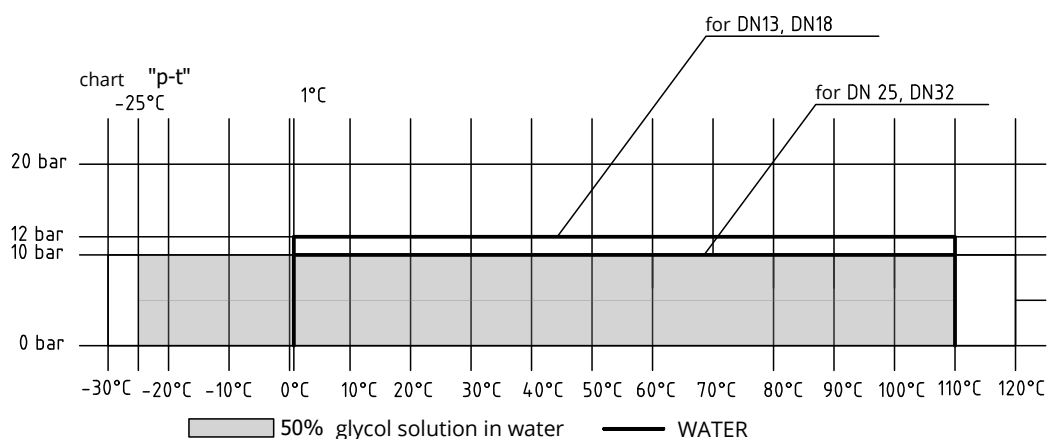
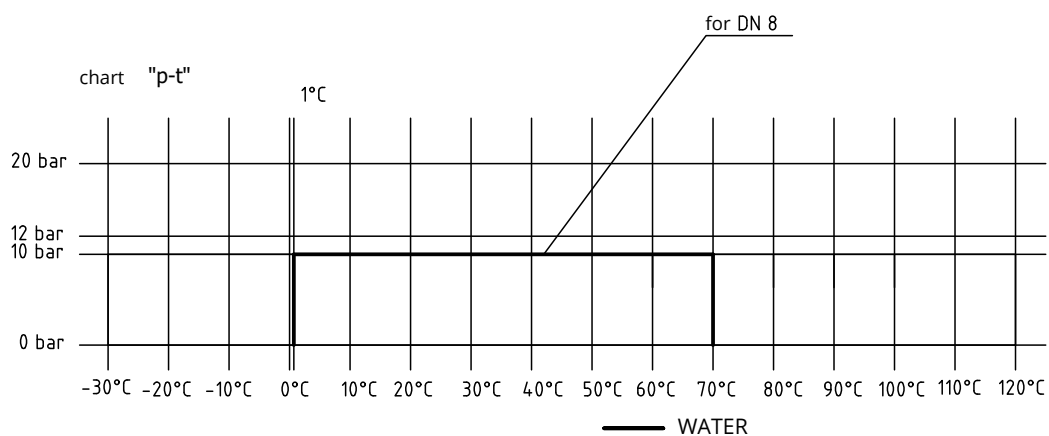
- wide range of applications
- **10 year guarantee**
- performance characteristics, performance and suitability for use as demonstrated by INiG accredited laboratories
- Can operate at a temperature of +110°C (*for DN13, DN18, DN25, DN32)
- Can operate at 12 bar (*for DN13, DN18)
- Approved for contact with drinking water **Certified by the National Institute of Hygiene**
- possibility to work in installations filled with 50% glycol solution
- very high quality of manufacture
- thanks to the use of stainless steel braid 1.4301, the cables are resistant to corrosion, which allows them to be used freely outdoors or in refrigeration systems
- gaskets made of high-quality EPDM material

FLEXIBLE CONNECTION LINES AND ANTI-VIBRATION HOSES PERFECT SYSTEM IN CORROSION-RESISTANT STEEL BRAID

SPECIAL FEATURES

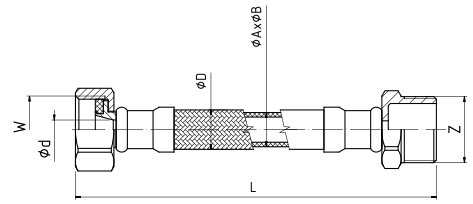
- The connection hoses and anti-vibration hoses have a very high resistance to hydraulic impacts. When tested for pressure changes over 200 cycles from 5 to 50 bar, they show no deformation, cracks or other undesirable damage and still retain their tightness
- After being subjected to a maximum pressure of 150 bar under laboratory conditions, the hoses showed strength and retained their tightness
- Thanks to the use of 1.4301 stainless steel braid, the hoses are corrosion-resistant, which allows them to be used freely outdoors or in refrigeration systems, even when the vapour precipitates and the dew point is exceeded.
- The seals are made of high-quality EPDM material resistant to extreme weather conditions or mechanical action.
- The tips are characterised by high strength due to the thickened wall. The tips are made from high-grade brass type: CW617N, CW614N, CW602N and CW609L
- Thanks to the ingenious design and long threads, it is possible to make safe and solid connections.
- The clamps are made on a 1.4301 stainless steel sleeve, which gives the maximum strength, confirmed by strength tests when connecting the hose to the nozzle
- Thanks to the flexible design and the wide range of lengths and connection lugs, almost any connection can be made.

P-T DIAGRAM FOR CONNECTING LINES



PHA-9105

PERFEKT^{SYSTEM}
FLEXIBLE CONNECTION
WITH STAINLESS STEEL
BRAID WZ



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+70°C	+1°C	1.0 MPa	ISO 228

Technical data

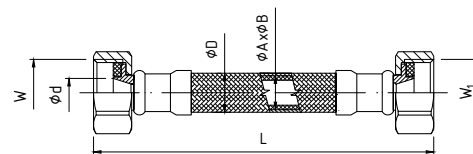


Dimensions in mm

index	size	L [cm]	DN	ød	øD	A	(category B)	Evening	V
06-000-1010-030	3/8"x3/8"	30	8	5.5	12	8.1	11.6	G3/8"	G3/8"
06-000-1010-040	3/8"x3/8"	40	8	5.5	12	8.1	11.6	G3/8"	G3/8"
06-000-1010-050	3/8"x3/8"	50	8	5.5	12	8.1	11.6		
06-000-1515-020	1/2"x1/2"	20	8	5.5	12	8.1	11.6	G1/2"	G1/2"
06-000-1515-025	1/2"x1/2"	25	8	5.5	12	8.1	11.6	G1/2"	G1/2"
06-000-1515-030	1/2"x1/2"	30	8	5.5	12	8.1	11.6	G1/2"	G1/2"
06-000-1515-040	1/2"x1/2"	40	8	5.5	12	8.1	11.6	G1/2"	G1/2"
06-000-1515-045	1/2"x1/2"	45	8	5.5	12	8.1	11.6	G1/2"	G1/2"
06-000-1515-050	1/2"x1/2"	50	8	5.5	12	8.1	11.6	G1/2"	G1/2"
06-000-1515-060	1/2"x1/2"	60	8	5.5	12	8.1	11.6	G1/2"	G1/2"
06-000-1515-070	1/2"x1/2"	70	8	5.5	12	8.1	11.6	G1/2"	G1/2"
06-000-1515-080	1/2"x1/2"	80	8	5.5	12	8.1	11.6	G1/2"	G1/2"
06-000-1515-090	1/2"x1/2"	90	8	5.5	12	8.1	11.6	G1/2"	G1/2"
06-000-1515-100	1/2"x1/2"	100	8	5.5	12	8.1	11.6	G1/2"	G1/2"
06-000-1515-120	1/2"x1/2"	120	8	5.5	12	8.1	11.6	G1/2"	G1/2"
06-000-1515-150	1/2"x1/2"	150	8	5.5	12	8.1	11.6	G1/2"	G1/2"

PHA-9110

PERFEKT^{SYSTEM}
FLEXIBLE CONNECTION
IN STAINLESS STEEL
BRAID WW



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+70°C	+1°C	1.0 MPa	ISO 228

Technical data

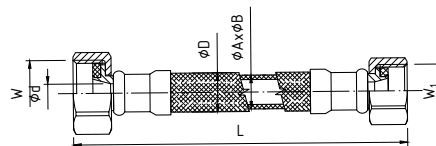


Dimensions in mm

index	size	L [cm]	DN	ϕd	ϕD	A	B	W	W ₁
06-001-1010-020	3/8"x3/8"	20	8	5.5	12	8.1	11.6	G3/8	G3/8
06-001-1010-030	3/8"x3/8"	30	8	5.5	12	8.1	11.6	G3/8	G3/8
06-001-1010-040	3/8"x3/8"	40	8	5.5	12	8.1	11.6	G3/8	G3/8
06-001-1010-050	3/8"x3/8"	50	8	5.5	12	8.1	11.6	G3/8	G3/8
06-001-1010-060	3/8"x3/8"	60	8	5.5	12	8.1	11.6	G3/8	G3/8
06-001-1510-020	1/2"x3/8"	20	8	5.5	12	8.1	11.6	G1/2	G3/8
06-001-1510-030	1/2"x3/8"	30	8	5.5	12	8.1	11.6	G1/2	G3/8
06-001-1510-040	1/2"x3/8"	40	8	5.5	12	8.1	11.6	G1/2	G3/8
06-001-1510-050	1/2"x3/8"	50	8	5.5	12	8.1	11.6	G1/2	G3/8
06-001-1510-060	1/2"x3/8"	60	8	5.5	12	8.1	11.6	G1/2	G3/8
06-001-1515-020	1/2"x1/2"	20	8	5.5	12	8.1	11.6	G1/2	G1/2
06-001-1515-025	1/2"x1/2"	25	8	5.5	12	8.1	11.6	G1/2	G1/2
06-001-1515-030	1/2"x1/2"	30	8	5.5	12	8.1	11.6	G1/2	G1/2
06-001-1515-035	1/2"x1/2"	35	8	5.5	12	8.1	11.6	G1/2	G1/2
06-001-1515-040	1/2"x1/2"	40	8	5.5	12	8.1	11.6	G1/2	G1/2
06-001-1515-045	1/2"x1/2"	45	8	5.5	12	8.1	11.6	G1/2	G1/2
06-001-1515-050	1/2"x1/2"	50	8	5.5	12	8.1	11.6	G1/2	G1/2
06-001-1515-055	1/2"x1/2"	55	8	5.5	12	8.1	11.6	G1/2	G1/2
06-001-1515-060	1/2"x1/2"	60	8	5.5	12	8.1	11.6	G1/2	G1/2
06-001-1515-070	1/2"x1/2"	70	8	5.5	12	8.1	11.6	G1/2	G1/2
06-001-1515-080	1/2"x1/2"	80	8	5.5	12	8.1	11.6	G1/2	G1/2
06-001-1515-090	1/2"x1/2"	90	8	5.5	12	8.1	11.6	G1/2	G1/2
06-001-1515-100	1/2"x1/2"	100	8	5.5	12	8.1	11.6	G1/2	G1/2
06-001-1515-120	1/2"x1/2"	120	8	5.5	12	8.1	11.6	G1/2	G1/2
06-001-1515-150	1/2"x1/2"	150	8	5.5	12	8.1	11.6	G1/2	G1/2

PHA-9125

PERFEKT^{SYSTEM}
FLEXIBLE CONNECTION
IN STAINLESS STEEL
BRAID WW



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+70°C	+1°C	1.0 MPa	ISO 228

Technical data

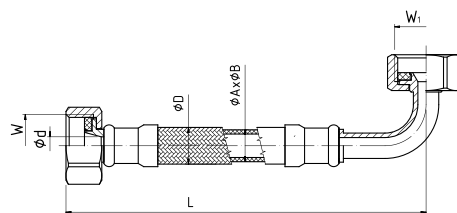


Dimensions in mm

index	size	L [cm]	DN	ød	øD	A	B	W	W ₁
06-002-1520-030	1/2"x3/4"	30	8	5.5	12	8.1	11.6	G1/2	G3/4
06-002-1520-040	1/2"x3/4"	40	8	5.5	12	8.1	11.6	G1/2	G3/4
06-002-1520-050	1/2"x3/4"	50	8	5.5	12	8.1	11.6	G1/2	G3/4
06-002-2020-030	3/4"x3/4"	30	8	5.5	12	8.1	11.6	G3/4	G3/4
06-002-2020-040	3/4"x3/4"	40	8	5.5	12	8.1	11.6	G3/4	G3/4
06-002-2020-050	3/4"x3/4"	50	8	5.5	12	8.1	11.6	G3/4	G3/4

PHA-9126

PERFEKT^{SYSTEM}
FLEXIBLE CONNECTION
WITH ELBOW IN BRAID
OF STAINLESS STEEL WW



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW by
+70°C	+1°C	1.0 MPa	ISO 228

Technical data

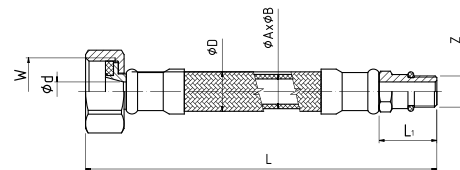


Dimensions in mm

index	size	L [cm]	DN	ød	øD	A	B	W
06-005-1515-040	1/2"x1/2"	40	8	5.5	12	8.1	11.6	G1/2
06-005-1515-050	1/2"x1/2"	50	8	5.5	12	8.1	11.6	G1/2
06-005-1515-060	1/2"x1/2"	60	8	5.5	12	8.1	11.6	G1/2
06-005-1515-080	1/2"x1/2"	80	8	5.5	12	8.1	11.6	G1/2
06-005-1515-100	1/2"x1/2"	100	8	5.5	12	8.1	11.6	G1/2
06-005-1515-120	1/2"x1/2"	120	8	5.5	12	8.1	11.6	G1/2
06-005-1515-150	1/2"x1/2"	150	8	5.5	12	8.1	11.6	G1/2

PHA-9145/C

PERFEKT^{SYSTEM}
**FLEXIBLE CONNECTION TO
 BATTER IN BRAID OF
 STAINLESS STEEL (SHORT)**



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW/GZ by
+70°C	+1°C	1.0 MPa	ISO 228

Technical data

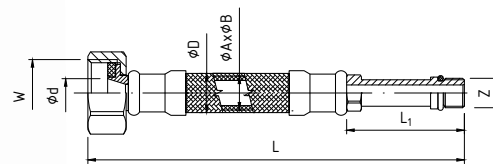


Dimensions in mm

index	size	L [cm]	DN	Ød	ØD	L ₁	A	B	W	V
06-003-1010-030	M10x1x3/8"	30	8	5.5	12	18	8.1	11.6	G3/8	M10x1
06-003-1010-040	M10x1x3/8"	40	8	5.5	12	18	8.1	11.6	G3/8	M10x1
06-003-1010-050	M10x1x3/8"	50	8	5.5	12	18	8.1	11.6	G3/8	M10x1
06-003-1010-060	M10x1x3/8"	60	8	5.5	12	18	8.1	11.6	G3/8	M10x1
06-003-1010-080	M10x1x3/8"	80	8	5.5	12	18	8.1	11.6	G3/8	M10x1
06-003-1510-030	M10x1x1/2"	30	8	5.5	12	18	8.1	11.6	G1/2	M10x1
06-003-1510-035	M10x1x1/2"	35	8	5.5	12	18	8.1	11.6	G1/2	M10x1
06-003-1510-040	M10x1x1/2"	40	8	5.5	12	18	8.1	11.6	G1/2	M10x1
06-003-1510-050	M10x1x1/2"	50	8	5.5	12	18	8.1	11.6	G1/2	M10x1
06-003-1510-060	M10x1x1/2"	60	8	5.5	12	18	8.1	11.6	G1/2	M10x1
06-003-1510-070	M10x1x1/2"	70	8	5.5	12	18	8.1	11.6	G1/2	M10x1
06-003-1510-080	M10x1x1/2"	80	8	5.5	12	18	8.1	11.6	G1/2	M10x1

PHA-9145/L

PERFEKT^{SYSTEM}
**FLEXIBLE CONNECTION TO
 BATTER IN BRAID OF
 STAINLESS STEEL (LONG)**



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	TMIN	PMAX	GW/GZ by
+70°C	+1°C	1.0 MPa	ISO 228

Technical data

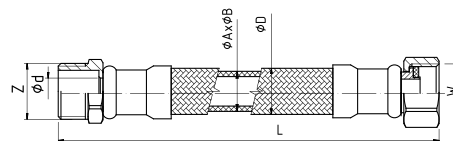


Dimensions in mm

index	size	L [cm]	DN	Ød	ØD	L ₁	A	B	W	V
06-004-1010-030	M10x1x3/8"	30	8	5.5	12	33	8.1	11.6	G3/8	M10x1
06-004-1010-040	M10x1x3/8"	40	8	5.5	12	33	8.1	11.6	G3/8	M10x1
06-004-1010-050	M10x1x3/8"	50	8	5.5	12	33	8.1	11.6	G3/8	M10x1
06-004-1010-060	M10x1x3/8"	60	8	5.5	12	33	8.1	11.6	G3/8	M10x1
06-004-1010-080	M10x1x3/8"	80	8	5.5	12	33	8.1	11.6	G3/8	M10x1
06-004-1510-030	M10x1x1/2"	30	8	5.5	12	33	8.1	11.6	G1/2	M10x1
06-004-1510-040	M10x1x1/2"	40	8	5.5	12	33	8.1	11.6	G1/2	M10x1
06-004-1510-050	M10x1x1/2"	50	8	5.5	12	33	8.1	11.6	G1/2	M10x1
06-004-1510-060	M10x1x1/2"	60	8	5.5	12	33	8.1	11.6	G1/2	M10x1
06-004-1510-070	M10x1x1/2"	70	8	5.5	12	33	8.1	11.6	G1/2	M10x1
06-004-1510-080	M10x1x1/2"	80	8	5.5	12	33	8.1	11.6	G1/2	M10x1

PHA-9150

PERFEKT^{SYSTEM} ANTI-VIBRATION HOSE IN BRAID OF STAINLESS STEEL WZ



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

FOR DN 13, 18

T _{MAX}	T _{MIN}	P _{MAX}	GZ/GW by
+110°C	-25°C	1.2 MPa	ISO 228

FOR DN 25, 32

T _{MAX}	T _{MIN}	P _{MAX}	GZ/GW by
+110°C	-25°C	1.0 MPa	ISO 228

Technical data

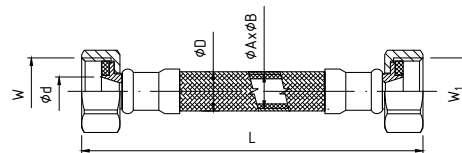


Dimensions in mm

index	size	L [cm]	DN	ød	øD	A	B	W	V
06-010-0150-030	1/2"x1/2"	30	13	9.9	18	12.8	17.8	G1/2	G1/2
06-010-0150-040	1/2"x1/2"	40	13	9.9	18	12.8	17.8	G1/2	G1/2
06-010-0150-050	1/2"x1/2"	50	13	9.9	18	12.8	17.8	G1/2	G1/2
06-010-0150-060	1/2"x1/2"	60	13	9.9	18	12.8	17.8	G1/2	G1/2
06-010-0200-030	3/4"x3/4"	30	18	14.5	25	18.5	25.2	G3/4	G3/4
06-010-0200-040	3/4"x3/4"	40	18	14.5	25	18.5	25.2	G3/4	G3/4
06-010-0200-050	3/4"x3/4"	50	18	14.5	25	18.5	25.2	G3/4	G3/4
06-010-0200-060	3/4"x3/4"	60	18	14.5	25	18.5	25.2	G3/4	G3/4
06-010-0200-070	3/4"x3/4"	70	18	14.5	25	18.5	25.2	G3/4	G3/4
06-010-0200-080	3/4"x3/4"	80	18	14.5	25	18.5	25.2	G3/4	G3/4
06-010-0200-090	3/4"x3/4"	90	18	14.5	25	18.5	25.2	G3/4	G3/4
06-010-0200-100	3/4"x3/4"	100	18	14.5	25	18.5	25.2	G3/4	G3/4
06-010-0200-120	3/4"x3/4"	120	18	14.5	25	18.5	25.2	G3/4	G3/4
06-010-0200-150	3/4"x3/4"	150	18	14.5	25	18.5	25.2	G3/4	G3/4
06-010-0250-030	1"x1"	30	25	20.5	32.5	25.0	31.5	G1	G1
06-010-0250-040	1"x1"	40	25	20.5	32.5	25.0	31.5	G1	G1
06-010-0250-050	1"x1"	50	25	20.5	32.5	25.0	31.5	G1	G1
06-010-0250-060	1"x1"	60	25	20.5	32.5	25.0	31.5	G1	G1
06-010-0250-070	1"x1"	70	25	20.5	32.5	25.0	31.5	G1	G1
06-010-0250-080	1"x1"	80	25	20.5	32.5	25.0	31.5	G1	G1
06-010-0250-090	1"x1"	90	25	20.5	32.5	25.0	31.5	G1	G1
06-010-0250-100	1"x1"	100	25	20.5	32.5	25.0	31.5	G1	G1
06-010-0250-120	1"x1"	120	25	20.5	32.5	25.0	31.5	G1	G1
06-010-0250-150	1"x1"	150	25	20.5	32.5	25.0	31.5	G1	G1
06-010-0320-030	1 1/4"x1 1/4"	30	32	26.0	43.0	32.0	42.0	G1 1/4	G1 1/4
06-010-0320-040	1 1/4"x1 1/4"	40	32	26.0	43.0	32.0	42.0	G1 1/4	G1 1/4
06-010-0320-050	1 1/4"x1 1/4"	50	32	26.0	43.0	32.0	42.0	G1 1/4	G1 1/4
06-010-0320-060	1 1/4"x1 1/4"	60	32	26.0	43.0	32.0	42.0	G1 1/4	G1 1/4
06-010-0320-070	1 1/4"x1 1/4"	70	32	26.0	43.0	32.0	42.0	G1 1/4	G1 1/4
06-010-0320-080	1 1/4"x1 1/4"	80	32	26.0	43.0	32.0	42.0	G1 1/4	G1 1/4

PHA-9155

PERFEKT^{SYSTEM} ANTI-VIBRATION HOSE IN BRAID STAINLESS STEEL WW



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

FOR DN 13, 18

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+110°C	-25°C	1.2 MPa	ISO 228

FOR DN 25, 32

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+110°C	-25°C	1.0 MPa	ISO 228

Technical data

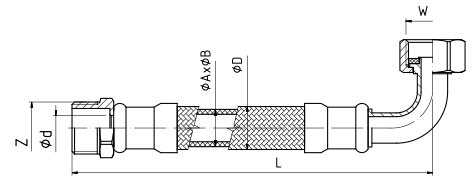


Dimensions in mm

index	size	L [cm]	DN	ød	øD	A	B	W	W ₁
06-011-0150-030	1/2"x1/2"	30	13	9.9	18	12.8	17.8	G1/2	G1/2
06-011-0150-040	1/2"x1/2"	40	13	9.9	18	12.8	17.8	G1/2	G1/2
06-011-0150-050	1/2"x1/2"	50	13	9.9	18	12.8	17.8	G1/2	G1/2
06-011-0150-060	1/2"x1/2"	60	13	9.9	18	12.8	17.8	G1/2	G1/2
06-011-0200-030	3/4"x3/4"	30	18	14.5	25	18.5	25.2	G3/4	G3/4
06-011-0200-040	3/4"x3/4"	40	18	14.5	25	18.5	25.2	G3/4	G3/4
06-011-0200-050	3/4"x3/4"	50	18	14.5	25	18.5	25.2	G3/4	G3/4
06-011-0200-060	3/4"x3/4"	60	18	14.5	25	18.5	25.2	G3/4	G3/4
06-011-0200-070	3/4"x3/4"	70	18	14.5	25	18.5	25.2	G3/4	G3/4
06-011-0200-080	3/4"x3/4"	80	18	14.5	25	18.5	25.2	G3/4	G3/4
06-011-0200-090	3/4"x3/4"	90	18	14.5	25	18.5	25.2	G3/4	G3/4
06-011-0200-100	3/4"x3/4"	100	18	14.5	25	18.5	25.2	G3/4	G3/4
06-011-0200-120	3/4"x3/4"	120	18	14.5	25	18.5	25.2	G3/4	G3/4
06-011-0200-150	3/4"x3/4"	150	18	14.5	25	18.5	25.2	G3/4	G3/4
06-011-0250-030	1"x1"	30	25	20.5	32.5	25.0	31.5	G1	G1
06-011-0250-040	1"x1"	40	25	20.5	32.5	25.0	31.5	G1	G1
06-011-0250-050	1"x1"	50	25	20.5	32.5	25.0	31.5	G1	G1
06-011-0250-060	1"x1"	60	25	20.5	32.5	25.0	31.5	G1	G1
06-011-0250-070	1"x1"	70	25	20.5	32.5	25.0	31.5	G1	G1
06-011-0250-080	1"x1"	80	25	20.5	32.5	25.0	31.5	G1	G1
06-011-0250-090	1"x1"	90	25	20.5	32.5	25.0	31.5	G1	G1
06-011-0250-100	1"x1"	100	25	20.5	32.5	25.0	31.5	G1	G1
06-011-0250-120	1"x1"	120	25	20.5	32.5	25.0	31.5	G1	G1
06-011-0250-150	1"x1"	150	25	20.5	32.5	25.0	31.5	G1	G1
06-011-0320-030	1 1/4"x1 1/4"	30	32	26.0	43.0	32.0	42.0	G1 1/4	G1 1/4
06-011-0320-040	1 1/4"x1 1/4"	40	32	26.0	43.0	32.0	42.0	G1 1/4	G1 1/4
06-011-0320-050	1 1/4"x1 1/4"	50	32	26.0	43.0	32.0	42.0	G1 1/4	G1 1/4
06-011-0320-060	1 1/4"x1 1/4"	60	32	26.0	43.0	32.0	42.0	G1 1/4	G1 1/4
06-011-0320-070	1 1/4"x1 1/4"	70	32	26.0	43.0	32.0	42.0	G1 1/4	G1 1/4
06-011-0320-080	1 1/4"x1 1/4"	80	32	26.0	43.0	32.0	42.0	G1 1/4	G1 1/4

PHA-9156

PERFEKT^{SYSTEM}
ANTI-VIBRATION HOSE
WITH ELBOW IN BRAID
OF STAINLESS STEEL WZ



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

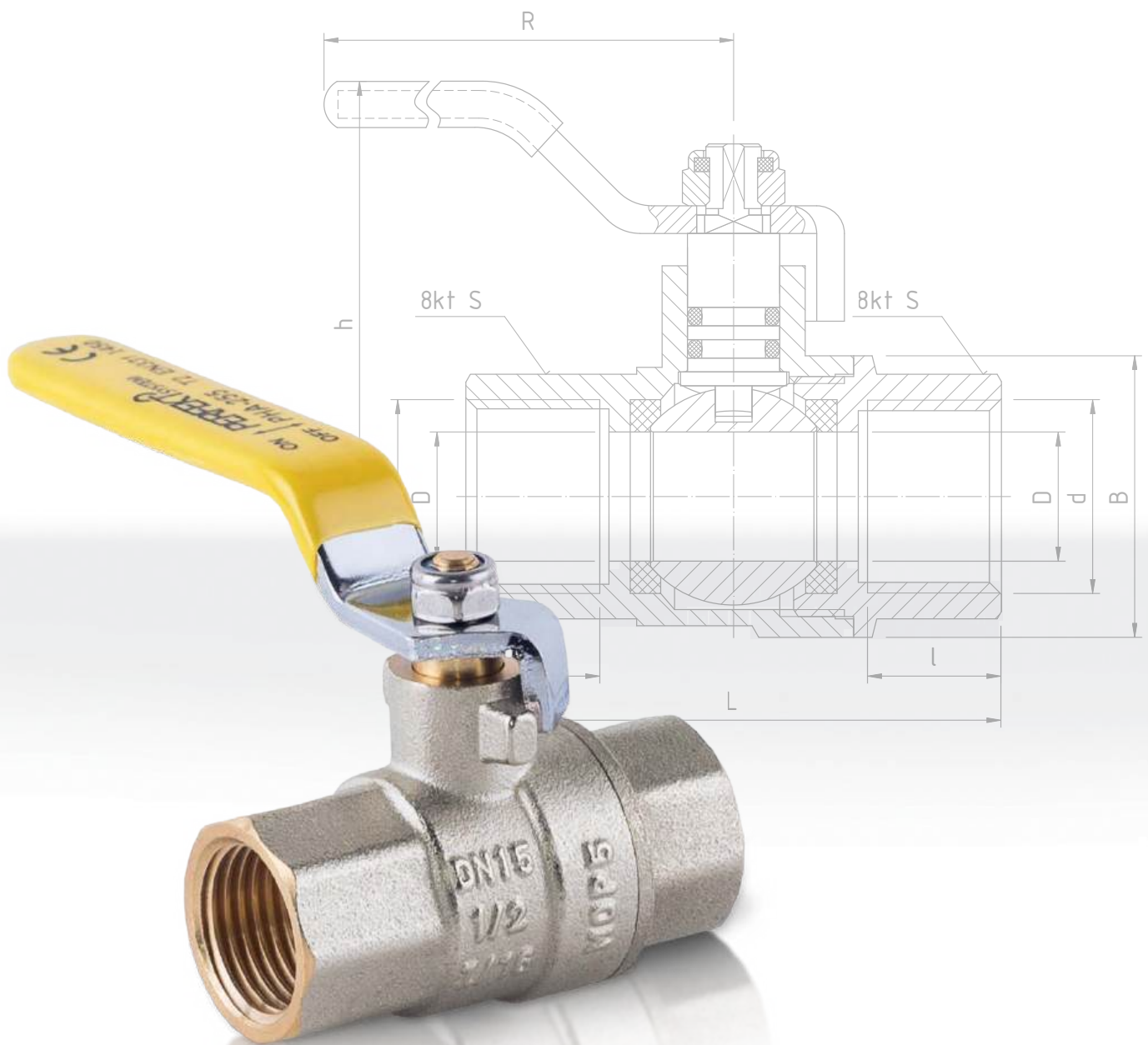
T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+110°C	-25°C	1.0 MPa	ISO 228

Technical data



Dimensions in mm

index	size	L [cm]	DN	ød	øD	A	B	V	W
06-012-0250-040	1"x1"	40	25	20.5	32.5	25	31.5	G1	G1
06-012-0250-050	1"x1"	50	25	20.5	32.5	25	31.5	G1	G1
06-012-0250-060	1"x1"	60	25	20.5	32.5	25	31.5	G1	G1
06-012-0250-070	1"x1"	70	25	20.5	32.5	25	31.5	G1	G1
06-012-0250-080	1"x1"	80	25	20.5	32.5	25	31.5	G1	G1
06-012-0250-090	1"x1"	90	25	20.5	32.5	25	31.5	G1	G1
06-012-0250-100	1"x1"	100	25	20.5	32.5	25	31.5	G1	G1
06-012-0250-120	1"x1"	120	25	20.5	32.5	25	31.5	G1	G1
06-012-0250-150	1"x1"	150	25	20.5	32.5	25	31.5	G1	G1



GAS FITTINGS

PERFEXIM

92-96



Products that meet strict requirements for products intended for gas installations

Gas ball valves	93
Gas filters	94
Flexible connection hoses for gas	94
Extendible lines for gas	95

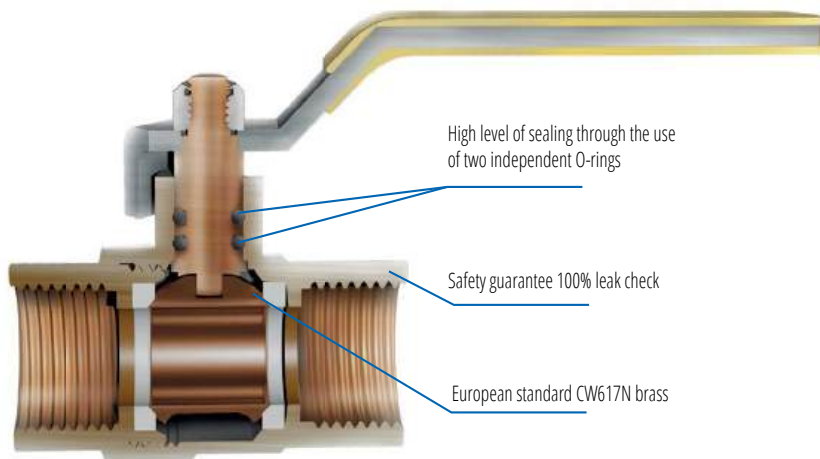
GAS FITTINGS

USE OF PHA-255 BALL VALVES

Gas ball valves Art. PHA-255 with nominal diameter: DN15, DN20, DN25, DN32, DN40, DN50 are designed for closing and opening the flow in gas installations of buildings supplied by first, second and third family gas and third family according to EN 437 with operating parameters:

- maximum operating pressure 0.5 MPa (pressure class MOP5)
- temperature class T2 (temperature range from -20°C to + 60°C)

PHA-255 taps can be installed inside and outside residential and commercial buildings (excluding installations laid directly in the ground).



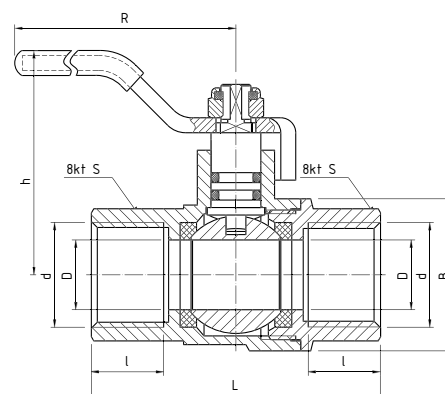
PHA-255

PERFEKT^{SYSTEM}
BALL VALVE
FOR THE GAS AS ABOVE,
MOP5 T2



PARAMETERS

Temperature class	GW by
T2 (FROM -20°C TO +60°C)	EN10226-1***



Technical data



Dimensions in mm

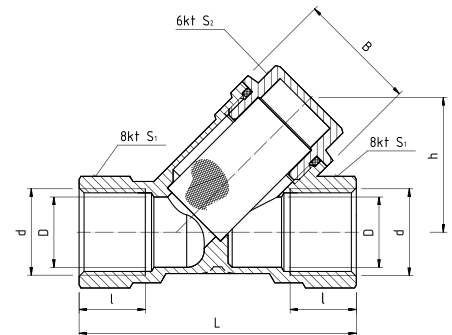
index	size	d	D	L	B	l	h	R	S
10-255-0150-000	15	Rp1/2	14	58.0	30.5	14.5	43.5	87.5	25
10-255-0200-000	20	Rp3/4	19	72.0	38.0	19.5	50.5	104.0	31
10-255-0250-000	25	Rp1	24	87.0	46.5	23.0	75.5	104.0	38
10-255-0320-000	32	Rp1 1/4	29	93.4	54.0	23.0	66.9	131.0	48
10-255-0400-000	40	Rp1 1/2	38	103.2	67.0	23.0	73.0	131.0	55
10-255-0500-000	50	Rp2	45	117.0	82.0	25.0	84.0	159.5	84

MATERIALS

BODY, SCREW-PLUG: CW617N brass with nickel plating
BALL: brass with chrome plating
STEM: CW617N brass
BALL SEAL: PTFE
STEM SEALING: "O"-type sealing rings - NBR
HANDLE: galvanised carbon steel with yellow PVC cladding

PHA-260

PERFEKT^{SYSTEM} SLANTED FILTER FOR GAS MOP5 T2



PARAMETERS

Temperature class	GW by
T2 (FROM -20°C TO +60°C)	EN10226-1***

Technical data



Dimensions in mm

index	size	d	D	L	B	l	S ₁	S ₂	h
10-260-0150-000	15	Rp1/2	17.0	67	29.0	16.0	25.5	21	33.2
10-260-0200-000	20	R3/4	23.0	80	35.0	16.0	31.5	24	37.5
10-260-0250-000	25	Rp1	27.5	85	39.0	18.0	38.0	27	45.6
10-260-0320-000	32	Rp1 1/4	36.0	98	48.0	21.5	48.0	36	54.8
10-260-0400-000	40	Rp1 1/2	41.0	116	57.0	21.5	54.0	43	58.7
10-260-0500-000	50	Rp2	48.0	136	69.5	26.0	66.0	52	70.7

MATERIALS

BODZ, PLUG: CW617N brass
FILTER ELEMENT: AISI304 stainless steel
PLUG SEAL: "O" type sealing rings - NBR

USE

PHA-260 filters are designed for protecting control fittings from impurities with solid particles (with particle size greater than 0.2 mm) in gas-supplied installations according to PN-C-04750:2011. The filters operate in the T2 operating temperature range (-20°C to +60°C) at operating pressures up to MOP5 (5 bar).

PHA-250/2

PERFEKT^{SYSTEM} FLEXIBLE CONNECTION FOR GAS WW



PARAMETERS

T _{MAX}	P _{MAX}	GW by
+60°C	0.5 MPa	ISO 228

Technical data



Dimensions in mm

index	size
11-016-0500-000	500
11-016-0750-000	750
11-016-1000-000	1000
11-016-1250-000	1250
11-016-1500-000	1500
11-016-2000-000	2000

MATERIALS

CORRUGATED INNER HOSE: AISI 304L stainless steel (1.4307)
BRAID: AISI304 stainless steel (1.4301)
OUTER SHELL: PVC
CONNECTIONS: with female thread G1/2 stainless steel AISI303 (1.4305) with NBR gasket - spanner size 24

DESCRIPTION

Movable nuts made of stainless steel (easy assembly). PVC cover - aesthetically pleasing, easy to clean, extra protection. Stainless steel braid - reinforcing the pipe and providing additional protection against mechanical damage. Flexible line made of high-quality acid-resistant steel - high strength, durability, considerable flexibility, which facilitates installation and allows greater freedom in the location of the installed device. Gaskets for swivel nuts included. Certified under system 1 - production under special supervision.

PARAMETERS

Bending radius: unlimited (recommended minimum bending radius in use: 50 mm);
Flow capacity (efficiency): 1.75 m³/h
Fire resistance: 650°C for 30 min
Types of gas: gas fuels of the first, second and third family according to EN437 (e.g. P, B, P/B, Lw, E, etc.).
Fire response: B - s1, d0

PHA-251/2

PERFEKT^{SYSTEM}
FLEXIBLE CONNECTION
FOR GAS WZ



PARAMETERS

T _{MAX}	P _{MAX}	GW/GZ by
+60°C	0.5 MPa	ISO 228 / EN10226-1

Technical data



Dimensions in mm

index	size
11-017-0500-000	500
11-017-0750-000	750
11-017-1000-000	1000
11-017-1250-000	1250
11-017-1500-000	1500
11-017-2000-000	2000

DESCRIPTION

Movable nuts made of stainless steel (easy assembly).
 PVC cover - aesthetically pleasing, easy to clean, extra protection.
 Stainless steel braid - reinforcing the pipe and providing additional protection against mechanical damage.
 Flexible line made of high-quality acid-resistant steel - high strength, durability, considerable flexibility, which facilitates installation and allows greater freedom in the location of the installed device.
 Gaskets for swivel nuts included. Certified under system 1 - production under special supervision.

