

Size range: 1/4" - 2 1/2"



Profit ball valves are FM approved, full port high quality brass valves with female thread. They are used to control the flow of liquids and gases in a pipeline with the main purpose to completely shut off or to allow the flow, depending on the position of the handle.

Characteristics

- Actual flow diameter complies with full port DIN 3357 part 4.
- 24h 100% seal test guaranteed.
- CE Design Standard: EN 331:1998 + A1:2010.
- Dual sealing system allows valve to be operated in either direction making installation easier.
- High temperature resistant.
- No metal-to-metal moving parts.
- Maintenance-free under normal service conditions.
- Handle clearly shows ball position.
- Silicone-free lubricant on all seals.
- Handle stops on body to avoid stresses at stem.
- Chrome plated brass ball for longer life with rinse hole.

Working pressure & temperature

- 4,00 MPa / 40,0 bar / 600 psi up to 2" non-shock cold working pressure.
- -40°C to +170°C.
- For use with dangerous fluids temperature rating is -20°C to +60°C and pressure rating is 5 bar.
- Approved for HTB use (Hochtemperaturbeständigkeit) Class B 0,1 (0,1 bar @650°C for at least 30 minutes).
- AS4617 Limitation for GAS: 2100 Kpa up to 2" rated working pressure and 0°C / +60°C temperature.
- **WARNING:** freezing of any fluid in the valve may severely damage the valve.

Material specifications

	Part description	QTY	Material
1	Nickel plated brass body (external nickel plated, unplated inside up to 2")	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball with rinse hole (read rinse hole on sizes from ¾" up to 2")	1	CW617N
4	Nickel plated end-cap (external nickel plated, unplated inside up to 2")	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	Red PVC coated Geomet® steel handle	1	DD11 (EN10111)

Body

- Hot forged sand blasted external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant.
- Finest brass according to EN 12165 and EN 12164 specifications.
- DN shows the nominal flow diameter.

Stem

- Blowout-proof nickel plated brass stem.
- Maintenance-free, double FPM O-rings at the stem for maximum safety.

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design.

Threads

- EN 10226-1, ISO 7/1 parallel female threads.

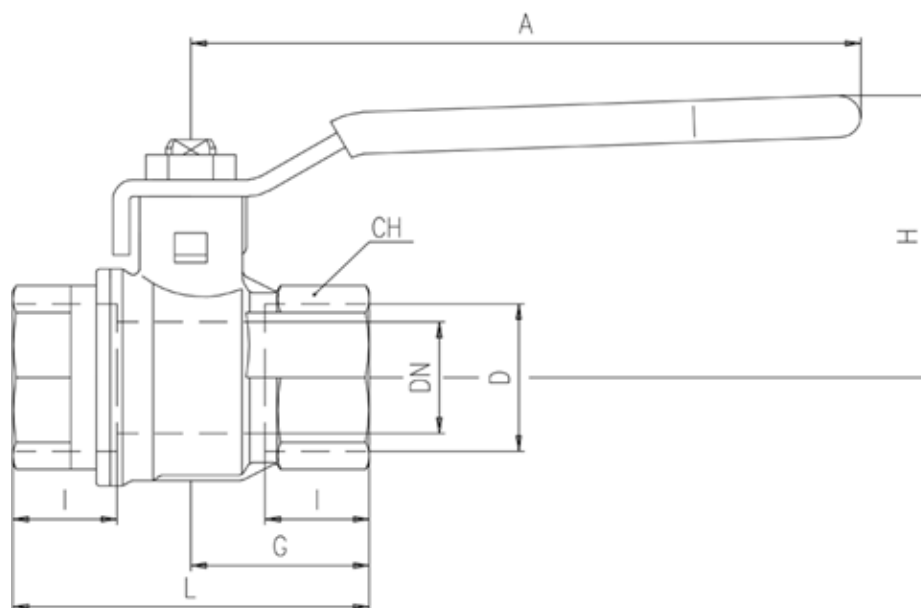
PED directive

- Assessment according to Pressure Equipment Directive 2014/68/UE module B+D by ICIM (0425).

Handle

- Geomet® carbon steel handle with thick PVC dip coating.
Handle coating offers both thermal and electrical protection.
- Ball valves are marked CE on handle from 1¼" to 2", as followed:
CE 0425 cat IIIB+D PS: 5 GAS TS1: -20°C TS2: +60°C.
- Handle removable with valve in service.
- **WARNING:** do not exceed reasonable temperature and / or electrical load.