MATERIALS

CORRUGATED INNER HOSE: AISI 304L stainless steel (1.4307)
BRAID: AISI304 stainless steel (1.4301)
OUTER SHELL: PVC
CONNECTIONS:
 - with female thread G^{3/2} stainless steel AISI303 (1.4305) with NBR gasket - spanner size 24
 - with male thread R1/2 stainless steel AISI303 (1.4305) - spanner size 22

PARAMETERS

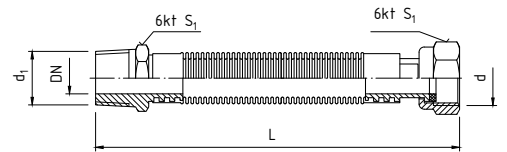
Bending radius: unlimited (recommended minimum bending radius in use: 50 mm);
Flow capacity (efficiency): 1.75 m³/h
Fire resistance: 650°C for 30 min
Types of gas: gas fuels of the first, second and third family according to EN437 (e.g. P, B, P/B, Lw, E, etc.).
Fire response: B - s1, d0

EXTENDIBLE LINE

EXTENDIBLE LINE FOR
GAS WZ

PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+120°C	-20°C	0.5 MPa	ISO 228 / EN10225-1



Technical data

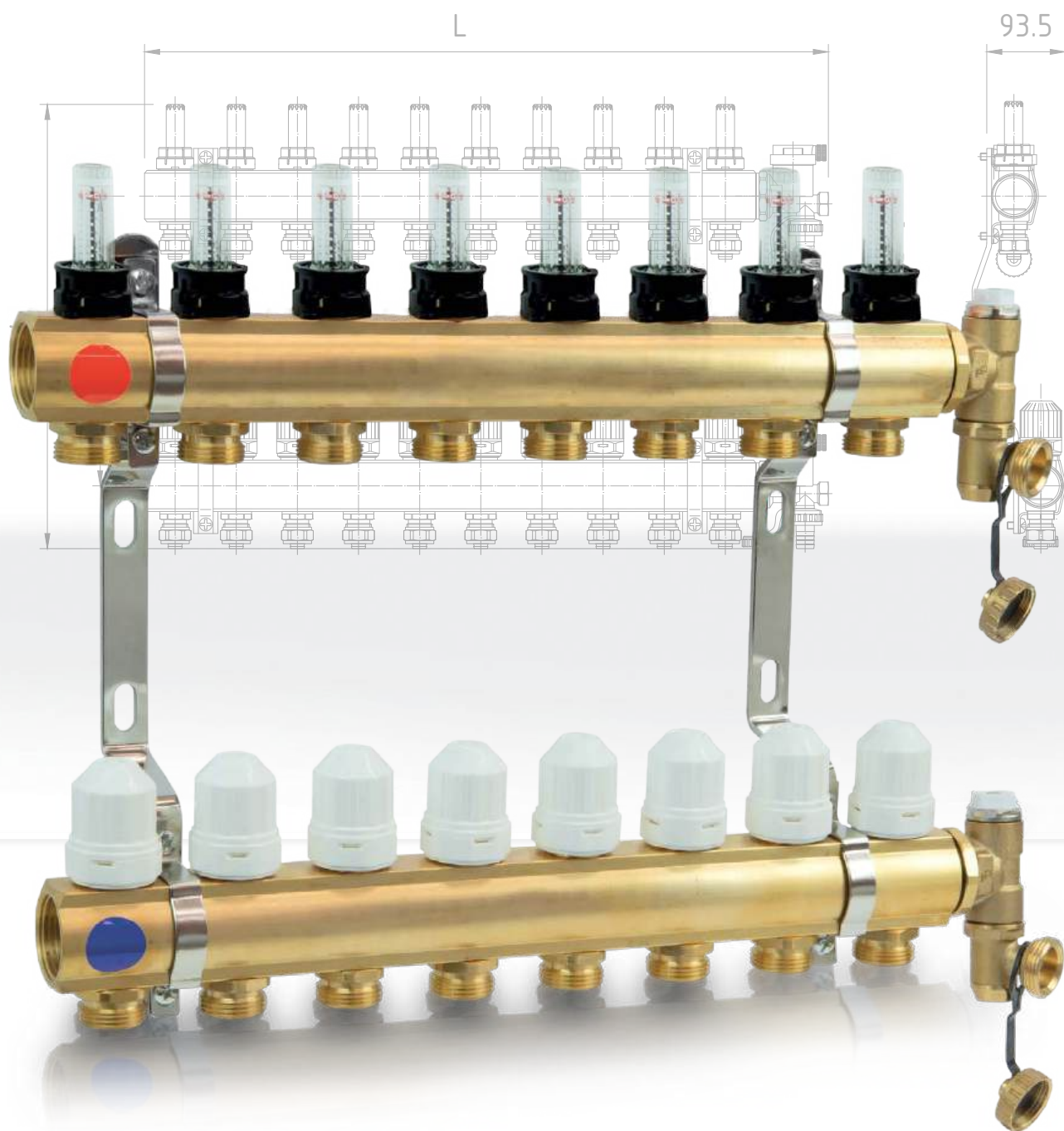


Dimensions in mm

index	size	d	d ₁	DN	S	S ₁
11-012-0130-000	130-220	G ^{1/2}	Rp1/2	12	24.0	24
11-012-0220-000	220-420	G ^{1/2}	Rp1/2	12	24.0	24
11-012-0300-000	300-600	G ^{1/2}	Rp1/2	12	24.0	24
11-012-0500-000	500-1000	G ^{1/2}	Rp1/2	12	24.0	24
11-012-0750-000	750-1500	G ^{1/2}	Rp1/2	12	24.0	30
11-013-0130-000	130-220	G ^{3/4}	Rp3/4	16	27.0	30
11-013-0220-000	220-420	G ^{3/4}	Rp3/4	16	27.0	30
11-013-0300-000	300-600	G ^{3/4}	Rp3/4	16	27.0	30
11-013-0500-000	500-1000	G ^{3/4}	Rp3/4	16	27.0	30
11-013-0750-000	750-1500	G ^{3/4}	Rp3/4	16	27.0	30
11-013-1000-000	1000-2000	G ^{3/4}	Rp3/4	16	27.0	30

MATERIALS

CORRUGATED HOSE: AISI 304L stainless steel (1.4307)
OUTER SHELL: PVC
CONNECTIONS: AISI303 stainless steel (1.4305)
SWIVEL NUT: CW617N
GASKET: NBR



CENTRAL HEATING FITTINGS

Thermostatic couplers radiators	98
Thermostatic radiator valves	110
Safety valves	122
Circulating pump / anti-freeze system	124
Separator magnetic	129
Radiator distributors	133
Distributor for pump groups	149
Vent valves	152
Automation	157
Handles to the boiler	158

PERFEXIM

97-158



Profesjonalne rozdzielanie ciepła

PHA-024 / PHA-024W

PERFEKT^{SYSTEM} STRAIGHT THERMOSTATIC RADIATOR CONNECTION SET



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data



Dimensions in mm

index	size	DN	d	L	L ₁	l	l ₁	t	H	H ₁	S	S ₁	S ₂	F
20-024-0000-000 (chrome)	½"	15	G½	65	73.8	10	11	13	27.2	47	30	26.5	26	8
20-024-0000-001 (white)	½"	15	G½	65	73.8	10	11	13	27.2	47	30	26.5	26	8

MATERIALS

THERMOSTATIC VALVE:

BODY, COUPLING, COUPLING NUT: brass with chrome-plated / white paint finish

VALVE HEAD, HEAD BODY: brass

MANDREL, SPRING, CIRCLIP: stainless steel

PROTECTIVE CAP: plastic

VALVE HEAD SEAL (FORM SEAL): NBR

CONNECTOR GASKET, HEAD GASKET, STEM GASKET: O-ring - NBR

SHUT-OFF VALVE:

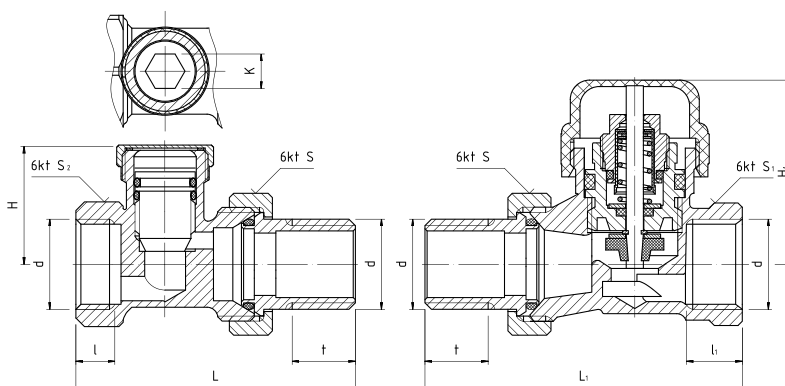
BODY, COUPLING, COUPLING NUT, PROTECTIVE CAP: brass with chrome-plated / white paint finish

VALVE HEAD: brass

CONNECTOR GASKET, VALVE HEAD GASKET (O-RING): NBR

PROTECTIVE CAP SEAL: technical fibre

THE KIT INCLUDES: thermostatic valve, shut-off valve, thermostatic head



PHA-025 / PHA-025W

PERFEKT^{SYSTEM} ANGLE THERMOSTATIC COUPLER KIT FOR CONNECTING THE RADIATOR



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data



Dimensions in mm

index	size	DN	d	L	L ₁	l	l ₁	t	H	H ₁	S	S ₁	S ₂	F
20-025-0000-000 (chrome)	½"	15	G½	48.5	46.5	10	16	13	67.0	42.5	30	26.5	26	8
20-025-0000-001 (white)	½"	15	G½	46.5	48.5	16	16	13	67.0	42.5	30	26.5	26	8

MATERIALS

THERMOSTATIC VALVE:

BODY, COUPLING, COUPLING NUT: brass with chrome-plated / white paint finish

VALVE HEAD, HEAD BODY: brass

MANDREL, SPRING, CIRCLIP: stainless steel

PROTECTIVE CAP: plastic

VALVE HEAD SEAL (FORM SEAL): NBR

CONNECTOR GASKET, HEAD GASKET, STEM GASKET: O-ring - NBR

SHUT-OFF VALVE:

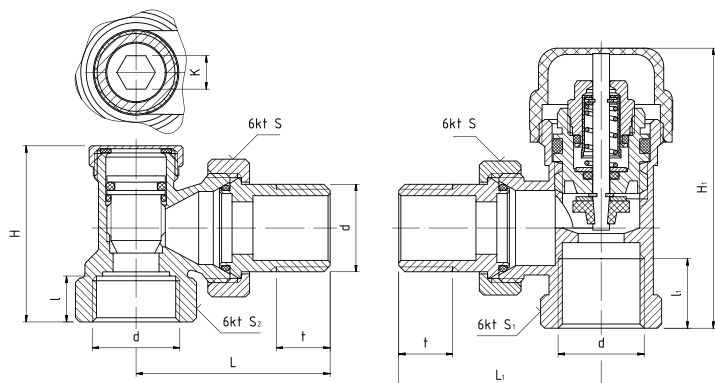
BODY, COUPLING, COUPLING NUT, PROTECTIVE CAP: brass with chrome-plated / white paint finish

VALVE HEAD: brass

CONNECTOR GASKET, VALVE HEAD GASKET (O-RING): NBR

PROTECTIVE CAP SEAL: technical fibre

THE KIT INCLUDES: thermostatic valve, shut-off valve, thermostatic head



PHA-026

PERFEKT^{SYSTEM} THERMOSTATIC SET WITH PRESET, STRAIGHT



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data



Dimensions in mm

index	size	DN	d	L	L ₁	l	l ₁	t	H	H ₁	S	S ₁	S ₂
20-026-0000-000	½"	15	G½	67	81	11.5	10.5	14	27.7	43	30	27	26

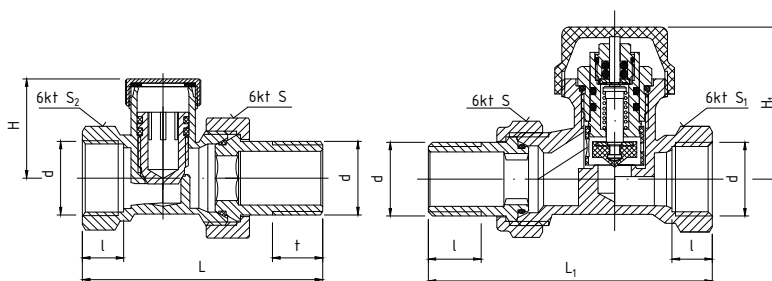
MATERIALS

THERMOSTATIC VALVE:

BODY, COUPLING, COUPLING NUT: CW617N brass with nickel plating
HEAD BODY, HEAD SCREW-PLUG, VALVE HEAD: CW614N brass
PROTECTIVE CAP, PRESETTING INSERT: plastic
MANDREL, SPRING: stainless steel
VALVE HEAD SEAL (FORM SEAL): NBR
CONNECTOR GASKET, HEAD GASKET, STEM GASKET: O-ring - NBR

SHUT-OFF VALVE:

BODY, COUPLING, COUPLING NUT, PROTECTIVE CAP: nickel-plated brass
VALVE HEAD: brass
VALVE HEAD SEALING, CONNECTOR: "O" type sealing ring - NBR
PROTECTIVE CAP SEAL: technical fibre /NBR



PHA-027

PERFEKT^{SYSTEM} THERMOSTATIC SET WITH PRESETS, ANGLE TYPE



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data



Dimensions in mm

index	size	DN	d	L	L ₁	l	l ₁	t	H	H ₁	H ₂	H ₃	S	S ₁	S ₂
20-027-0000-000	½"	15	G½	48.5	51.5	12	10.5	15	22	43.7	60	24	30	27	26

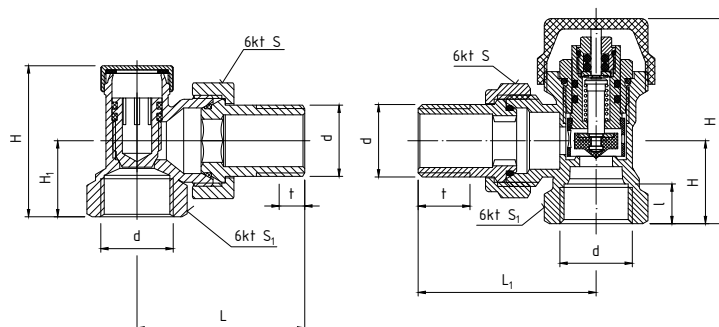
MATERIALS

THERMOSTATIC VALVE:

BODY, COUPLING, COUPLING NUT: CW617N brass with nickel plating
HEAD BODY, HEAD SCREW-PLUG, VALVE HEAD: CW614N brass
PROTECTIVE CAP, PRESETTING INSERT: plastic
MANDREL, SPRING: stainless steel
VALVE HEAD SEAL (FORM SEAL): NBR
CONNECTOR GASKET, HEAD GASKET, STEM GASKET: O-ring - NBR

SHUT-OFF VALVE:

BODY, COUPLING, COUPLING NUT, PROTECTIVE CAP: nickel-plated brass
VALVE HEAD: brass
VALVE HEAD SEALING, CONNECTOR: "O" type sealing ring - NBR
PROTECTIVE CAP SEAL: technical fibre /NBR



PHA-036 / PHA-036W / PHA-036CM

PERFEKT^{SYSTEM} INTEGRATED THERMOSTATIC KIT WITH INITIAL PRESET ANGULAR



PHA-036W - white



PHA-036CM - matte black

PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data



Dimensions in mm

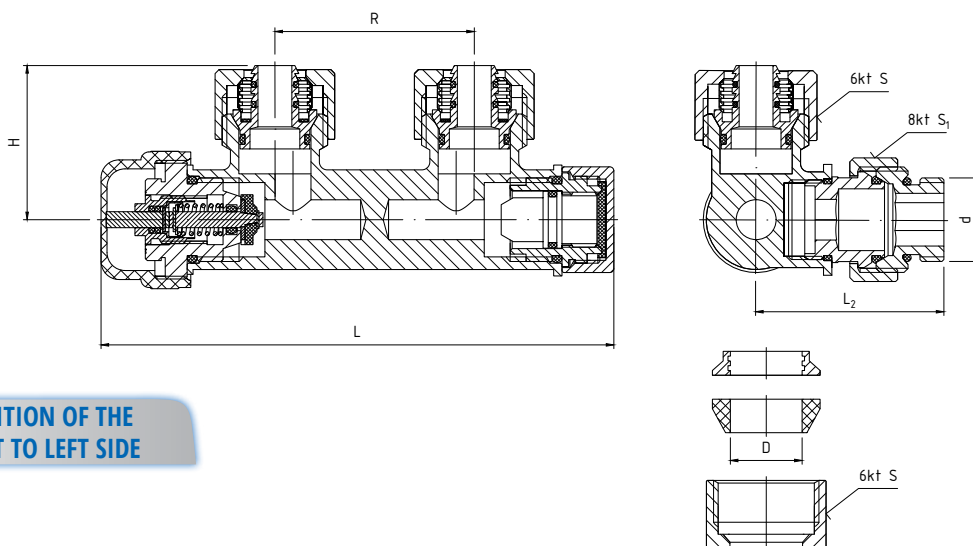
index	size	DN	d	D	L	L ₂	H	R	S	S ₁
20-036-0000-000 (chrome)	½"	15	G½	15	129.5	47.1	39.5	50	27	29.5
20-036-0000-001 (white)	½"	15	G½	15	129.5	47.1	39.5	50	27	29.5
20-036-0000-003 (matt black)	½"	15	G½	15	129.5	47.1	39.5	50	27	29.5

MATERIALS

BODY, PROTECTIVE CAP, COUPLING NUTS, COUPLINGS, NUTS FOR FITTING PEX PIPES, NUTS FOR FITTING COPPER PIPES, NIPPLES: brass with chrome plating/paint coating
VALVE HEAD, PEX TUBE FITTING, COPPER TUBE FITTING, HEAD CASING, HEAD PLUG: brass
VALVE HEAD, STEM, COUPLING, PEX COUPLING, NIPPLE SEALING: sealing ring type "O" - NBR
VALVE HEAD GASKET FOR COPPER PIPES (SHAPED GASKET): NBR
PROTECTIVE CAP SEAL: technical fibre
PROTECTIVE CAP: plastic
MANDREL, SPRING, CIRCLIP: stainless steel
THE SET INCLUDES: integrated valve, thermostatic head

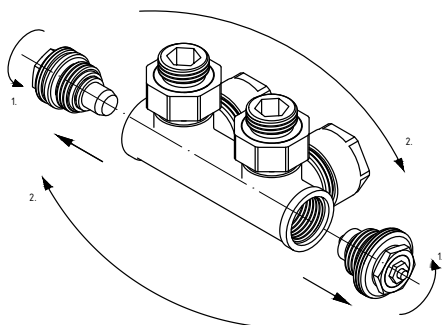
Can be connected to multilayer pipe $\varnothing 16 \times 2$ or copper pipe $\varnothing 15$

TECHNICAL DRAWING

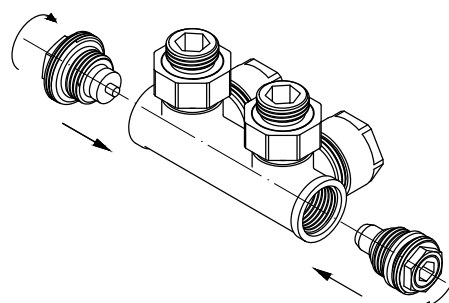


IT IS POSSIBLE TO CHANGE THE POSITION OF THE THERMOSTATIC INSERT FROM RIGHT TO LEFT SIDE

1. Unscrew the thermostatic and shut-off insert
2. Replace thermostatic insert and shut-off insert



3. Tighten the thermostatic insert and shut-off insert



ATTENTION: Install the thermostatic insert on the supply side.

PHA-037 / PHA-037W / PHA-037CM

PERFEKT^{SYSTEM}
THERMOSTATIC
SET WITH INITIAL
PRESET "LEFT"



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data



Dimensions in mm

index	size	DN	d	L	L ₁	t	H	H ₁	A	B	S	S ₁
20-037-0000-000 (chrome)	½"	15	G½	55.5	47	15.2	49.25	37.85	15	12	23.5	23.0
20-037-0000-001 (white)	½"	15	G½	55.5	47	15.2	49.25	37.85	15	12	23.5	23.0
20-037-0000-003 (matt black)	½"	15	G½	55.5	47	15.2	49.25	37.85	15	12	23.5	23.0

MATERIALS

THERMOSTATIC VALVE:

BODY, COUPLING, COUPLING NUT, NUT FOR FITTING PEX PIPES, NUT FOR FITTING COPPER PIPES: brass with chrome plating/paint coating

VALVE HEAD, HEAD BODY, COUPLING FOR PEX PIPES: brass

STEM, SPRING, CIRCLIP: stainless steel

COUPLING GASKET, COPPER TUBE GASKET: bronze ring

PROTECTIVE CAP: plastic

VALVE HEAD SEAL (FORM SEAL): NBR

HEAD GASKETS, STEM GASKET, COUPLING GASKETS FOR PEX PIPES: sealing ring type "O"- NBR

SHUT-OFF VALVE:

CASING, COUPLING, COUPLING NUT, NUT FOR FITTING PEX PIPES, NUT FOR FITTING COPPER PIPES, PROTECTIVE CAP: brass with chrome plating/paint coating

VALVE HEAD, HEAD BODY, COUPLING FOR PEX PIPES: brass

CONNECTOR GASKET, COPPER TUBE GASKET: bronze ring

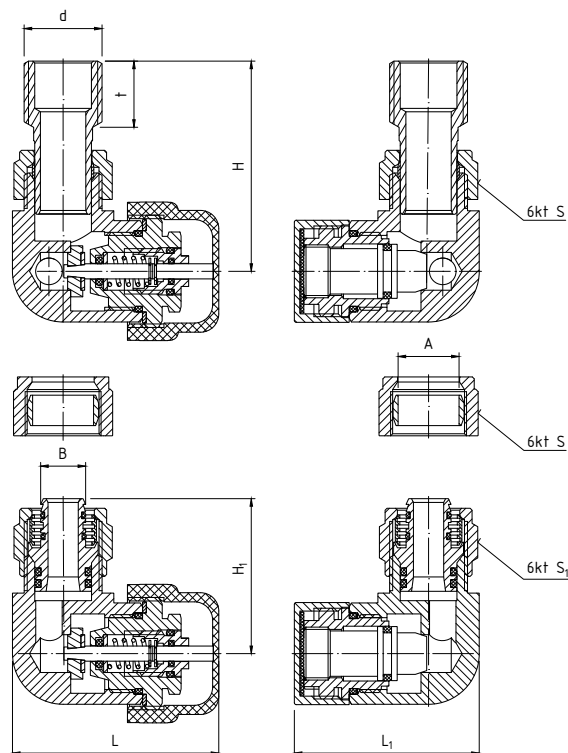
PROTECTIVE CAP SEAL: technical fibre

HEAD GASKETS, STEM GASKET, COUPLING GASKETS FOR PEX PIPES: sealing ring type "O"- NBR

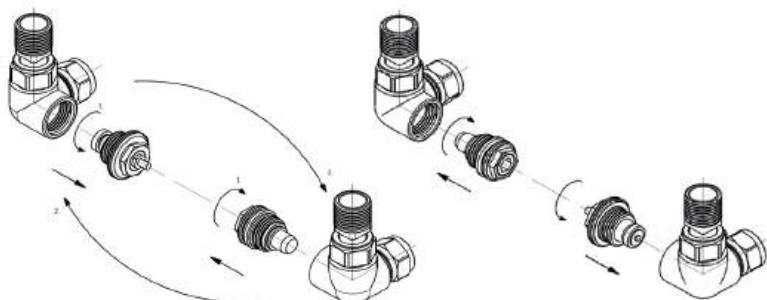
THE SET INCLUDES: thermostatic valve, shut-off valve, thermostatic head

Can be connected to multilayer pipe $\varnothing 16 \times 2$ or copper pipe $\varnothing 15$

TECHNICAL DRAWING



IT IS POSSIBLE TO CHANGE THE POSITION OF OF THE THERMOSTATIC INSERT



In extreme cases, you can remove the thermostatic insert (from the thermostatic valve) and the closing head (from the shut-off valve) and replace them .

PHA-038 / PHA-038W / PHA-038CM / PHA-038G / PHA-038CS

PERFEKT^{SYSTEM}
THERMOSTATIC
SET WITH INITIAL
PRESET "RIGHT"



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data



Dimensions in mm

index	size	DN	d	L	L ₁	t	H	H ₁	A	B	S	S ₁
20-038-0000-000 (chrome)	½"	15	G½	55.5	47	15.2	49.25	37.85	15	12	23.5	23.0
20-038-0000-001 (white)	½"	15	G½	55.5	47	15.2	49.25	37.85	15	12	23.5	23.0
20-038-0000-002 (graphite)	½"	15	G½	55.5	47	15.2	49.25	37.85	15	12	23.5	23.0
20-038-0000-003 (matt black)	½"	15	G½	55.5	47	15.2	49.25	37.85	15	12	23.5	23.0
20-038-0000-004 (black structure)	½"	15	G½	55.5	47	15.2	49.25	37.85	15	12	23.5	23.0

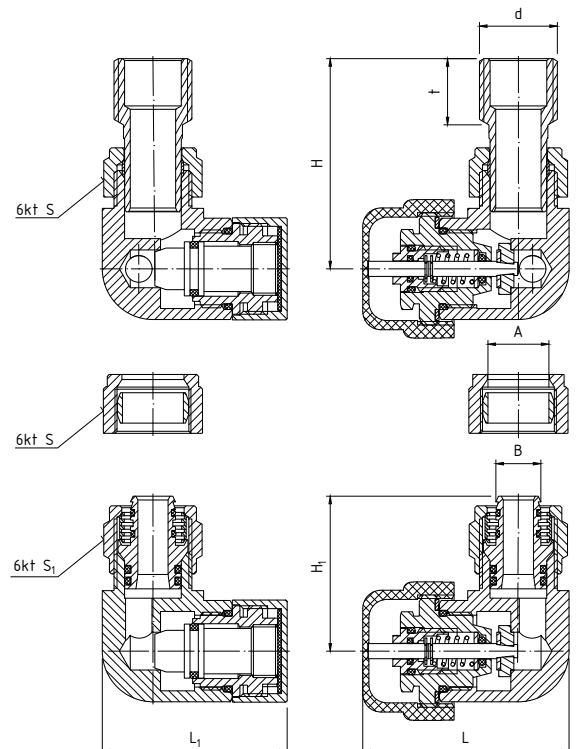
MATERIALS

THERMOSTATIC VALVE:
BODY, COUPLING, COUPLING NUT, NUT FOR FITTING PEX PIPES, NUT FOR FITTING COPPER PIPES: brass with chrome plating/
 paint coating
VALVE HEAD, HEAD BODY, COUPLING FOR PEX PIPES: brass
STEM, SPRING, CIRCLIP: stainless steel
CONNECTOR GASKET, COPPER TUBE GASKET: bronze ring
PROTECTIVE CAP: plastic
VALVE HEAD SEAL (FORM SEAL): NBR
HEAD GASKETS, STEM GASKET, COUPLING GASKETS FOR PEX PIPES: sealing ring type "O"- NBR

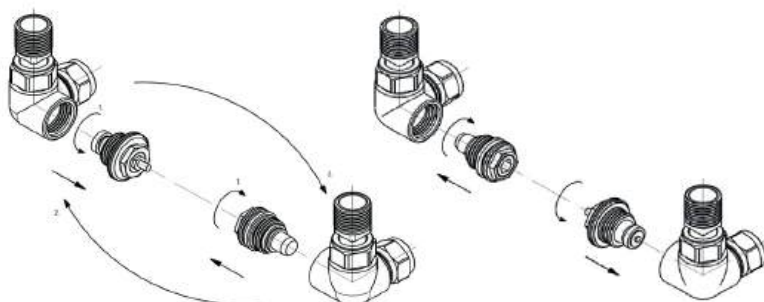
SHUT-OFF VALVE:
CASING, COUPLING, COUPLING NUT, NUT FOR FITTING PEX PIPES, NUT FOR FITTING COPPER PIPES, PROTECTIVE CAP: brass
 with chrome plating/paint coating
VALVE HEAD, HEAD BODY, COUPLING FOR PEX PIPES: brass
CONNECTOR GASKET, COPPER TUBE GASKET: bronze ring
PROTECTIVE CAP SEAL: technical fibre
HEAD GASKETS, STEM GASKET, COUPLING GASKETS FOR PEX PIPES: sealing ring type "O"- NBR
THE SET INCLUDES: thermostatic valve, shut-off valve, thermostatic head

Can be connected to multilayer pipe ø16 x 2 or copper pipe ø15

TECHNICAL DRAWING



IT IS POSSIBLE TO CHANGE THE POSITION OF OF THE THERMOSTATIC INSERT



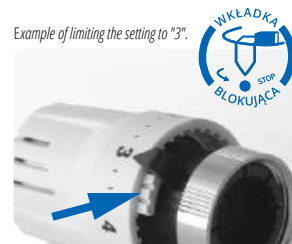
In extreme cases, you can remove the thermostatic insert (from the thermostatic valve) and the closing head (from the shut-off valve) and replace them .

7024

THERMOSTATIC SET STRAIGHT WITH THERMOSTATIC HEAD WITH A PRESET LOCK (INSERT LOCKING DEVICE INCLUDED)

PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228



Example of limiting the setting to "3".

Possibility of limiting the achieved setting over the entire range by suitable placement of a locking insert from underneath in the thermostatic head knob body.

Technical data



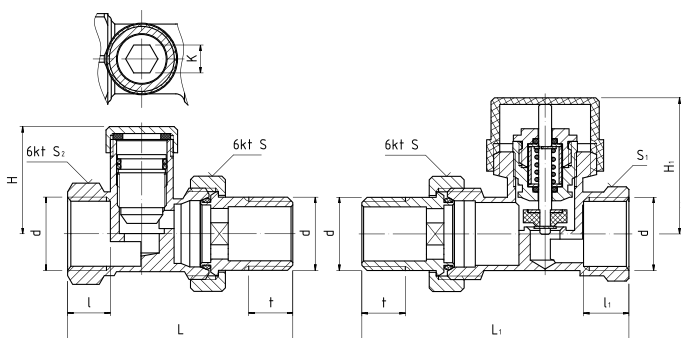
Dimensions in mm

index	size	DN	d	L	L ₁	l	l ₁	t	H	H ₁	S	S ₁	S ₂	F
20-107-0200-000	1/2"	15	G1/2	67.5	78	10.5	13	12.5	26	39.5	30	24.5	26.00	8.00

MATERIALS

THERMOSTATIC VALVE:
BODY, COUPLING, COUPLING NUT: brass with nickel plating
VALVE HEAD, HEAD BODY: brass
STEM, SPRING, CIRCLIP: stainless steel
PROTECTIVE CAP: plastic
VALVE HEAD SEAL (FORM SEAL): NBR
CONNECTOR GASKET, HEAD GASKET, STEM GASKET: O-ring - NBR

SHUT-OFF VALVE:
BODY, COUPLING, COUPLING NUT, PROTECTIVE CAP: nickel-plated brass
VALVE HEAD: brass
CONNECTOR GASKET, VALVE HEAD GASKET (O-RING): NBR
PROTECTIVE CAP SEAL: technical fibre
THE SET INCLUDES: thermostatic valve, shut-off valve, thermostatic head with setting lock (locking insert included)

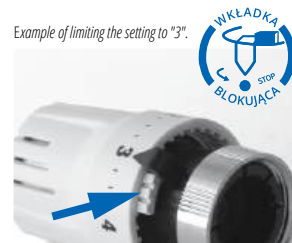


7025

THERMOSTATIC SET ANGULAR WITH THERMOSTATIC HEAD WITH A PRESET LOCK (INSERT LOCKING DEVICE INCLUDED)

PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228



Example of limiting the setting to "3".

Possibility of limiting the achieved setting over the entire range by suitable placement of a locking insert from underneath in the thermostatic head knob body.

Technical data



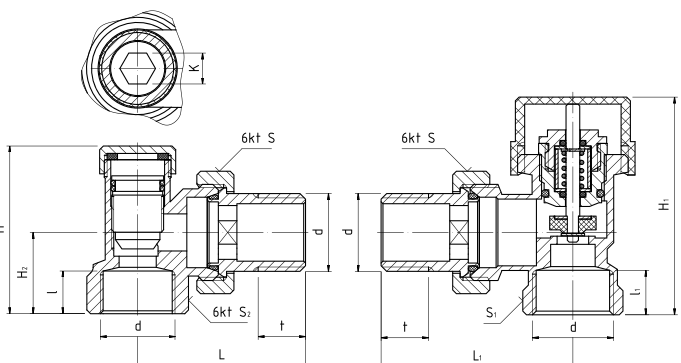
Dimensions in mm

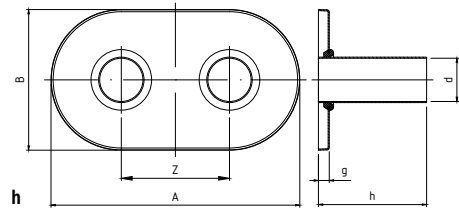
index	size	DN	d	L	L ₁	l	l ₁	t	H	H ₂	H ₁	S	S ₁	S ₂	F
20-107-0200-010	1/2"	15	G1/2	48.5	55	11.5	10.5	12.5	44	21	60	30	24.5	24.5	8

MATERIALS

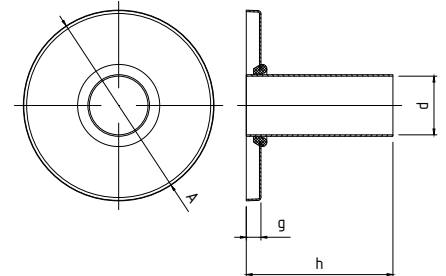
THERMOSTATIC VALVE:
BODY, COUPLING, COUPLING NUT: brass with nickel plating
VALVE HEAD, HEAD BODY: brass
STEM, SPRING, CIRCLIP: stainless steel
PROTECTIVE CAP: plastic
VALVE HEAD SEAL (FORM SEAL): NBR
CONNECTOR GASKET, HEAD GASKET, STEM GASKET: O-ring - NBR

SHUT-OFF VALVE:
BODY, COUPLING, COUPLING NUT, PROTECTIVE CAP: nickel-plated brass
VALVE HEAD: brass
CONNECTOR GASKET, VALVE HEAD GASKET (O-RING): NBR
PROTECTIVE CAP SEAL: technical fibre
THE SET INCLUDES: thermostatic valve, shut-off valve, thermostatic head with setting lock (locking insert included)

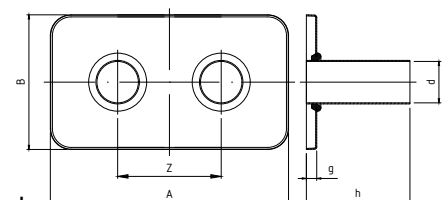


ZM01**COVER SET WITH OVAL ROSETTE AND BUSHINGS****TECHNICAL DRAWING****Technical data**

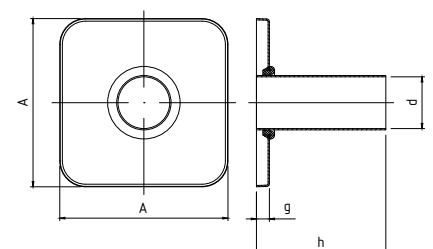
index	colour	d	A	B	g	Z	h
20-040-1040-100	chrome	ø 20	115	65	5	50	50
20-040-1040-101	white	ø 20	115	65	5	50	50
20-040-1040-103	matte black	ø 20	115	65	5	50	50

ZM02**COVER SET WITH TWO ROUND ROSETTES AND BUSHINGS****TECHNICAL DRAWING****Technical data**

index	colour	d	A	(g)	h
20-040-1000-200	chrome	ø 20	65	5	50
20-040-1000-201	white	ø 20	65	5	50
20-040-1000-203	matte black	ø 20	65	5	50

ZMK1**COVER SET WITH RECTANGULAR ROSETTE AND BUSHINGS****TECHNICAL DRAWING****Technical data**

index	colour	d	A	B	g	Z	h
20-040-1030-100	chrome	ø 20	115	65	5	50	50
20-040-1030-101	white	ø 20	115	65	5	50	50
20-040-1030-103	matte black	ø 20	115	65	5	50	50

ZMK2**CAMOUFLAGE SET WITH TWO SQUARE ESCUTCHEONS****TECHNICAL DRAWING****Technical data**

index	colour	d	A	(g)	h
20-040-1020-200	chrome	ø 20	65	5	50
20-040-1020-201	white	ø 20	65	5	50
20-040-1020-203	matte black	ø 20	65	5	50

7030 / 7031 / 7032G / 7032CM

THERMOSTATIC TO CONNECT ANGLE RADIATOR



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data



Dimensions in mm

article	index	size	DN	d	L	H	H ₁	H ₂	H ₃	S	P
7030	20-1080100-000 (chrome)	½"	15	G½	50.5	77.0	51.0	68.3	42.5	30	ø30
7031	20-1080100-001 (white)	½"	15	G½	50.5	77.0	51.0	68.3	42.5	30	ø30
7032G	20-1080100-002 (graphite)	½"	15	G½	50.5	77.0	51.0	68.3	42.5	30	ø30
7032CM	20-1080100-003 (matt black)	½"	15	G½	50.5	77.0	51.0	68.3	42.5	30	ø30

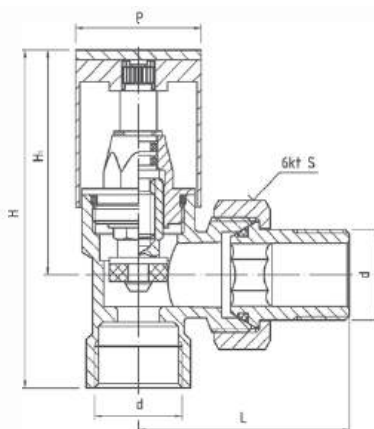
MATERIALS

SUPPLY VALVE:

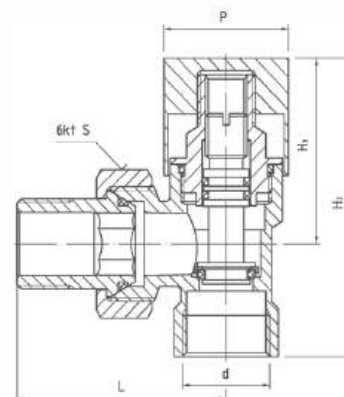
BODY, COUPLING, COUPLING NUT: brass with chrome plating/paint finish
STEM, VALVE HEAD, HEAD BODY: brass
KNOB, PROTECTIVE CAP: brass with chrome/paint coating
RETAINING RING: stainless steel
VALVE HEAD SEAL: flat seal - NBR
CONNECTOR GASKET, HEAD GASKET, STEM GASKET: O-ring - NBR

SHUT-OFF VALVE:

BODY, COUPLING, COUPLING NUT: brass with chrome plating/paint finish
STEM, HEAD BODY: brass
PROTECTIVE CAP: brass with chrome/paint coating
CONNECTOR GASKET, HEAD GASKET, STEM GASKET: O-ring - NBR



RADIATOR SUPPLY VALVE



RADIATOR SHUT-OFF VALVE

TECHNICAL DRAWING

ADDITIONAL INFORMATION

The angle radiator valve set is designed for the installation of radiators in central heating systems (including bathroom radiators). The supply valve included in the set is used to regulate the flow of the heating medium, while the shut-off valve is designed to shut off the flow of the heating medium through the radiator. Connection threads ½".

GT01RA

LIQUID HEAD THERMOSTATIC WITH RA CONNECTOR WITH LOCK OF TEMPERATURE SETTINGS

PARAMETERS

T_{MAX}
+50°C

Technical data



index

20-300-0009-000

MATERIALS

LIQUID SENSOR: ethyl octane

BODY, POSITIONER BODY WITH SENSOR COVER: ABS

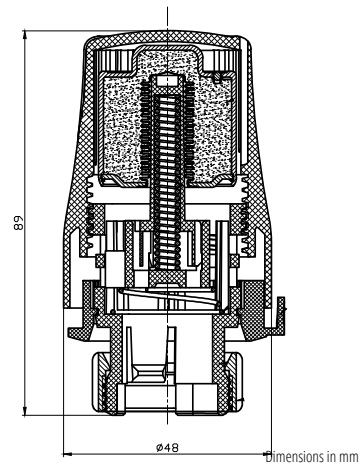
EXPANSION SPRING stainless steel - guarantees smooth operation of the knob causing clearance on the positioner thread to be cancelled, eliminates the problem of the head moving backwards from the selected setting

LOCKING SLEEVE: ABS

HEAD SPRING stainless steel

PUSHER: plastic

LOCK NUT: PA



Dimensions in mm

PARAMETERS

MAX. OPERATING TEMPERATURE +50°C

TEMPERATURE SETTING RANGE: +6°C to +28°C ("0" - allows for complete closure of the thermostatic valve)

FROST PROTECTION AT LEVEL: +6°C (marked on the scale with an asterisk "**")

INDICATIONS ON THE SCALE:

0 - 0°C
* - +6°C
1 - +12°C
2 - +16°C
3 - +20°C
4 - +24°C
5 - +28°C

Possibility to limit the setting obtained over the entire range by placing the locking insert from underneath in the body of the thermostatic head knob.

Example of limiting the setting to "3".



GT02RA

LIQUID HEAD THERMOSTATIC WITH RA CONNECTION

PARAMETERS

T_{MAX}
+50°C

Technical data



index

20-300-0010-000

MATERIALS

LIQUID SENSOR: ethyl octane

BODY, POSITIONER BODY WITH SENSOR COVER: ABS

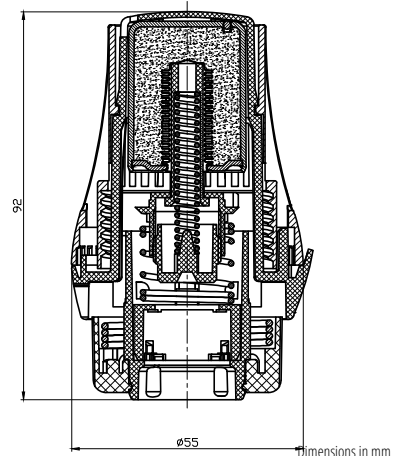
EXPANSION SPRING stainless steel - guarantees smooth operation of the knob causing clearance on the positioner thread to be cancelled, eliminates the problem of the head moving backwards from the selected setting

LOCKING SLEEVE: ABS

HEAD SPRING stainless steel

PUSHER: plastic

LOCK NUT: PA



Dimensions in mm

PARAMETERS

MAX. OPERATING TEMPERATURE +50°C

TEMPERATURE SETTING RANGE: +6°C to +28°C ("0" - allows for complete closure of the thermostatic valve)

FROST PROTECTION AT LEVEL: +6°C (marked on the scale with an asterisk "**")

INDICATIONS ON THE SCALE:

0 - 0°C
* - +6°C
1 - +12°C
2 - +16°C
3 - +20°C
4 - +24°C
5 - +28°C

GT01

LIQUID THERMOSTATIC THERMOSTATIC M30X1.5 WITH LOCK OF TEMPERATURE SETTINGS

PARAMETERS

T_{MAX}
+50°C

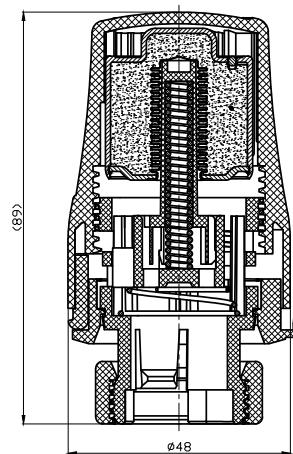
Technical data



index
20-107-0300-003

MATERIALS

LIQUID SENSOR: ethyl octane
BODY, POSITIONER BODY WITH SENSOR COVER: ABS
EXPANSION SPRING stainless steel - guarantees smooth operation of the knob causing clearance on the positioner thread to be cancelled, eliminates the problem of the head moving backwards from the selected setting
LOCKING SLEEVE: ABS
HEAD SPRING stainless steel
PUSHER: plastic
NUT M30x1.5: brass with coating



Dimensions in mm

PARAMETERS

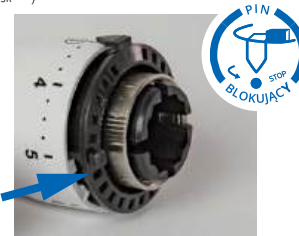
MAX. OPERATING TEMPERATURE +50°C
TEMPERATURE SETTING RANGE: +6°C to +28°C ("0" - allows for complete closure of the thermostatic valve)
FROST PROTECTION AT LEVEL: +6°C (marked on the scale with an asterisk "**")

INDICATIONS ON THE SCALE:

- 0 - 0°C
- * - +6°C
- 1 - +12°C
- 2 - +16°C
- 3 - +20°C
- 4 - +24°C
- 5 - +28°C

Possibility to limit the setting obtained over the entire range by placing the locking insert from underneath in the body of the thermostatic head knob.

Example of limiting the setting to "3".



GT03

LIQUID THERMOSTATIC THERMOSTATIC M30X1.5 WITH LOCK OF TEMPERATURE SETTINGS

PARAMETERS

T_{MAX}
+50°C

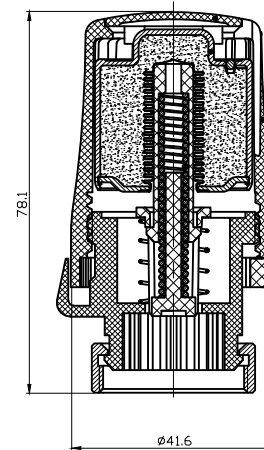
Technical data



index
20-107-0300-004

MATERIALS

LIQUID SENSOR: ethyl octane
BODY, POSITIONER BODY WITH SENSOR COVER: ABS
EXPANSION SPRING stainless steel - guarantees smooth operation of the knob causing clearance on the positioner thread to be cancelled, eliminates the problem of the head moving backwards from the selected setting
LOCKING SLEEVE: ABS
HEAD SPRING stainless steel
PUSHER: plastic
NUT M30x1.5: brass with coating



Dimensions in mm

PARAMETERS

MAX. OPERATING TEMPERATURE +50°C
TEMPERATURE SETTING RANGE: +6°C to +28°C ("0" - allows for complete closure of the thermostatic valve)
FROST PROTECTION AT LEVEL: +6°C (marked on the scale with an asterisk "**")

INDICATIONS ON THE SCALE:

- 0 - 0°C
- * - +6°C
- 1 - +12°C
- 2 - +16°C
- 3 - +20°C
- 4 - +24°C
- 5 - +28°C

Possibility to limit the setting obtained over the entire range by placing the locking insert from underneath in the body of the thermostatic head knob.

Example of limiting the setting to "3".



GT04

LIQUID THERMOSTATIC THERMOSTATIC M30X1.5 WITH LOCK OF TEMPERATURE SETTINGS

PARAMETERS

T_{MAX}

+50°C

Technical data

index

20-107-0300-005

MATERIALS

LIQUID SENSOR: ethyl octane

BODY, POSITIONER BODY WITH SENSOR COVER: ABS

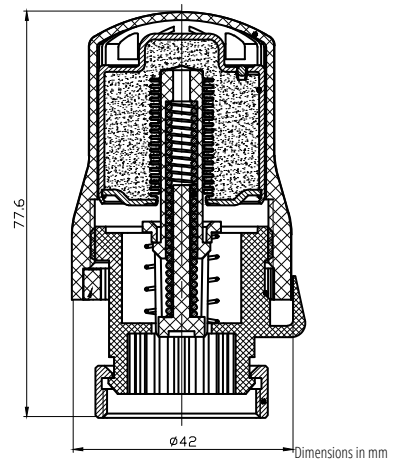
EXPANSION SPRING stainless steel - guarantees smooth operation of the knob causing clearance on the positioner thread to be cancelled, eliminates the problem of the head moving backwards from the selected setting

LOCKING SLEEVE: ABS

HEAD SPRING stainless steel

PUSHER: plastic

NUT M30x1.5: brass with coating



PARAMETERS

MAX. OPERATING TEMPERATURE +50°C

TEMPERATURE SETTING RANGE: +6°C to +28°C ("0" - allows for complete closure of the thermostatic valve)

FROST PROTECTION AT LEVEL: +6°C (marked on the scale with an asterisk "**")

INDICATIONS ON THE SCALE:

0 - 0°C

* - +6°C

1 - +12°C

2 - +16°C

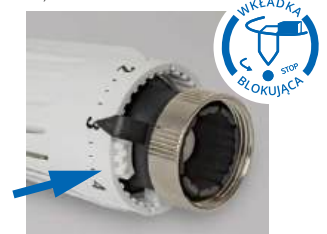
3 - +20°C

4 - +24°C

5 - +28°C

Possibility to limit the setting obtained over the entire range by placing the locking insert from underneath in the body of the thermostatic head knob.

Example of limiting the setting to "3".



TRCD10C / TRCD10W / TRCD10CM

LIQUID THERMOSTATIC THERMOSTATIC M30x1,5



TRCD10C - chrome-plated



TRCD10W - white



TRCD10CM - matte black

PARAMETERS

T _{MAX}	GW by
+50°C	ISO724 ISO965-1 ISO965-3

Technical data



Dimensions in mm

index	size	d	H
20-1070400-000 (chrome)	M30x1/5	M30x1/5	86
20-1070400-100 (white)	M30x1/5	M30x1/5	86
20-1070400-003 (matt black)	M30x1/5	M30x1/5	86

MATERIALS

LIQUID SENSOR: ethyl octane
BODY, POSITIONER BODY: ABS
EXPANSION SPRING stainless steel - guarantees smooth operation of the knob causing clearance on the positioner thread to be cancelled, eliminates the problem of the head moving backwards from the selected setting
LOCKING SLEEVE: ABS
HEAD SPRING, SENSOR COVER: stainless steel
PUSHER: plastic
NUT M30x1.5: brass with coating

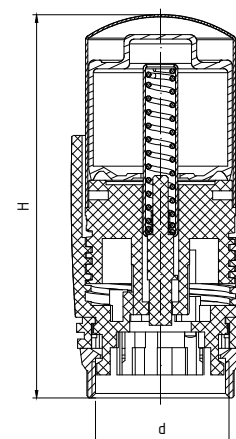
PARAMETERS

MAX. OPERATING TEMPERATURE +50°C
TEMPERATURE SETTING RANGE: +6°C to +28°C
FROST PROTECTION AT LEVEL: +6°C (marked on the scale with an asterisk "**")

INDICATIONS ON THE SCALE:

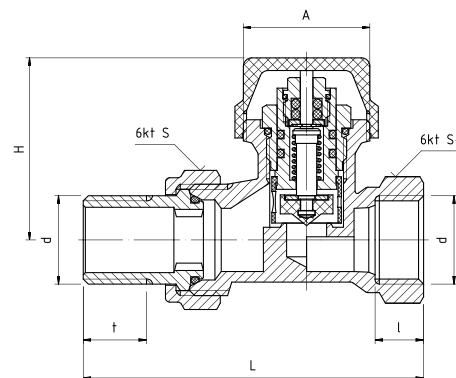
- * -
- 1 - +6°C
- 2 - +12°C
- 3 - +16°C
- 4 - +20°C
- 5 - +24°C
- +28°C

TECHNICAL DRAWING



PHA-028

PERFEKT^{SYSTEM} THERMOSTATIC RADIATOR VALVE STRAIGHT WITH PRESETTING



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228 ISO724 ISO965-1

Technical data



Dimensions in mm

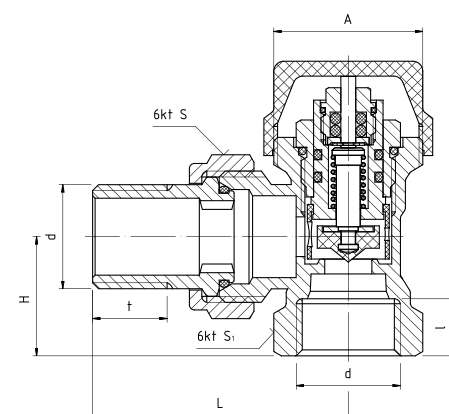
index	size	DN	d	L	l	t	H	S	S ₁	A
20-028-0000-000	1/2"	15	G1/2	81	10.5	15	43	30	27	M30x1/5

MATERIALS

BODY, COUPLING, COUPLING NUT: CW617N brass with nickel plating
HEAD BODY, HEAD SCREW-PLUG, VALVE HEAD: CW614N brass
PROTECTIVE CAP, PRESETTING INSERT: plastic
MANDREL, SPRING: stainless steel
VALVE HEAD SEAL: form seal - NBR
CONNECTOR GASKET, HEAD GASKET, STEM GASKET: ring
 Type "O" seal - NBR

PHA-029

PERFEKT^{SYSTEM} THERMOSTATIC RADIATOR VALVE ANGLE WITH PRESETTING



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228 / ISO724 / ISO965-1

Technical data



Dimensions in mm

index	size	DN	d	L	l	t	H	S	S ₁	A
20-029-0000-000	1/2"	15	G1/2	51.5	10.5	15	24	30	27	M30x1/5

MATERIALS

BODY, COUPLING, COUPLING NUT: CW617N brass with nickel plating
HEAD BODY, HEAD SCREW-PLUG, VALVE HEAD: CW614N brass
PROTECTIVE CAP, PRESETTING INSERT: plastic
MANDREL, SPRING: stainless steel
VALVE HEAD SEAL: form seal - NBR
CONNECTOR GASKET, HEAD GASKET, STEM GASKET: O-ring - NBR

PHA-030

PERFEKT^{SYSTEM} RADIATOR VALVE STRAIGHT



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228



Technical data



Dimensions in mm

index	size	DN	d	L	L ₁	l	t	H	S	S ₁
20-030-0000-300	3/8"	10	G3/8	67	25	10.0	8.5	65.0	21	26
20-030-0000-000	1/2"	15	G1/2	67	22	11.5	12.0	60.0	26	30

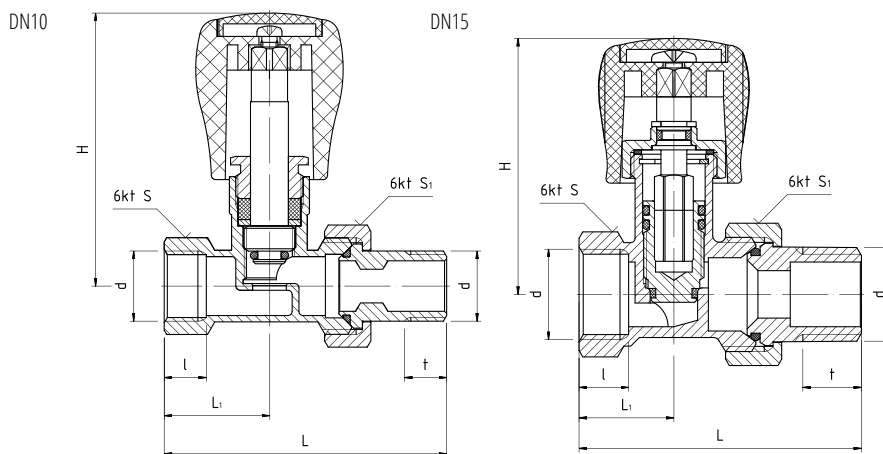
MATERIALS

for DN10:

BODY, COUPLING: CW617N brass with nickel plating
STEM, GLAND, WASHER: CW614N brass
COUPLING NUT: CW614N brass with nickel plating
VALVE HEAD SEALING, CONNECTOR: "O" type sealing ring - NBR
STEM SEALING: PTFE (Teflon)
HANDWHEEL: ABS plastic

for DN15:

BODY, COUPLING: CW617N brass with nickel plating
VALVE HEAD, STEM: CW614N brass
COUPLING NUT, STEM NUT: CW614N brass with nickel plating
SEALING OF VALVE HEAD, STEM, COUPLING: O-ring - NBR
STEM NUT SEAL: technical fibre
CIRCLIP: spring steel
HANDWHEEL: ABS plastic



PHA-031

PERFEKT^{SYSTEM} RADIATOR VALVE STRAIGHT CUT-OFF



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228



Technical data

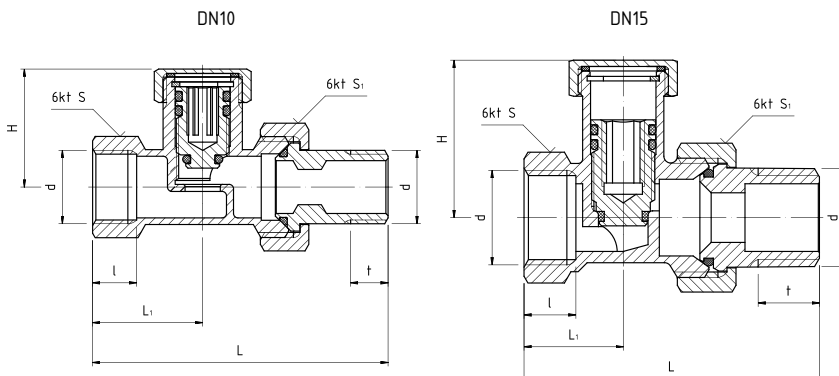


Dimensions in mm

index	size	DN	d	L	L ₁	l	t	H	S	S ₁
20-031-0001-300	3/8"	10	G3/8	67	25	10.0	8.5	26.8	21	26
20-031-0001-000	1/2"	15	G1/2	67	22	11.5	12.0	35.0	26	30

MATERIALS

BODY, COUPLING: CW617N brass with nickel plating
VALVE HEAD: CW614N brass
COUPLING NUT, PROTECTIVE CAP: CW614N brass with nickel plating
VALVE HEAD, COUPLING SEALING: "O" type sealing ring - NBR
PROTECTIVE CAP SEAL: technical fibre
CIRCLIP: spring steel



PHA-032

PERFEKT^{SYSTEM} RADIATOR VALVE ANGULAR



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228



Technical data



Dimensions in mm

index	size	DN	d	L	l	t	H	H ₁	S	S ₁
20-032-0100-300	3/8"	10	G3/8	45.5	10	8.5	79.3	18.5	21	26
20-032-0100-000	1/2"	15	G1/2	51.0	11	12.0	75.0	22.0	26	30

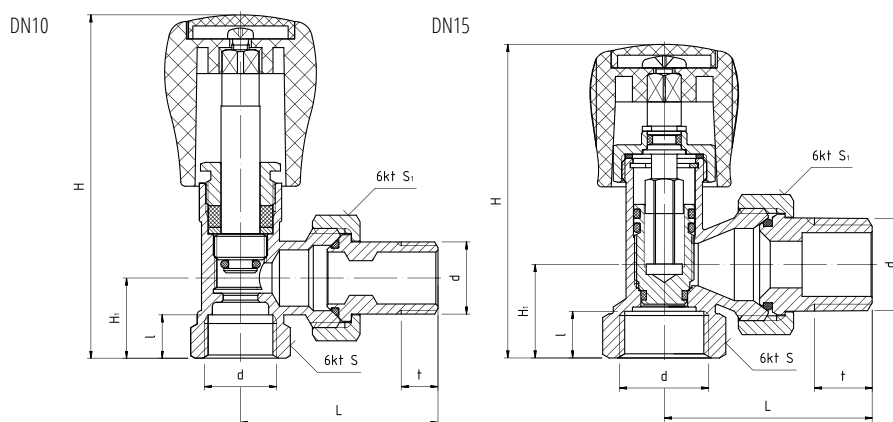
MATERIALS

For DN10:

BODY, COUPLING: CW617N brass with nickel plating
STEM, GLAND, WASHER: CW614N brass
COUPLING NUT: CW614N brass with nickel plating
VALVE HEAD, COUPLING SEALING: "O" type sealing ring - NBR
STEM SEALING: PTFE (Teflon)
HANDWHEEL: ABS plastic

For DN15:

BODY, COUPLING: CW617N brass with nickel plating
VALVE HEAD, STEM: CW614N brass
COUPLING NUT, STEM NUT: CW614N brass with nickel plating
SEALING OF VALVE HEAD, STEM, COUPLING: O-ring - NBR
STEM NUT SEAL: technical fibre
CIRCLIP: spring steel
HANDWHEEL: ABS plastic



PHA-033

PERFEKT^{SYSTEM} RADIATOR SHUT-OFF VALVE ANGLE



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228



Technical data

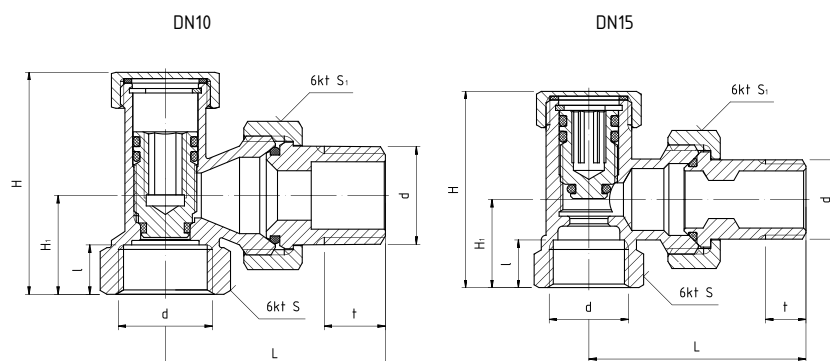


Dimensions in mm

index	size	DN	d	L	l	t	H	H ₁	S	S ₁
20-033-0101-300	3/8"	10	G3/8	45.5	10	8.5	42	18.5	21	26
20-033-0101-000	1/2"	15	G1/2	50.5	11	12.0	49	22.0	26	30

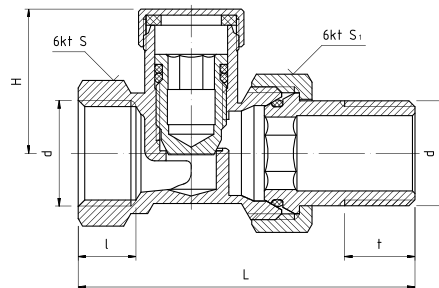
MATERIALS

BODY, COUPLING: CW617N brass with nickel plating
VALVE HEAD: CW614N brass
COUPLING NUT, PROTECTIVE CAP: CW614N brass with nickel plating
VALVE HEAD, COUPLING SEALING: "O" type sealing ring - NBR
PROTECTIVE CAP SEAL: technical fibre
CIRCLIP: spring steel



TRV02

RADIATOR SHUT-OFF VALVE SHUT-OFF STRAIGHT



PARAMETERS

TMAX	TMIN	PMAX	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data



Dimensions in mm

index	size	DN	d	L	H	l	t	S	S ₁
20-107-0300-001	½"	15	G½	67.0	27.7	11.5	14	26	30

MATERIALS

BODY, COUPLING, COUPLING NUT, PROTECTIVE CAP: nickel-plated brass

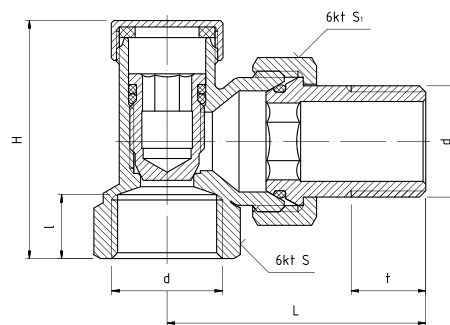
VALVE HEAD: brass

VALVE HEAD, COUPLING SEALING: "O" type sealing ring - NBR

PROTECTIVE CAP SEAL: technical fibre /NBR

TRV04

RADIATOR SHUT-OFF VALVE SHUT-OFF ANGULAR



PARAMETERS

TMAX	TMIN	PMAX	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data



Dimensions in mm

index	size	DN	d	L	l	t	H	S ₁	S
20-107-0300-002	½"	15	G½	48.5	12	14	43.7	30	26

MATERIALS

BODY, COUPLING, COUPLING NUT, PROTECTIVE CAP: nickel-plated brass

VALVE HEAD: brass

VALVE HEAD, COUPLING SEALING: "O" type sealing ring - NBR

PROTECTIVE CAP SEAL: technical fibre /NBR

PHA-030A

PERFEKT^{SYSTEM}
RADIATOR SHUT-OFF
VALVE STRAIGHT WITH
SELF-SEALING THREAD



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data

index	size	DN	d	L	L ₁	l	t	H	S	S ₁
20-030-0000-100	½"	15	G1/2	65	22	11.5	11.5	60	26	30

MATERIALS

BODY, COUPLING: CW617N brass with nickel plating
VALVE HEAD, STEM: CW614N brass
COUPLING NUT, STEM NUT, STOP RING: CW614N brass with nickel-plated coating
SEALING OF VALVE HEAD, STEM, COUPLING: O-ring - NBR
THREAD SEAL molded gasket - NBR
STEM NUT SEAL: technical fibre
HANDWHEEL: ABS plastic
CIRCLIPS spring steel

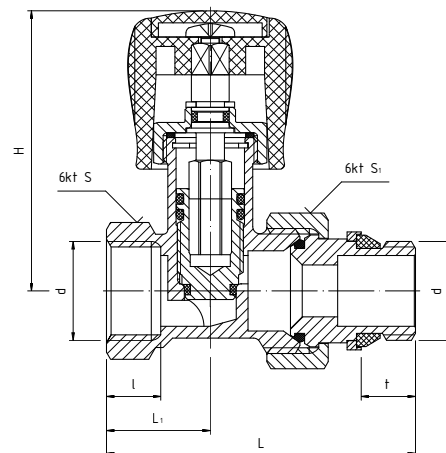


ADDITIONAL INFORMATION

Possibility of converting the control valve to a shut-off valve. Sealing rings can be replaced when worn out. Multi-stage leak protection on plug and stem. Locks the mushroom against unintentional unscrewing.



Dimensions in mm



PHA-031A

PERFEKT^{SYSTEM}
RADIATOR SHUT-OFF
VALVE STRAIGHT CUT-OFF
WITH SELF-SEALING THREAD



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data

index	size	DN	d	L	L ₁	l	t	H	S	S ₁
20-031-0001-100	½"	15	G½	65.5	22	11.5	11.5	35	26	30

MATERIALS

BODY, COUPLING: CW617N brass with nickel plating
VALVE HEAD: CW614N brass
COUPLING NUT, STEM NUT, STOP RING: CW614N brass with nickel plating
VALVE HEAD, COUPLING SEALING: "O" type sealing ring - NBR
THREAD SEAL molded gasket - NBR
PROTECTIVE CAP SEAL: technical fibre
HANDWHEEL: ABS plastic
CIRCLIPS spring steel

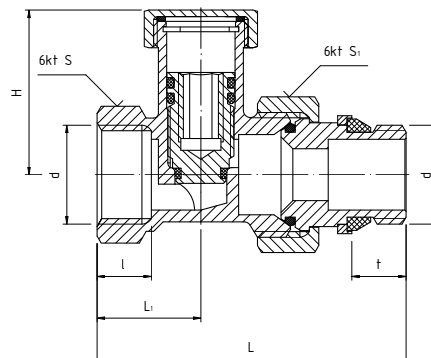


ADDITIONAL INFORMATION

Possibility of converting the control valve to a shut-off valve. Sealing rings can be replaced when worn out. Multi-stage leak protection on plug and stem. Locks the mushroom against unintentional unscrewing.



Dimensions in mm



PHA-032A

PERFEKT^{SYSTEM}
RADIATOR SHUT-OFF
VALVE ANGLE WITH
SELF-SEALING THREAD



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data

index	size	DN	d	L	l	t	H	H ₁	S	S ₁
20-032-0100-100	1/2"	15	G1/2	49	11	11.5	73	22	26	30

MATERIALS

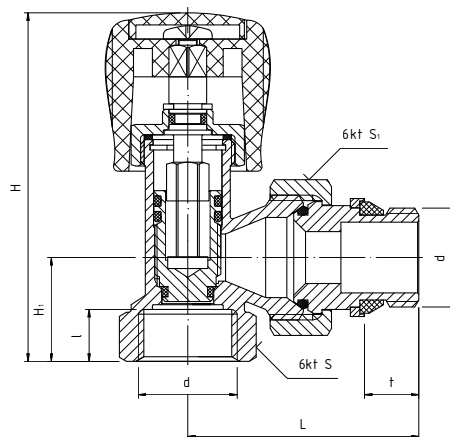
BODY, COUPLING: CW617N brass with nickel plating
VALVE HEAD, STEM: CW614N brass
COUPLING NUT, STEM NUT, STOP RING: CW614N brass with nickel-plated coating
SEALING OF VALVE HEAD, STEM, COUPLING: O-ring - NBR
THREAD SEAL molded gasket - NBR
STEM NUT SEAL: technical fibre
HANDWHEEL: ABS plastic
CIRCLIPS spring steel



Dimensions in mm

ADDITIONAL INFORMATION

Possibility of converting the control valve to a shut-off valve. Sealing rings can be replaced when worn out. Multi-stage leak protection on plug and stem. Locks the mushroom against unintentional unscrewing.



PHA-033A

PERFEKT^{SYSTEM}
RADIATOR SHUT-OFF
VALVE ANGLE CUT-OFF
WITH SELF-SEALING THREAD



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data

index	size	DN	d	L	l	t	H	H ₁	S	S ₁
20-033-0101-100	1/2"	15	G1/2	49	11	11.5	49	22	26	30

MATERIALS

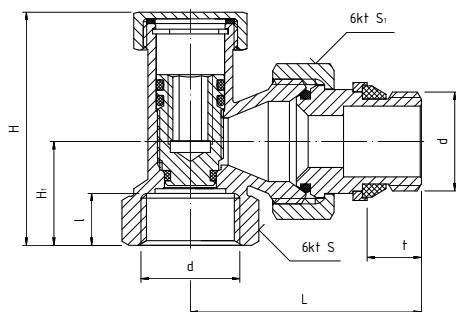
BODY, COUPLING: CW617N brass with nickel plating
VALVE HEAD: CW614N brass (CuZn39Pb3)
COUPLING NUT, PROTECTIVE CAP, STOP RING: CW614N brass with nickel-plated coating
VALVE HEAD, COUPLING SEALING: "O" type sealing ring - NBR
THREAD SEAL molded gasket - NBR
PROTECTIVE CAP SEAL: technical fibre
CIRCLIP spring steel



Dimensions in mm

ADDITIONAL INFORMATION

Possibility of converting the shut-off valve to a control valve. Sealing rings can be replaced when worn out. Multi-stage leak protection on plug and stem. Locks the mushroom against unintentional unscrewing.



UNTIL STOCK DEPLETION

PHA-030/L

PERFEKT^{SYSTEM}
RADIATOR SHUT-OFF
VALVE STRAIGHT FOR
SOLDERING


PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data

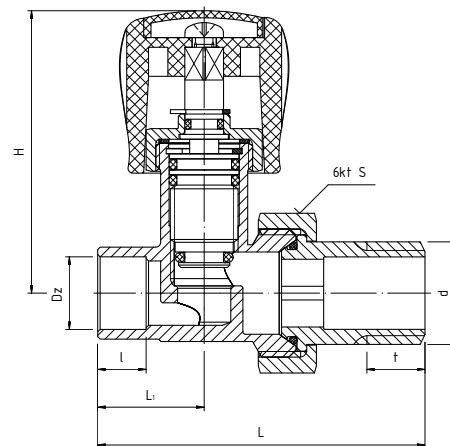


Dimensions in mm

index	size	DN	d	Dz	L	L ₁	l	t	H	S
20-030-0000-200	½"	15	G½	ø15	67	22	10	12	58,5	30

MATERIALS

BODY, COUPLING: CW617N brass with nickel plating
VALVE HEAD, STEM: CW614N brass
COUPLING NUT, STEM NUT, STOP RING: CW614N brass with nickel-plated coating
SEALING OF VALVE HEAD, STEM, COUPLING: O-ring - NBR
THREAD SEAL molded gasket - NBR
STEM NUT SEAL: technical fibre
HANDWHEEL: ABS plastic
CIRCLIPS spring steel



PHA-032/L

PERFEKT^{SYSTEM}
RADIATOR SHUT-OFF
VALVE ANGULAR TO
SOLDERING


PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data

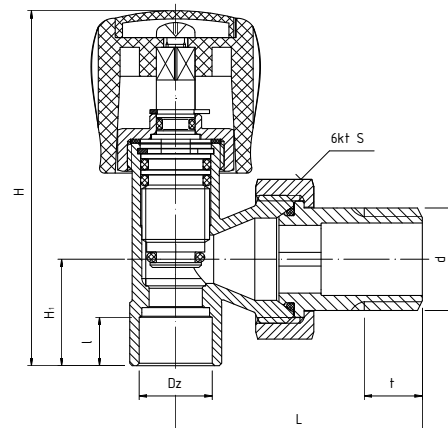


Dimensions in mm

index	size	DN	d	Dz	L	l	t	H	H ₁	S
20-032-0100-200	½"	15	G½	ø15	51	10	12	73	22	30

MATERIALS

BODY, COUPLING: CW617N brass with nickel plating
VALVE HEAD, STEM: CW614N brass
COUPLING NUT, STEM NUT: CW614N brass with nickel plating
SEALING OF VALVE HEAD, STEM, COUPLING: O-ring - NBR
STEM NUT SEAL: technical fibre
HANDWHEEL: ABS plastic
CIRCLIPS spring steel



PHA-030 PEX

PERFEKT^{SYSTEM}

**RADIATOR SHUT-OFF VALVE
STRAIGHT WITH TUBE COUPLING
TO BE CONNECTED TO THE
MULTILAYER PIPE 16x2**



ADDITIONAL INFORMATION

Possibility of converting the control valve to a shut-off valve. Multi-stage leak protection on plug and stem. Locks the mushroom against unintentional unscrewing. Sealing rings can be replaced when worn out.

PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data

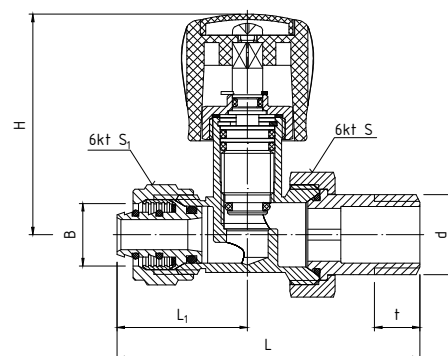


Dimensions in mm

index	size	DN	d	L	L ₁	t	H	S	S ₁	B
20-030-0000-003	1/2"	15	G1/2	80	34.5	12	58.5	30	24	ø16

MATERIALS

BODY, COUPLING: CW617N brass with nickel plating
VALVE HEAD, STEM, CLAMPING RING, PIPE COUPLING: CW614N brass
CONNECTOR NUT, STEM NUT, PEX NUT: CW614N brass with nickel plating
SEALING OF VALVE HEAD, STEM, COUPLING FOR PIPE: sealing ring type "O" - NBR
STEM NUT SEAL: technical fibre
HANDWHEEL: ABS plastic
CIRCLIPS: spring steel



PHA-031 PEX

PERFEKT^{SYSTEM}

**RADIATOR SHUT-OFF VALVE
STRAIGHT CUT-OFF WITH
TUBE COUPLING TO BE
CONNECTED TO THE PIPE 16x2**



ADDITIONAL INFORMATION

Possibility of converting the shut-off valve to a control valve. Sealing rings can be replaced when worn out. Multi-stage leak protection on plug and stem. Locks the mushroom against unintentional unscrewing.

PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data

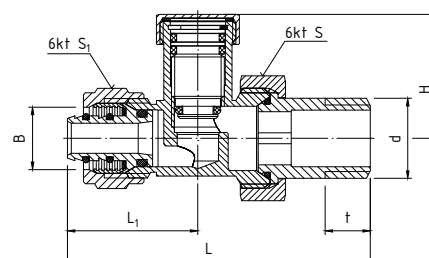


Dimensions in mm

index	size	DN	d	L	L ₁	t	H	S	S ₁	B
20-031-0001-003	1/2"	15	G1/2	80	34.5	12	32.5	30	24	ø16

MATERIALS

BODY, COUPLING: CW617N brass with nickel plating
VALVE HEAD, CLAMPING RING, PIPE COUPLING: CW614N brass
COUPLING NUT, PROTECTIVE CAP, PEX NUT: CW614N brass with nickel plating
VALVE HEAD, COUPLING, PIPE COUPLING SEALING: sealing ring type "O" - NBR
PROTECTIVE CAP SEAL: technical fibre
CIRCLIPS: spring steel



PHA-032 PEX

PERFEKT^Q SYSTEM

RADIATOR SHUT-OFF VALVE ANGULAR WITH TUBE COUPLING FOR CONNECTION TO PIPE 16x2



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data

index	size	DN	d	L	t	H	H ₁	S	S ₁	B
20-032-0100-003	1/2"	15	G1/2	51	12	86	35	30	24	ø16

MATERIALS

BODY, COUPLING: CW617N brass with nickel plating
VALVE HEAD, STEM, CLAMPING RING, PIPE COUPLING: CW614N brass
COUPLING NUT, STEM NUT, PEX NUT: CW614N brass with nickel plating
SEALING OF VALVE HEAD, STEM, COUPLING FOR PIPE: sealing ring type "O" - NBR
STEM NUT SEAL: technical fibre
HANDWHEEL: ABS plastic
CIRCLIPS: spring steel

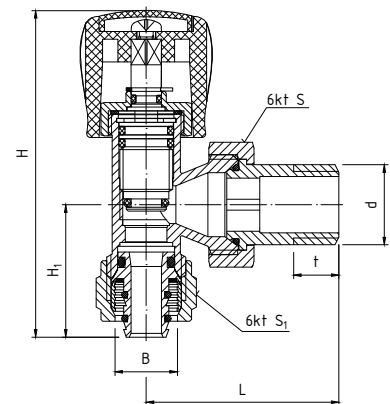


ADDITIONAL INFORMATION

Possibility of converting the control valve to a shut-off valve. Multi-stage leak protection on plug and stem. Locks the mushroom against unintentional unscrewing. Sealing rings can be replaced when worn out.



Dimensions in mm



PHA-033 PEX

PERFEKT^Q SYSTEM

RADIATOR SHUT-OFF VALVE ANGLE. CUT-OFF WITH TUBE COUPLING TO BE CONNECTED TO THE PIPE 16x2



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data

index	size	DN	d	L	t	H	H ₁	S	S ₁	B
20-033-0101-003	1/2"	15	G1/2	51	12	60.8	35	30	30	ø16

MATERIALS

BODY, COUPLING: CW617N brass with nickel plating
VALVE HEAD, CLAMPING RING, PIPE COUPLING: CW614N brass
COUPLING NUT, PROTECTIVE CAP, PEX NUT: CW614N brass with nickel plating
VALVE HEAD, COUPLING, PIPE COUPLING SEALING: sealing ring type "O" - NBR
PROTECTIVE CAP SEAL: technical fibre
CIRCLIPS: spring steel

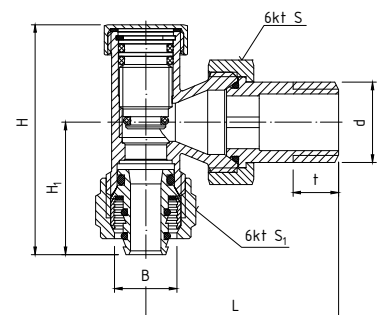


ADDITIONAL INFORMATION

Possibility of converting the shut-off valve to a control valve. Sealing rings can be replaced when worn out. Multi-stage leak protection on plug and stem. Locks the mushroom against unintentional unscrewing.



Dimensions in mm



PHA-034

PERFEKT^{SYSTEM}
RADIATOR SHUT-OFF VALVE
DOUBLE POPPET STRAIGHT
CUT-OFF WITH NIPPLES



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228



ADDITIONAL INFORMATION

For the connection of radiators with external threads G³/₄ and internal threads G¹/₂.

The set comprises: angle valve assembly and reducing couplings (reducing nipples). A special tapered end makes it possible to fit the unit to bottom-supplied radiators with external G³/₄ threads, while nipples are used to fit the unit to bottom-supplied radiators with G¹/₂ internal threads. The unit can be installed in installations with the appropriate clamps, art. PHA-090/1, art. 215E.

Technical data

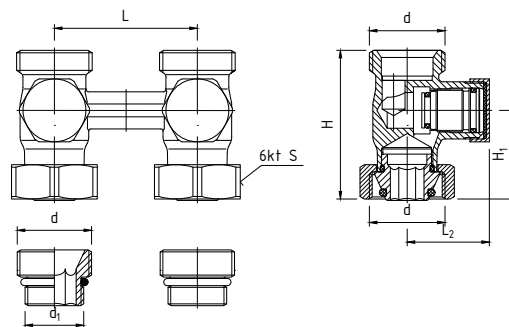


Dimensions in mm

index	size	DN	d	d ₁	L	L ₂	H	S	H ₁
20-034-0000-000	1/2"x3/4"	15	G ³ / ₄	G ¹ / ₂	50	28	50	30	30

MATERIALS

BODY, UNION NUTS, PROTECTIVE CAPS: nickel-plated brass
PROTECTIVE CAP SEALS: technical fibre
STEM SEALS, NIPPLE SEALS, CONE CONNECTION SEALS:
 O-rings - NBR
NIPPLES, STEMS, TAPERED CONNECTORS: brass



PHA-035

PERFEKT^{SYSTEM}
RADIATOR SHUT-OFF VALVE
DOUBLE POPPET ANGULAR
CUT-OFF WITH NIPPLES



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228



ADDITIONAL INFORMATION

For the connection of radiators with threads G³/₄ external and G¹/₂ internal.

The set comprises: angle valve assembly and reducing couplings (reducing nipples). A special tapered end makes it possible to fit the unit to bottom-supplied radiators with external G³/₄ threads, while nipples are used to fit the unit to bottom-supplied radiators with G¹/₂ internal threads.

The unit can be installed in installations with the appropriate clamps
 Article PHA-090/1, Article 215E.

Technical data

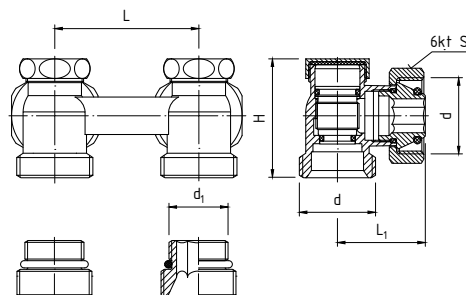


Dimensions in mm

index	size	DN	d	d ₁	L	L ₁	H	S
20-035-0000-000	1/2"x3/4"	15	G ³ / ₄	G ¹ / ₂	50	28.3	46	30

MATERIALS

BODY, UNION NUTS, PROTECTIVE CAPS: nickel-plated brass
PROTECTIVE CAP SEALS: technical fibre
SEALS FOR STEMS, NIPPLES, TAPERED CONNECTIONS: sealing rings
 Type "O" - NBR
NIPPLES, STEMS, TAPERED CONNECTORS: brass



PHA-035/1

PERFEKT^{SYSTEM}
RADIATOR SHUT-OFF
VALVE DOUBLE POPPET
ANGULAR CUT-OFF
WITHOUT NIPPLES



ADDITIONAL INFORMATION

For the connection of radiators with G $\frac{3}{4}$ external threads. The set includes: angle valve assembly. A special tapered end enables the assembly to be fitted to bottom-supplied radiators with external G $\frac{3}{4}$ threads. The unit can be mounted in installations with the appropriate clamps, art. PHA-090/1, art. 215E.

PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data

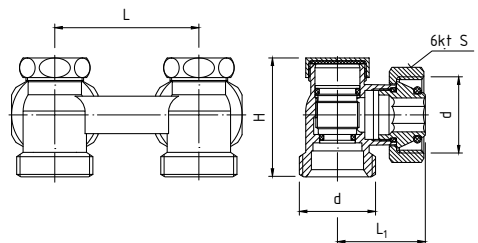


Dimensions in mm

index	size	DN	d	L	L ₁	H	S
20-035-0000-001	¾"	15	G $\frac{3}{4}$	50	28.3	46	30

MATERIALS

BODY, UNION NUTS, PROTECTIVE CAPS: nickel-plated brass
PROTECTIVE CAP SEALS: technical fibre
SEALS FOR STEMS, NIPPLES, TAPERED CONNECTIONS: sealing rings
 Type "O" - NBR
NIPPLES, STEMS, TAPERED CONNECTORS: brass



7006+8021

RADIATOR SHUT-OFF VALVE
DOUBLE BALL STRAIGHT
CUT-OFF WITH NIPPLES



ADDITIONAL INFORMATION

For radiators with G $\frac{1}{2}$ connections. The set includes: a straight cut-off unit (item 7006) and two nipples (item 8021). For installation with clamps art. PHA-090/1, art. 215E

PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data

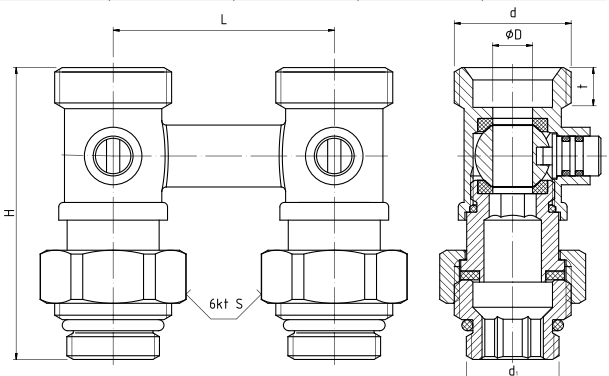


Dimensions in mm

index	size	DN	d	d ₁	øD	L	t	H	S
20-104-0002-000	½"x¾"	15	G $\frac{3}{4}$	G $\frac{1}{2}$	9	50	9	66	30

MATERIALS

BODY, CONNECTOR NUTS, STEMS, SCREW-PLUGS: nickel-plated brass
BALLS: brass with chrome plating
BALL SEALS: PTFE (Teflon)
STEM SEALS, NIPPLE SEAL: "O"-type sealing rings - NBR
NIPPLE: brass
CONNECTOR SEAL flat gasket - NBR



7005+8021

RADIATOR SHUT-OFF VALVE DOUBLE BALL ANGULAR CUT-OFF WITH NIPPLES



ADDITIONAL INFORMATION

For radiators with G½ connections. The set includes: a straight cut-off unit (item 7005) and two nipples (item 8021). For installation with clamps art. PHA-090/1, art. 215E

PARAMETERS

TMAX	TMIN	PMAX	GW/GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data

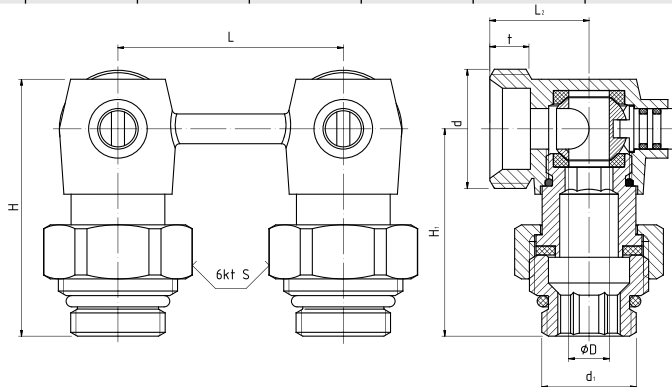


Dimensions in mm

index	size	DN	d	d ₁	øD	L	t	H	H ₁	S
20-104-0001-000	½"x¾"	15	G¾	G½	9	50	9	54.5	45.8	30

MATERIALS

BODY, CONNECTOR NUTS, STEMS, SCREW-PLUGS: nickel-plated brass
BALLS: brass with chrome plating
BALL SEALS: PTFE (Teflon)
STEM SEALS, NIPPLE SEAL: "O"-type sealing rings - NBR
NIPPLE: brass
CONNECTOR SEAL flat gasket - NBR



7036B

SAFETY VALVE WITH CHECK VALVE AND DRAIN



PARAMETERS

TMAX	TMIN	GW/GZ by
+95°C	+1°C	ISO228

Technical data

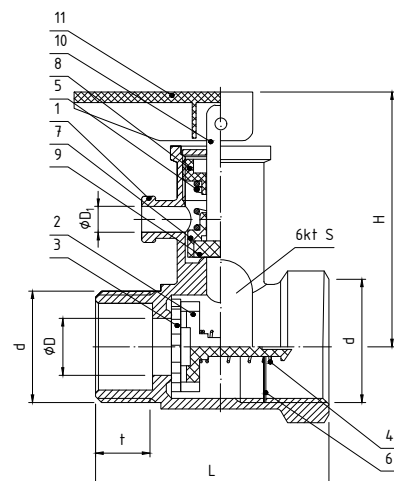


Dimensions in mm

index	size	setting pressure [bar]	DN	d	øD	øD ₁	L	t	H	S
20-202-0150-000	½"	7.0 bar	15	G½	10.5	9	43	10	61	25.0
20-202-0200-000	¾"	7.0 bar	20	G¾	10.5	4.8	53	11	70	

MATERIALS

BODY (1): nickel-plated brass
CHECK VALVE HEAD (2), STEM (10), HANDLE (11): plastic
CHECK VALVE SEAL (3): NBR rubber compound
CHECK VALVE SPRING (4) SAFETY VALVE SPRING (5): acid resistant steel
LOCK NUT (6): acid-resistant steel
SAFETY VALVE HEAD (7), SETTING NUT (8): plastic
SAFETY VALVE GASKET (9): rubber seal - NBR



ADDITIONAL INFORMATION

Safety valves with non-return valve and drain are designed to protect against excessive pressure and to maintain one direction of flow in installations with an electric water radiator with a maximum operating temperature of +95°C. When the operating pressure exceeds the permissible pressure (pn=0,7 MPa), the liquid is drained through the drain connection. Safety valves with non-return valve must be installed according to the direction of flow of the working medium marked with an arrow on the valve body. The setting (opening) pressure of the safety valve pn=0.7 MPa is permanently set at the factory without the possibility of adjustment. In order to prevent the gasket of the safety valve plug (9) from sticking to the seat in the body, e.g. due to limescale, the plug (7) should be lifted periodically (every 10 days) by means of the lever (11).

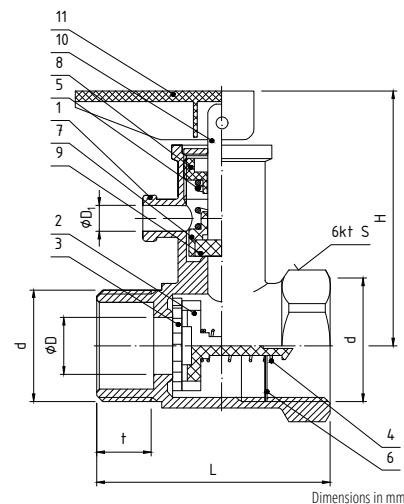
111-1/111-3

SAFETY VALVE WITH CHECK VALVE AND DRAIN

PARAMETERS

T _{MAX}	T _{MIN}	GW by
+100°C	+1°C	ISO228

Technical data



Dimensions in mm

index	size	setting pressure [bar]	DN	d	øD	øD ₁	L	t	H	S
20-201-0150-000	½"	7.0 bar	15	G½	11	9	45	9	65	25
20-201-0200-000	¾"	7.0 bar	20	G¾	15	9	57	14	80	32

MATERIALS

BODY (1): CW617N brass with nickel plating
CHECK VALVE HEAD (2), STEM (10), LEVER (11): Plastic (Nylon 6)
CHECK VALVE SEAL (3): EPDM rubber compound
CHECK VALVE SPRING (4) SAFETY VALVE SPRING (5): acid resistant steel 1H18N9 (AISI 302)
LOCK NUT (6): CW617N brass (CuZn40Pb2)
SAFETY VALVE HEAD (7), SETTING NUT (8): Plastic (Polyamide 66)
SAFETY VALVE SEAL (9): EPDT rubber seal(1)
STEM (10): zinc alloy

1. rubber compound with increased resistance to "sticking" to the seat

PARAMETERS

SAFETY VALVE:

SETTING PRESSURE "pn" (FACTORY SETTING): pn=0.7 MPa
PRESSURE OF OPENING "after": 100%±10% of set pressure "pn"
RANGES OF DISCHARGE COEFFICIENTS "AC" FOR WATER:
 ac=0,003-0,017 - at a pressure increase of 10% in relation to the "p after" pressure
 ac=0,02±0,037 - when the pressure increases by 25% in relation to the pressure "p after"
FLOW CAPACITY "Q" FOR WATER AT T. 20°C (INITIAL OPENING PRESSURE p in =0.7MPa):
 DN15 Q=21.5 kg/h at 10% pressure increase relative to "p after"
 Q=153.0 kg/h at 25% pressure increase relative to "p after"
 DN20 Q=31.6 kg/h at 10% pressure increase relative to "p after"
 Q=214.2 kg/h at 25% pressure increase relative to "p after"

CHECK VALVE

OPENING PRESSURE "p after": p after=0.060+15MPa
FLOW CAPACITY "Q" FOR WATER AT TEMP. 20°C WHEN THE PRESSURE ON THE VALVE DROPS BY 0.1 MPa:
 DN15 Q=1580 kg/h
 DN20 Q=2600 kg/h

ADDITIONAL INFORMATION

Safety valves with non-return valve and drain are designed to protect against excessive pressure and to maintain one flow direction in water heating systems with a maximum operating temperature of +100°C. If the operating pressure exceeds the permissible pressure (pn=0.7 MPa), the liquid is drained through a drain connection. Safety valves with non-return valve must be installed according to the direction of flow of the working medium marked with an arrow on the valve body. The setting (opening) pressure of the safety valve pn=0.7 MPa is permanently set at the factory without the possibility of adjustment. In order to prevent the gasket of the safety valve plug (9) from sticking to the seat in the body, e.g. due to limescale, the plug (7) should be lifted periodically (every 10 days) by means of the lever (11).

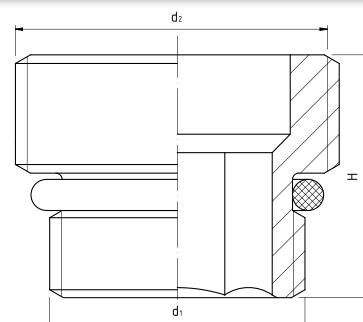
8021

NIPPLE FOR RADIATOR VALVE DOUBLE BALL TYPE

PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+120°C	+1°C	1.0 MPa	ISO228

Technical data



Dimensions in mm

index	size	d ₁	d ₂	H
20-104-2000-000	½" x ¾"	G½	G¾	18

MATERIALS

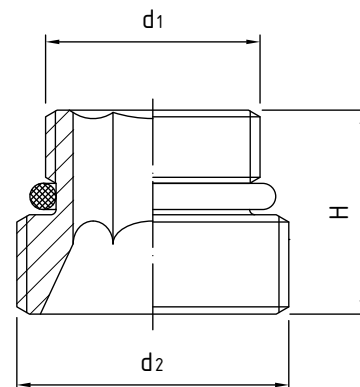
NIPPLE: brass
SEAL: type "O" sealing ring - NBR

8021/S

NIPPLE FOR RADIATOR POPPET VALVE DOUBLE BALL TYPE

PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+120°C	+1°C	1.0 MPa	ISO228



Technical data



Dimensions in mm

index	size	d_1	d_2	H
20-104-2001-000	1/2" x 3/4"	G1/2	G3/4	24.4

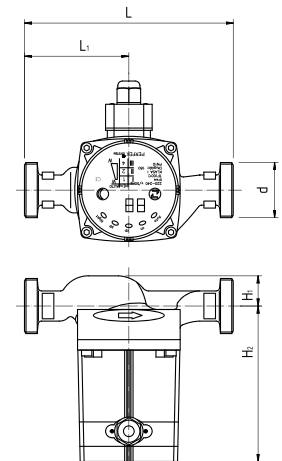
MATERIALS

NIPPLE: brass
SEAL: type "O" sealing ring - NBR

PHA-402



PERFEKT^{SYSTEM}
ENERGY EFFICIENT CIRCULATING
PUMP PERFECT SYSTEM FOR
CENTRAL HEATING INSTALLATIONS.
ELECTRONICALLY CONTROLLED



Dimensions in mm

PARAMETERS

Maximum lift height	Nominal flow	Maximum Operating pressure	Size of connections	Power consumption
4 m	1.6 m ³	1.0 MPa	G1½	5÷22 W

Technical data



index	d	L	L ₁	H ₁	H ₂
31-402-0000-000	G1½	180	90	26	134

DESCRIPTION

The pumps **PERFEKT^{SYSTEM}** meet the requirements of Commission Regulation (EC) No. EC 641/2009 entered into force on 1 August 2015. (EEI<0.23). The use of electronic pumps **PERFEKT^{SYSTEM}** allows electricity savings of up to 80% compared with the old type of pump. The pumps have a memory for the settings of the last mode of operation, so there is no need to interfere with the pump's settings after a power cut, e.g. power failure. The pumps have a night mode, which further reduces electricity costs. The pump's built-in temperature sensor is responsible for this, reacting by reducing unproductive operation when it receives a temperature drop signal.

Possibility to work in several modes:

PP1 - lowest proportional pressure curve. Height of lift is reduced when flow demand decreases and increased when flow demand increases, the operating point on the PP1 curve.

PP3 - highest proportional pressure curve. Height of lift is reduced when flow demand falls and rises when flow demand increases, the operating point on the PP3 curve.

CP1 - curve of the lowest constant height of lift. Maintains constant height of lift regardless of changes in plant flow, operating point CP1 on curve.

CP3 - curve of the highest fixed height of lift. Maintains constant height of lift regardless of changes in plant flow, operating point CP3 on curve.

PP1, PP2, PP3 modes - recommended for radiator installations.

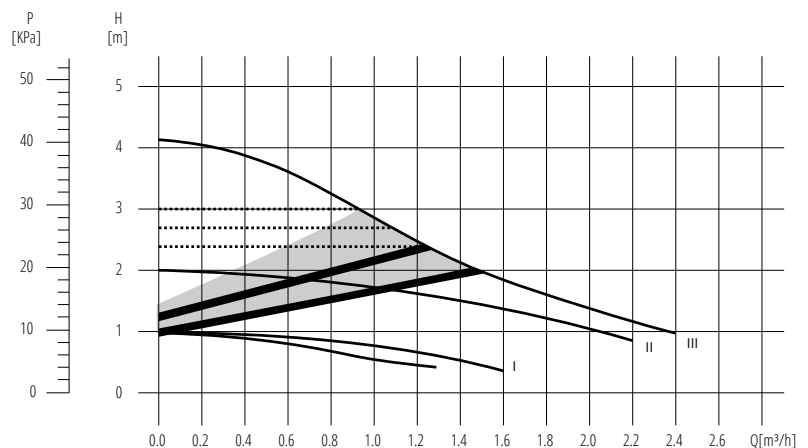
CP1, CP2, CP3 modes - recommended for underfloor heating systems.

I, II, III - manual operation modes, the pump operating point will be on curves I, II, III respectively (setting III used for fast pump bleeding). The pump on each setting operates at a constant impeller speed.

AUTO - the pump automatically adjusts the capacity and height of lift according to the needs of the installation. The pump operating point is located on the diagram in the AUTO area.

Night mode - an operating mode that activates when AUTO modes are active. Reduces energy consumption when the heating medium temperature is reduced by 10°C ÷ 15°C within 2 hours. If the temperature sensor in the pump records a rise in the temperature of the medium of 10°C the pump will return to the set operating mode. For proper operation of the night mode, the pump should be installed on the system supply and the system, together with the stove/boiler, must be equipped with an automatic temperature control system.

CHART

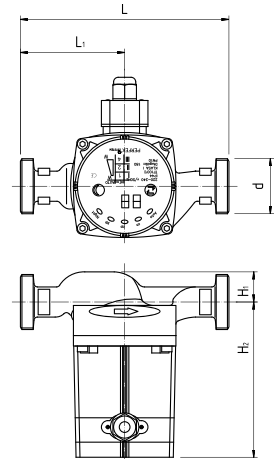


- AU - AUTOMATIC OPERATION MODE
- CONSTANT SPEED, n1 - lowest first gear, n2 - medium second gear, n3 - highest third gear
- CP1, CP2, CP3 - WORKING ACCORDING TO THE CHARACTERISTICS OF CONSTANT PRESSURE
- PP1, PP2, PP3 - WORKING ACCORDING TO PROPORTIONAL PRESSURE CHARACTERISTICS

PHA-602



PERFEKT^{SYSTEM} ENERGY EFFICIENT CIRCULATING PUMP PERFEKT SYSTEM FOR CENTRAL HEATING INSTALLATIONS. ELECTRONICALLY CONTROLLED



Dimensions in mm

PARAMETERS

Maximum lift height	Nominal flow	Maximum Operating pressure	Size of connections	Power consumption
6 m	1.8 m ³	1.0 MPa	G1½	5÷45 W

Technical data



index	d	L	L ₁	H ₁	H ₂
31-602-0000-000	G1½	180	90	26	134

DESCRIPTION

The pumps **PERFEKT^{SYSTEM}** meet the requirements of Commission Regulation (EC) No. EC 641/2009 entered into force on 1 August 2015. (EEI<0.23). The use of electronic pumps **PERFEKT^{SYSTEM}** allows electricity savings of up to 80% compared with the old type of pump. The pumps have a memory for the settings of the last mode of operation, so there is no need to interfere with the pump's settings after a power cut, e.g. power failure. The pumps have a night mode, which further reduces electricity costs. The pump's built-in temperature sensor is responsible for this, reacting by reducing unproductive operation when it receives a temperature drop signal.

Possibility to work in several modes:

PP1 - lowest proportional pressure curve. Height of lift is reduced when flow demand falls and rises when flow demand increases, the operating point on the PP1 curve.

PP3 - highest proportional pressure curve. Height of lift is reduced when flow demand falls and rises when flow demand increases, the operating point on the PP3 curve.

CP1 - curve of the lowest constant height of lift. Maintains constant height of lift regardless of changes in plant flow, operating point CP1 on curve.

CP3 - curve of the highest fixed height of lift. Maintains constant height of lift regardless of changes in plant flow, operating point CP3 on curve.

PP1, PP2, PP3 Modes - recommended for radiator installations.

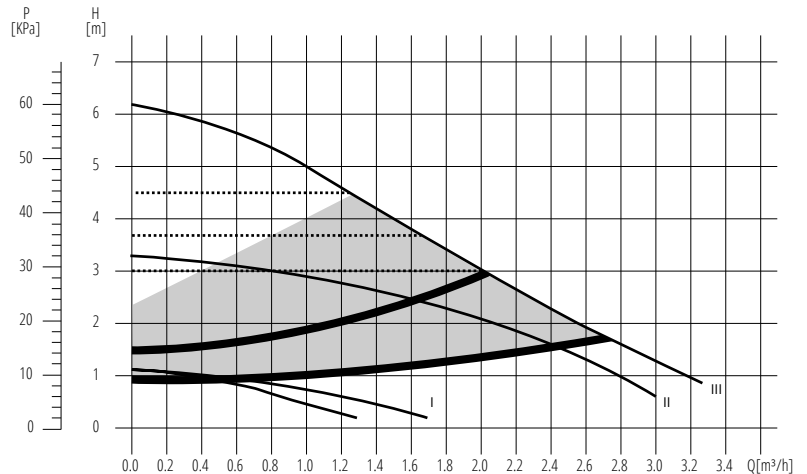
CP1, CP2, CP3 Modes - recommended for underfloor heating systems.

I, II, III - manual operation modes, the pump operating point was located will be on curves I, II, III respectively (setting III used for fast pump bleeding). The pump on each setting operates at a constant impeller speed.

AUTO - the pump automatically adjusts the capacity and height of lift according to the needs of the installation. The pump operating point is located on the diagram in the AUTO area.

Night mode - an operating mode that activates when AUTO modes are active. Reduces energy consumption when the temperature of the heating medium drops by 10°C ÷ 15°C within 2 hours. If the temperature sensor in the pump records a 10°C rise in the medium temperature, the pump will return to the set operating mode. For proper operation of the night mode, the pump should be installed on the system supply and the system, together with the stove/boiler, must be equipped with an automatic temperature control system.

CHART

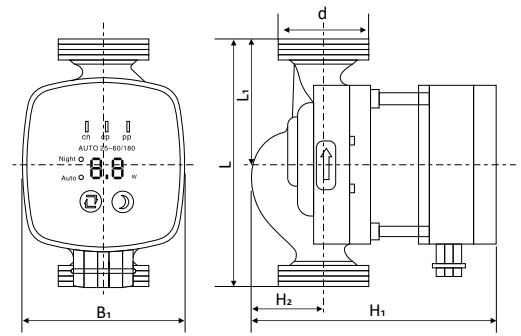


- AU - AUTOMATIC OPERATION MODE
- CONSTANT SPEED, n1 - lowest first gear, n2 - medium second gear, n3 - highest third gear
- CP1, CP2, CP3 - WORKING ACCORDING TO THE CHARACTERISTICS OF CONSTANT PRESSURE
- PP1, PP2, PP3 - WORKING ACCORDING TO PROPORTIONAL PRESSURE CHARACTERISTICS

PHA-602/PM



PERFEKT^{SYSTEM}
ENERGY-SAVING CIRCULATION
PUMP PERFECT SYSTEM FOR
CENTRAL HEATING INSTALLATIONS.
CONTROLLED ELECTRONICALLY



PARAMETERS

Maximum lift height	Nomnal flow	Maximum Operating pressure	Size of connections	Power consumption
6 m	1.8 m ³	1.0 MPa	G1½	5÷45 W

Technical data



Dimensions in mm

index	d	L	L ₁	H ₁	H ₂	B
31-602-0002-000	G1½	130	65	132	35	89

DESCRIPTION

The pumps **PERFEKT^{SYSTEM}** meet the requirements of EC Regulation 641/2009, which entered into force on 1 August 2015 (EEI<0.23). Utilisation of electronic pumps **PERFEKT^{SYSTEM}** allows electricity savings of up to 80% of electricity savings compared with old type pumps. The pumps have a memory for the settings of the last mode of operation, so there is no need to interfere with the pump's settings after a power cut, e.g. power failure. The pumps have a night mode, which further reduces electricity costs.

The pump's built-in temperature sensor is responsible for this, reacting by reducing unproductive operation when it receives a temperature drop signal.

Possibility to work in several modes:

PP1 - lowest proportional pressurecurve . Height of lift is reduced when flow demand decreases and increased when flow demand increases, the operating point on the PP1 curve.

PP2 - highest proportional pressure curve. Height of lift is reduced when flow demand falls and rises when flow demand increases, the operating point on the PP2 curve.

CP1 - curve of the lowest constant height of lift. Maintains constant height of lift regardless of changes in plant flow, operating point CP1 on curve.

CP2 - curve of the highest fixed height of lift. Maintains constant height of lift regardless of changes in plant flow, operating point CP2 on curve.

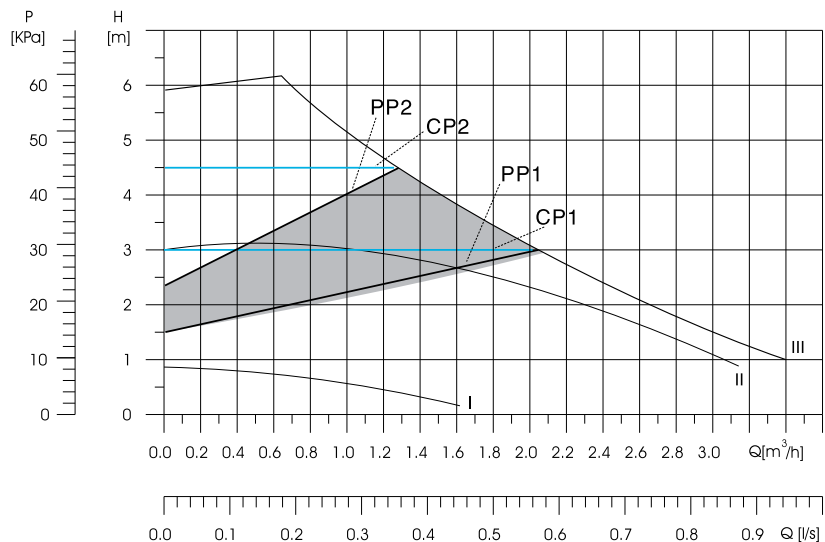
PP1, PP2 modes - recommended for radiator installations.

CP1, CP2 modes - recommended for underfloor heating systems.

I, II, III - manual operation modes, the pump operating point will be on curves I, II, III respectively (setting III used for fast pump bleeding). The pump on each setting operates at a constant impeller speed.

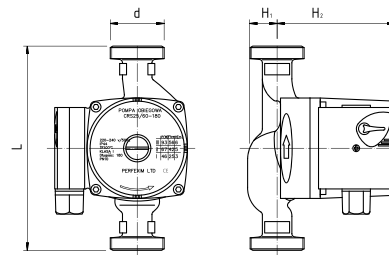
AUTO - the pump automatically adjusts the capacity and height of lift according to the needs of the installation. The pump operating point is located on the diagram in the AUTO area.

Night mode - an operating mode that activates when AUTO modes are active. Reduces energy consumption when the heating medium temperature is reduced by 10°C ÷ 15°C within 2 hours. If the temperature sensor in the pump records a rise in the temperature of the medium of 10°C the pump will return to the set operating mode. For proper operation of the night mode, the pump should be installed on the system supply and the system, together with the stove/boiler, must be equipped with an automatic temperature control system.



CRS25/40

CIRCULATING PUMP FOR POTABLE WATER



PARAMETERS

Maximum lift height	Maximum Operating pressure	Size of connections	Power consumption
4m	1.0 MPa	G1½	35±71 W

Technical data

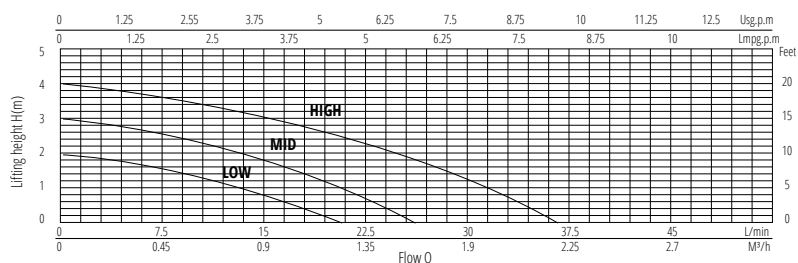


Dimensions in mm

index	d	L	H ₁	H ₂
31-254-0000-000	G1½	180	26	104

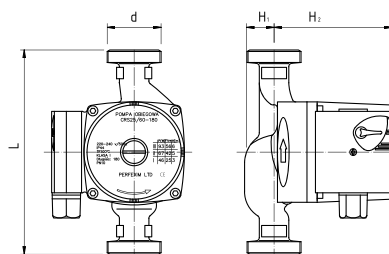
PARAMETERS

index	P(W)	Flow (L/min)	H(M)
III	71	50	4
II	50	36	3
I	35	20	2



CRS25/60

CIRCULATING PUMP FOR POTABLE WATER



PARAMETERS

Maximum lift height	Maximum Operating pressure	Size of connections	Power consumption
6m	1.0 MPa	G1½	46±93 W

Technical data

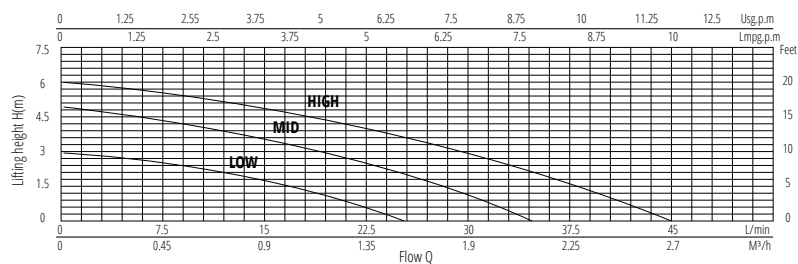


Dimensions in mm

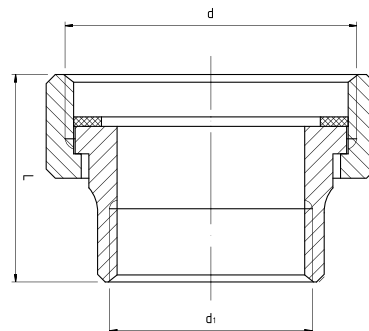
index	d	L	H ₁	H ₂
31-256-0000-000	G1½	180	26	104

PARAMETERS

index	P(W)	Flow (L/min)	H(M)
III	93	56	6
II	67	42	5
I	46	25	3



SP

PIPE JOINT
TO THE PUMP
WITH SEAL

PARAMETERS

P _{MAX}	T _{MAX}	GW/GZ by
1.0 MPa	+100°C	ISO228

Technical data



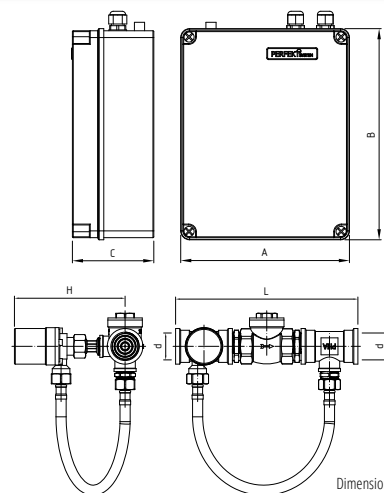
Dimensions in mm

index	size	d	d ₁	L
31-900-0002-000	1"x1½"	G1 ½	G1	35

MATERIALS

PIPE JOINT, NUT: steel with black paint finish
GASKET: EPDM

PHA-SAZ/2

PERFEKT^{SYSTEM}
ANTIFREEZE SYSTEM FOR
MONOBLOC TYPE HEAT
PUMPS

Dimensions in mm

PARAMETERS

P _{MAX}	T _{MAX}	GWwg.
0.3 MPa	+60°C	ISO 228

Technical data



index	d	A	B	°C	L	H
58-000-0000-000	1"	220	270	110	215	130.5
58-000-0000-100	1 1/4"	220	270	110	250	170
58-000-0000-200	1 1/2"	220	270	110	289.5	179

SET COMPOSITION

- Control module with built-in self-diagnostics and monitoring system
- Battery
- Switch-mode power supply for battery charging
- Circulation pump
- 2 pcs. temperature sensors
- BYPASS - couplings, non-return valve, connection hose

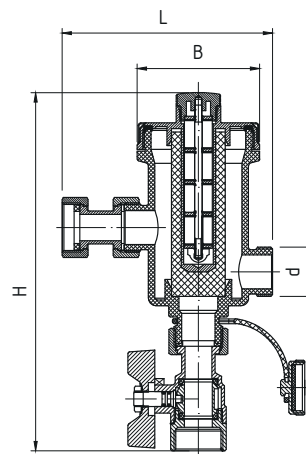
PHA-061M

PERFEKT^{SYSTEM} SEPARATOR MAGNETIC



PARAMETERS

T_{MAX}	P_{MAX}	GW/GZ by
+90°C	0.4 MPa	ISO228



TECHNICAL DATA



index	size	neodymium magnet	Filter mesh diameter	d	L	H	B
03-061-0200-000	3/4	9000 Gs	800 µm	G 3/4	113.5	190	66.5

INTENDED USE:

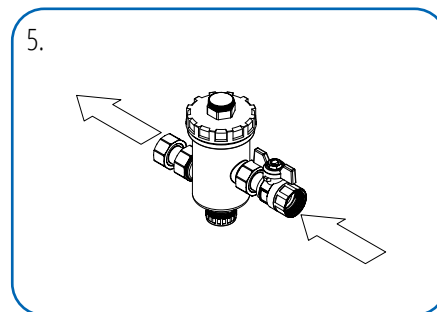
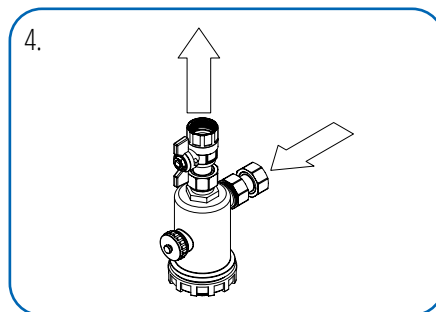
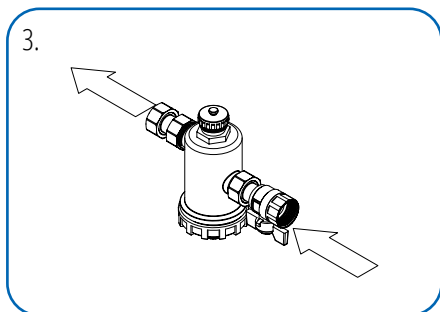
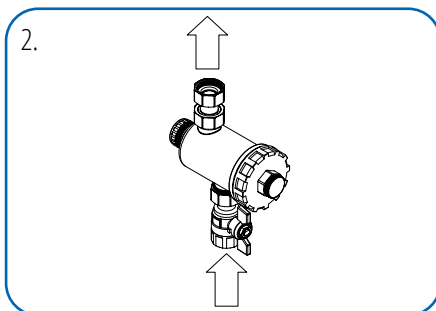
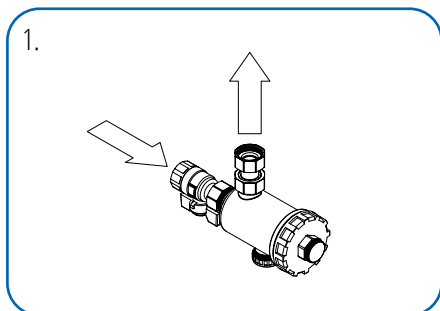
The magnetic separator serves for the two-stage, i.e. magnetic and mechanical, trapping and removal of contaminants in central heating systems. The use of a magnetic insert ensures the effective capture of ferromagnetic metal particles carried along with the heating medium, effectively extending the service life of system components such as pumps, boilers, as well as preventing the deposition of contaminants at critical points in the system and protecting them from, for example, blocking the flow. The special compact design ensures installation in hard-to-reach places both vertically and horizontally.

OPERATING PRINCIPLES

- The magnetic separator uses:
- mechanical filtration through the use of a high mesh density filter media.
 - a magnetic field that traps ferromagnetic elements suspended in water.

The retained contaminants are deposited in the separator chamber.

INSTALLATION



MATERIALS

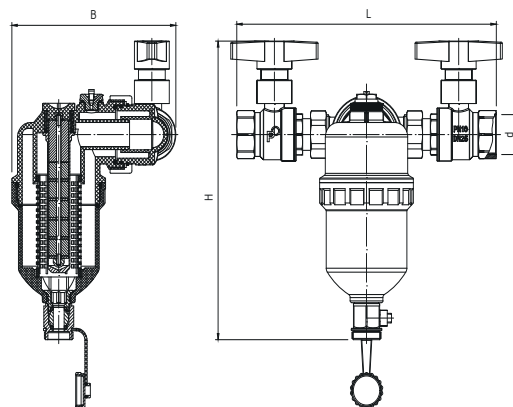
- GALVANISED COMPONENTS brass
- BODY nylon with glass fibre

PHA-063M

PERFEKT^{SYSTEM} SEPARATOR MAGNETIC WITH VENTING

PARAMETERS

T _{MAX}	P _{MAX}	GW/GZ by
+90°C	0.4 MPa	ISO228



TECHNICAL DATA



index	size	neodymium magnet	d	L	H	B
32-063-0250-000	1"	12000 Gs	G1	248.5	250	151
32-063-0320-000	1 1/4"	12000 Gs	G1 1/4	260	251	154

INTENDED USE:

The magnetic separator serves to magnetically capture and remove contaminants in central heating systems. The use of a magnetic insert ensures the effective capture of ferromagnetic metal particles carried along with the heating medium, effectively extending the service life of system components such as pumps, boilers, as well as preventing the deposition of contaminants at critical points in the system and protecting them from, for example, blocking the flow. The special compact design ensures installation in hard-to-reach areas both vertically and horizontally.

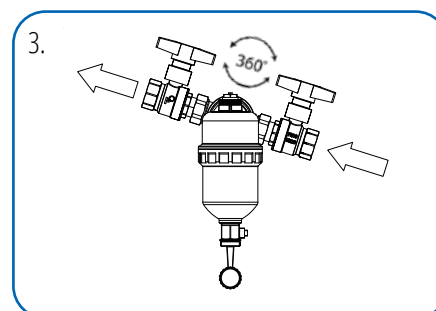
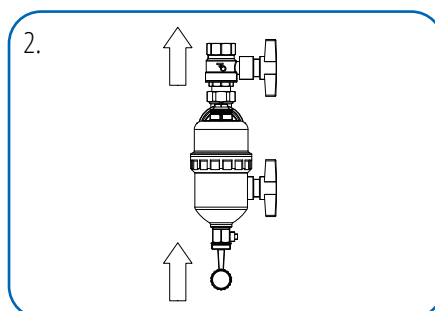
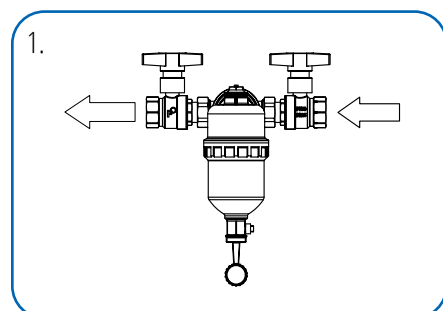
OPERATING PRINCIPLES

The magnetic separator uses:

- magnetic field that traps ferromagnetic elements suspended in water.
- separation of air from water by breaking up the water stream and precipitating the air out of it

The retained contaminants are deposited in the separator chamber.

INSTALLATION



MATERIALS

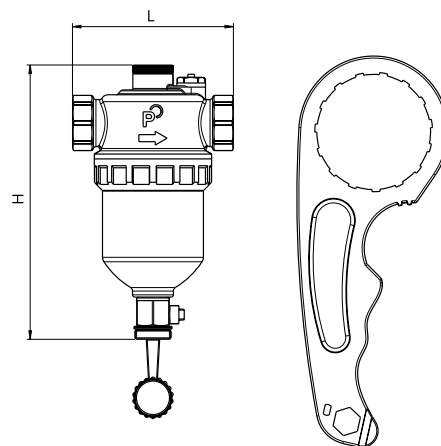
- GALVANISED COMPONENTS: brass
- BODY: nylon with glass fibre
- FILTER CHAMBER: polycarbonate

PHA-064M

PERFEKT^{SYSTEM} SEPARATOR MAGNETIC WITH FILTER AND VENTING

PARAMETERS

T _{MAX}	P _{MAX}	GW/GZ by
+90°C	0.4 MPa	ISO228



TECHNICAL DATA



MAX FLOW

index	size	neodymium magnet	filter mesh diameter	L	H	Q[m ³ /h]	Kvs [m ³ /h]
03-064-0250-000	1"	9000 Gs	800 µm	118	198.7	4.37	13.55
03-064-0320-000	1¼"	9000 Gs	800 µm	116	200.2	4.95	15.56

INTENDED USE:

The magnetic separator with filter serves for the two-stage, i.e. magnetic and mechanical trapping and removal of contaminants in central heating systems. The use of a magnetic insert ensures the effective capture of ferromagnetic metal particles carried along with the heating medium, effectively extending the service life of system components such as pumps, boilers, as well as preventing the deposition of contaminants at critical points in the system and protecting them from, for example, blocking the flow. **MAX FLOW** technology ensures that the filter does not choke the flow in the system.

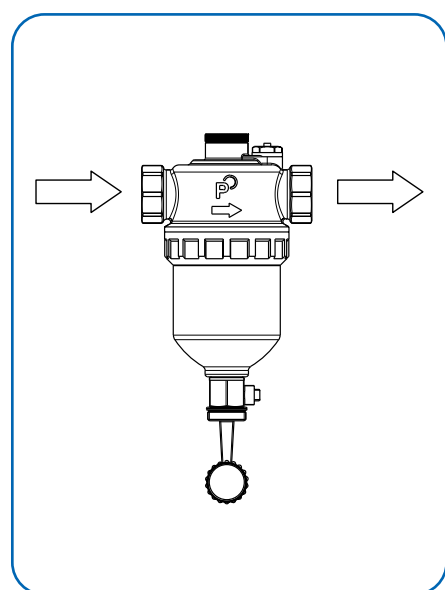
OPERATING PRINCIPLES

The magnetic separator with filter uses:

- magnetic field that traps ferromagnetic elements suspended in water.
- The filter insert traps the mechanical particles carried in the medium and separates the air from the medium by breaking up the water stream and precipitating the air remaining in the upper body,
- **MAX FLOW** does not choke installation flows
- filters **all** impurities: part on the magnets - part in the filter cartridge

The retained contaminants are deposited in the separator chamber.

INSTALLATION



MATERIALS

- **ELECTROPLATED COMPONENTS** brass
- **BODY** nylon with glass fibre
- **BODY** nylon with glass fibre

BRASS AND STEEL SYSTEM DISTRIBUTORS PERFEKT^{SYSTEM} FOR RADIATOR, SURFACE HEATING AND DOMESTIC HOT WATER SYSTEMS AND DOMESTIC WATER

USE

Brass and steel distributors of the system **PERFEKT^{SYSTEM}** are designed for radiator, surface heating and domestic water systems. The distributors can be used in installations where the working medium is water or a water-glycol mixture (up to 50%). All distributor beams have connection threads on both sides, allowing the supply source to be connected from the side that is convenient for the installation. The distributor sets consist of two beams: supply and return one, mounted on steel mounting brackets using brackets. The beams are made of CW617N brass sections or corrosion-resistant 1.4301 steel grade. The distributors allow 2 to 16 circuits of the system to be connected. Depending on the type and purpose of the distributor, the individual beams are equipped with connectors, plugs, air vents (manual or automatic), tees, flow meters, drain valves, control and shut-off valve inserts, thermostatic valves with head and ball cocks, pump arms.

The distributors in our range can be used for distribution of:

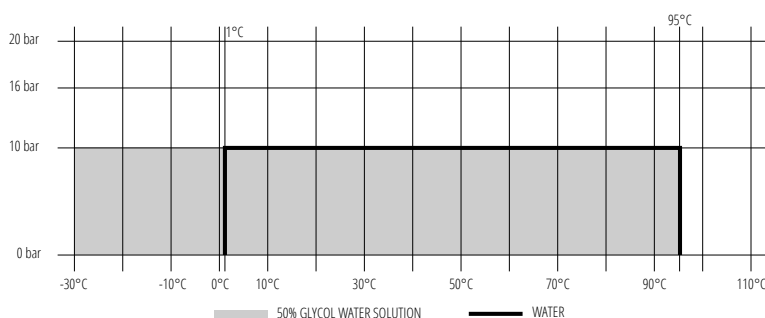
- Heating circuits for radiators when the heat source has a temperature of up to 95°C, allowing the connection of a homogeneous heating system
- Surface heating circuits with direct feed from the heat source, if the heat source reaches temperatures of ≤55°C, allowing the connection of a homogeneous heating system
- The surface heating circuit, if the heat source reaches temperatures >50°C, allowing the surface heating system to be connected to a high-temperature system (connection of underfloor heating systems to a system with standard radiators) via the PHA-131
- Separation of hot and cold water connections. The distributors have a Hygienic Certificate issued by the National Institute of Hygiene confirming that they meet hygienic requirements and can be used in water installations intended for human consumption.



PARAMETERS

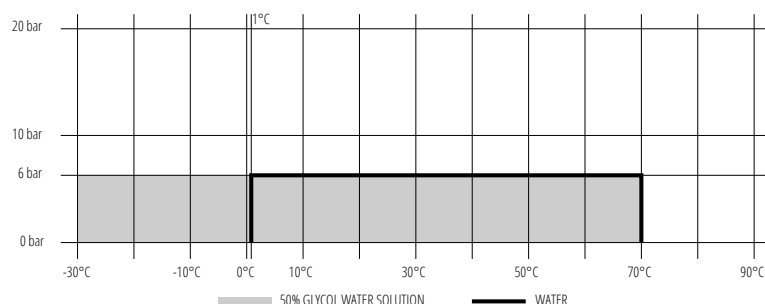
The parameters of distributors without flow meters are as follows:

- maximum operating temperature: +95°C
- maximum operating pressure: 1.0 MPa (10 bar)



The parameters of the distributors with flowmeters are as follows:

- maximum operating temperature: +70°C
- maximum operating pressure: 0.6 MPa (6 bar)



Distributors **PERFEKT^{SYSTEM}** for heating systems should be used in accordance with the technical design of the system developed in accordance with the requirements of EN12828+A1:2014.

The distributors have the appropriate documentation, which allows these products to be marketed in accordance with current legislation. The documents in question are the National Technical Assessment and relevant tests:

- carried out by the Building Elements Laboratory ITB, Poznań Branch
- on the grounds of which the National Technical Assessment was based issued by the Building Research Institute from Warsaw

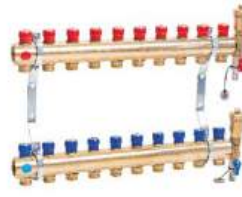
These documents confirm that the distributors can be used in installations according to Polish law.

BRASS AND STEEL SYSTEM DISTRIBUTORS PERFEKT^Q SYSTEM

FOR RADIATOR AND SURFACE HEATING SYSTEMS AND DOMESTIC HOT WATER

SPECIAL FEATURES

- robust components included in distributor sets for increased strength and service life
- easy assembly with the installation by means of stubs coming out of the beams ended with Eurocone, with which the products PHA-090/1 for multilayer pipes or 215E for copper pipes are compatible.
- the use of high-quality materials such as European brass CW617N for brass beams or corrosion-resistant steel grade 1.4301 for steel beams
- wide range of applications in terms of suitability for different types of installations depending on the option chosen
- can be used in installations flooded with up to 50% water/glycol mixture
- 10 year guarantee

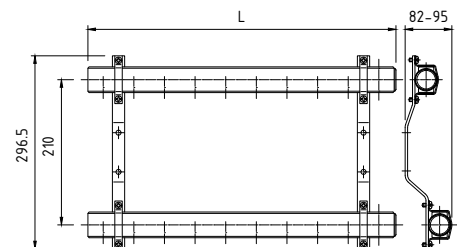


ADVANTAGES

- wide range of applications and high quality
- 10 year guarantee
- performance parameters and application supported by a National Technical Assessment.
- product performance confirmed by tests in an independent accredited laboratory
- Approved for contact with drinking water - National Institute of Hygiene approval
- Possibility to operate in systems filled with 50% glycol solution

PHA-100

PERFEKT^Q SYSTEM
BRASS DISTRIBUTOR



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	P _{MAX}	GW by
+95°C	1.0 MPa	ISO 228

TECHNICAL DATA

index	L	number of circuits [n]
30-100-0202-000	98	2
30-100-0302-000	143	3
30-100-0402-000	188	4
30-100-0502-000	233	5
30-100-0602-000	278	6
30-100-0702-000	323	7
30-100-0802-000	368	8
30-100-0902-000	413	9
30-100-1002-000	458	10
30-100-1102-000	503	11
30-100-1202-000	548	12

Dimensions in mm



DESCRIPTION

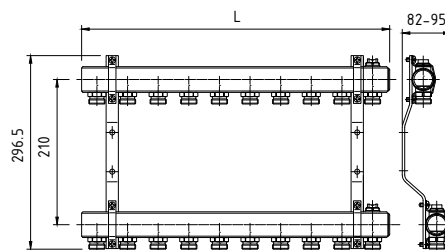
PHA-100 distributors are designed to distribute the heating medium, e.g. water, aqueous glycol solution with a concentration of up to 50%, in radiator heating systems and utility water systems.

- The kit includes:
- beams - 2pc.
 - handles - 2pc.*
 - plugs - 2pc.

* 2-turn distributors 1 pc. (handle)

PHA-102

PERFEKT^{SYSTEM} RADIATOR DISTRIBUTOR BRASS STRAIGHT WITH NIPPLES



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	P _{MAX}	GW/GZ by
+95°C	1.0 MPa	ISO 228

TECHNICAL DATA



index	L	number of circuits [n]
30-102-0202-000	98	2
30-102-0302-000	143	3
30-102-0402-000	188	4
30-102-0502-000	233	5
30-102-0602-000	278	6
30-102-0702-000	323	7
30-102-0802-000	368	8
30-102-0902-000	413	9
30-102-1002-000	458	10
30-102-1102-000	503	11
30-102-1202-000	548	12

Dimensions in mm

DESCRIPTION

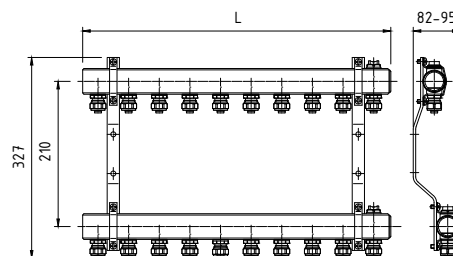
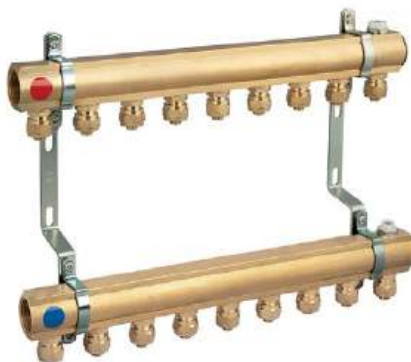
PHA-102 distributors are designed to distribute the heating medium, e.g. water, aqueous glycol solution with a concentration of up to 50%, in radiator heating systems and utility water systems.

- The kit includes:
- beams - 2pc.
 - handles - 2pc.*
 - plugs - 2pc.
 - manual air vents - 2 pcs.
 - 3/4" nipples (Eurocone) - 2 x n pcs.

* 2-turn distributors 1 pc. (handle)

PHA-102/Z

PERFEKT^{SYSTEM} BRASS DISTRIBUTOR WITH FITTINGS FOR MULTILAYER PIPES



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	P _{MAX}	GW/GZ by
+95°C	1.0 MPa	ISO 228

TECHNICAL DATA



index	L	number of circuits [n]
30-102-0200-004	98	2
30-102-0300-004	143	3
30-102-0400-004	188	4
30-102-0500-004	233	5
30-102-0600-004	278	6
30-102-0700-004	323	7
30-102-0800-004	368	8
30-102-0900-004	413	9
30-102-1000-004	458	10
30-102-1100-004	503	11
30-102-1200-004	548	12

Dimensions in mm

DESCRIPTION

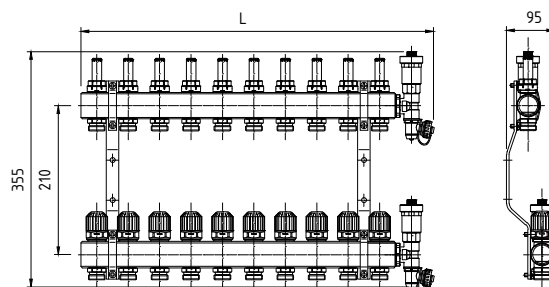
The PHA-102/Z distributors are designed to distribute the heating medium, e.g. water, aqueous glycol solution up to 50%, in radiator heating systems and domestic water systems.

- The kit includes:
- beams - 2pc.
 - handles - 2pc.*
 - plugs - 2pc.
 - screwed couplings for connection to Φ16 multilayer pipe 2 x n pcs.
 - manual air vents - 2 pcs.

* 2-turn distributors 1 pc. (handle)

PHA-107

PERFEKT^{SYSTEM} BRASS DISTRIBUTOR WITH ROTAMETER (0÷5L) FOR UNDERFLOOR HEATING



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	P _{MAX}	GW/GZ by
+70°C	0.6 MPa	ISO 228

TECHNICAL DATA



index	L	number of circuits [n]
30-107-0200-000	159	2
30-107-0300-000	209	3
30-107-0400-000	259	4
30-107-0500-000	309	5
30-107-0600-000	359	6
30-107-0700-000	409	7
30-107-0800-000	459	8
30-107-0900-000	509	9
30-107-1000-000	559	10
30-107-1100-000	609	11
30-107-1200-000	659	12
30-107-1300-000	709	13
30-107-1400-000	759	14
30-107-1500-000	809	15
30-107-1600-000	859	16

Dimensions in mm

DESCRIPTION

PHA-107 distributors are intended for distribution of heating medium, e.g.: water, aqueous glycol solution of concentration up to 50%, in radiator and surface heating systems.

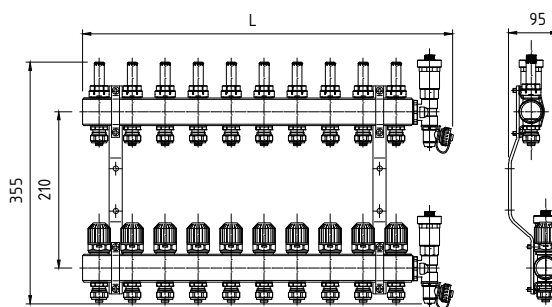
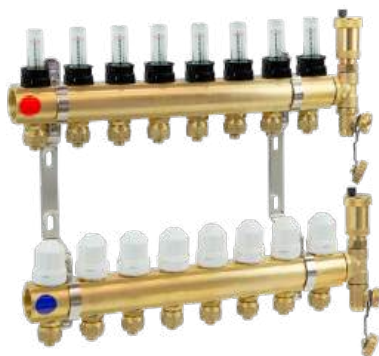
The kit includes:

- beams - 2pc.
- handles - 2pc.*
- flow meters with 3/4" nipples (Eurocone) - n units.
- control valve inserts with 3/4" nipples (Eurocone) - n pcs.
- Tee - 2pcs.
- drain valve - 2 pcs.
- automatic air vent - 2 pcs.

* 2-turn distributors 1 pc. (handle)

PHA-107/Z

PERFEKT^{SYSTEM} BRASS DISTRIBUTOR WITH ROTAMETER (0÷5 L) WITH PIPE CONNECTORS FOR MULTILAYER PIPES FOR UNDERFLOOR HEATING



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	P _{MAX}	GW by
+70°C	0.6 MPa	ISO 228

TECHNICAL DATA



index (50 mm spacing)	L	number of circuits [n]
30-107-0200-004	159	2
30-107-0300-004	209	3
30-107-0400-004	259	4
30-107-0500-004	309	5
30-107-0600-004	359	6
30-107-0700-004	409	7
30-107-0800-004	459	8
30-107-0900-004	509	9
30-107-1000-004	559	10
30-107-1100-004	609	11
30-107-1300-004	709	13
30-107-1400-004	759	14
30-107-1500-004	809	15
30-107-1600-004	859	16

Dimensions in mm

DESCRIPTION

The PHA-107/Z distributors are designed to distribute the heating medium, e.g. water, aqueous glycol solutions up to 50% concentration, in radiator heating systems, surface heating.

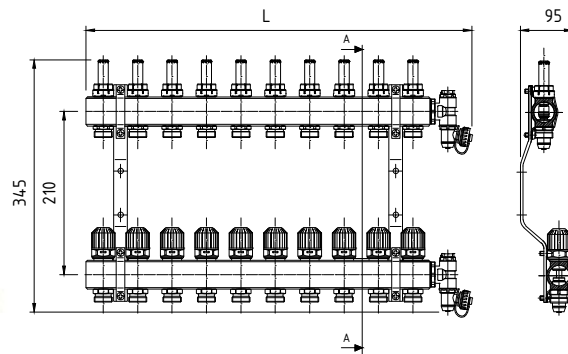
The kit includes:

- beams - 2pc.
- handles - 2pc.*
- flow meters n pcs.
- control valve inserts n pcs.
- screwed couplings for connection with $\Phi 16$ multilayer pipe 2 x n pcs.
- Tee - 2pcs.
- drain valve - 2 pcs.
- automatic air vent-2 pc.

* 2-turn distributors 1 pc. (handle)

PHA-107/1/S

PERFEKT^{SYSTEM} BRASS DISTRIBUTOR WITH ROTAMETER (0÷5L) FOR UNDERFLOOR HEATING



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	P _{MAX}	GW/GZ by
+70°C	0.6 MPa	ISO 228

TECHNICAL DATA



index	L	number of circuits [n]
30-107-0200-011	159	2
30-107-0300-011	209	3
30-107-0400-011	259	4
30-107-0500-011	309	5
30-107-0600-011	359	6
30-107-0700-011	409	7
30-107-0800-011	459	8
30-107-0900-011	509	9
30-107-1000-011	559	10
30-107-1100-011	609	11
30-107-1200-011	659	12
30-107-1300-011	709	13
30-107-1400-011	759	14
30-107-1500-011	809	15
30-107-1600-011	859	16

Dimensions in mm

DESCRIPTION

The PHA-107/1/S distributors are designed to distribute the heating medium, e.g. water, aqueous glycol solutions up to 50% concentration, in radiator heating systems, surface heating.

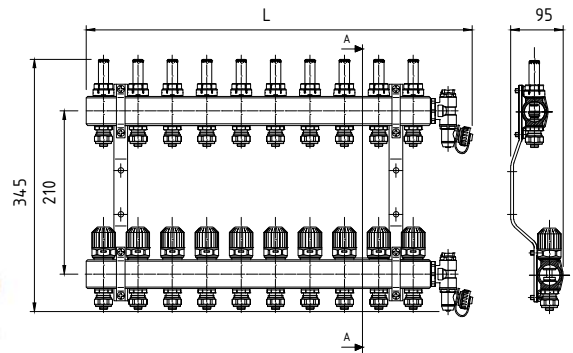
The kit includes:

- beams - 2pc.
- handles - 2pc.*
- flow meters with $\frac{3}{4}$ " nipples (EUROCONE) - n pcs;
- control valve inserts with $\frac{3}{4}$ " nipples (EUROCONE) - n pcs;
- Tee - 2pcs.
- drain valve - 2 pcs.
- manual air vent - 2 pcs.

* 2-turn distributors 1 pc. (handle)

PHA-107/1/S/Z

PERFEKT^{SYSTEM}
BRASS DISTRIBUTOR
WITH ROTAMETER (0÷5 L)
WITH COUPLINGS FOR
MULTILAYER PIPES FOR
UNDERFLOOR HEATING



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	P _{MAX}	GW by
+70°C	0.6 MPa	ISO 228

TECHNICAL DATA

index	L	number of circuits [n]
30-107-0200-014	159	2
30-107-0300-014	209	3
30-107-0400-014	259	4
30-107-0500-014	309	5
30-107-0600-014	359	6
30-107-0700-014	409	7
30-107-0800-014	459	8
30-107-0900-014	509	9
30-107-1000-014	559	10
30-107-1100-014	609	11
30-107-1200-014	659	12
30-107-1300-014	709	13
30-107-1400-014	759	14
30-107-1500-014	809	15
30-107-1600-014	859	16

Dimensions in mm



DESCRIPTION

The PHA-107/1/S/Z distributors are designed to distribute the heating medium, e.g. water, aqueous glycol solutions up to 50% concentration, in heating systems surface heating and domestic water systems.

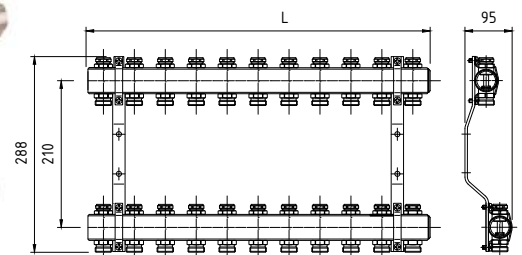
The kit includes:

- beams - 2pc.
- handles - 2pc.*
- flow meters with nipples for connection to 16x2 multilayer pipe - n pcs;
- control valve inserts with nipples for connection to 16x2 multilayer pipe - n pcs;
- Tee - 2pcs.
- drain valve - 2 pcs.
- manual air vent - 2 pcs.

* 2-turn distributors 1 pc. (handle)

PHA-109

PERFEKT^{SYSTEM}
BRASS DISTRIBUTOR
WITH VALVE CUT-OFF
INSERTS FOR ALLEN KEY



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	P _{MAX}	GW/GZ by
+95°C	1.0 MPa	ISO 228

TECHNICAL DATA

index	L	number of circuits [n]
30-109-0200-000	103	2
30-109-0300-000	153	3
30-109-0400-000	203	4
30-109-0500-000	253	5
30-109-0600-000	303	6
30-109-0700-000	353	7
30-109-0800-000	403	8
30-109-0900-000	453	9
30-109-1000-000	503	10
30-109-1100-000	553	11
30-109-1200-000	603	12

Dimensions in mm



DESCRIPTION

PHA-109 distributors are designed to distribute the heating medium, e.g. water, aqueous glycol solution with a concentration of up to 50%, in radiator, surface heating and domestic water systems.

The kit includes:

- beams - 2pc.
- handles - 2pc.*
- plugs - 2 pcs.
- valve cut-off inserts with 3/4" nipples (Eurocone) - 2 x n pcs.

* 2-turn distributors 1 pc. (handle)

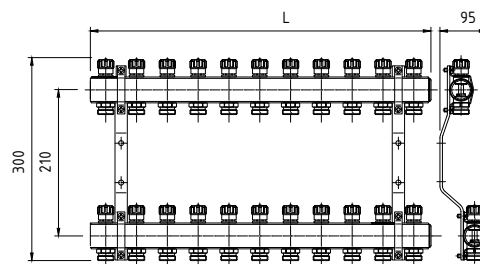
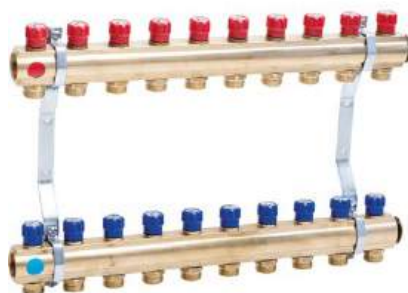
PHA-109A

PERFEKT^{SYSTEM}
BRASS DISTRIBUTOR
WITH REGULATING VALVE
CUT-OFF INSERTS



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	PMAX	GW/GZ by
+95°C	1.0 MPa	ISO 228



TECHNICAL DATA



index	L	number of circuits [n]
30-109-0200-002	103	2
30-109-0300-002	153	3
30-109-0400-002	203	4
30-109-0500-002	253	5
30-109-0600-002	303	6
30-109-0700-002	353	7
30-109-0800-002	403	8
30-109-0900-002	453	9
30-109-1000-002	503	10
30-109-1100-002	553	11
30-109-1200-002	603	12

Dimensions in mm

DESCRIPTION

PHA-109A distributors are designed to distribute the heating medium, e.g. water, aqueous glycol solution with a concentration of up to 50%, in radiator, surface heating and domestic water systems.

The kit includes:

- beams - 2pc.
- handles - 2pc.*
- plugs - 2 pcs.
- valve cut-off inserts with 3/4" nipples (Eurocone) - 2 x n pcs.

* 2-turn distributors 1 pc. (handle)

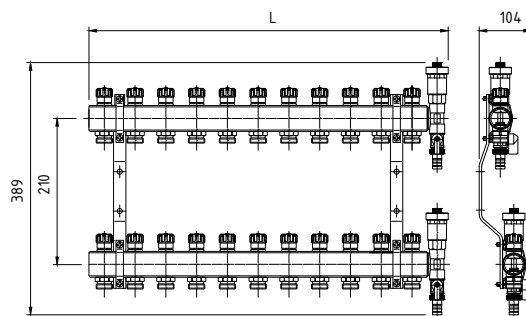
PHA-109A/1

PERFEKT^{SYSTEM}
BRASS DISTRIBUTOR
WITH REGULATING VALVE
CUT-OFF INSERTS



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

TMAX	PMAX	GW/GZ by
+95°C	1.0 MPa	ISO 228



TECHNICAL DATA



index	L	number of circuits [n]
30-109-0200-001	135	2
30-109-0300-001	185	3
30-109-0400-001	235	4
30-109-0500-001	285	5
30-109-0600-001	335	6
30-109-0700-001	385	7
30-109-0800-001	435	8
30-109-0900-001	485	9
30-109-1000-001	535	10
30-109-1100-001	585	11
30-109-1200-001	635	12

Dimensions in mm

DESCRIPTION

PHA-109A distributors are designed to distribute the heating medium, e.g. water, aqueous glycol solution with a concentration of up to 50%, in radiator, surface heating and domestic water systems.

The kit includes:

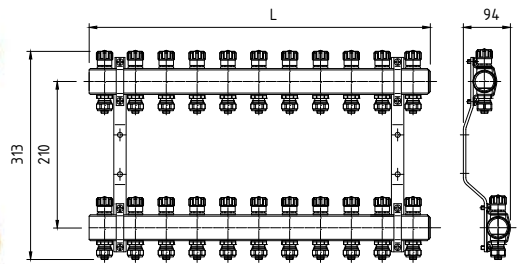
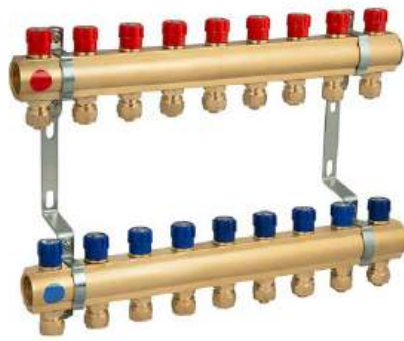
- beams - 2pc.
- handles - 2pc.*
- beam tees - 2 pcs.
- automatic air vents - 2 pcs.
- drain cocks - 2 pcs.
- valve cut-off inserts with 3/4" nipples (Eurocone) - 2 x n pcs.

* 2-turn distributors 1 pc. (handle)

PHA-109A/Z

PERFEKT^{SYSTEM}

**BRASS DISTRIBUTOR
WITH CONTROL AND
CUT-OFF VALVE INSERTS
WITH COUPLINGS FOR
MULTILAYER PIPES**



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	P _{MAX}	GW by
+95°C	1.0 MPa	ISO 228

TECHNICAL DATA



index	L	number of circuits [n]
30-109-0200-004	103	2
30-109-0300-004	153	3
30-109-0400-004	203	4
30-109-0500-004	253	5
30-109-0600-004	303	6
30-109-0700-004	353	7
30-109-0800-004	403	8
30-109-0900-004	453	9
30-109-1000-004	503	10
30-109-1100-004	553	11
30-109-1200-004	603	12

Dimensions in mm

DESCRIPTION

The PHA-109A/Z distributors are designed to distribute the heating medium, e.g.: water, water glycol solution with a concentration of up to 50%, in radiator, surface and domestic hot water heating systems.

The kit includes:

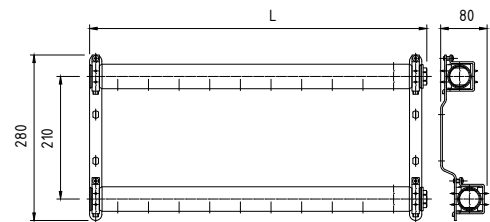
- beams - 2pc.
- handles - 2pc.*
- cut-off and control valve insert - 2 x n pcs.
- screwed couplings for connection to multilayer pipe $\Phi 16 - 2 \times n$ pcs.

* 2-turn distributors 1 pc. (handle)

PHA-120

PERFEKT^{SYSTEM}

**STEEL DISTRIBUTOR
OF STAINLESS STEEL**



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	P _{MAX}	GW by
+95°C	1.0 MPa	ISO 228

TECHNICAL DATA



index	L	number of circuits [n]
30-120-0200-001	145	2
30-120-0300-001	195	3
30-120-0400-001	245	4
30-120-0500-001	295	5
30-120-0600-001	345	6
30-120-0700-001	395	7
30-120-0800-001	445	8
30-120-0900-001	495	9
30-120-1000-001	545	10
30-120-1100-001	595	11
30-120-1200-001	645	12

Dimensions in mm

DESCRIPTION

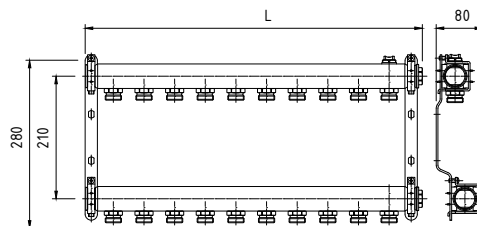
PHA-120 distributors are designed to distribute the heating medium, e.g. water, aqueous glycol solution with a concentration of up to 50%, in radiator heating systems and utility water systems.

The kit includes:

- beams - 2pc.
- handles - 2pc.*
- plugs - 2pc.

PHA-122

PERFEKT^{SYSTEM}
STEEL DISTRIBUTOR
OF STAINLESS STEEL
WITH NIPPLES



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	P _{MAX}	GW/GZ by
+95°C	1.0 MPa	ISO 228

TECHNICAL DATA



index	L	number of circuits [n]
30-122-0200-001	145	2
30-122-0300-001	195	3
30-122-0400-001	245	4
30-122-0500-001	295	5
30-122-0600-001	345	6
30-122-0700-001	395	7
30-122-0800-001	445	8
30-122-0900-001	495	9
30-122-1000-001	545	10
30-122-1100-001	595	11
30-122-1200-001	645	12

Dimensions in mm

DESCRIPTION

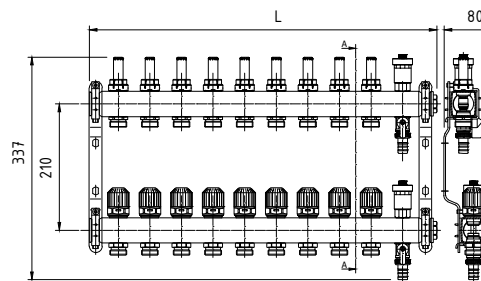
PHA-122 distributors are designed to distribute the heating medium, e.g. water, aqueous glycol solution with a concentration of up to 50%, in radiator heating systems and utility water systems.

The kit includes:

- beams - 2pc.
- handles - 2pc.*
- plugs - 2pc.
- manual air vents - 2 pcs.
- nipples (Eurocone) - 2 x n pieces.

PHA-127

PERFEKT^{SYSTEM}
DISTRIBUTOR MADE OF
STAINLESS STEEL WITH
ROTAMETER (0÷5 L)
FOR UNDERFLOOR HEATING



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	P _{MAX}	GW/GZ by
+70°C	0.6 MPa	ISO 228

TECHNICAL DATA



index	L	number of circuits [n]
30-127-0200-001	145	2
30-127-0300-001	195	3
30-127-0400-001	245	4
30-127-0500-001	295	5
30-127-0600-001	345	6
30-127-0700-001	395	7
30-127-0800-001	445	8
30-127-0900-001	495	9
30-127-1000-001	545	10
30-127-1100-001	595	11
30-127-1200-001	645	12
30-127-1300-001	695	13
30-127-1400-001	745	14
30-127-1500-001	795	15
30-127-1600-001	845	16

Dimensions in mm

DESCRIPTION

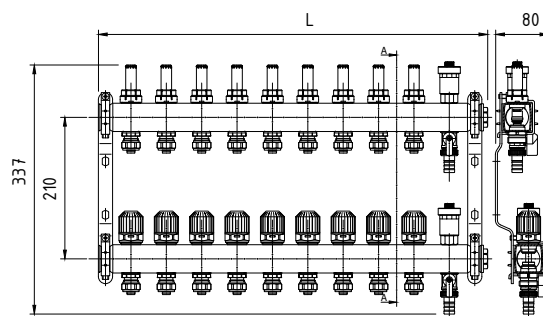
PHA-127 distributors are intended for distribution of heating medium, e.g.: water, aqueous glycol solution of concentration up to 50%, in radiator and surface heating systems.

The kit includes:

- beams - 2pc.
- handles - 2pc.*
- plugs - 2pc.
- automatic air vents - 2 pcs.
- drain cocks - 2 pcs.
- flow meters with 3/4" nipples (EUROCONE) - n pcs;
- control valve inserts with 3/4" nipples (EUROCONE) - n pcs;

PHA-127/Z

PERFEKT^{SYSTEM}
STAINLESS STEEL DISTRIBUTOR
WITH COUPLINGS FOR MULTILAYER
PIPES WITH ROTAMETER (0÷5 L)
FOR UNDERFLOOR HEATING



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	P _{MAX}	GW/wg
+70°C	0.6 MPa	ISO 228

TECHNICAL DATA



index	L	number of circuits [n]
30-127-0200-004	145	2
30-127-0300-004	195	3
30-127-0400-004	245	4
30-127-0500-004	295	5
30-127-0600-004	345	6
30-127-0700-004	395	7
30-127-0800-004	445	8
30-127-0900-004	495	9
30-127-1000-004	545	10
30-127-1100-004	595	11
30-127-1200-004	645	12
30-127-1300-004	695	13
30-127-1400-004	745	14
30-127-1500-004	795	15
30-127-1600-004	845	16

Dimensions in mm

DESCRIPTION

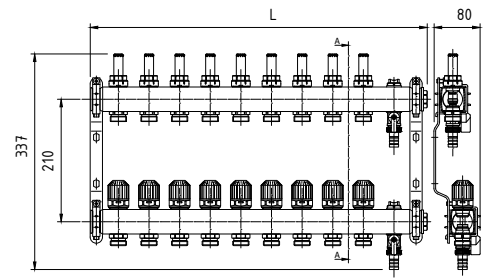
PHA-127 distributors are intended for distribution of heating medium, e.g.: water, aqueous glycol solution of concentration up to 50%, in radiator and surface heating systems.

The kit includes:

- beams - 2pc.
- handles - 2pc.*
- plugs - 2pc.
- automatic air vents - 2 pcs.
- drain cocks - 2 pcs.
- flow meters with nipples for connection to 16x2 multilayer pipe - n pcs;
- control valve inserts with nipples for connection to 16x2 multilayer pipe - n pcs;

PHA-127/1/S

PERFEKT^{SYSTEM}
DISTRIBUTOR OF
STAINLESS STEEL WITH
ROTAMETER (0÷5L) FOR
UNDERFLOOR HEATING



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	P _{MAX}	GW/GZ by
+70°C	0.6 MPa	ISO 228

TECHNICAL DATA



index	L	number of circuits [n]
30-127-0200-011	145	2
30-127-0300-011	195	3
30-127-0400-011	245	4
30-127-0500-011	295	5
30-127-0600-011	345	6
30-127-0700-011	395	7
30-127-0800-011	445	8
30-127-0900-011	495	9
30-127-1000-011	545	10
30-127-1100-011	595	11
30-127-1200-011	645	12
30-127-1300-011	695	13
30-127-1400-011	745	14
30-127-1500-011	795	15
30-127-1600-011	845	16

Dimensions in mm

DESCRIPTION

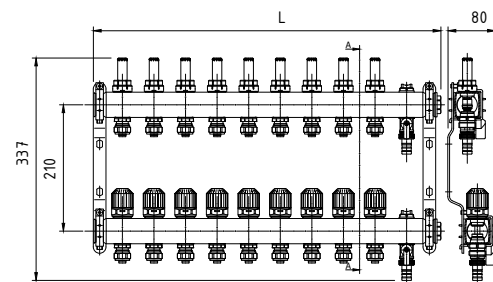
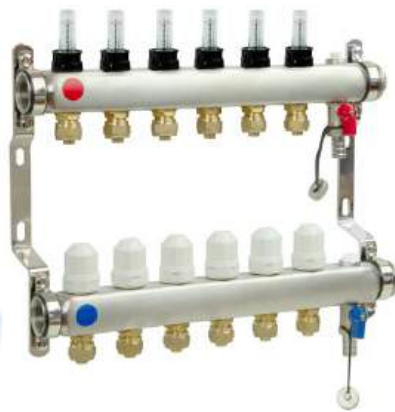
PHA-127/1/S distributors are intended for distribution of heating medium, e.g.: water, aqueous glycol solution of concentration up to 50%, in radiator and surface heating systems.

The kit includes:

- beams - 2pc.
- handles - 2pc.*
- plugs - 2pc.
- manual air vents - 2 pcs.
- drain cocks - 2 pcs.
- flow meters with 3/4" nipples (EUROCONE) - n pcs;
- control valve inserts with 3/4" nipples (EUROCONE) - n pcs;

PHA-127/1/S/Z

PERFEKT^{SYSTEM}
DISTRIBUTOR
OF STAINLESS STEEL
WITH PIPE FITTINGS
FOR MULTILAYER PIPES
WITH ROTAMETER (0÷5 L)
FOR UNDERFLOOR HEATING



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	P _{MAX}	GW/GZ by
+70°C	0.6 MPa	ISO 228

TECHNICAL DATA



index	L	number of circuits [n]
30-127-0200-014	145	2
30-127-0300-014	195	3
30-127-0400-014	245	4
30-127-0500-014	295	5
30-127-0600-014	345	6
30-127-0700-014	395	7
30-127-0800-014	445	8
30-127-0900-014	495	9
30-127-1000-014	545	10
30-127-1100-014	595	11
30-127-1200-014	645	12
30-127-1300-014	695	13
30-127-1400-014	745	14
30-127-1500-014	795	15
30-127-1600-014	845	16

Dimensions in mm

DESCRIPTION

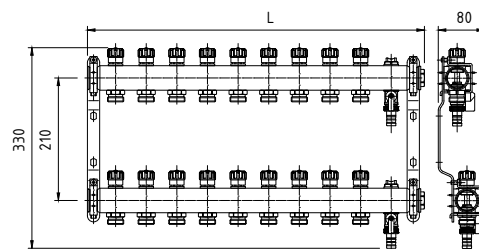
PHA-127/1/S distributors are intended for distribution of heating medium, e.g.: water, aqueous glycol solution of concentration up to 50%, in radiator and surface heating systems.

The kit includes:

- beams - 2pc.
- handles - 2pc.*
- plugs - 2pc.
- manual air vents - 2 pcs.
- drain cocks - 2 pcs.
- flow meters with nipples for connection to 16x2 multilayer pipe - n pcs;
- control valve inserts with nipples for connection to 16x2 multilayer pipe - n pcs;

PHA-129A/1

PERFEKT^{SYSTEM}
DISTRIBUTOR
OF STAINLESS STEEL
WITH VALVE CONTROL
AND CUT-OFF INSERTS



PARAMETERS (ACCORDING TO THE P-T DIAGRAM)

T _{MAX}	P _{MAX}	GW/GZ by
+95°C	1.0 MPa	ISO 228

TECHNICAL DATA



index	L	number of circuits [n]
30-129-0200-001	195	2
30-129-0300-001	245	3
30-129-0400-001	295	4
30-129-0500-001	345	5
30-129-0600-001	395	6
30-129-0700-001	445	7
30-129-0800-001	495	8
30-129-0900-001	545	9
30-129-1000-001	595	10
30-129-1100-001	645	11
30-129-1200-001	695	12

Dimensions in mm

DESCRIPTION

PHA-129A/1 distributors are intended for distribution of heating medium, e.g. water, aqueous glycol solution with concentration up to 50%, in heating systems and utility water. with a concentration of up to 50%, in radiator heating systems and domestic water systems.

The kit includes:

- beams - 2pc.
- handles - 2pc.*
- plugs - 2pc.
- manual air vents - 2 pcs.
- drain cocks - 2 pcs.
- shut-off and control valve insert with 3/4" nipples (Eurocone) - 2 x n pieces.

MIXING UNIT PHA-131

THE SET INCLUDES:

1. Thermostatic 3-way mixing valve PHA-132
2. GRUNDFOS UPM3S AUTO 25/60 130 pump with power cable
3. Pump and distributor fittings
4. Disc thermometers
5. Manual air vent.



DESCRIPTION OF OPERATING MODES OF THE UPM3S AUTO PUMP:

In installations with relatively low pressure losses in the distribution pipes:

- Underfloor heating with thermostatic valves
- Single-pipe heating systems with thermostatic valves or sub-valves

The pump can be manually set to operate with maximum or minimum characteristics, as for an unregulated pump, whereby:

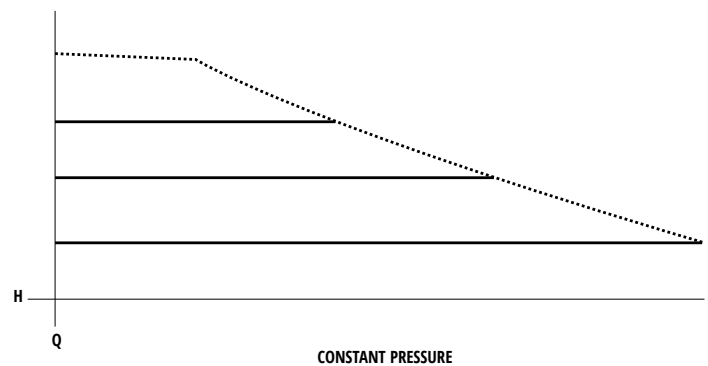
- The maximum characteristic may be used at times when maximum flow is required. This operating mode is suitable, for example, for domestic hot water priority.
- Operation according to minimum characteristics can be used at times, when a minimum flow rate is required. This operating mode is suitable, for example, for manual switching to night reduction, if automatic night reduction is not required.

Control mode recommended for most heating installations, particularly installations with relatively high pressure losses in the distribution pipes.

- Two-pipe heating systems with thermostatic valves, as well as with:
 - very long distribution pipes
 - strongly throttled sub-valves
 - differential pressure regulators
 - high pressure losses in those parts of the system through which the entire water flows, e.g. the boiler, heat exchanger and distribution pipe in the section up to the first branch.
- Air conditioning installations with:
 - heat exchangers (fan coil units)
 - cooling ceilings
 - cooling surfaces.

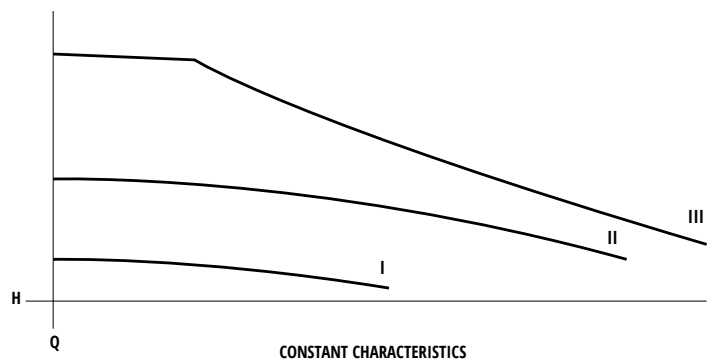
This setting minimises energy consumption and valve noise, thereby reducing operating costs and increasing comfort.

FIXED PRESSURE DIAGRAM



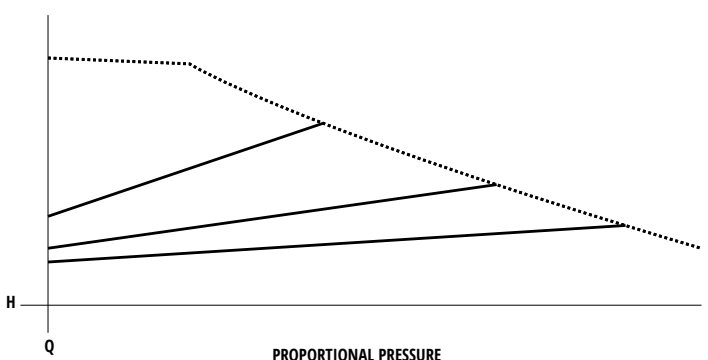
CONSTANT PRESSURE

CONSTANT CHARACTERISTICS CHART



CONSTANT CHARACTERISTICS

PROPORTIONAL PRESSURE DIAGRAM



PROPORTIONAL PRESSURE

PHA-131

PERFEKT^{SYSTEM} MIXING UNIT FOR UNDERFLOOR HEATING WITH GRUNDFOS PUMP AND THREE-WAY VALVE



PARAMETERS

TMAX	PMAX	GZ by
+95°C	1.0 MPa	ISO228

TECHNICAL DATA

index	DN	d
30-600-0000-003	25	G1

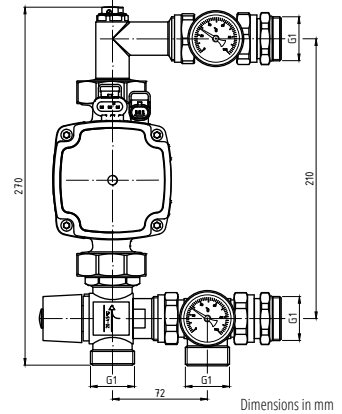
DESCRIPTION

1. Thermostatic three-way mixing valve art. no. PHA-132:

- adjustment range: 20°C÷45°C
- accuracy of temperature setting: ± 2°C
- maximum operating temperature: up to 95°C
- maximum operating pressure (static): 10 bar
- maximum operating pressure (dynamic): 5 bar
- Kvs flow: 2.5 m³/h
- connection: G1".

2. GRUNDFOS UPM3S AUTO 25/60 130 pump with power cable

- Maximum permissible ambient temperature: +70°C, maximum medium temperature +110°C (TF110)
- Power consumption 2W - 39W
- Power supply: 230 V
- Network frequency: 50Hz
- Degree of protection: IP44
- Installation length: 130 mm
- Lifting height: 6 m



PHA-131/1

PERFEKT^{SYSTEM} MIXING UNIT FOR UNDERFLOOR HEATING WITH GRUNDFOS PUMP, 3-WAY VALVE AND 555/1 HOLDER



PARAMETERS

TMAX	PMAX	GZ by
+95°C	1.0 MPa	ISO228

TECHNICAL DATA

index	DN	d
30-600-0000-006	25	G1

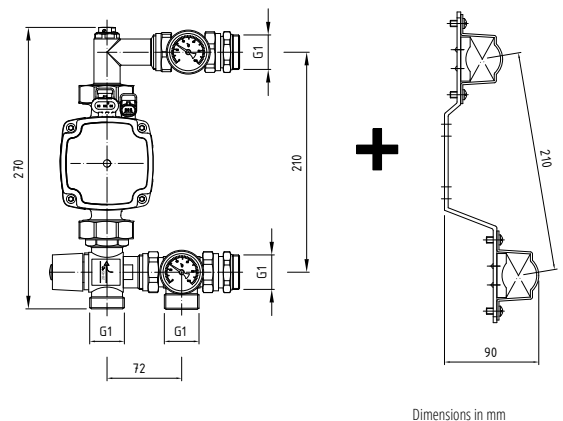
DESCRIPTION

1. Thermostatic three-way mixing valve art. no. PHA-132:

- adjustment range: 20°C÷45°C
- accuracy of temperature setting: ± 2°C
- maximum operating temperature: up to 95°C
- maximum operating pressure (static): 10 bar
- maximum operating pressure (dynamic): 5 bar
- Kvs flow: 2.5 m³/h
- connection: G1".

2. GRUNDFOS UPM3S AUTO 25/60 130 pump with power cable

- Maximum permissible ambient temperature: +70°C, maximum medium temperature +110°C (TF110)
- Power consumption 2W - 39W
- Power supply: 230 V
- Network frequency: 50Hz
- Degree of protection: IP44
- Installation length: 130 mm
- Lifting height: 6 m



* 555/1 handles added to 30-600-0000-0001 index.

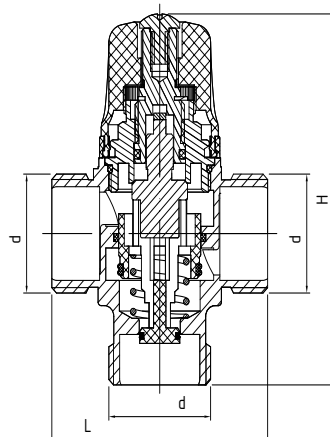
PHA-132

PERFEKT^{SYSTEM} THREE-WAY THERMOSTATIC MIXING VALVE



PARAMETERS

T _{MAX}	P _{MAX}	GZ
+95°C	1.0 MPa	ISO228



TECHNICAL DATA



index	Size	d	L	h1	Hmax
30-601-0250-000	1"	G1	70	42	103.8

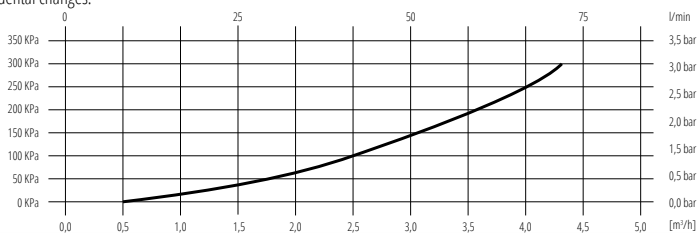
- output temperature: 20°C – 45°C
- accuracy: ± 2°C
- maximum pressure: 10 bar
- recommended operating pressure: 0.5 - 5 bar
- Kvs flow: 2.5 m³/h
- maximum temperature: 95°C
- maximum differential pressure: 3 bar

MATERIALS

BODY: brass
INTERNAL COMPONENTS: stainless steel + EPDM

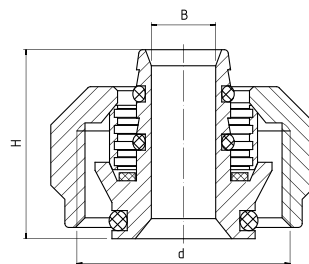
DESCRIPTION

The PHA-132 mixing valve can significantly improve the comfort of central heating. It allows you to control the operation of the system and reduce operating costs. This means that the three-way thermostatic valve PHA-132, cannot be missing from any central heating system. Designed to regulate and maintain the constant temperature of underfloor heating and to reduce and maintain the constant temperature of the central heating system. It is also a control for the DHW system to set a safe mixed water temperature, so there is no possibility of scalding. The outlet water temperature of the thermostatic mixing valve must be set using the knob in accordance with the settings marked on it. To change the setting, it is necessary to unlock the valve knob by pulling it slightly upwards. After changing the setting, it is advisable to lock the dial again to prevent accidental changes.



PHA-090

PERFEKT^{SYSTEM}
CLAMP FOR
MULTILAYER PIPES $\varnothing 16$



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+90°C	+1°C	1.0 MPa	ISO228

TECHNICAL DATA



Dimensions in mm

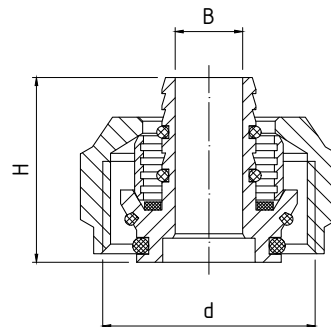
index	Size	d	H	B
20-090-0000-000	16x3/4	G3/4	23.6	$\varnothing 8$

MATERIALS

COUPLING NUT: CW617N brass with nickel plating
CONNECTOR, CLAMPING RING: brass
CONNECTOR GASKET (O-RINGS): NBR
WASHER: PTFE (Teflon)

PHA-090/1

PERFEKT^{SYSTEM}
CLAMP FOR
MULTILAYER PIPES



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+90°C	+1°C	1.0 MPa	ISO228

TECHNICAL DATA



Dimensions in mm

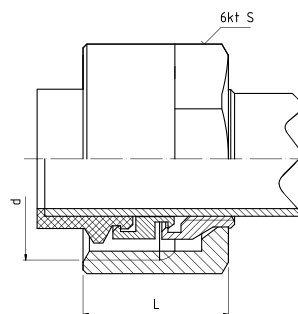
index	Size	d	H	B
20-090-0160-001	16x2 (3/4")	G3/4	23	$\varnothing 8,4$
20-090-0170-001	17x2 (3/4")	G3/4	23	$\varnothing 9$
20-090-0180-001	18x2 (3/4")	G3/4	23	$\varnothing 10$
20-090-0200-001	20x2 (3/4")	G3/4	24	$\varnothing 12$

MATERIALS

COUPLING NUT: CW617N brass with nickel plating
CONNECTOR, CLAMPING RING: brass
CONNECTOR GASKET (O-RINGS): NBR
WASHER: PTFE (Teflon)

215E

PIPE CLAMP FOR COPPER PIPES $\varnothing 15$



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+100°C	+1°C	1.0 MPa	ISO228

TECHNICAL DATA



Dimensions in mm

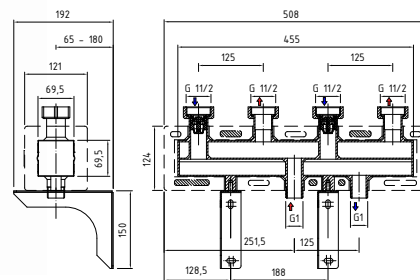
index	Size	d	L	S
20-104-9001-000	$\varnothing 15 \times 3/4''$	G $3/4$	19	27

MATERIALS

CONNECTOR NUT: brass with nickel plating
CLAMPING RING, SCRAPER RING: brass
SEAL: NBR rubber compound

PHA-1002- 2circ.

PERFEKT² SYSTEM HEAT CO DISTRIBUTOR FOR PUMP GROUPS DN25 (70) WITH EPP INSULATION



Dimensions in mm

PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by	Heating output
+95°C	+1°C	1.0 MPa	ISO228	55kW at $\Delta 20^\circ\text{C}$

TECHNICAL DATA



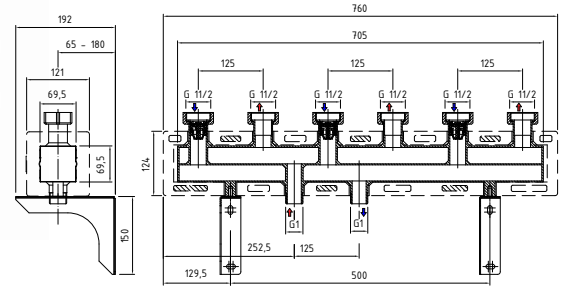
index	size	circuit
54-300-1002-002	1"	2

MATERIALS

BODY, NUT, MOUNTING BRACKETS: std carbon steel with black paint finish
GASKETS: EPDM
INSULATIONS: EPD

PHA-1002- 3circ.

PERFEKT^{SYSTEM} HEAT
CO DISTRIBUTOR FOR PUMP GROUPS DN25 (70) WITH EPP INSULATION



Dimensions in mm

PARAMETERS

TMAX	TMIN	PMAX	GW/GZ by	Heating output
+95°C	+1°C	1.0 MPa	ISO228	55kW at Δ20°C

TECHNICAL DATA



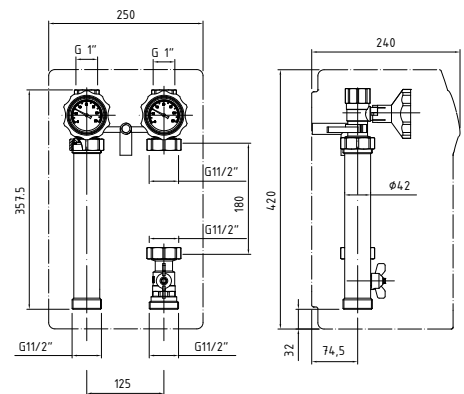
index	Size	circuit
54-300-1002-003	1"	3

MATERIALS

BODY, NUT, MOUNTING BRACKETS: carbon steel with black paint finish
GASKET: EPDM
INSULATION: EPD

PHA-1004

PERFEKT^{SYSTEM} HEAT
PUMP GROUP DN25 WITH EPP INSULATION



Dimensions in mm

PARAMETERS

TMAX	TMIN	PMAX	GW/GZ by
+95°C	+1°C	1.0 MPa	ISO228

* OVERVIEW PHOTO
 pictured art. no. 54-000-1004-001

TECHNICAL DATA



index	name	pump power	Kvs of ball valves
54-000-1004-000	PHA-1004 Pump group DN25 without sub-mixing with EPP insulation, without pump	--	9.7 m³/h
54-000-1004-001	PHA-1004/P Pump group DN25 without sub-mixing with EPP insulation, with PHA-602 pump	5 ÷ 45 W	9.7 m³/h
54-000-1004-002	PHA-1004/G Pump group DN25 without sub-mixing with EPP insulation, with Grundfos pump	2 ÷ 39 W	9.7 m³/h

MATERIALS

PIPE: Galvanised carbon steel
INSULATION: EPP
BALL VALVES: brass
GASKETS: EPDM

PHA-1005

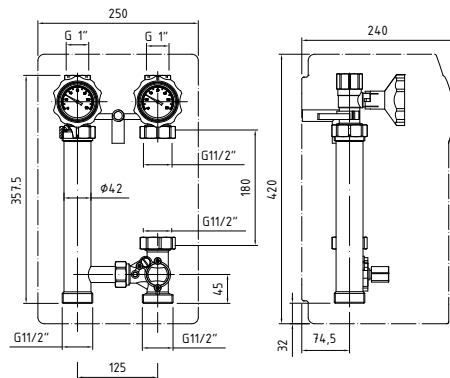
PERFEKT^{SYSTEM} HEAT PUMP GROUP DN25 WITH THREE-WAY MIXING VALVE with EPP insulation

PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+95°C	+1°C	1.0 MPa	ISO228



* OVERVIEW PHOTO
pictured art. no. 54-000-1005-001



TECHNICAL DATA



index	name	pump power	Kvs three-way mixing
54-100-1005-000	PHA-1005 Pump group DN25 with three-way valve for actuator, with EPP insulation, without pump	--	6.5 m ³ /h
54-100-1005-001	PHA-1005/P Pump group DN25 with three-way valve for actuator, with EPP insulation, with PHA-602 pump	5 ÷ 45 W	6.5 m ³ /h
54-100-1005-002	PHA-1005/G Pump group DN25 with three-way valve for actuator, with EPP insulation, with Grundfos pump	2 ÷ 39 W	6.5 m ³ /h
54-100-1005-010	PHA-1005/S Pump group DN25 with three-way valve and actuator with EPP insulation, without pump	--	6.5 m ³ /h
54-100-1005-011	PHA-1005/P/S Pump group DN25 with three-way valve and actuator with EPP insulation, with PHA-602 pump	5 ÷ 45 W	6.5 m ³ /h
54-100-1005-012	PHA-1005/G/S Pump group DN25 with three-way valve and actuator with EPP insulation, with Grundfos pump	2 ÷ 39 W	6.5 m ³ /h

MATERIALS

PIPE: Galvanised carbon steel
INSULATION: EPP
BALL VALVES, THREE-WAY MIXING VALVE: brass
GASKETS: EPDM

PHA-1006

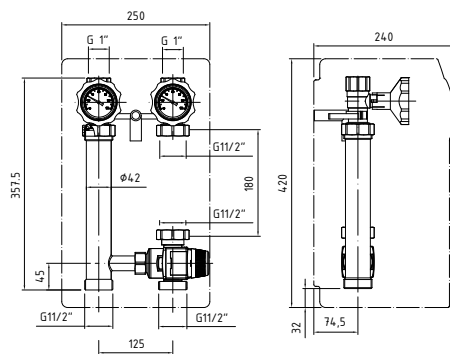
PERFEKT^{SYSTEM} HEAT PUMP GROUP DN25 WITH 3-WAY THERMOST. VALVE 20-43°C WITH EPP INSULATION

PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+95°C	+1°C	1.0 MPa	ISO228



* OVERVIEW PHOTO
pictured art. no. 54-200-1006-001



TECHNICAL DATA



index	name	pump power	Kvs three-way set	thermal valve temperature range
54-200-1006-000	PHA-1006 Pump group DN25 with three-way thermost. valve 20-43 C, with EPP insulation, without pump	--	3.4 m ³ /h	20°C- 43°C
54-200-1006-001	PHA-1006/P Pump group DN25 with three-way thermost. valve 20-43 C, with EPP insulation, with pump PHA-602	5 ÷ 45 W	3.4 m ³ /h	20°C- 43°C
54-200-1006-002	PHA-1006/G Pump group DN25 with 3-way thermost. valve, 20-43 C, with EPP insulation, with Grundfos pump	2 ÷ 39 W	3.4 m ³ /h	20°C- 43°C

MATERIALS

PIPE: Galvanised carbon steel
INSULATION: EPP
BALL VALVES, THREE-WAY THERMOSTATIC VALVE: brass
GASKETS: EPDM

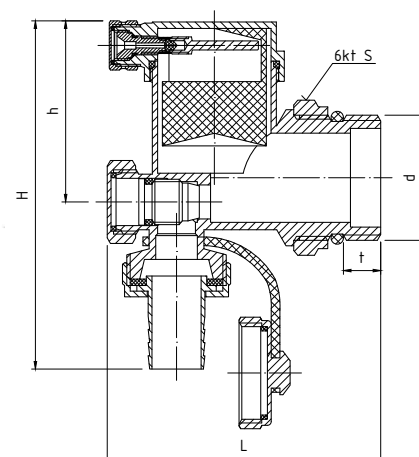
PHA-098

PERFEKT^{SYSTEM} VENT AND DRAIN UNIT FOR DISTRIBUTOR



PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW by
+120°C	+1°C	1.0 MPa	ISO228



Dimensions in mm

TECHNICAL DATA



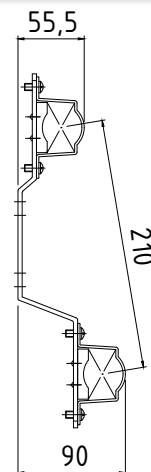
index	Colour	d	L	t	H	h	S
30-200-0980-000	red	G1	72.9	10	93	48	37.9
30-200-0980-010	blue	G1	72.9	10	93	48	37.9

MATERIALS

BODY, STEM, HOLE PLUG, LOCK NUT, DRAIN END, AUTOMATIC AIR VENT NUT, AUTOMATIC AIR VENT STEMS: CW617N brass
FLOAT: polypropylene
FLAT SEAL, O-RING SEALS: NBR
SPRING: stainless steel

555/1

HANDLE FOR BRASS DISTRIBUTORS (PHA-107 SERIES)



TECHNICAL DATA

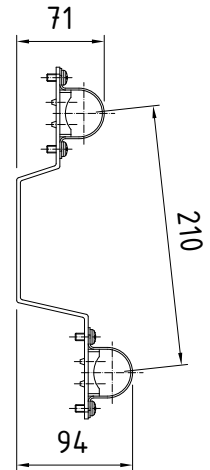
index
30-200-5551-000

MATERIALS

GALVANISED STEEL

SS555/1

**HANDLE FOR DISTRIBUTORS
OF STAINLESS STEEL
(PHA-127 SERIES)**



TECHNICAL DATA

index

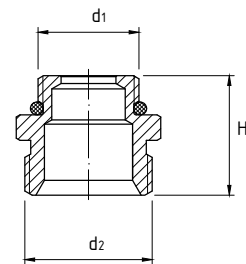
30-200-5551-200

MATERIALS

GALVANISED STEEL

748U

**BRASS DISTRIBUTOR
BEAM NIPPLE
UNIVERSAL**



PARAMETERS

TMAX	TMIN	PMAX	GZ by
+120°C	+1°C	1.0 MPa	ISO228

TECHNICAL DATA

index	Size	d1	d2	H
30-200-7480-002	½" x ¼"	G½	G¾	24.4



Dimensions in mm

MATERIALS

CORE: brass
SEALING RING (TYPE "O"): NBR rubber compound

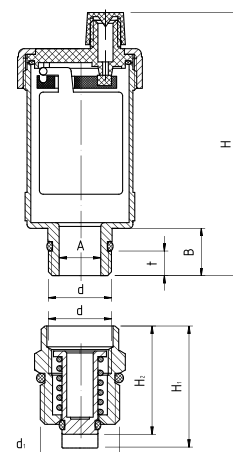
9003+S

VENT AUTOMATIC
WITH FOOT VALVE 1/2"X3/8"

PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+110°C	+1°C	1.0 MPa	ISO228

TECHNICAL DATA



Dimensions in mm

index	Size	d	d ₁	t	H	H ₁	H ₂	A	(category B)
20-400-0003-000	1/2"X3/8"	G3/8	G1/2	6	72	34	30	ø10/5	12

MATERIALS

VENT VALVE

BODY, LID: brass

PLUG, SOCKET, BLANKING PLUG, LEVER: acetate resin

BRIDGE, SPRING: stainless steel

VALVE HEAD GASKET, PLUG GASKET: NBR rubber compound

COVER SEAL (O-ring): NBR

FLOAT: plastic (polypropylene)

FOOT VALVE

BODY, STEM: brass

SPRING: stainless steel

SEAL (O-ring): NBR

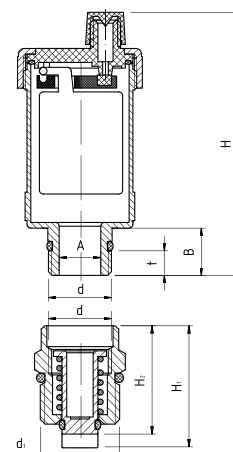
9003C+S

VENT AUTOMATIC WITH
FOOT VALVE 1/2"X3/8"
CHROME PLATED

PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GW/GZ by
+110°C	+1°C	1.0 MPa	ISO228

TECHNICAL DATA



Dimensions in mm

index	Size	d	d ₁	t	H	H ₁	H ₂	A	(category B)
20-400-0003-001	1/2"X3/8"	G3/8	G1/2	6	72	34	30	ø10/5	12

MATERIALS

VENT VALVE

BODY, LID: brass with chrome plating

SOCKET, BLANKING PLUG, VALVE HEAD, LEVER: brass

BRIDGE, SPRING: stainless steel

VALVE HEAD GASKET, PLUG GASKET: NBR rubber compound

COVER SEAL (O-ring): NBR

FLOAT: plastic (polypropylene)

FOOT VALVE

BODY: brass with chrome plating

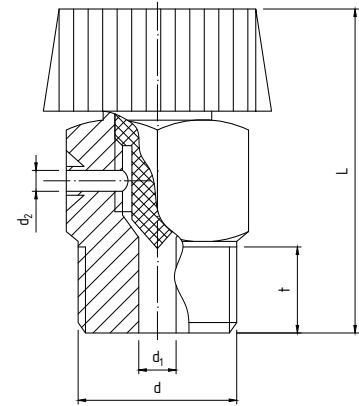
STEM: brass

SPRING: stainless steel

SEAL (O-ring): NBR

418

VENT MANUAL



Dimensions in mm

PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+120°C	+1°C	1.0 MPa	ISO228

TECHNICAL DATA



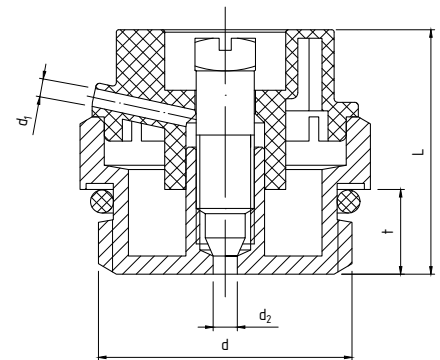
index	Size	d	d ₁	d ₂	L	t
20-401-0150-001	½"	G½	ø3	ø2/5	26	6

MATERIALS

BODY: brass with nickel plating
HANDWHEEL: plastic

417

VENT MANUAL O-RING



Dimensions in mm

PARAMETERS

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+120°C	+1°C	1.0 MPa	ISO228

TECHNICAL DATA



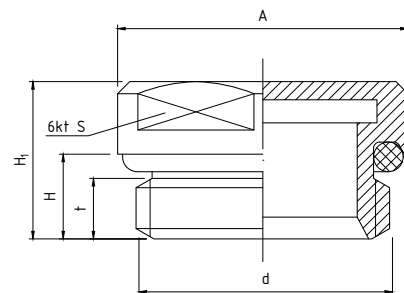
index	Size	d	d ₁	d ₂	L	t
20-401-0150-000	½"	G½	ø2	ø1/8	21	6.5

MATERIALS

BODY, SPINDLE: nickel-plated brass
CAP: ABS
O-RING: NBR rubber compound

4216**BLANKING PLUG
O-RING****PARAMETERS**

T _{MAX}	T _{MIN}	P _{MAX}	GZ by
+120°C	+1°C	1.0 MPa	ISO228



Dimensions in mm

TECHNICAL DATA

index	Size	d	t	H	H ₁	S	A
20-402-0000-000	1/2"	G1/2	5	7	12	22	ø24

MATERIALS

BODY: brass with nickel plating
O-RING: NBR rubber compound

TS+5.11/230**THERMAL ACTUATOR NC
M30x1.5 THREAD****DATA**

index
32-000-0000-000

**DESCRIPTION**

The thermal drive of TS+ positioner is widely used in heating, cooling and ventilation systems for, among other things: controlling individual heating circuits in underfloor and radiator heating, control of zone valves, control of valves in single and double pipe systems. Product features: compact and elegant design, unique setting mechanism, IP 54 protection class in all positions, visible operating status and stroke position, can be mounted in any orientation, standard mounting M 30 x 1.5 mm, no adapter required (optional M 28 x 1.5 mm with 120 N closing force), available in 230 V and 24 V versions, low power consumption.

Operating voltage: AC 230 V 50 Hz
 Valve connection: 30 x 1.5 mm
 Thermal actuator: open/closed
 Power consumption: 2.5 W
 Connecting wire: 2 x 0.5 mm², length 100 cm
 Stroke: 4.5 mm
 Degree of protection: IP 54
 Dimensions: 46 mm ø, height in open position 80.4 mm

E200

PERFEKT^{SYSTEM} TEMPERATURE CONTROLLER DIGITAL WEEKLY



DATA

index

32-000-1000-000



DESCRIPTION

Preset clock, automatic summer/winter time switchover, 3 preset programmes, memory protection, security lock against unauthorised access, holiday mode / timer, manual control function, group K2 energy saving - using microprocessor technology, the E200 thermostat autonomously "learns" how long the pre-heating needs to last in order to reach the desired temperature.

Power supply: two 1.5 V batteries (LR06 alkaline)
Optional control methods: output pulse width modulation or on/off control.
Factory temperature values +5°C - +30°C
Degree of protection: IP 30 / isolated
Dimensions (W x H x D): 140 x 94 x 26mm

RTR3520

PERFEKT^{SYSTEM} ROOM THERMOSTAT



DATA

index

32-000-3000-000



DESCRIPTION

Room temperature controller with rotary knob for setting adjustment. The room temperature controller is placed in the room (wired wall-mounting), for wired transmission to the receiver of the measured values. Allows the user to modify the room temperature manually.
Supply voltage 24...230V AC, 1A/16A
Factory temperature values: 5°C - 30°C
Degree of protection: IP 30 / isolated
Dimensions (W x H x D): 75 x 75 x 27.5mm

INSTAT868A1A

PERFEKT^{SYSTEM} RADIO RECEIVER FOR ACTUATORS AND PUMPS



DATA

index

32-000-0001-000



DESCRIPTION

The radio receiver is designed to be used in conjunction with the INSTAT868-R for on/off switching:
- actuators controlling radiator valves
- circulation pumps (as independent pump control)
- other equipment in heating systems designed to regulate temperature
The 1-channel radio frequency receiver converts transmission signals into control signals for electrical equipment. With valve protection function and emergency programme.
Supply voltage AC 230V 50/60 Hz
Touch button: 1 x learning mode, 1 x reset
Reception range: 1 ceiling or 3 walls
Antenna: internal
Degree of protection: IP 30 / isolated
Dimensions (W x H x D): 75 x 75 x 27mm
Frequency: 868MHz

B-002

SET OF HANDLES TO THE BOILER



DATA

index

20-900-0001-000

MATERIALS

PAINTED STEEL



B-003

A SET OF HANDLES FOR SURGE TANK



DATA

index

20-900-0002-000

MATERIALS

PAINTED STEEL





MULTI-LAYER PIPING SYSTEMS

PERFEXIM

160-209



Full complete system
- quality and satisfaction guarantee

Installation of Perfekt System	161
Multilayer pipe Perfekt System - description	161
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Screw couplings (connectors) 600 series	195
Mounting system	202

PERFEKT SYSTEM MULTILAYER PIPE SYSTEM

MULTILAYER PIPES - TYPES

Through the use of a special adhesive, the layers of aluminium as well as polyethylene do not delaminate, and by fully bonding the plastic to the metal, thermal elongation is reduced and higher resistance to high pressure is provided.

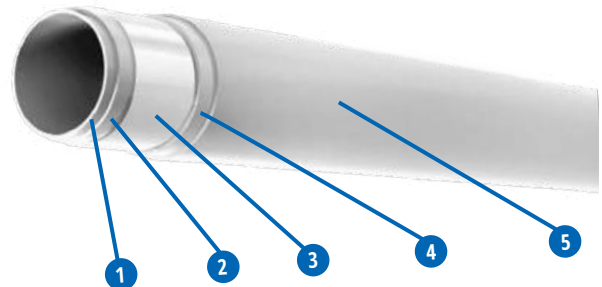
The **PERFEKT^{SYSTEM}** system has found its way into installations of:

- central heating
- surface heating
- internal water supply systems (hot and cold water)
- compressed air
- low-temperature radiators



PERFEKT^{SYSTEM}

	1. POLYETHYLENE	2. ADHESIVE	3. Aluminium	4. ADHESIVE	5. POLYETHYLENE
	cross-linked PE; cross-links between the polymer chains	adhesive developed especially for plastic connections with metal	aluminium inlay	adhesive developed especially for plastic connections with metal	
PIPE PERT-AL-PERT	with increased resistance to temperature PE-RT type II				with increased resistance to temperature PE-RT type II



Features

The combination of plastic (polyethylene) and metal (aluminium) gives multilayer pipes excellent properties. They have the advantages typical of both metal and plastic pipes, while eliminating the disadvantages of both types.

They feature:

- ease of assembly without mechanical or welded joints. The system is simple and economical with accessories and connectors
- flexibility: multilayer pipes are very stable and flexible: they can be bent to a radius of up to five times the pipe diameter and the pipe retains its shape in the process. Pipe bending can be carried out cold, without special tools, from +10°C; for installation temperatures from 5°C to 10°C, special tools such as springs must be used.
- heat resistance: the pipes can be used at temperatures of up to 90°C and temporarily up to 100°C.
- pressure resistance: the estimated service life of multilayer pipes, depending on the type of pipe, at a temperature of 0-90°C and a pressure of up to 10 bar can be up to 50 years
- oxygen diffusion tightness: the aluminium layer forms a barrier against the diffusion of gas molecules, thus eliminating the risk of corrosion due to oxygen.
- no deposits: the inner plastic layer is highly resistant to the formation of lime deposits, dirt and galvanic corrosion substances.
- abrasion resistance: multilayer pipes are resistant to wear and erosion, even in bend areas where higher water velocities can cause increased wear.
- resistant to microbial growth: the absence of corrosion prevents an environment conducive to the multiplication of bacteria
- ideal sanitary and health conditions: the pipes can be used in all water and heating installations. They are manufactured from non-toxic materials and can be used for potable water
- no noise transmission due to the flexibility of the pipes: sound wave propagation is considerably weaker compared to metal pipes, even at higher flow velocities
- minimal expansion/shrinkage: due to temperature fluctuations compared with metal pipes, it has shape memory
- impact resistance: the tube is both rigid and flexible to absorb sudden impacts better

PERFEKT SYSTEM MULTILAYER PIPE SYSTEM

PARAMETERS

The performance of multilayer pipes is determined by the EN21003 standard, which is currently in force in Poland for this type of pipe.

Class	Pmax	Tmax	Maximum short-term operating temperature	Minimum bending radius	Factor of linear expansion	Factor of thermal conductivity
1	1.0 MPa	+60°C	+100°C	5xdz	0.025 mm(mK)	0.40-0.45 W/(mK)
5	0.6 MPa	+90°C	+100°C	5xdz	0.025 mm(mK)	0.40-0.45 W/(mK)

LAGGING

PERT/AL/PERT multilayer pipes come in a 9 mm-thick lagging. The lagging serves as an insulating layer for hot and cold water transmission pipes in the building industry - for concealed installation.

Due to its closed-cell structure, polyethylene foam is resistant to moisture (absorbability after 7 days immersion in water does not exceed 1%) and dampens vibrations. In addition, due to the diffusion blockage, the pipe is protected against condensation on its surface and the covering of the lagging with PE film in red or blue protects it against mechanical damage and the effects of cement-lime mortar.

Apparent density made of foamed polyethylene	Temperature resistance	Factor of thermal conductivity at 10°C	Longitudinal shrinkage at 95°C	Coefficient of resistance to water vapour diffusion
30-35 kg/m ³	0°C to +100°C	0.036 W/(mK)	less than 1.65 %	>μ 3500

700EV

PERFEKT^{SYSTEM}
PERT/EVOH/PERT PIPE



TECHNICAL DATA



index	variant	size [mm]	Length [running metres]	water volume [l/100m]	min. bending radius [mm]
60-300-1600-600	PERT/EVOH/PERT	16 x 2.0	600	11.3.	80
60-300-1720-500	PERT/EVOH/PERT	17 x 2.0	500	13.3	85
60-300-1820-600	PERT/EVOH/PERT	18 x 2.0	500	15.4	90

700PER

PERFEKT^{SYSTEM}
PERT/AL/PERT PIPE
TYPE II



TECHNICAL DATA



index	variant	size [mm]	Length [running metres]	water volume [l/100m]	min. bending radius [mm]
60-200-1620-200	PERT/AL/PERT	16 x 2.0	200	11.3	80
60-200-1620-500	PERT/AL/PERT	16 x 2.0	500	11.3	80
60-200-1820-200	PERT/AL/PERT	18 x 2.0		15.4	90
60-200-2000-100	PERT/AL/PERT	20 x 2.0	100	20.1	100
60-200-2500-050	PERT/AL/PERT	25 x 2.5	50	31.4	125
60-200-3200-025	PERT/AL/PERT	32 x 3.0	25	53.1	160
60-200-4040-005	PERT/AL/PERT	40 x 4.0	5	80.4	--
60-200-5045-005	PERT/AL/PERT	50 x 4.5	5	132	--
60-200-6360-005	PERT/AL/PERT	63 x 6.0	5	204.3	--

700PER-IZO

PERFEKT^{SYSTEM}
PIPE IN THE POLYETHYLENE
LAGGING PERT/AL/PERT



TECHNICAL DATA



index	variant	size [mm]	lagging colour	Length [running metres]	water volume [l/100m]	min. bending radius [mm]
60-200-1623-100	PERT/AL/PERT	16 x 2.0	blue	100	11.3	80
60-200-1624-100	PERT/AL/PERT	16 x 2.0	red	100	11.3	80
60-200-2001-050	PERT/AL/PERT	20 x 2.0	blue	50	20.1	100
60-200-2002-050	PERT/AL/PERT	20 x 2.0	red	50	20.1	100
60-200-2501-025	PERT/AL/PERT	25 x 2.5	blue	25	31.4	125
60-200-2502-025	PERT/AL/PERT	25 x 2.5	red	25	31.4	125
60-200-3201-025	PERT/AL/PERT	32 x 3.0	blue	25	53.1	160
60-200-3202-025	PERT/AL/PERT	32 x 3.0	red	25	53.1	160

*Pipe sold on special customer request.

700PE

PERFEKT^{SYSTEM}
PEX/AL/PE PIPE



TECHNICAL DATA



index	variant	size [mm]	Length [running metres]	water volume [l/100m]	min. bending radius [mm]
60-100-1610-100	PEX/AL/PE	16 x 2.0	100	11.3	80
60-100-1620-200	PEX/AL/PE	16 x 2.0	200	11.3	80
60-100-1620-500	PEX/AL/PE	16 x 2.0	500	11.3	80
60-100-2000-100	PEX/AL/PE	20 x 2.0	100	20.1	100
60-100-2500-050	PEX/AL/PE	25 x 2.5	50	31.4	125
60-100-3200-025	PEX/AL/PE	32 x 3.0	25	53.1	160

700PE

PERFEKT^{SYSTEM}
PEX/AL/PE PIPE
IN 5M SECTIONS



TECHNICAL DATA



index	variant	size [mm]	Length [running metres]	water volume [l/100m]	min. bending radius [mm]
60-100-1620-005	PEX/AL/PE	16 x 2.0	5*	11.3	80
60-100-2000-005	PEX/AL/PE	20 x 2.0	5*	20.1	100
60-100-2500-005	PEX/AL/PE	25 x 2.5	5*	31.4	125
60-100-3200-005	PEX/AL/PE	32 x 3.0	5*	53.1	160

*Pipe sold in 5 metre lengths.

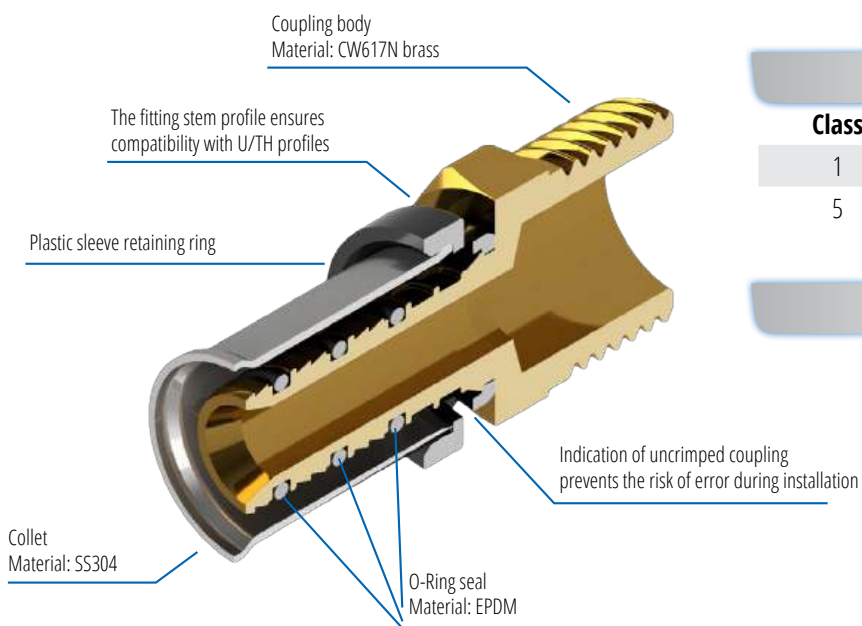
PRESSED COUPLING (CONNECTORS) PERFEKT²SYSTEM⁺

DESCRIPTION

Pressed connectors **PERFEKT²SYSTEM⁺** are made from **high-strength brass alloy CW617N**. Stainless steel bushings, a sleeve retaining ring made of high-quality plastic and an EPDM gasket are **high-grade materials** that allow interaction with building materials and **increase the durability**, which has been tested in our laboratory.

High-grade brass body, stainless steel sleeve are features of enhanced corrosion resistance. The use of high-quality connector materials contributes to the ability to work with building materials. The design of the fitting, the special seating of the O-Ring provides protection, while at the same time protecting in the form of controlled leakage if the sleeve is not clamped.

THIS SYSTEM FORGIVES MISTAKES.



PARAMETERS

Class	T _{MAX}	P _{MAX}	GW/GZ by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

MATERIALS

BODY: CW617N brass
COLLET: AISI304 stainless steel
O-RINGS: NBR
SLEEVE SURFACE: polypropylene

MAKING THE CONNECTION

PRESSED CONNECTOR 900 SERIES - MAKING THE CONNECTION

In the case of press fittings, the connection is made using special press machines. The preparation of the pipe for joining is carried out in the same way as with bolted fittings, i.e.: cutting, calibrating and chamfering the pipe edges. The prepared pipe is pushed onto the coupling mandrel, the pipe is pushed as far as possible until its face rests on the plastic ring, which additionally positions the collet. The pipe is correctly installed on the fitting when each of the holes on the sleeve is covered by the pipe. Once you are sure that the pipe is correctly installed in the fitting, the sleeve is pressed onto the pipe. The joint prepared in this way allows the joined components to rotate freely around the axis of the pipe. This allows for a faster and simpler installation of the entire network.



1. PIPE CUTTING

After measuring the appropriate section of pipe, we make the cut at the designated point. Make sure the cutting line is perpendicular to the axis of the pipe. Use scissors designed for this type of pipe.



2. DOES NOT REQUIRE CALIBRATION AND CHAMFERING

Due to the coupling profile we use, the pipe does not require calibration and chamfering.



3. FITTING THE COUPLING

Slide the pipe onto the end of the coupling with collet until resistance is felt. To check that the pipe is inserted to the correct length, check the holes located on the collet retaining ring. If the pipe fully covers all openings then we are sure that it is inserted to the correct depth.



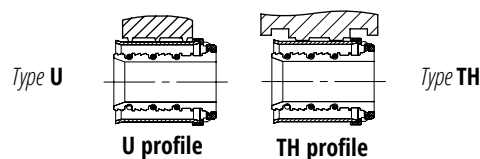
4. CLAMPING THE COUPLING

The joint to be made is inserted into the open jaws, adequately positioning against base on the U/TH jaws selected as shown in the drawing. Then perform the clamping by closing-"short-circuiting" the jaws until the tool is fully closed



5. COMPATIBILITY OF THE "U" AND "TH" JAWS

Positioning the jaws on the coupling



NOTE

1. Tools such as a saw blade, saw, angle grinder, etc. are NOT used to cut the pipe.
2. Edge chamfering is an indispensable step in preparing a pipe for installation with a coupling. Failure to carry out this stage of pipe preparation, or if it is not carried out correctly, may lead to incorrect operation of the installation
3. Install in accordance with the applicable guidelines and standards - Installation work may only be carried out at temperatures above 5°C
4. A leakage test must be carried out before the installation is commissioned
5. We use tools dedicated to the system and the diameters in question.
6. Press jaws dedicated to the multilayer pipe system **PERFEKT²SYSTEM₊** are "U" type jaws
7. During operation we do not exceed the operating parameters, especially the maximum operating temperature

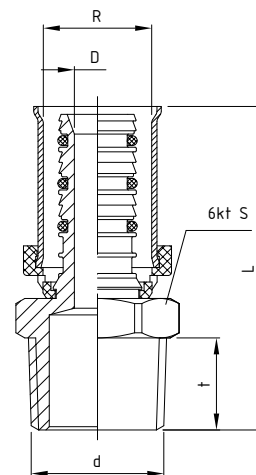
901

PERFEKT^{SYSTEM} NIPPLE PRESSED



PARAMETERS

CLASS	T _{MAX}	P _{MAX}
1 OR 4	+60°C	1.0 MPa
2	+70°C	1.0 MPa
5	+90°C	0.6 MPa



Dimensions in mm

TECHNICAL DATA



index	Size	D	R	d	S	L	t
62-901-1615-000	16x1/2"	7	16.4	R1/2	22	49.2	14
62-901-1620-000	16x3/4"	7	16.4	R3/4	27	50.2	15
62-901-1815-000	18x1/2"	9	18.4	R1/2	22	49.6	14
62-901-1820-000	18x3/4"	9	18.4	R3/4	27	50.6	15
62-901-2015-000	20x1/2"	11	20.4	R1/2	22	49.2	14
62-901-2020-000	20x3/4"	11	20.4	R3/4	27	50.2	15
62-901-2025-000	20x1"	11	20.4	R1	34	53	16
62-901-2515-000	25x1/2"	14	25.5	R1/2	29	57	14
62-901-2520-000	25x3/4"	14	25.5	R3/4	29	57.5	15
62-901-2525-000	25x1"	14	25.5	R1	34	59.5	16
62-901-3225-000	32x1"	20	32.5	R1	34	58.5	16
62-901-3232-000	32x1 1/4"	20	32.5	R1 1/4	43	63	19.5
62-901-4032-000	40x1 1/4"	24	40.5	R1 1/4	44	81	19.5
62-901-4040-000	40x1 1/2"	24	40.5	R1 1/2	49	81	19.5
62-901-5040-000	50x1 1/2"	33	50.5	R1 1/2	49	81.7	19.5
62-901-5050-000	50x2"	33	50.5	R2	62	86.7	24
62-901-6340-000	63x1 1/2"	41.5	63.7	R1 1/2	62	103.5	19.5
62-901-6350-000	63x2"	41.5	63.7	R2	62	108	24

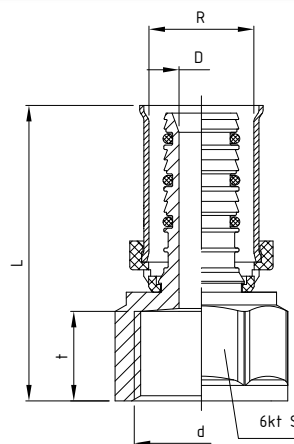
902

PERFEKT^{SYSTEM} MUFF PRESSED GW



PARAMETERS

CLASS	T _{MAX}	P _{MAX}
1 OR 4	+60°C	1.0 MPa
2	+70°C	1.0 MPa
5	+90°C	0.6 MPa



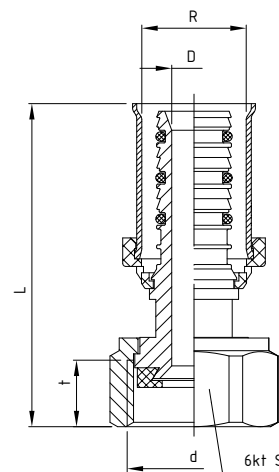
Dimensions in mm

TECHNICAL DATA



index	Size	D	R	d	S	L	t
62-902-1615-000	16x1/2"	7	16.4	G1/2	24	46.2	14
62-902-1620-000	16x3/4"	7	16.4	G3/4	29.5	47.2	15
62-902-1815-000	18x1/2"	9	18.4	G1/2	24.5	46.6	14
62-902-1820-000	18x3/4"	9	18.4	G3/4	29.5	47.5	15
62-902-2015-000	20x1/2"	11	20.4	G1/2	24	46.2	14
62-902-2020-000	20x3/4"	11	20.4	G3/4	29.5	47.2	15
62-902-2520-000	25x3/4"	14	25.5	G3/4	29.5	54.5	15
62-902-2525-000	25x1"	14	25.5	G1	37	56	16
62-902-3225-000	32x1"	20	32.5	G1	37	56	16
62-902-4032-000	40x1 1/4"	24	40.5	G1 1/4	48	72	19.5
62-902-4040-000	40x1 1/2"	24	40.5	G1 1/2	55	70.5	19.5
62-902-5040-000	50x 1/2"	33	50.5	G1 1/2	55	72.2	19.5
62-902-6350-000	63x2"	41.5	63.7	G2	68.3	99.7	23.5

902/O

PERFEKT^{SYSTEM}
HALF-PIPE JOINT
PRESSED GW


Dimensions in mm

PARAMETERS

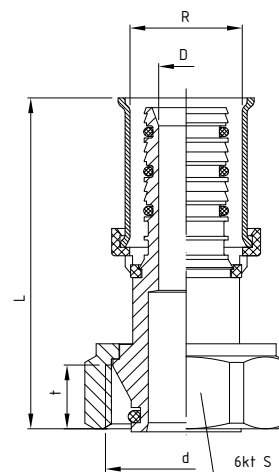
CLASS	TMAX	PMAX
1 OR 4	+60°C	1.0 MPa
2	+70°C	1.0 MPa
5	+90°C	0.6 MPa

TECHNICAL DATA



index	Size	D	R	d	S	L	t
62-902-1615-001	16 x 1/2"	7	16.4	G1/2	24	50.7	11.5
62-902-1820-001	18 x 3/4"	9	18.4	G3/4	30	50.7	11.5
62-902-2015-001	20 x 1/2"	11	20.4	G1/2	24	50.7	11.5
62-902-2020-001	20 x 3/4"	11	20.4	G3/4	30	50.7	11.5

902 EUROCONE

HALF-PIPE JOINT
PRESSED GW


Dimensions in mm

PARAMETERS

CLASS	TMAX	PMAX
1 OR 4	+60°C	1.0 MPa
2	+70°C	1.0 MPa
5	+90°C	0.6 MPa

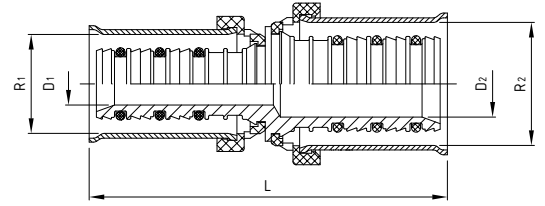
TECHNICAL DATA



index	Size	D	R	d	S	L	t
62-902-1820-002	18 x 3/4"	9	18.4	G3/4	30	55	11.5

903

PERFEKT^{SYSTEM} PRESSED COUPLING



PARAMETERS

CLASS	T _{MAX}	P _{MAX}
1 OR 4	+60°C	1.0 MPa
2	+70°C	1.0 MPa
5	+90°C	0.6 MPa

TECHNICAL DATA



Dimensions in mm

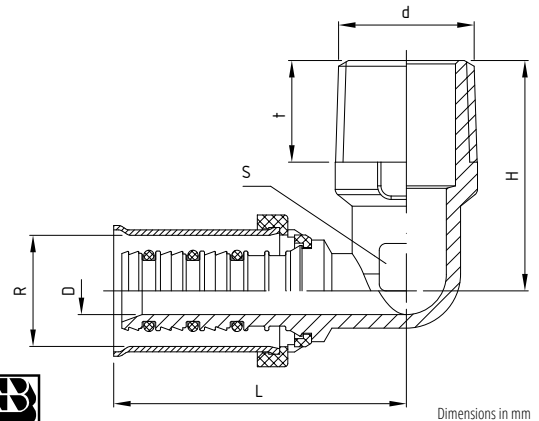
index	Size	D1	R1	D2	R2	L
62-903-0160-000	16	7	16.4	7	16.4	59.4
62-903-0180-000	18	9	18.4	9	18.4	61.1
62-903-0200-000	20	11	20.4	11	20.4	59.4
62-903-0250-000	25	14	25.5	14	25.5	74
62-903-0320-000	32	20	32.5	20	32.5	74
62-903-0400-000	40	24	40.5	24	40.5	96
62-903-0500-000	50	33	50.5	33	50.5	96.7
62-903-0630-000	63	41.5	63.7	41.5	63.7	140
62-903-1816-000	18 x 16	9	18.4	7	16.4	60.1
62-903-2016-000	20 x 16	11	20.4	7	16.4	59.4
62-903-2018-000	20 x 18	11	20.4	9	18.4	60.6
62-903-2516-000	25 x 16	14	25.5	7	16.4	66.7
62-903-2518-000	25 x 18	14	25.5	9	18.4	66.7
62-903-2520-000	25 x 20	14	25.5	11	20.4	66.7
62-903-3216-000	32 x 16	20	32.5	7	16.4	67.6
62-903-3218-000	32 x 18	20	32.5	9	18.4	67.6
62-903-3220-000	32 x 20	20	32.5	11	20.4	66.7
62-903-3225-000	32 x 25	20	32.5	14	25.5	74
62-903-4025-000	40 x 25	24	40.5	14	25.5	85.5
62-903-4032-000	40 x 32	24	40.5	20	32.5	85.5
62-903-5032-000	50 x 32	33	50.5	20	32.5	86.2
62-903-5040-000	50 x 40	33	50.5	24	40.5	97.7
62-903-6340-000	63 x 40	41.5	63.7	24	40.5	118.2
62-903-6350-000	63 x 50	41.5	63.7	33	50.5	118.7

904

PERFEKT^{SYSTEM}
PRESSED GW ELBOW


PARAMETERS

CLASS	T _{MAX}	P _{MAX}
1 OR 4	+60°C	1.0 MPa
2	+70°C	1.0 MPa
5	+90°C	0.6 MPa



Dimensions in mm

TECHNICAL DATA



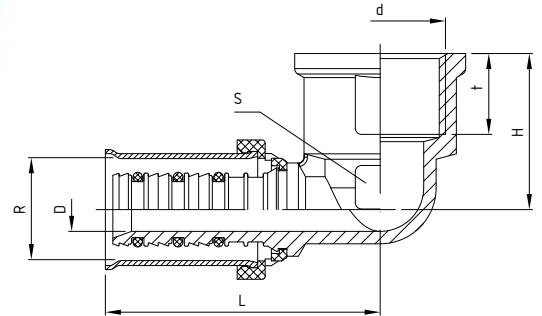
index	Size	D	R	d	S	L	t	H
62-904-1615-000	16 x 1/2"	7	16.4	R1/2	21	43.2	14	34
62-904-1620-000	16 x 3/4"	7	16.4	R3/4	26	46.2	14	35.5
62-904-1815-000	18 x 1/2"	9	18.4	R1/2	21	43.2	14	35
62-904-2015-000	20 x 1/2"	11	20.4	R1/2	21	43.2	14	36
62-904-2020-000	20 x 3/4"	11	20.4	R3/4	26	46.2	15	37.5
62-904-2520-000	25 x 3/4"	14	25.5	R3/4	26	53.5	15	40
62-904-2525-000	25 x 1"	14	25.5	R1	33	58	16	45.5
62-904-3225-000	32 x 1"	20	32.5	R1	33	58	16	45.5

905

PERFEKT^{SYSTEM}
PRESSED GW ELBOW


PARAMETERS

CLASS	T _{MAX}	P _{MAX}
1 OR 4	+60°C	1.0 MPa
2	+70°C	1.0 MPa
5	+90°C	0.6 MPa



Dimensions in mm

TECHNICAL DATA



index	Size	D	R	d	S	L	t	H
62-905-1615-000	16 x 1/2"	7	16.4	G1/2	24.5	44.2	14	25
62-905-2015-000	20 x 1/2"	11	20.4	G1/2	24.5	44.2	14	24.5
62-905-2020-000	20 x 3/4"	11	20.4	G3/4	30	46.7	15	28
62-905-2520-000	25 x 3/4"	14	25.5	G3/4	30	54	15	27.5
62-905-2525-000	25 x 1"	14	25.5	G1	37	58.2	16	28.5
62-905-3225-000	32 x 1"	20	32.5	G1	37	58.2	16	32

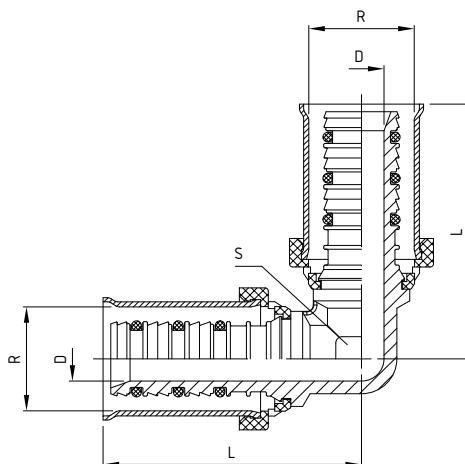
906

PERFEKT^{SYSTEM} PRESSED ELBOW



PARAMETERS

CLASS	T _{MAX}	P _{MAX}
1 OR 4	+60°C	1.0 MPa
2	+70°C	1.0 MPa
5	+90°C	0.6 MPa



TECHNICAL DATA



Dimensions in mm

index	Size	D	R	S	L
62-906-0160-000	16	7	16.4	11	40.2
62-906-0180-000	18	9	18.4	13	41.6
62-906-0200-000	20	11	20.4	15	43.2
62-906-0250-000	25	14	25.5	18.5	53.5
62-906-0320-000	32	20	32.5	25.5	56.5
62-906-0400-000	40	24	40.5	30	72
62-906-0500-000	50	33	50.5	38.5	78.3
62-906-0630-000	63	41.5	63.7	47.5	106.3

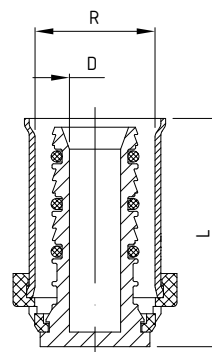
907

PERFEKT^{SYSTEM} BLANKING COUPLING



PARAMETERS

CLASS	T _{MAX}	P _{MAX}
1 OR 4	+60°C	1.0 MPa
2	+70°C	1.0 MPa
5	+90°C	0.6 MPa



TECHNICAL DATA



Dimensions in mm

index	Size	D	R	L
62-907-0160-000	16	7	16.4	31.2
62-907-0180-000	18	9	18.4	31.6
62-907-0200-000	20	11	20.4	31.2

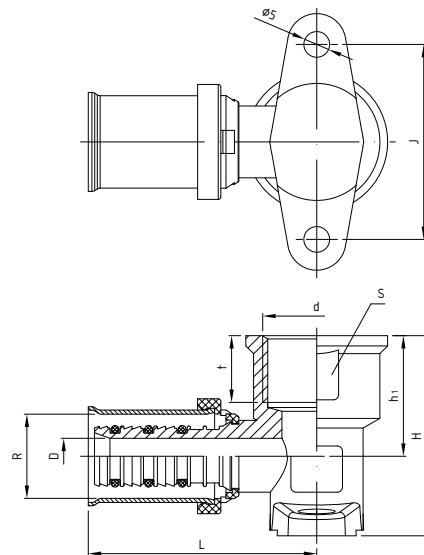
908

PERFEKT^{SYSTEM+} PRESSED ELBOW WITH FASTENING



PARAMETERS

CLASS	T _{MAX}	P _{MAX}
1 OR 4	+60°C	1.0 MPa
2	+70°C	1.0 MPa
5	+90°C	0.6 MPa



TECHNICAL DATA



Dimensions in mm

index	Size	D	R	d	S	L	t	J	H	h1
62-908-1615-000	16 x 1/2"	7	16.4	G1/2	24.5	44.2	14	38	39	23.5
62-908-1815-000	18 x 1/2"	9	18.4	G1/2	24.5	44.8	14	38	40.1	23.5
62-908-2015-000	20 x 1/2"	11	20.4	G1/2	24.5	44.2	14	38	42.5	26

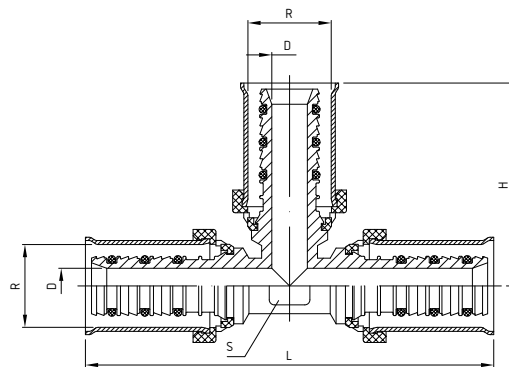
909

PERFEKT^{SYSTEM+} PRESSED TEE



PARAMETERS

CLASS	T _{MAX}	P _{MAX}
1 OR 4	+60°C	1.0 MPa
2	+70°C	1.0 MPa
5	+90°C	0.6 MPa



TECHNICAL DATA



Dimensions in mm

index	Size	D	R	S	L	H
62-909-0160-000	16	7	16.4	11	80.4	40.2
62-909-0180-000	18	9	18.4	13	85.1	42.5
62-909-0200-000	20	11	20.4	15	86.4	43.2
62-909-0250-000	25	14	25.5	18.5	107	53.5
62-909-0320-000	32	20	32.5	25.5	113	56.5
62-909-0400-000	40	24	40.5	30	144	72
62-909-0500-000	50	33	50.5	39	156.4	78.2
62-909-0630-000	63	41.5	63.7	47.5	212	106

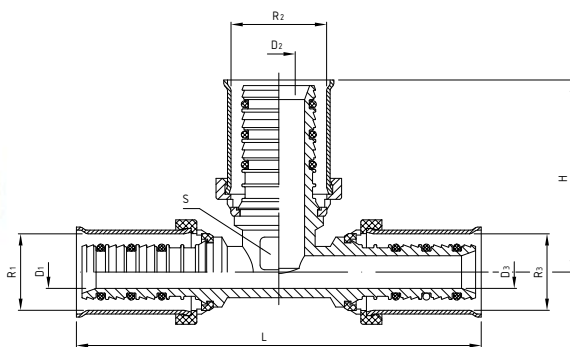
910

PERFEKT_{SYSTEM}
PRESSED TEE



PARAMETERS

CLASS	TMAX	PMAX
1 OR 4	+60°C	1.0 MPa
2	+70°C	1.0 MPa
5	+90°C	0.6 MPa



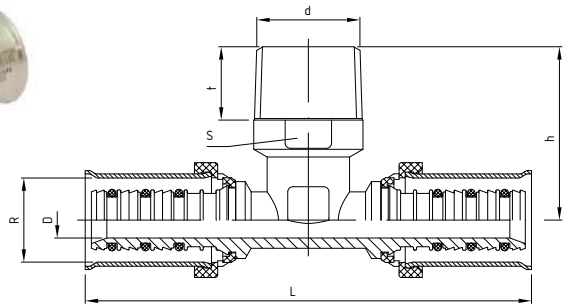
TECHNICAL DATA



Dimensions in mm

index	Size	D1	R1	D2	R2	D3	R3	S	H	L
62-910-1620-000	16 x 20 x 16	7	16.4	11	20.4	7	16.4	15.5	41.2	86.4
62-910-1816-000	18 x 16 x 16	9	18.4	7	16.4	7	16.4	15	43.5	82.2
62-910-1816-180	18 x 16 x 18	9	18.4	7	16.4	9	18.4	13	43.5	83.2
62-910-1818-000	18 x 18 x 16	9	18.4	9	18.4	7	18.4	15	43.5	83.2
62-910-2016-000	20 x 16 x 16	11	20.4	7	16.4	7	16.4	15	43.2	82.4
62-910-2016-200	20 x 16 x 20	11	20.4	7	16.4	11	20.4	15	43.2	82.4
62-910-2018-200	20 x 18 x 20	11	20.4	9	18.4	11	20.4	15	43.5	84
62-910-2020-000	20 x 20 x 16	11	20.4	11	20.4	7	16.4	15	43.2	86.4
62-910-2516-200	25 x 16 x 20	14	25.5	7	16.4	11	20.4	19	45.5	91
62-910-2516-250	25 x 16 x 25	14	25.5	7	16.4	14	25.5	18.5	45.2	99
62-910-2516-250	25 x 20 x 25	14	25.5	7	16.4	14	25.5	18.5	45.2	99
62-910-2518-250	25 x 18 x 25	14	25.5	9	18.4	14	25.5	18.5	46.7	101
62-910-2520-200	25 x 20 x 20	14	25.5	11	20.4	11	20.4	19	46.2	93.7
62-910-2516-250	25 x 16 x 25	14	25.5	11	20.4	11	20.4	19	46.2	93.7
62-910-2520-250	25 x 20 x 25	14	25.5	11	20.4	14	25.5	18.5	46.2	101
62-910-2525-200	25 x 25 x 20	14	25.5	14	25.5	11	20.4	19	53.5	99.7
62-910-2532-250	25 x 32 x 25	14	25.5	20	32.5	14	25.5	25.5	54	113.5
62-910-3216-320	32 x 16 x 32	20	32.5	7	16.4	20	32.5	25.5	49.2	100
62-910-3220-320	32 x 20 x 32	20	32.5	11	20.4	20	32.5	25.5	49.2	102
62-910-3225-320	32 x 25 x 32	20	32.5	14	25.5	20	32.5	25.5	56.5	107
62-910-4020-400	40 x 20 x 40	24	40.5	11	20.4	24	40.5	30	52.2	124
62-910-4025-400	40 x 25 x 40	24	40.5	14	25.5	24	40.5	30	61.5	127
62-910-4032-320	40 x 32 x 32	24	40.5	20	32.5	20	32.5	30	61.5	123.5
62-910-4032-400	40 x 32 x 40	24	40.5	20	32.5	24	40.5	30	61.5	134
62-910-5025-500	50 x 25 x 50	33	50.5	14	25.5	33	50.5	39	65.5	129.4
62-910-5032-500	50 x 32 x 50	33	50.5	20	32.5	33	50.5	39	66.5	135.4
62-910-5040-500	50 x 40 x 50	33	50.5	24	40.5	33	50.5	39	81.5	145.4
62-910-6340-630	63 x 40 x 63	41.5	63.7	24	40.5	41.5	63.7	47.5	84	187.5
62-910-6350-630	63 x 50 x 63	41.5	63.7	33	50.5	41.5	63.7	47.5	84	198

911

PERFEKT^{SYSTEM}
PRESSED TEE GZ

PARAMETERS

CLASS	TMAX	PMAX
1 OR 4	+60°C	1.0 MPa
2	+70°C	1.0 MPa
5	+90°C	0.6 MPa

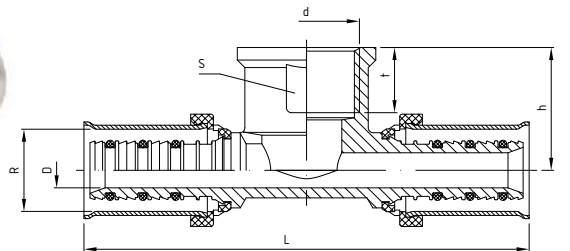
TECHNICAL DATA



Dimensions in mm

index	Size	D	R	d	S	L	t	h
62-911-1615-000	16 x 1/2"	7	16.4	G1/2	21.2	86.4	14	34
62-911-2015-000	20 x 1/2"	11	20.4	G1/2	21.2	86.4	14	36
62-911-2020-000	20 x 3/4"	11	20.4	G3/4	25.8	92.4	15	37.5
62-911-2520-000	25 x 3/4"	14	25.5	G3/4	25.8	107	15	41
62-911-3225-000	32 x 1"	20	32.5	G1	32.8	116	16	45.5

912

PERFEKT^{SYSTEM}
PRESSED TEE GW

PARAMETERS

CLASS	TMAX	PMAX
1 OR 4	+60°C	1.0 MPa
2	+70°C	1.0 MPa
5	+90°C	0.6 MPa

TECHNICAL DATA

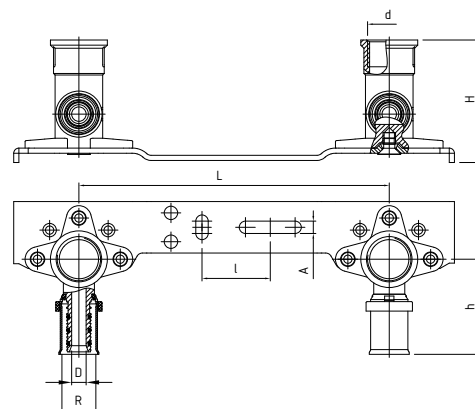


Dimensions in mm

index	Size	D	R	d	S	L	t	h
62-912-1615-000	16 x 1/2"	7	16.4	G1/2	24.5	88.4	14	24.5
62-912-2015-000	20 x 1/2"	11	20.4	G1/2	24.5	88.4	14	25
62-912-2020-000	20 x 3/4"	11	20.4	G3/4	30	93.4	15	26
62-912-2515-000	25 x 1/2"	14	25.5	G1/2	24.5	103.5	14	26.7
62-912-2520-000	25 x 3/4"	14	25.5	G3/4	30	108	15	27.5
62-912-2525-000	25 x 1"	14	25.5	G1	37.5	116	16	29.5
62-912-3225-000	32 x 1"	20	32.5	G1	37.5	116	16	32
62-912-4032-000	40 x 1 1/4"	24	40.5	G1 1/4	46.5	148	19.5	38
62-912-5040-000	50 x 1 1/2"	33	50.5	G1 1/2	52.5	155.4	19.5	42

913

PERFEKT^{SYSTEM+} STRIP FOR BATTERY



PARAMETERS

CLASS	TMAX	PMAX
1 OR 4	+60°C	1.0 MPa
2	+70°C	1.0 MPa
5	+90°C	0.6 MPa

TECHNICAL DATA



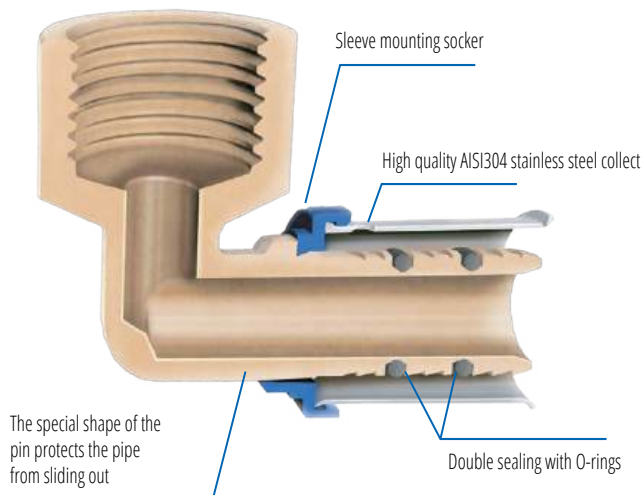
Dimensions in mm

index	Size	R	d	l	L	h	H	A
62-913-0100-000	L-100	16.4	G1/2	33	100	46.2	59.5	6
62-913-0150-000	L-150	16.4	G1/2	33	150	46.2	59.5	6

PRESSED COUPLING (CONNECTORS) PERFEKT²SYSTEM

DESCRIPTION

Pressed couplings **PERFEKT²SYSTEM** are made from **high-strength brass alloy** - CW617N. Double protection with NBR sealing rings ensures **long-lasting operation without loss of tightness** while the stainless steel sleeve guarantees **durable connections**. The design of the spigot and the pressed sleeve with a precise "U" type connection ensures a tight, secure seating without the pipe slipping out during use. . Pressed couplings are particularly **quick and easy installation** for professionals. We offer couplings in many versions and a wide range of dimensions, which makes it possible to **easy making the entire installation or its modification, thus shortening the execution time**.



PARAMETERS

Class	T _{MAX}	P _{MAX}	GW/GZ by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

MATERIALS

BODY: CW617N brass
COLLET: AISI304 stainless steel
O-RINGS: NBR
SLEEVE SURFACE: polypropylene

MAKING THE CONNECTION

PRESSED CONNECTOR 700 SERIES - MAKING THE CONNECTION

In the case of press fittings, the connection is made using special press machines. The preparation of the pipe for joining is carried out in the same way as with bolted fittings, i.e.: cutting, calibrating and chamfering the pipe edges. The prepared pipe is pushed onto the coupling mandrel, the pipe is pushed as far as possible until its face rests on the plastic ring, which additionally positions the collet. The pipe is correctly installed on the fitting when each of the holes on the sleeve is covered by the pipe. Once you are sure that the pipe is correctly installed in the fitting, the sleeve is pressed onto the pipe. The joint prepared in this way allows the joined components to rotate freely around the axis of the pipe. This allows for a faster and simpler installation of the entire network.



1. PIPE CUTTING

After measuring the appropriate section of pipe, we make the cut at the designated point. We use special shears for this purpose. The cut is always made perpendicular to the axis of the pipe in a single operation, so that only one cutting line remains.



2. CALIBRATION AND BEVELLING OF PIPE EDGES

We calibrate the pipe and chamfer the inner edge with special tools. Before doing so, it is important to ensure that the tools you have are dedicated to the correct pipe diameter and are suitable for reuse, i.e. that they have not lost their properties during use. To carry out the calibration, insert the appropriate calibrator tip into the pipe and make a few turns with it. The calibrator should be inserted at its full length. Once the pipe has been calibrated, i.e. an accurately round pipe cross-section has been obtained, we proceed to chamfer the inner edge of the pipe. Chamfering is carried out with cutters placed directly on the calibrators or using special separate cutters. The chamfering is intended to give the edges of the inner pipe the right shape to ensure that the coupling is correctly assembled and that the sealing rings fit correctly into the coupling channels. After inserting the calibrator inside the pipe, check that the cutting blades touch the inside edge of the pipe. Then make several rotations with the cutter, pushing the cutter against the edge of the pipe, so that the pipe edge is properly shaped - "kinked" - around the entire circumference.



3. FITTING THE COUPLING

Slide the pipe onto the end of the coupling with collet until resistance is felt. To check that the pipe is inserted to the correct length, check the holes located on the collet. If the pipe fully covers all three holes then we are sure that it is inserted to the correct depth.



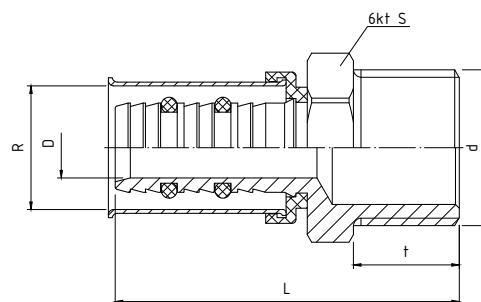
4. CLAMPING THE COUPLING

Only "U" type clamping jaws should be used with their dedicated tools to make the connection. Insert the parts to be connected into the open jaws in such a way that the collet of the fitting is "inside the jaws" and the plastic ring holding the collet rests against the face of the jaws. The plastic ring must adhere over the entire surface to the jaw. The clamping is then carried out by closing - 'short-circuiting' - the jaws until the tool is fully closed, according to the operating instructions dedicated to the jaws and press tools in question.

NOTE

1. Tools such as a saw blade, saw, angle grinder, etc. are NOT used to cut the pipe.
2. Edge chamfering is an indispensable step in preparing a pipe for installation with a coupling. Failure to carry out this stage of pipe preparation, or if it is not carried out correctly, may lead to incorrect operation of the installation
3. Install in accordance with the applicable guidelines and standards - Installation work may only be carried out at temperatures above 5°C
4. A leakage test must be carried out before the installation is commissioned
5. We use tools dedicated to the system and the diameters in question.
6. Press jaws dedicated to the multilayer pipe system **PERFEKT**_{SYSTEM} are "U" type jaws
7. During operation we do not exceed the operating parameters, especially the maximum operating temperature

731

PERFEKT^{SYSTEM}
NIPPLE PRESSED GZ


PARAMETERS

CLASS	TMAX	PMAX	GZ by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

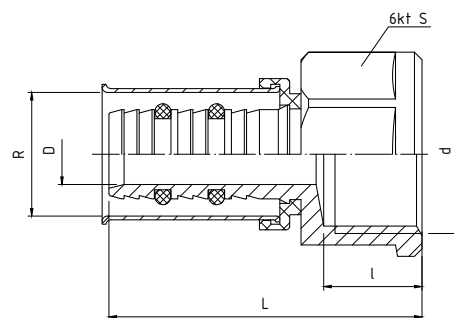
TECHNICAL DATA



Dimensions in mm

index	Size	d	R	L	t	D	S
62-731-1615-000	16 x 1/2"	G1/2	16.4	45.5	14.0	8.0	22.0
62-731-1620-000	16 x 3/4"	G3/4	16.4	45.5	14.0	8.0	27.0
62-731-2015-000	20 x 1/2"	G1/2	20.4	45.5	14.0	11.5	22.0
62-731-2020-000	20 x 3/4"	G3/4	20.4	46.5	15.0	11.5	27.0
62-731-2515-000	25 x 1/2"	G1/2	25.5	52.0	14.0	15.0	22.0
62-731-2520-000	25 x 3/4"	G3/4	25.5	53.0	15.0	15.0	27.0
62-731-2525-000	25 x 1"	G1	25.5	56.5	17.5	15.0	34.0
62-731-3225-000	32 x 1"	G1	32.5	58.5	15.0	20.0	34.0

732

PERFEKT^{SYSTEM}
MUFF PRESSED GW


PARAMETERS

CLASS	TMAX	PMAX	GW by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

TECHNICAL DATA

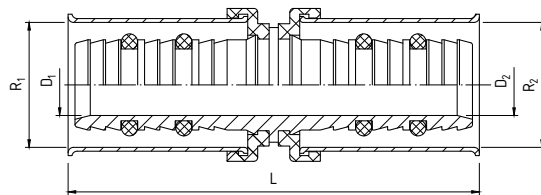


Dimensions in mm

index	Size	d	R	L	l	D	S
62-732-1615-000	16 x 1/2"	G1/2	16.4	41.4	13.0	8.0	24
62-732-1620-000	16 x 3/4"	G3/4	16.4	43.0	14.0	8.0	30
62-732-2015-000	20 x 1/2"	G1/2	20.4	41.4	13.0	11.5	24
62-732-2020-000	20 x 3/4"	G3/4	20.4	43.4	13.0	11.5	30
62-732-2520-000	25 x 3/4"	G3/4	25.5	50.0	14.0	15.0	30
62-732-2525-000	25 x 1"	G1	25.5	51.0	15.0	15.0	36
62-732-3225-000	32 x 1"	G1	32.5	53.0	15.0	20.0	36

733

PERFEKT^{SYSTEM} PRESSED STRAIGHT COUPLING



PARAMETERS

CLASS	T _{MAX}	P _{MAX}
1	+60°C	1.0 MPa
5	+90°C	0.6 MPa

TECHNICAL DATA

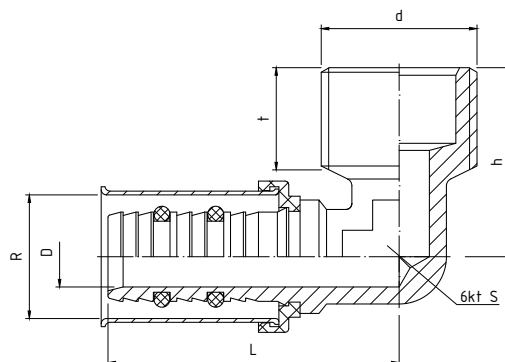


Dimensions in mm

index	Size	R ₁	R ₂	L	D ₁	D ₂
62-733-0160-000	16	16.4	16.4	52.0	8.0	8.0
62-733-0200-000	20	20.4	20.4	52.0	11.5	11.5
62-733-2016-000	20x16	20.4	16.4	52.0	11.5	8.0
62-733-0250-000	25	25.5	25.5	65.0	15.0	15.0
62-733-2516-000	25x16	25.5	16.4	58.5	15.0	8.0
62-733-2520-000	25x20	25.5	20.4	58.5	15.0	11.5
62-733-0320-000	32	32.5	32.5	69.0	20.0	20.0
62-733-3225-000	32x25	32.5	25.5	67.0	32.5	20.0

734

PERFEKT^{SYSTEM} PRESSED ELBOW GZ



PARAMETERS

CLASS	T _{MAX}	P _{MAX}	GZ by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

TECHNICAL DATA



Dimensions in mm

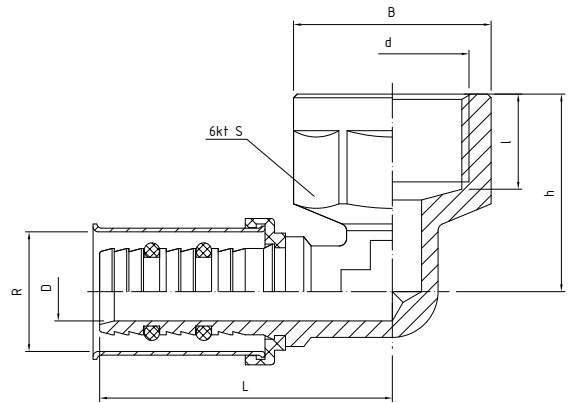
index	Size	d	R	L	t	h	D	S
62-734-1615-000	16 x 1/2"	G1/2	16.4	38.5	13	25.0	8.0	12.5
62-734-1620-000	16 x 3/4"	G3/4	16.4	41.5	15	28.0	8.0	12.5
62-734-2015-000	20 x 1/2"	G1/2	20.4	38.5	13	27.0	11.5	16
62-734-2020-000	20 x 3/4"	G3/4	20.4	41.0	15	29.0	11.5	16
62-734-2520-000	25 x 3/4"	G3/4	25.5	48.5	15	31.5	15.0	19.5
62-734-2525-000	25 x 1"	G1	25.5	51.0	17	33.0	15.0	25
62-734-3225-000	32 x 1"	G1	32.5	53.0	17	36.0	20.0	25

735

PERFEKT^{SYSTEM}
PRESSED ELBOW GW


PARAMETERS

CLASS	TMAX	PMAX	GW by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228



TECHNICAL DATA



Dimensions in mm

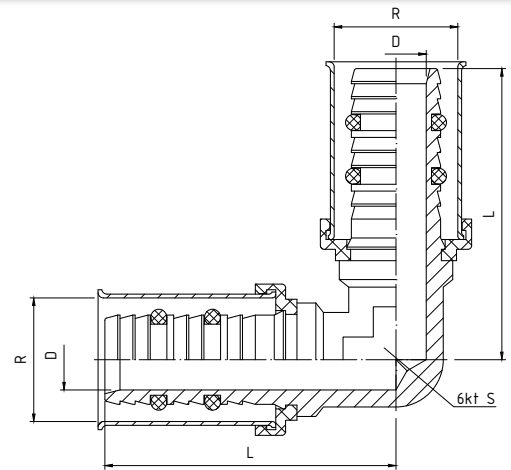
index	Size	d	R	L	l	h	D	B	S
62-735-1615-000	16 x 1/2"	G1/2	16.4	40.0	13.0	27.0	8.0	27.0	24
62-735-2015-000	20 x 1/2"	G1/2	20.4	40.0	14.0	27.0	11.5	27.0	24
62-735-2020-000	20 x 3/4"	G3/4	20.5	44.0	14.0	30.0	11.5	33.0	30
62-735-2520-000	25 x 3/4"	G3/4	25.5	51.0	14.5	26.5	15.0	34.0	30
62-735-2525-000	25 x 1"	G1	25.5	58.0	17.0	35.0	15.0	40.5	36
62-735-3225-000	32 x 1"	G1	32.5	53.0	16.0	32.0	20.0	41.0	36

736

PERFEKT^{SYSTEM}
PRESSED ELBOW


PARAMETERS

CLASS	TMAX	PMAX
1	+60°C	1.0 MPa
5	+90°C	0.6 MPa



TECHNICAL DATA



Dimensions in mm

index	Size	R	L	D
62-736-0160-000	16	16.4	38.5	8.0
62-736-0200-000	20	20.4	40.0	11.5
62-736-0250-000	25	25.5	48.5	15.0
62-736-0320-000	32	32.5	54.0	20.0

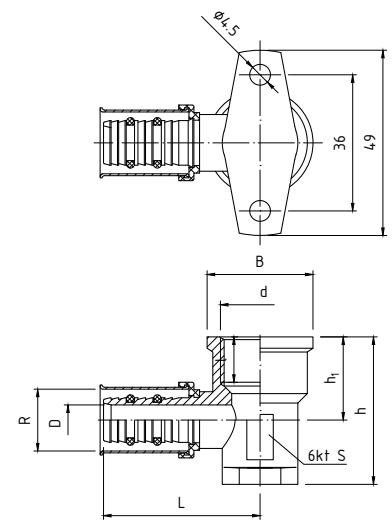
738

PERFEKT^{SYSTEM} PRESSED ELBOW WITH GW FASTENING



PARAMETERS

CLASS	T _{MAX}	P _{MAX}	GW by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228



Dimensions in mm

TECHNICAL DATA



index	Size	d	R	L	l	h	h ₁	D	B
62-738-1615-000	16 x 1/2"	G1/2	16.4	41.4	14.5	36.7	21	8	28
62-738-2015-000	20 x 1/2"	G1/2	20.4	41.4	13	39	22	11.5	28

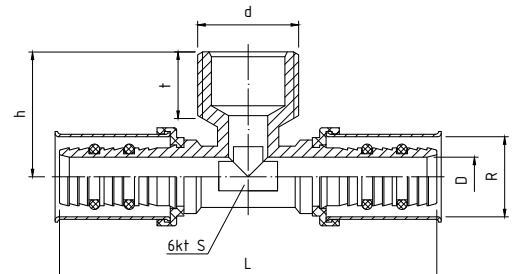
739

PERFEKT^{SYSTEM} PRESSED GZ TEE



PARAMETERS

CLASS	T _{MAX}	P _{MAX}	GZ by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228



Dimensions in mm

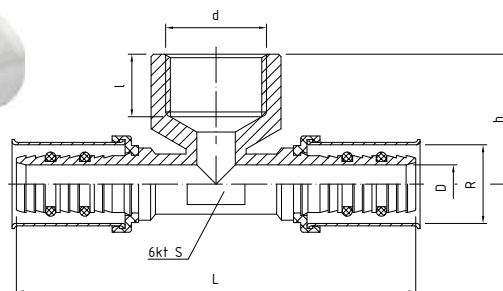
TECHNICAL DATA



index	Size	d	R	L	t	h	D	S
62-739-1615-000	16 x 1/2"	G1/2	16.4	77.0	13	25.5	8.0	13
62-739-2015-000	20 x 1/2"	G1/2	20.4	77.0	13	27.0	11.5	
62-739-2020-000	20 x 3/4"	G3/4	20.4	82.0	15	29.5	11.5	16.5
62-739-2520-000	25 x 3/4"	G3/4	25.5	96.0	15	29.5	15.0	20
62-739-2525-000	25 x 1"	G1	25.5	104.0	15	35.5	15.0	20
62-739-3225-000	32 x 1"	G1	32.5	104.0	15	31.5	20.0	20

73A

PERFEKT^{SYSTEM}
PRESSED GW TEE



PARAMETERS

CLASS	TMAX	PMAX	GW by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

TECHNICAL DATA

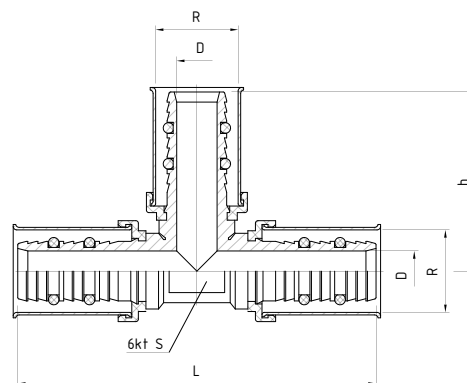


Dimensions in mm

index	Size	d	R	L	l	h	D	S
62-071-1615-000	16 x 1/2"	G1/2	16.4	83.0	13.0	27.0	8.0	24
62-071-1620-000	16 x 3/4"	G3/4	16.4	89.0	14	30	8	30
62-071-2015-000	20 x 1/2"	G1/2	20.4	83.0	13.0	29.0	11.5	24
62-071-2020-000	20 x 3/4"	G3/4	20.4	89.0	14.0	31.0	11.5	30
62-071-2520-000	25 x 3/4"	G3/4	25.5	102.0	14.0	32.0	15.0	30
62-071-2525-000	25 x 1"	G1	25.5	107.0	18.0	35.5	15.0	36
62-071-3225-000	32 x 1"	G1	32.5	111	16.0	38.5	20.0	36

73B

PERFEKT^{SYSTEM}
PRESSED TEE



PARAMETERS

CLASS	TMAX	PMAX
1	+60°C	1.0 MPa
5	+90°C	0.6 MPa

TECHNICAL DATA



Dimensions in mm

index	Size	R	L	h	D	S
62-73B-0160-000	16.0	16.4	71	35.5	8.0	13.0
62-73B-0200-000	20.0	20.4	75	37.5	11.5	16.5
62-73B-0250-000	25.0	25.5	92	46.0	15.0	19.0
62-73B-0320-000	32.0	32.5	102	51.0	20.0	25.5

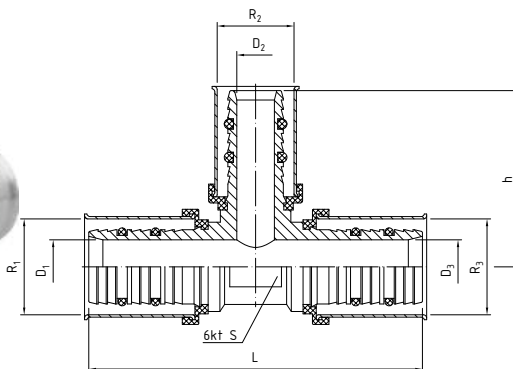
73C

PERFEKT^{SYSTEM}
PRESSED TEE



PARAMETERS

CLASS	T _{MAX}	P _{MAX}
1	+60°C	1.0 MPa
5	+90°C	0.6 MPa



TECHNICAL DATA



Dimensions in mm

index	Size	R ₁	R ₂	R ₃	L	h	D ₁	D ₂	D ₃	S
62-73C-1620-000	16x20x16	16.4	20.4	16.4	75.0	35.5	8.0	11.5	8.0	12.5
62-73C-2016-000	20x16x16	20.4	16.4	16.4	71.0	37.5	11.5	8.0	8.0	16.0
62-73C-2016-001	20x16x20	20.4	16.4	20.4	71.0	37.5	11.5	8.0	11.5	16.5
62-73C-2020-000	20x20x16	20.4	20.4	16.4	75.0	36.5	11.5	11.5	8.0	16.0
62-73C-2025-000	20x25x20	20.4	25.5	20.4	80.0	46.0	11.5	15.0	11.5	16.5
62-73c-2516-001	25x16x20	25.5	16.4	20.4	84.0	39.5	15.0	8.0	11.5	16.0
62-73C-2516-000	25x16x25	25.5	16.4	25.5	84.0	39.5	15.0	8.0	15.0	20.0
62-73C-2520-000	25x20x25	25.5	20.4	25.5	88.0	39.5	15.0	11.5	15.0	20.0
62-73C-2520-001	25x20x20	25.5	20.4	20.4	81.5	39.5	15.0	11.5	11.5	20.0
62-73C-2525-000	25x25x20	25.5	25.5	20.4	84.5	46.0	15.0	15.0	11.5	19.5
62-73C-3216-000	32x16x32	32.5	16.4	32.5	88.0	41.5	20.0	8.0	20.0	25.5
62-73C-3220-000	32x20x32	32.5	20.4	32.5	92.0	42.5	20.0	11.5	20.0	25.5
62-73C-3225-000	32x25x32	32.5	25.5	32.5	96.0	49.0	20.0	15.0	20.0	25.5

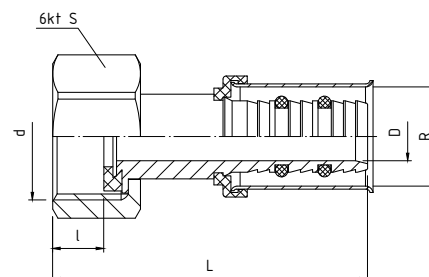
732/0

PERFEKT^{SYSTEM}
FEMALE UNION PIECE
- HALF-PIPE JOINT



PARAMETERS

CLASS	T _{MAX}	P _{MAX}	GW by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228



TECHNICAL DATA



Dimensions in mm

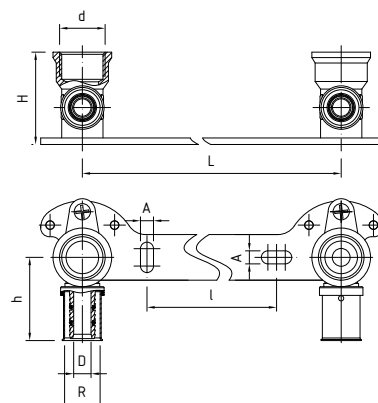
index	Size	d	D	L	I	R	S
62-732-1615-001	16x 1/2"	G 1/2	8	53.0	11.3	16.4	24
62-732-2020-001	20x 3/4"	G 3/4	11.5	53.1	12.5	20.4	30
62-732-2525-001	25x1"	G1	15	61.9	13.7	25.5	38

740

PERFEKT^{SYSTEM}
BATTERY STRIPE


PARAMETERS

CLASS	TMAX	PMAX	GW by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228



TECHNICAL DATA



Dimensions in mm

index	Size	d	D	R	L	l	H	h	A
62-740-0100-000	100	G½	8	16.4	100	40.5	42.5	38.3	6
62-740-0150-000	150	G½	8	16.4	150	90.5	42.5	38.3	6

MATERIALS

BODY: CW617N brass
STRIFE: S235JR carbon steel with electroplated coating
COLLET: AISI304 stainless steel
O-RINGS: NBR
SLEEVE SURFACE: polypropylene

DESCRIPTION

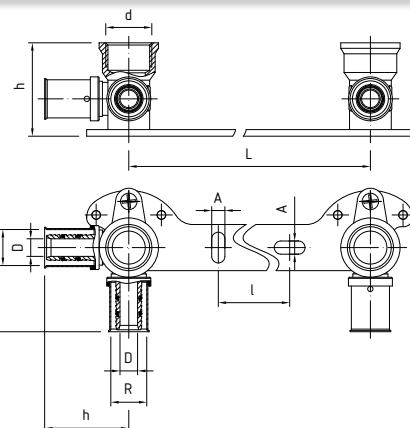
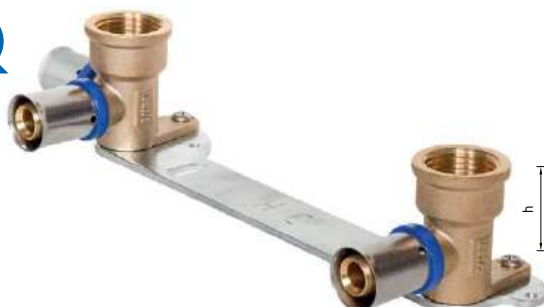
The mounting strips consist of a steel support on which brass elbows are mounted. The brass elbows have threaded sockets with G-type pipe threads of size ½ and mounting connections for multilayer pipes of size 16x2. They are mainly designed for connecting batteries to water installations made with multilayer pipes and system connectors. **PERFEKT^{SYSTEM}**. Depending on requirements, the strips can also be used in central heating systems and in cold and hot water supply systems (including potable water).

741

PERFEKT^{SYSTEM}
BATTERY STRIPE WITH
DOMESTIC HOT WATER
CIRCULATION.


PARAMETERS

CLASS	TMAX	PMAX	GW by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228



TECHNICAL DATA



Dimensions in mm

index	Size	d	D	R	L	l	H	h	A
62-741-0100-000	100	G½	8	16.4	100	40.5	42.5	38.3	6
62-741-0150-000	150	G½	8	16.4	150	90.5	42.5	38.3	6

MATERIALS

BODY: CW617N brass
STRIFE: S235JR carbon steel with electroplated coating
COLLET: AISI304 stainless steel
O-RINGS: NBR
SLEEVE SURFACE: polypropylene

DESCRIPTION

The mounting strips consist of a steel support on which brass elbows are mounted. The brass elbows have threaded sockets with G-type pipe threads of ½ size and mounting connections for multilayer pipes of 16x2 size. They are mainly designed for connecting batteries to water installations made with multilayer pipes and system connectors. **PERFEKT^{SYSTEM}**. Article 741 strips are designed for installation in systems equipped with a hot water circulation circuit. Depending on requirements, the strips can also be used in central heating systems and in cold and hot water supply systems (including potable water).

742

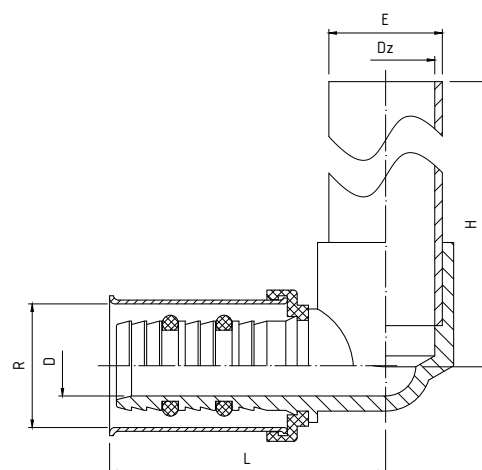
PERFEKT^{SYSTEM} ELBOW WITH CU-TUBE



PARAMETERS

CLASS	T _{MAX}	P _{MAX}
1	+60°C	1.0 MPa
5	+90°C	0.6 MPa

TECHNICAL DATA



Dimensions in mm

index	Size	D	R	L	H	E	Dz
62-742-1615-000	16x15	8	16.4	100	215.3	15	13

MATERIALS

BODY: CW617N brass
TUBE: copper with electroplated coating
COLLET: AISI304 stainless steel
O-RINGS: NBR
SLEEVE SURFACE: polypropylene

745

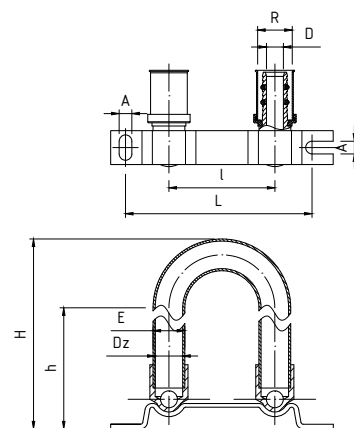
PERFEKT^{SYSTEM} ELBOW ASSEMBLY WITH FASTENING WITH CU-TUBE



PARAMETERS

CLASS	T _{MAX}	P _{MAX}
1	+60°C	1.0 MPa
5	+90°C	0.6 MPa

TECHNICAL DATA



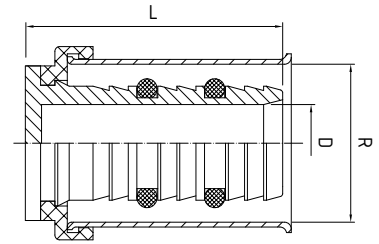
Dimensions in mm

index	Size	D	R	L	I	H	h	E	Dz	A
62-745-1615-000	16x200	8	16.4	88	50	237.5	205	15	13	6

MATERIALS

BODY: CW617N brass
STRIP: S235JR carbon steel with electroplated coating
TUBE: copper with electroplated coating
COLLET: AISI304 stainless steel
O-RINGS: NBR
SLEEVE SURFACE: polypropylene

746

PERFEKT^{SYSTEM}
STOPPER PRESSED GZ


PARAMETERS

CLASS	TMAX	PMAX
1	+60°C	1.0 MPa
5	+90°C	0.6 MPa

TECHNICAL DATA



Dimensions in mm

index	Size	R	D	L
62-746-0160-000	16	16	8	27
62-746-0200-000	20	20	11.5	27

SCREW COUPLINGS (CONNECTORS) - 700 SERPERFEKT^{SYSTEM}

DESCRIPTION

Screw couplings **PERFEKT^{SYSTEM}** are made of high-strength alloy brass alloy - CW617N. Specially selected sealing rings made of NBR ensure **long-lasting operation and tightness of the coupling**. The couplings use double sealing rings and an additional Teflon washer at the interface between the aluminium layer and the coupling material, which **prevents the formation of electrochemical corrosion**. The design of the spigot and the inner surface of the clamping ring allows the pipe to be securely **seated and prevents it from slipping out during operation**.



MATERIALS

BODY, NUT: CW617N brass with nickel-plated exterior

CLAMPING RING: CW614N brass

O-RINGS: NBR

PIPE COUPLING (END PIECE): CW617N brass

WASHER: PTFE
for Article 701/B

PARAMETERS

Class	T _{MAX}	P _{MAX}	GW/GZ by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

MAKING THE CONNECTION

SCREW COUPLING- MAKING THE CONNECTION

In the case of screw couplings, a permanent connection between pipe and coupling is created by clamping the clamping ring on the pipe as a result of tightening the nut. The nut and the clamping ring are profiled in such a way that the clamp is evenly distributed over the entire contact area of the clamping ring with the pipe. To ensure the stability of the connection, special profiles are cut into the fitting and the collet to make it difficult to slip out of the pipe. The coupling system makes it easy to carry out a new installation, connect to an existing installation or carry out modifications to an existing installation, and allows for any repairs to be made. Working with this type of system is intuitive and allows the intended work to be carried out efficiently.



1. PIPE CUTTING

After measuring the appropriate section of pipe, we make the cut at the designated point. We use special shears for this purpose. The cut is always made perpendicular to the axis of the pipe in a single operation, so that only one cutting line remains.



2. CALIBRATION AND BEVELLING OF PIPE EDGES

We calibrate the pipe and chamfer the inner edge with special tools. Before doing so, it is important to ensure that the tools you have are dedicated to the relevant pipe diameter and are suitable for reuse, i.e. that they have not lost their properties (i.e. "not become out of shape") during use. To carry out the calibration, insert the appropriate calibrator tip into the pipe and make a few turns with it. The calibrator should be inserted at its full length. Once the pipe has been calibrated, i.e. an accurately round pipe cross-section has been obtained, we proceed to chamfer the inner edge of the pipe. Chamfering is carried out with cutters placed directly on the calibrators or using special separate cutters. The chamfering is intended to give the edges of the inner pipe the right shape to ensure that the coupling is correctly assembled and that the sealing rings fit correctly into the coupling channels. After inserting the calibrator inside the pipe, check that the cutting blades touch the inside edge of the pipe. Then make several rotations with the cutter, pushing the cutter against the edge of the pipe, so that the pipe edge is properly shaped - "kinked" - around the entire circumference.



3. FITTING THE COUPLING

First apply the nut and then the clamping ring to the suitably prepared pipe. The pipe is then slipped over the coupling stem along its entire length. After ensuring that the coupling is inserted into the pipe for the full length of the stem, the collet and nut are pushed onto the coupling. Twist the nut together with the coupling by hand as far as possible.



4. TIGHTENING THE COUPLING

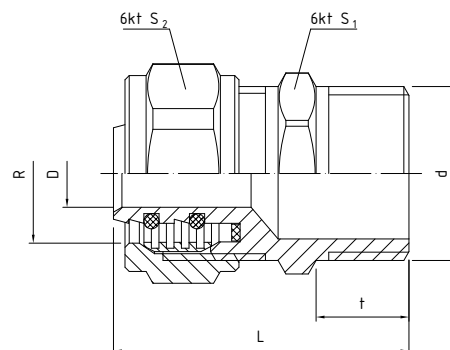
Make sure you have the correct spanners dedicated to your coupling before you start fitting. The nut is bolted to the body with two spanners using two opposing torques. Tighten with spanners making no more than half a turn of the nut or until resistance is felt.

NOTE

1. Tools such as a saw blade, saw, angle grinder, etc. are NOT used to cut the pipe.
2. **Edge chamfering is an indispensable step in preparing a pipe for installation with a coupling. Failure to carry out this stage of pipe preparation, or if it is not carried out correctly, may lead to incorrect operation of the installation**
3. Install in accordance with the applicable guidelines and standards - Installation work may only be carried out at temperatures above 5°C
4. A leakage test must be carried out before the installation is commissioned
5. We use tools dedicated to the system and the diameters in question.
6. During operation, we do not exceed the operating parameters, especially the maximum operating temperature

701

PERFEKT^{SYSTEM} SCREW NIPPLE GZ



PARAMETERS

CLASS	TMAX	PMAX	GZ by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

TECHNICAL DATA

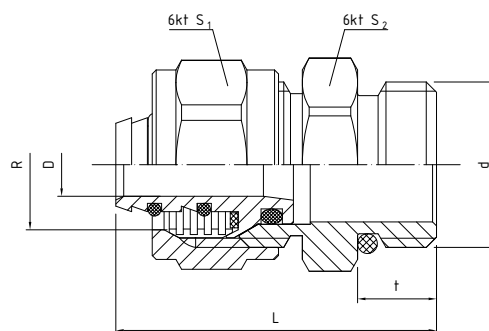


Dimensions in mm

index	Size	d	R	L	t	D	S ₁	S ₂
61-001-1615-000	16 x 1/2"	G1/2	16.5	36.0	11.0	8.0	21	24
61-001-2015-000	20 x 1/2"	G1/2	20.5	40.8	14.0	11.5	27	30
61-001-2020-000	20 x 3/4"	G3/4	20.5	42.0	15.0	11.5	27	30
61-001-2520-000	25 x 3/4"	G3/4	25.5	50.0	15.0	15.0	34	36
61-001-2525-000	25 x 1"	G1	25.5	49.0	15.0	15.0	34	36
61-001-3225-000	32 x 1"	G1	32.5	46.0	15.0	20.0	37	42

701/B

PERFEKT^{SYSTEM} SCREW NIPPLE WITH A REMOVABLE TIP FOR DISTRIBUTOR BEAM-GZ



PARAMETERS

CLASS	TMAX	PMAX	GZ by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

TECHNICAL DATA



Dimensions in mm

index	Size	d	R	L	t	D	S ₁	S ₂
61-001-1615-001	16 x 1/2"	G1/2	16.5	40.6	10	8	24	24

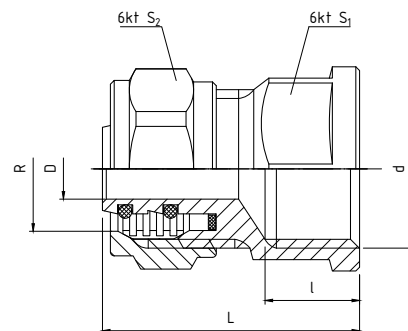
DESCRIPTION

The screwed coupling for multilayer pipes with removable end is suitable for the rapid assembly and removal of pipes in distributor beams. This is made possible by the use of an 'O' ring seal, which seals the connection (coupling body - beam) without using additional sealing materials, which undoubtedly saves time. An additional advantage of this coupling is the use of a removable end (pipe connector), which greatly simplifies pipe installation. Thanks to the use of a removable pipe adapter, we can screw part of the body "permanently" into the distributor beam, for example, and seat the tip itself on the pipe together with the nut and then carry out the final assembly, which greatly simplifies the work.

Part of the body can be screwed 'permanently' into the distributor bar, for example, and the tip itself seated on the pipe. The assembled end with the pipe is placed in the body socket and screwed together. The connection created is easy to make. It is important that the pipe is properly prepared before installation (remember to cut, calibrate and chamfer correctly).

702

PERFEKT^{SYSTEM} SCREW MUFF GW



PARAMETERS

CLASS	T _{MAX}	P _{MAX}	GW by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

TECHNICAL DATA

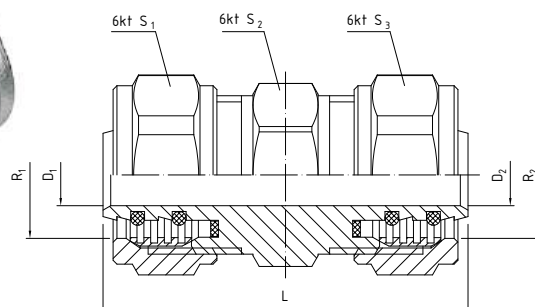


Dimensions in mm

index	Size	d	R	L	l	D	S ₁	S ₂
61-002-1615-000	16 x 1/2"	G1/2	16.5	34.0	12.5	8.0	24	24
61-002-2015-000	20 x 1/2"	G1/2	20.5	36.0	14.0	11.5	27	30
61-002-2020-000	20 x 3/4"	G3/4	20.5	37.4	12.0	11.5	30	30
61-002-2520-000	25 x 3/4"	G3/4	25.5	43.5	14.0	15.0	34	36
61-002-2525-000	25 x 1"	G1	25.5	47.8	16.0	15.0	38	36
61-002-3225-000	32 x 1"	G1	32.5	40.0	16.0	20.0	40	42

703

PERFEKT^{SYSTEM} SCREW MUFF



PARAMETERS

CLASS	T _{MAX}	P _{MAX}
1	+60°C	1.0 MPa
5	+90°C	0.6 MPa

TECHNICAL DATA

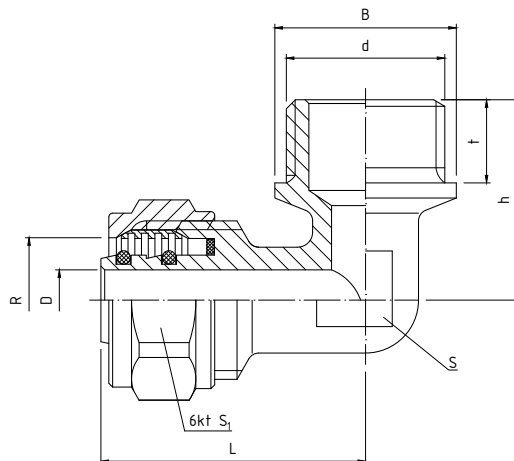


Dimensions in mm

index	Size	R ₁	R ₂	L	D ₁	D ₂	S ₁	S ₂	S ₃
61-003-0160-000	16	16.5	16.5	46.0	8.0	8.0	24	21	24
61-003-0200-000	20	20.5	20.5	48.0	11.5	11.5	30	27	30
61-003-1620-000	16x20	16.5	20.5	45.8	8.0	11.5	24	27	30
61-003-2520-000	25x20	25.5	20.5	53.5	15.0	11.5	36	34	30

704

PERFEKT^{SYSTEM} SCREW ELBOW GZ



PARAMETERS

CLASS	T _{MAX}	P _{MAX}	GZ according to
1	+60°C	1.0 MPa	ISO228
5	+90°C	0.6 MPa	ISO228

TECHNICAL DATA

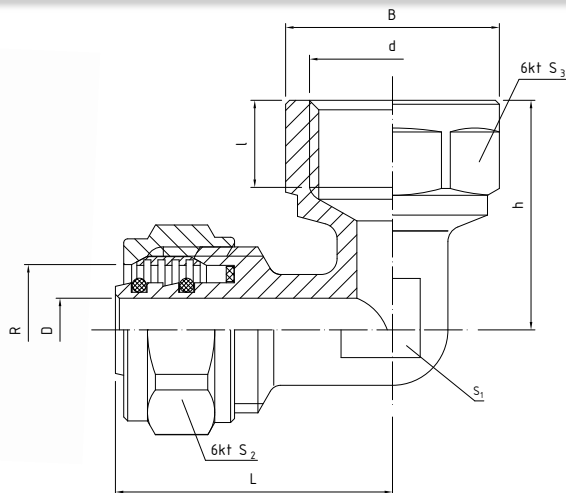


Dimensions in mm

index	Size	d	R	L	t	h	D	S	S ₂	B
61-004-1615-000	16 x 1/2"	G1/2	16.5	35.0	11	26.5	8.0	14.5	24	24.0
61-004-2015-000	20 x 1/2"	G1/2	20.5	37.5	13	33.0	11.5	17.5	30	24.0
61-004-2020-000	20 x 3/4"	G3/4	20.5	37.5	14	34.5	11.5	17.5	30	29.0
61-004-2525-000	25 x 1"	G1	25.5	46.5	16	43.5	15.0	21.3	36	36.0
61-004-3225-000	32 x 1"	G1	32.5	47.0	16	39.0	20.0	26.0	42	37.5

705

PERFEKT^{SYSTEM} SCREW ELBOW GW



PARAMETERS

CLASS	T _{MAX}	P _{MAX}	GW by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

TECHNICAL DATA



Dimensions in mm

index	Size	d	R	L	l	h	D	S ₁	S ₂	S ₃	B
61-005-1615-000	16 x 1/2"	G1/2	16.5	35.0	12.5	29.0	8.0	15.0	24	24	27.0
61-005-2015-000	20 x 1/2"	G1/2	20.5	37.5	12.5	29.0	11.5	19.3	30	24	27.0
61-005-2020-000	20 x 3/4"	G3/4	20.5	38.0	12.5	35.0	11.5	19.3	30	30	33.0
61-005-2525-000	25 x 1"	G1	25.5	48.0	17.5	45.5	15.0	21.3	36	40	44.8
61-005-3225-000	32 x 1"	G1	32.5	47.0	15.0	39.0	20.0	26.0	42	-	39.5

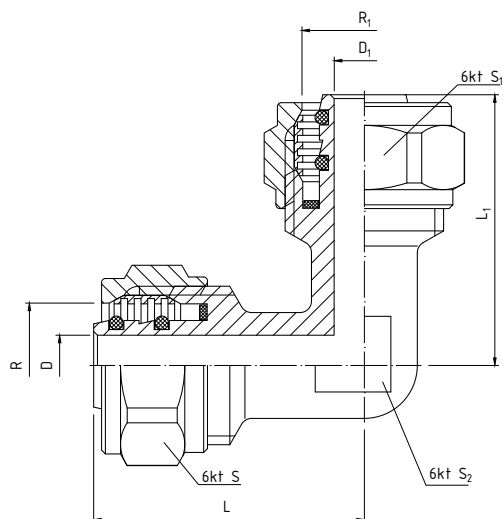
706

PERFEKT^{SYSTEM} SCREW ELBOW



PARAMETERS

CLASS	T _{MAX}	P _{MAX}
1	+60°C	1.0 MPa
5	+90°C	0.6 MPa



Dimensions in mm

TECHNICAL DATA



index	Size	R	R ₁	L	L ₁	D	D ₁	S	S ₁	S ₂
61-006-0160-000	16 x 16	16.5	16.5	35.8	35.8	8.0	8.0	24.0	24.0	14.3
61-006-0200-000	20 x 20	20.5	20.5	38.0	38.0	11.5	11.5	30.0	30.0	19.3
61-006-0250-000	25 x 25	25.5	25.5	45.0	45.0	15.0	15.0	36.0	36.0	21.3
61-006-2520-000	25 x 20	25.5	20.5	45.0	40.0	15.0	11.5	36.0	30.0	21.3
61-006-0320-000	32 x 32	32.5	32.5	45.0	45.0	20.0	20.0	42.0	42.0	26.0

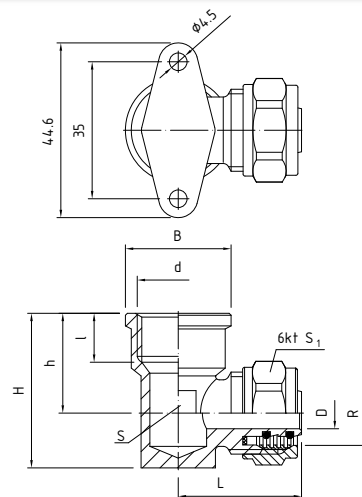
707

PERFEKT^{SYSTEM} SCREW ELBOW WITH FASTENING GW



PARAMETERS

CLASS	T _{MAX}	P _{MAX}	GW by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228



Dimensions in mm

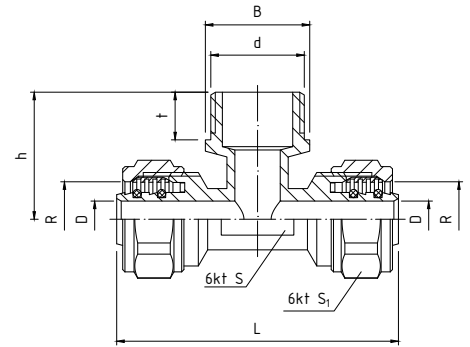
TECHNICAL DATA



index	Size	d	R	L	l	H	h	D	S	S ₁	B
61-007-1615-000	16 x 1/2"	G1/2	16.5	31.5	12.5	40.0	25.5	8.0	19.5	24	27
61-007-2015-000	20 x 1/2"	G1/2	20.5	33.0	12.5	39.5	23.0	11.5	19.5	30	27
61-007-2020-000	20 x 3/4"	G3/4	20.5	36.0	14.0	41.5	25.0	11.5	19.5	30	33

708

PERFEKT^{SYSTEM} SCREW GZ TEE



PARAMETERS

CLASS	T _{MAX}	P _{MAX}	GZ by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

TECHNICAL DATA

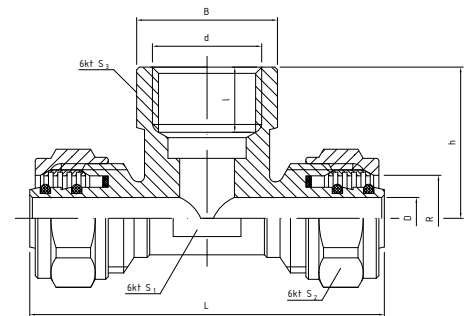


Dimensions in mm

index	Size	d	R	L	t	h	D	S ₁	S ₂
61-008-1615-000	16 x 1/2"	G1/2	16.5	68	11.5	25.0	8.0	14.3	24
61-008-2015-000	20 x 1/2"	G1/2	20.5	74	11.5	25.0	11.5	19.3	30
61-008-2020-000	20 x 3/4"	G3/4	20.5	74	14.0	34.5	11.5	19.3	30
61-008-2520-000	25 x 3/4"	G3/4	25.5	90	14.0	34.5	15.0	21.3	36
61-008-2525-000	25 x 1"	G1	25.5	90	16.0	37.0	15.0	21.3	36
61-008-3225-000	32 x 1"	G1	32.5	88	16.0	39.0	20.0	26.0	42

709

PERFEKT^{SYSTEM} SCREW GW TEE



PARAMETERS

CLASS	T _{MAX}	P _{MAX}	GW by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

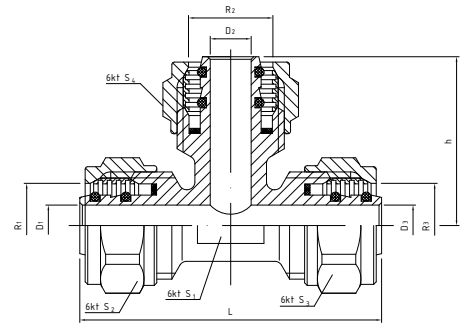
TECHNICAL DATA



Dimensions in mm

index	Size	d	R	L	l	h	D	S ₁	S ₂	S ₃	B
61-009-1615-000	16 x 1/2"	G1/2	16.5	68	12.5	29	8.0	14.3	24	24	27.0
61-009-2015-000	20 x 1/2"	G1/2	20.5	74	14.0	35	11.5	19.3	30	24	27.0
61-009-2020-000	20 x 3/4"	G3/4	20.5	74	14.0	35	11.5	19.3	30	30	33.0
61-009-2520-000	25 x 3/4"	G3/4	25.5	90	14.0	36	15.0	21.3	36	30	33.0
61-009-2525-000	25 x 1"	G1	25.5	90	15.0	37	15.0	21.3	36		39.5
61-009-3225-000	32 x 1"	G1	32.5	88	15.0	39	20.0	26.0	42		39.5

70A

PERFEKT^{SYSTEM}
SCREW TEE

PARAMETERS

CLASS	T _{MAX}	P _{MAX}
1	+60°C	1.0 MPa
5	+90°C	0.6 MPa

TECHNICAL DATA



Dimensions in mm

index	Size	R ₁	R ₂	R ₃	L	h	D ₁	D ₂	D ₃	S ₁	S ₂	S ₃	S ₄
61-010-0160-000	16	16.5	16.5	16.5	59	33.0	8.0	8.0	8.0	24	24	24	14.3
61-010-0200-000	20	20.5	20.5	20.5	68	36.0	11.5	11.5	11.5	30	30	30	17.3
61-010-0250-000	25	25.5	25.5	25.5	90	45.0	15.0	15.0	15.0	36	36	36	21.3
61-010-0320-000	32	32.5	32.5	32.5	94	47.0	20.0	20.0	20.0	42	42	42	26.0
61-010-1616-000	20x16x16	20.5	16.5	16.5	78	37.0	11.5	8.0	8.0	30	24	24	17.3
61-010-1620-000	20x16x20	20.5	16.5	20.5	78	34.0	11.5	8.0	11.5	30	24	30	17.3
61-010-1625-000	25x20x16	25.5	20.5	16.5	84	40.0	15.0	11.5	8.0	36	30	24	21.3
61-010-2520-000	25x20x25	25.5	20.5	25.5	90	40.0	15.0	11.5	15.0	36	30	36	21.3
61-010-3225-000	32x25x32	32.5	25.5	32.5	94	47.0	20.0	15.0	20.0	42	36	42	26.0

SCREW COUPLINGS (CONNECTORS) - 600 SERIES

DESCRIPTION

Screw couplings **are made of high-strength alloy** brass alloy - CW617N. Specially selected sealing rings made of NBR ensure **long-lasting operation and tightness of the coupling**. The couplings use double sealing rings and an additional Teflon washer at the interface between the aluminium layer and the coupling material, which **prevents the formation of electrochemical corrosion**. The design of the spigot and the inner surface of the clamping ring allows the pipe to be securely **seated and prevents it from slipping out during operation**.



MATERIALS

BODY, NUT: CW617N brass with nickel-plated exterior

CLAMPING RING: CW614N brass

O-RINGS: NBR

WASHER: PTFE

PARAMETERS

Class	T _{MAX}	P _{MAX}	GW/GZ by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

MAKING THE CONNECTION

600 SERIES SCREW COUPLING - MAKING THE CONNECTION

In the case of screw couplings, a permanent connection between pipe and coupling is created by clamping the clamping ring on the pipe as a result of tightening the nut. The nut and the clamping ring are profiled in such a way that the clamp is evenly distributed over the entire contact area of the clamping ring with the pipe. To ensure the stability of the connection, special profiles are cut into the fitting and the collet to make it difficult to slip out of the pipe. The coupling system makes it easy to carry out a new installation, connect to an existing installation or carry out modifications to an existing installation, and allows for any repairs to be made. Working with this type of system is intuitive and allows the intended work to be carried out efficiently.



1. PIPE CUTTING

After measuring the appropriate section of pipe, we make the cut at the designated point. We use special shears for this purpose. The cut is always made perpendicular to the axis of the pipe in a single operation, so that only one cutting line remains.



2. CALIBRATION AND BEVELLING OF PIPE EDGES

We calibrate the pipe and chamfer the inner edge with special tools. Before doing so, it is important to ensure that the tools you have are dedicated to the relevant pipe diameter and are suitable for reuse, i.e. that they have not lost their properties (i.e. "not become out of shape") during use. To carry out the calibration, insert the appropriate calibrator tip into the pipe and make a few turns with it. The calibrator should be inserted at its full length. Once the pipe has been calibrated, i.e. an accurately round pipe cross-section has been obtained, we proceed to chamfer the inner edge of the pipe. Chamfering is carried out with cutters placed directly on the calibrators or using special separate cutters. The chamfering is intended to give the edges of the inner pipe the right shape to ensure that the coupling is correctly assembled and that the sealing rings fit correctly into the coupling channels. After inserting the calibrator inside the pipe, check that the cutting blades touch the inside edge of the pipe. Then make several rotations with the cutter, pushing the cutter against the edge of the pipe, so that the pipe edge is properly shaped - "kinked" - around the entire circumference.



3. FITTING THE COUPLING

First apply the nut and then the clamping ring to the suitably prepared pipe. The pipe is then slipped over the coupling stem along its entire length. After ensuring that the coupling is inserted into the pipe for the full length of the stem, the collet and nut are pushed onto the coupling. Twist the nut together with the coupling by hand as far as possible.



4. TIGHTENING THE COUPLING

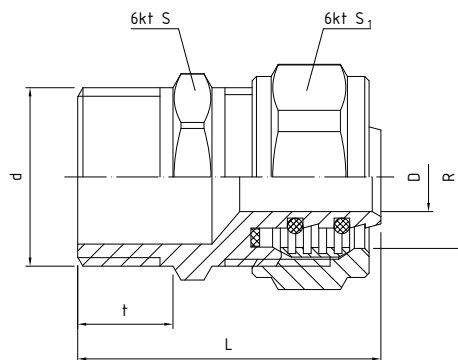
Make sure you have the correct spanners dedicated to your coupling before you start fitting. The nut is bolted to the body with two spanners using two opposing torques. Tighten with spanners making no more than half a turn of the nut or until resistance is felt.

NOTE

1. Tools such as a saw blade, saw, angle grinder, etc. are NOT used to cut the pipe.
2. **Edge chamfering is an indispensable step in preparing a pipe for installation with a coupling. Failure to carry out this stage of pipe preparation, or if it is not carried out correctly, may lead to incorrect operation of the installation**
3. Install in accordance with the applicable guidelines and standards - Installation work may only be carried out at temperatures above 5°C
4. A leakage test must be carried out before the installation is commissioned
5. We use tools dedicated to the system and the diameters in question.
6. During operation, we do not exceed the operating parameters, especially the maximum operating temperature

601

GZ SCREW NIPPLE



PARAMETERS

CLASS	TMAX	PMAX	GZ by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

TECHNICAL DATA

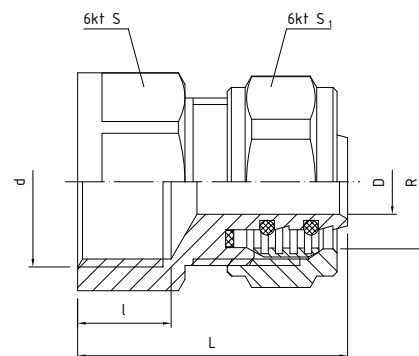


Dimensions in mm

index	Size	d	D	L	t	R	S	S ₁
61-601-1615-000	16x 1/2"	G 1/2	8	35.0	9.5	16.4	21.0	23.8
61-601-2015-000	20x 1/2"	G 3/4	11.5	37.0	9.5	20.5	26.5	29.5
61-601-2020-000	20x 3/4"	G 3/4	11.5	39.0	10	20.5	26.7	29.5
61-601-2520-000	25x 3/4"	G 3/4	11.5	44.8	13	25.5	31.5	35.0
61-601-2525-000	25x1"	G1	15	47.0	13	25.5	33.5	35.0

602

SCREW MUFF GW



PARAMETERS

CLASS	TMAX	PMAX	GW by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

TECHNICAL DATA

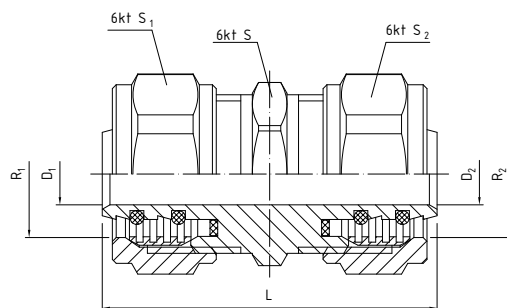


Dimensions in mm

index	Size	d	D	L	l	R	S	S ₁
61-602-1615-000	16x 1/2"	G 1/2	8	32.3	10.5	16.5	24.0	23.8
61-602-2015-000	20x 1/2"	G 3/4	11.5	35.5	15	20.5	24.0	29.5
61-602-2020-000	20x 3/4"	G 3/4	11.5	36.0	10.5	20.5	30.0	29.5
61-602-2520-000	25x 3/4"	G 3/4	15.0	39.5	14.0	25.5	31.5	35.0
61-602-2525-000	25x1"	G1	15.0	42.0	14.0	25.5	36.0	35.0

603

SCREW MUFF



PARAMETERS

CLASS	TMAX	PMAX
1	+60°C	1.0 MPa
5	+90°C	0.6 MPa

TECHNICAL DATA

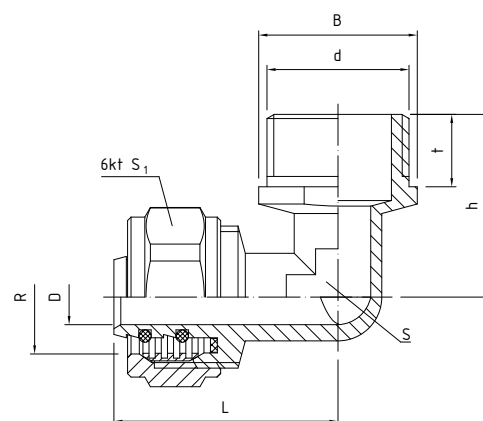


Dimensions in mm

index	Size	D	D ₁	L	R	R ₁	S	S ₁	S ₂
61-603-0160-000	16x 16	8.0	8.0	44.0	16.5	16.5	21.0	23.8	23.8
61-603-0200-000	20x 20	11.5	11.5	45.0	20.5	20.5	27.0	29.5	29.5
61-603-1620-000	20x 16	11.5	8.0	45.5	20.5	16.5	26.5	29.5	23.8

604

GZ SCREW ELBOW



PARAMETERS

CLASS	TMAX	PMAX	GZ by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

TECHNICAL DATA



Dimensions in mm

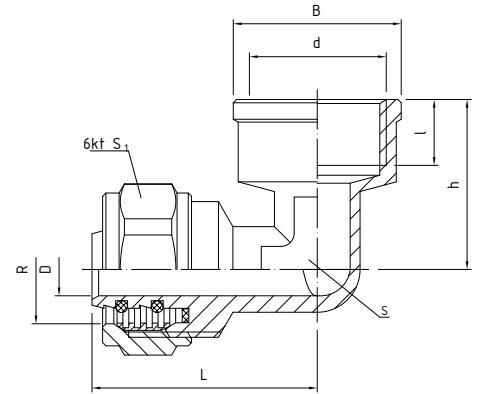
index	Size	d	D	L	t	h	B	R	S	S ₁
61-604-1615-000	16x 1/2"	G 1/2	8	32.5	10.5	26.5	23.0	16.5	13.0	23.8
61-604-2015-000	20x 1/2"	G 1/2	11.5	35.0	10.5	29.0	23.0	20.5	14.5	29.5
61-604-2020-000	20x 3/4"	G 3/4	11.5	35.0	10.5	31.5	29.0	20.5	15.0	29.5

605

SCREW ELBOW GW

PARAMETERS

CLASS	T _{MAX}	P _{MAX}	GW by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228



TECHNICAL DATA



Dimensions in mm

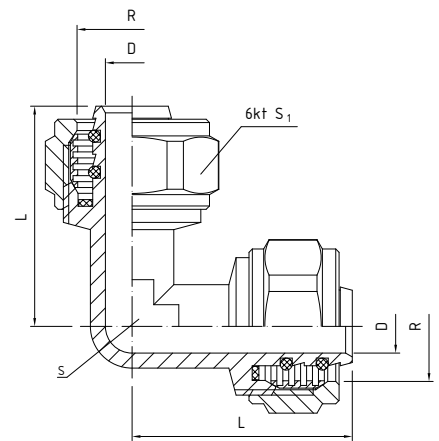
index	Size	d	D	L	l	h	B	R	S	S ₁
61-605-1615-000	16x 1/2"	G 1/2	8	34.5	10.0	25.8	25.5	16.5	13.0	23.8
61-605-2015-000	20x 1/2"	G 1/2	11.5	38.0	11.5	30.0	26.0	20.5	15.0	29.5
61-605-2020-000	20x 3/4"	G 3/4	11.5	39.0	12.5	32.0	32.0	20.5	15.0	29.5

606

SCREW ELBOW

PARAMETERS

CLASS	T _{MAX}	P _{MAX}
1	+60°C	1.0 MPa
5	+90°C	0.6 MPa



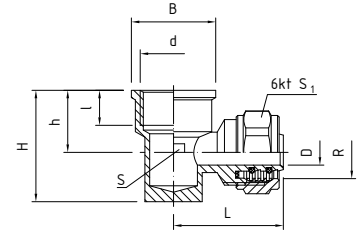
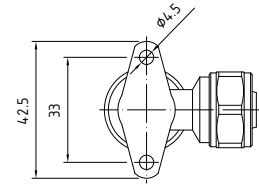
TECHNICAL DATA



Dimensions in mm

index	Size	D	L	R	S	S ₁
61-606-0160-000	16.0	8.0	33.0	16.5	12.5	23.8
61-606-0200-000	20.0	11.5	35.0	20.5	15.0	29.5
61-606-2525-000	25.0	15.0	43.0	25.5	20.0	35.0

607

SCREW ELBOW
WITH GW FASTENING

PARAMETERS

CLASS	TMAX	PMAX	GW by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

TECHNICAL DATA

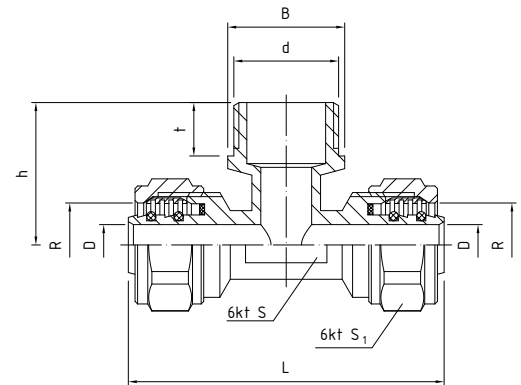


Dimensions in mm

index	Size	d	D	L	l	H	h	B	R	S	S ₁
61-607-1615-000	16x 1/2"	G 1/2	8	34.5	11.0	35.0	19.5	26.5	16.5	19.0	23.8
61-607-2015-000	20x 1/2"	G 1/2	11.5	36.5	11.0	38.5	20.0	26.5	20.5	17.5	23.8
61-607-2020-000	20x 3/4"	G 3/4	11.5	40.5	11.0	43.5	20.0	33.0	20.5	20.0	29.5

608

TWISTED TEE GZ



PARAMETERS

CLASS	TMAX	PMAX	GZ by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

TECHNICAL DATA

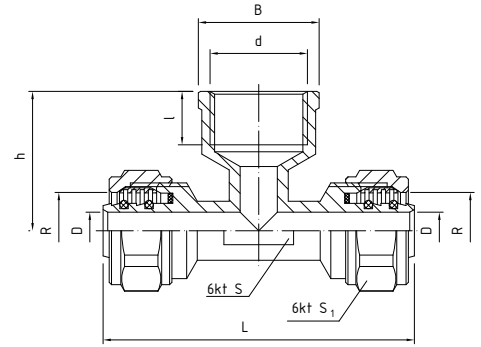


Dimensions in mm

index	Size	d	D	L	t	h	B	R	S	S ₁
61-608-1615-000	16x 1/2"	G 1/2	8.0	64.0	10.5	28.0	23.0	16.5	13.5	23.8
61-608-2015-000	20x 1/2"	G 1/2	11.5	69.0	10.5	28.0	23.0	20.5	14.5	23.8
61-608-2020-000	20x 3/4"	G 3/4	11.5	70.0	11.0	32.0	30.0	20.5	15.0	29.5

609

SCREW TEE GW



PARAMETERS

CLASS	TMAX	PMAX	GW by
1	+60°C	1.0 MPa	ISO 228
5	+90°C	0.6 MPa	ISO 228

TECHNICAL DATA

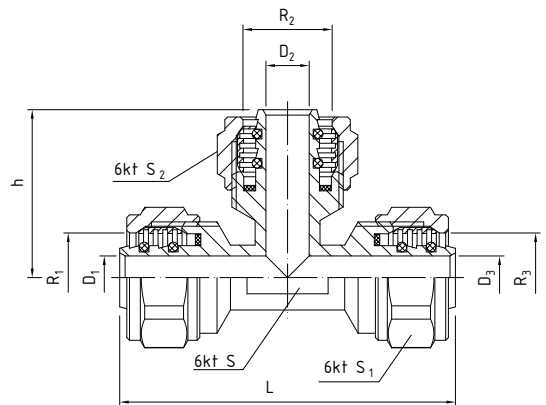


Dimensions in mm

index	Size	d	D	L	l	h	B	R	S	S ₁
61-609-1615-000	16x 1/2"	G 1/2	8.0	67.0	11.5	30.0	26.0	16.5	13.0	23.8
61-609-2015-000	20x 1/2"	G 1/2	11.5	74.0	13.0	31.0	26.0	20.5	15.0	29.5
61-609-2020-000	20x 3/4"	G 3/4	11.5	73.0	11.0	33.0	32.0	20.5	15.0	29.5

60A

SCREW TEE



PARAMETERS

CLASS	TMAX	PMAX
1	+60°C	1.0 MPa
5	+90°C	0.6 MPa

TECHNICAL DATA



Dimensions in mm

index	Size	D ₁	D ₂	D ₃	L	h	R ₁	R ₂	R ₃	S	S ₁	S ₂	S ₃
61-610-0160-000	16	8.0	8.0	8.0	62.1	31.3	16.5	16.5	16.5	12.0	23.8	23.8	23.8
61-610-1620-000	16x20x16	8.0	11.5	8.0	67.0	34.0	16.5	20.5	16.5	15.5	23.8	29.5	23.8
61-610-2016-000	20x16x20	11.5	8.0	11.5	65.5	35.5	20.5	16.5	20.5	15.0	29.5	23.8	29.5
61-610-0200-000	20	11.5	11.5	11.5	68.0	36.5	20.5	20.5	20.5	15.5	29.5	29.5	29.5
61-610-2520-000	25x20x25	15.0	11.5	15.0	81.0	40.0	25.5	20.5	25.5	18.5	35.0	29.5	35.0
61-610-1616-000	20x16x16	11.5	8.0	8.0	66.5	34.0	20.5	16.5	16.5	15.0	29.5	23.8	23.8

PHA-840

PERFEKT^{SYSTEM}
FILM FOR
UNDERFLOOR
HEATING



TECHNICAL DATA

index	Roll length	basis weight	reaction to fire class	Watertightness at 2 kPa	water vapour diffusion resistance	resistance to impact	resistance to bending	resistance to artificial ageing + waterproofing	content of dangerous substances
63-800-0840-000	50 m	>100 g/m ²	F	waterproof	1,55*10 ⁻¹¹ m ²	150 mm	no change at -30°C	watertight after artificial ageing	does not contain

PHA-810/PHA-811

PERFEKT^{SYSTEM}
FLOOR HOOK
SINGLE



TECHNICAL DATA

article	index	Size
PHA-810	63-800-0810-000	L-77
PHA-811	63-800-0811-000	L-100



PHA-820/PHA-821

PERFEKT^{SYSTEM}
FLOOR HOOK
DOUBLE



TECHNICAL DATA

article	index	Size
PHA-820	63-800-0820-000	L-77
PHA-821	63-800-0821-000	L-100



PHA-850/PHA-851

PERFEKT^{SYSTEM}
STOPPER FOR
LEAKAGE TESTS



TECHNICAL DATA

article	index	Size
PHA-850 (red)	63-800-0850-000	½"
PHA-851 (blue)	63-800-0851-000	½"



730

PERFEKT^{SYSTEM}
SLEEVE FOR
PRESSED COUPLINGS



DATA

index	Size
62-730-0160-000	16
62-730-0200-000	20
62-730-0250-000	25



MATERIALS

CLAMPING RING: corrosion-resistant steel
SLEEVE SEAT: polypropylene

793

PERFEKT^{SYSTEM}
PIPE CHAMFERING
TOOL FOR PERFECT SYSTEM
MULTILAYER PIPES



DATA

index	Size
63-800-2160-000	16
63-800-2200-000	20
63-800-2250-000	25
63-800-2320-000	32



N-PRO1

PROFESSIONAL SHEARS FOR
CUTTING PERFECT MULTILAYER
PIPES SYSTEM

DATA

index
63-800-1014-000



DESCRIPTION

Robust, durable knife, ergonomically shaped handle with rubber grip. Lightweight aluminium construction, strong cutting mechanism.

790**SHEARS FOR CUTTING PERFECT SYSTEM
MULTILAYER PIPES****DATA**

index

63-800-1015-000

**791/0****SPRING FOR BENDING PERFECT SYSTEM
MULTILAYERED PIPES EXTERNALLY****DATA**

index	Size
63-700-1600-001	16
63-700-2000-001	20
63-700-2500-001	25
63-700-3200-001	32

**792/0****SPRING FOR BENDING PERFECT SYSTEM
MULTILAYER PIPES INTERNALLY****DATA**

index	Size
63-700-1601-001	16
63-700-2001-001	20
63-700-2501-001	25

**RRP****UNROLLER FOR PERFECT SYSTEM
MULTILAYER PIPES****DATA**

index	number of tubes per coil	type
63-200-0000-000	200, 500 and 600 m.	higher



CRIMPING CLAMPS

PROFILE CLAMPS U PROFILE FOR PRESSED COUPLINGS

DATA

index	Size
63-000-0002-160	16
63-000-0002-200	20
63-000-0002-250	25
63-000-0002-320	32



571013

CORDLESS CRIMPING TOOL AKKU-PRESS

DATA

63-001-0002-000



572111

WIRED CRIMPING TOOL POWER-PRESS E

DATA

index
63-001-0003-000



574000

HAND OPERATED CRIMPING TOOL ECO-PRESS

DATA

index
63-001-0005-000



571014**CORDLESS CRIMPING TOOL
AKKU-PRESS LI-ION ACC**

DATA

index
63-001-0011-000**578012****CORDLESS CRIMPING TOOL
MINI PRESS 14 U ACC**

DATA

index
63-001-0017-000**578015****CORDLESS CRIMPING TOOL
MINI-PRESS S 22V ACC**

DATA

index
63-001-0013-001**578014****CORDLESS CRIMPING TOOL
MINI-PRESS S 22V ACC BASIC**

DATA

index
63-001-0016-000

578010

**CORDLESS CRIMPING TOOL
MINI-PRESS 22V ACC**

DATA

63-001-0006-100



577010

**WIRED CRIMPING TOOL
POWER PRESS ACC**

DATA

63-001-0018-000



571555

**LI-ION RECHARGEABLE
BATTERY 14.4V 5.0AH**

DATA

index

63-001-0008-000



571545

**R14 LI-ION 14.4V BATTERY FOR
MINI-PRESS 578012 CRIMPER**

DATA

63-001-0008-003



571571

R22 LI-ION 21.6V BATTERY
FOR CRIMPING TOOL
MINI-PRESS 578010 AND 578015

DATA

index

63-001-0008-001



MINI PLIERS

CRIMPING MINI PINCERS

DATA

index

Size

63-000-0001-160

16

63-000-0001-200

20

63-000-0001-250

25

63-000-0001-320

32



ACO103BT

CORDLESS CRIMPING TOOL
NOVOPRESS ACO103BT
+ PINCERS 16,20,25 - SET

DATA

index

63-100-0010-001



CRIMPING PINCERS

CLAMPING PINCERS
FOR CRIMPING TOOL
ACO103BT

DATA

index

63-101-0004-160

63-101-0004-200

63-101-0004-250

63-101-0004-320



82378

**BATTERY M12B4 4.0Ah
FOR ACO103 CRIMPING TOOL**

DATA

index

63-100-0020-001





COPPER PIPE

Hard & soft pipes

212

PERFEXIM

211-213

501

COPPER PIPE
SOFT R220 CONDITION

TECHNICAL DATA



index	Size	Length [running metres]	type
70-501-1210-030	12 x 1.0	50	soft
70-501-1510-030	15 x 1.0	50	soft
70-501-1810-030	18 x 1.0	50	soft
70-501-2210-030	22 x 1.0	25	soft

505

HARD COPPER TUBE
STAN R290

TECHNICAL DATA



index	Size	bars 5 m [pcs / bundle m].
70-505-1210-030	12 x 1.0	5/500
70-505-1510-030	15 x 1.0	5/500
70-505-1810-030	18 x 1.0	5/500
70-505-2210-030	22 x 1.0	5/500
70-505-2810-030	28 x 1.0	5/500
70-505-2815-030	28 x 1.5	5/500
70-505-3510-030	35 x 1.0	5/5
70-505-3515-530	35 x 1.5	5/5
70-505-4215-530	42 x 1.5	5/5
70-505-5420-030	54 x 2.5	5/5

503

CLIMATUB COPPER PIPE SOFT FOR AIR CONDITIONING MEDITUB



ADVANTAGES

• Particularly designed for air conditioning and refrigeration systems. Impermeable to external factors such as oxygen. - Antibacterial properties. Prevents the growth and eliminates 99.9% of bacteria and fungi on copper surfaces • Maximum durability • Easy soldering • Anti-corrosion coating on the inside • Possibility of using different types of accessories (capillary welded, crimped, threaded) • Excellent behaviour in the presence of most typical building materials • High resistance to materials used in construction (cement, gypsum, lime mortar, etc.) • The most versatile alternative in installations of any type • Ease of installation • Improved functionality of the installation • More environmentally friendly • Resistant to high pressure, suitable for high-pressure coolants • Resistant to high temperatures • Resistant to UVA radiation • Resistant to ageing and cracking due to damage or deterioration of the material • Excellent mechanical properties • In the event of a fire, do not contribute to its spread. They are non-combustible and do not emit toxic gases (Class A1 in the European Euroclassification (applies to the pipe itself))

TECHNICAL DATA



index	Size	Length [running metres]
70-503-0810-030	8 x 1.0	25
70-503-1210-030	12 x 1.0	25
70-503-1410-030	14 x 1.0	25
70-503-1810-030	18 x 1.0	25
70-503-2210-030	22 x 1.0	25
70-503-1408-030	1/4" x 0.8	15
70-503-5168-030	5/16" x 0.8	15
70-503-3808-030	3/8" x 0.8	15
70-503-1208-030	1/2" x 0.8	15
70-503-5808-030	5/8" x 0.8	15
70-503-5810-030	5/8" x 1.0	15
70-503-3408-030	3/4" x 0.8	15
70-503-3410-030	3/4" x 1.0	15
70-503-7810-030	7/8" x 1.0	15

508

SOFT COPPER TUBE IN THE LAGGING FOR AIR CONDITIONING REFRIGERANT GASES



DESCRIPTION

R220 annealed copper tube in lagging.
In addition to the advantages typical of copper pipe, CLIMAPLUS copper pipe in the lagging has additional advantages:
• Ideal for refrigerant R410A, R407C gases
• Ease and speed of installation

TECHNICAL DATA



index	Size	Length [running metres]	lagging thickness [mm]
70-508-1408-030	1/4" x 0.7 (6.35 x 0.7)	25	6
70-508-3808-030	3/8" x 0.7 (9.52 x 0.7)	25	7
70-508-1208-030	1/2" x 0.7 (12.7 x 0.7)	25	9
70-508-5808-030	5/8" x 0.7 (15.88 x 0.7)	25	9
70-508-1408-035	1/4" x 0.7 (6.35 x 0.7)	50	6
70-508-3808-035	3/8" x 0.7 (9.52 x 0.7)	50	7
70-508-1208-035	1/2" x 0.7 (12.7 x 0.7)	50	9
70-508-5808-035	5/8" x 0.7 (15.88 x 0.7)	50	9

507

CLIMATUB COPPER PIPE HARD FOR AIR CONDITIONING - LAFARGA



TECHNICAL DATA



index	Size	Length [running metres]
70-507-0810-030	8 x 1.0	5/50
70-507-1010-030	10 x 1.0	5/50
70-507-1210-030	12 x 1.0	5/50
70-507-1510-030	15 x 1.0	5/50
70-507-1810-030	18 x 1.0	5/50
70-507-2210-030	22 x 1.0	5/50
70-507-2810-030	28 x 1.0	5/50
70-507-2815-030	28 x 1.5	5/50
70-507-3510-030	35 x 1.0	5/50
70-507-3515-030	35 x 1.5	5/50
70-507-4215-030	42 x 1.5	5/50
70-507-5415-030	54 x 1.5	5/50
70-507-5420-030	54 x 2.0	5/50
70-507-1208-030	½" x 0.8 (12,7 x 0,8)	5/50
70-507-3808-030	¾" x 0.8 (9,52 x 0,8)	5/50
70-507-5808-030	¾" x 0.8 (15,88 x 0,8)	5/50
70-507-3408-030	¾" x 0.8 (19,05 x 0,8)	5/50
70-507-3410-030	¾" x 1.0 (19,05 x 1,0)	5/50
70-507-7810-030	¾" x 1.0 (22,2 x 1,0)	5/50
70-507-2510-030	1" x 1.0 (25,4 x 1,0)	5/50
70-507-1181-030	1 ¼" x 1.0 (28,58 x 1,0)	5/50
70-507-1381-030	1 ¾" x 1.25 (34,93 x 1,25)	5/50
70-507-1581-030	1 ¾" x 1.25 (41,28 x 1,25)	5/50
70-507-2181-030	2 ¼" x 1.25 (53,97 x 1,25)	5/50
70-507-2186-030	2 ¼" x 1.65 (53,97 x 1,65)	5/50
70-507-2581-030	2 ¾" x 1.65 (66,68 x 1,65)	5/50
70-507-2582-030	2 ¾" x 2.0 (66,68 x 2,0)	5/50
70-507-3181-030	3 ¼" x 1.65 (79,38 x 1,65)	5/50

ADVANTAGES AND USES

Particularly designed for air conditioning and refrigeration systems.

Impermeable to external factors such as oxygen.

Antibacterial properties

-Prevents growth and eliminates 99.9% of bacteria and fungi on copper surfaces

-Maximum durability

-Easy soldering

- Corrosion protectioncoating on the inside

-Possibility of using different types of accessories (capillary welded, crimped, threaded)

-Excellent behaviour in the presence of most common building materials

-High resistance to materials used in construction (cement, gypsum, lime mortar, etc.).

-The most versatile alternative for all types of installations

-Ease of installation

-Improving the functionality of installations

-Greener

-Resistant to high pressure, suitable for high-pressure coolants

- High temperature resistance

- UVA radiation resistance

-Resistance to ageing and cracking due to damage or deterioration of the material

-Excellent mechanical properties

-In the event of a fire, they do not contribute to its spreading. They are non-combustible and do not emit toxic gases (Class A1 in the European Euroclassification*)



ACCESSORIES AND SPARE PARTS

214-222

5116/CZ

M10 PLUG

DATA

index	Size
07-216-1510-001	M10x1



MATERIALS

BODY: brass
GASKET: PTFE

U46

GASKET FOR SELF-SEALING PIPE JOINTS 1046A

DATA

index	Size
28-000-0150-000	½"
28-000-0200-000	¾"
28-000-0250-000	1"



MATERIALS

NBR

U60

SEAL RING FOR 1046, 1046S AND 1048 PIPE JOINTS

DATA

index	Size
28-002-0010-000	⅜"
28-002-0150-000	½"
28-002-0200-000	¾"
28-002-0250-000	1"
28-002-0320-000	1¼"



MATERIALS

O-RING SEAL: NBR

DESCRIPTION

The ½", ¾" and 1" sealing rings can also be used for a PHA-005 valves; in addition, the ½" size also fits radiator valve screws.

U51

FIBRE FLAT GASKET FOR PIPE JOINTS OF 5120, 5120S WATER METER

DATA

index	Size
28-001-0150-000	½"
28-001-0200-000	¾"
28-001-0250-000	1"



MATERIALS

FLAT GASKET: technical fibre

TT

PTFE TAPE

DATA

index	dimension	type
29-002-0000-000	0.2mm x 12mm x 15 mb	blue
29-003-0000-000	0.2mm x 19mm x 15 mb	Yellow
29-004-0000-000	0.2mm x 25mm x 15 mb	red
29-001-0002-000	0.075mm x 12mm x 10 mb	Biała



5000/CZ

WATER METER CONSOLE NUT

DATA

index	Size
07-195-0150-010	DN15
07-195-0200-010	DN20



MATERIALS

Brass

749

CLOSING PLUG FOR DISTRIBUTOR BEAM

DATA

index	Size
30-200-7490-000	1"



MATERIALS

CORE: brass
SEALING RING (TYPE "O"): NBR rubber compound

4220

VENT KEY WITH O-RING G ½ (FOR VENTING VALVE)

DATA

index
20-402-0001-000



MATERIALS

Zinc alloy

U-P1

GASKET FOR COUPLINGS PRESSED AND SCREWED

DATA

index	Size
61-999-0160-000	16
61-999-0200-000	20
61-999-0250-000	25
61-999-0320-000	32



MATERIALS

NBR

PHA-042

UNIVERSAL CONNECTION SET FOR ALUMINIUM RADIATOR

DATA

index	Size
71-942-0000-000	1" x 1/2"



UZ

ALUMINIUM RADIATOR NIPPLE SEAL

DATA

index	thickness
71-960-0000-100	1
71-960-0000-101	PLN 1,5 -



NP

NIPPLE FOR ALUMINIUM RADIATOR

DATA

index	Size
71-960-0000-002	1"



RN-PHA

PERFEKT^{SYSTEM}
HANDLE FOR
PHA-001 AND PHA-003 BALL
VALVES WITH LABEL ON THE
VALV



TECHNICAL DATA

index (red handle)	index (blue handle)	Size
01-900-1001-100	01-900-1011-100	3/8"
01-900-1001-150	01-900-1011-150	1/2"
01-900-1001-200	01-900-1011-200	3/4"
01-900-1001-250	01-900-1011-250	1"
01-900-1001-320	01-900-1011-320	1 1/4"
01-900-1001-400	01-900-1011-400	1 1/2"
01-900-1001-500	01-900-1011-500	2"
01-900-1001-650	01-900-1011-650	2 1/2"
01-900-1001-800	01-900-1011-800	3"

MN-PHA

PERFEKT^{SYSTEM}
BUTTERFLY FOR PHA-002 AND
PHA-004 BALL VALVES WITH
LABEL ON VALVE



TECHNICAL DATA

index (red butterfly)	index (blue butterfly)	Size
01-900-1010-150	01-900-1012-150	1/2"
01-900-1010-200	01-900-1012-200	3/4"
01-900-1010-250	01-900-1012-250	1"

3110

HOSE END

DATA

index	Size	DN
01-900-0150-000	¾" x ø15	15
01-900-0200-000	1" x ø20	20
01-900-0250-000	1¼" x ø25	25



TIP

TIP FOR PHA-009S VALVE

TECHNICAL DATA

index	Size
01-900-0150-001	½"





**GOLDEN
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in the category of Manufacturer and importer of the installation and heating, bathroom and sanitary industry

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