Dimensions

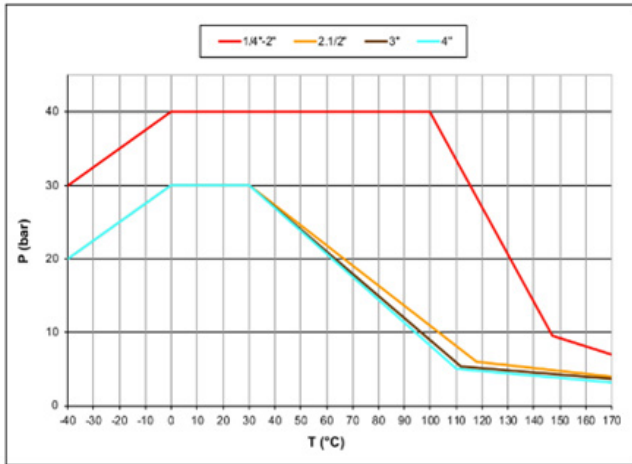


					Compliant to 2014/68/UE product Equipment category III Module B+D			
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Code	THB-F ¼*	THB-F ½	THB-F ¾	THB-F 1	THB-F 1¼	THB-F 1½	THB-F 2	THB-F 2½**
D (inch)	¼	½	¾	1	1¼	1½	2	2½
DN (mm)	6	15	20	25	32	40	50	65
I (mm)	12	15,5	17	21	23	23	26,5	32
L (mm)	45	59	64	81	93	102	121	156
G (mm)	22,5	29,5	32	40,5	46,5	51	60,5	78
A (mm)	82	100	120	120	158	158	158	255
H (mm)	40	43	50	54	73	79	86	132
CH (mm)	17	25	31	40	49	54	68,5	85
Kv (m³/h)	4,5 GPM	28	36	62	79	124	178	516

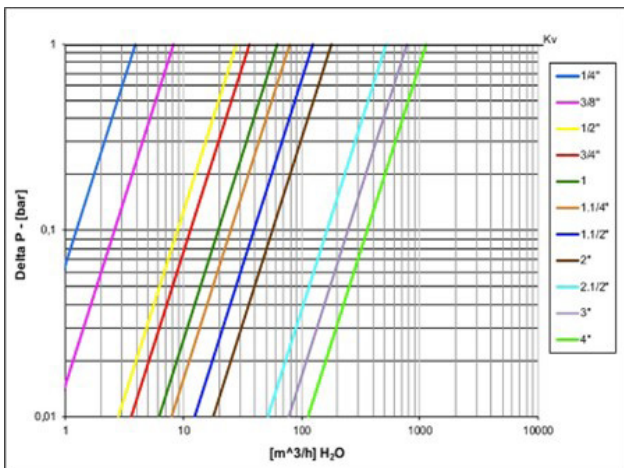
* Brass body, yellow PVC coated handle, not Profit branded, UL/FM approved (no CE approval).

** Available on request only (no FM approval).

Pressure / temperature rating diagram



Pressure drop chart



Installation, maintenance & operating instructions

USE: this product may be used with WATER, AIR, GAS and OILS within pressure and temperature limits stated in the relevant technical datasheet.

When products are used in heating systems, water quality must meet prescriptions of VDI 2035 directive.

If you need information for the use of our products with fluids that are different from the ones above, or with special configurations or approvals etc. please consult the Engineering dpt.

Under certain conditions, for example throttling service, use with particularly viscous or abrasive fluids, high differential pressure, use in environments with chlorine, amine, ammonia and sulphur dioxide, the valve may be damaged without any liability attributable to Piping Logistics.

INSTALLATION

Products must be installed exclusively by qualified personnel and strictly following the instructions below.

All installations must be performed in accordance with local regulations and plumbing codes.

1. THB-F valves are bidirectional; they may be installed for flow in either direction.

ATTENTION: in case of installation of gas valves certified EN 331 with cylindrical male threaded connections according to ISO228, use flat gaskets approved for GAS use as sealing elements.

ATTENTION: tightness of connections between fittings, couplings or hoses with valves must be verified on site after installation using diligent caution, before the system is started. This applies also when the valve is supplied with such components already assembled.

2. Assembling valves in pipelines.

2a) Be sure that pipes are properly aligned.

2b) Sealing of threaded connections (acc. EN 10226-1). We recommend use of pipe dope for threads. If you prefer to use Teflon® tape do not exceed four layers. If dry seal threads are used without dope or tape, we suggest lubricating the threads with a little oil or grease before assembly.

2c) Screwing valve onto pipe. Hold the valve at the flats immediately next to the pipe being installed (not at the opposite end). The correct wrenching area is shown in the drawing below. Holding the valve with a pipe wrench or at the wrong end may damage the valve.



2d) Do not torque the valve excessively. Over-torque may damage the valve.

After assembling, rinse the whole system (valves – pipes etc.) to remove contaminants.

Before releasing the system for use, this shall be tested and absence of leaks ascertained.

OPERATING INSTRUCTIONS: To close a ball valve: turn handle clockwise 90°; to open it: turn the handle 90° counter-clockwise. Quick movements may cause water hammer and consequent damage to the system or parts of it. NOTE: stem flats show the position of the ball (when flats are parallel to pipe the valve is open, when perpendicular, it is closed).

INSPECTIONS: Check the valve periodically to ensure proper performance (in complete closed position, flow of media must stop and no leaks shall be detected). More frequent inspections are recommended under extreme operating conditions, i.e. conditions approaching the temperature and / or pressure limits indicated in the specifications for the product, or in the event of valves subject to vibrations, bending and / or torsion. A combination of two or more factors must be considered as extreme operating conditions thus inspections must be increased.

MAINTENANCE: Valves with O-Ring stem sealing do not need maintenance.

WARNING:

For your safety, it is important to follow carefully the instructions below, before removing the valve from the line or disassembling it.

1. Wear any protective clothing and equipment normally required when working with the fluid involved
2. Depressurise the line and cycle the valve as follows:
 - 2.a) Open the valve and drain the line / pipe.
 - 2.b) Repeatedly open and close the valve to relieve residual pressure in the body cavity.
 - 2.c) Remove the valve from the line.
 - 2.d) Turn the handle to the half-open (45°) position, collect any residual liquid for suitable disposal.
See section 2c) under INSTALLATION for the position of the wrench areas.

WARNING:

If a standard ball valve is closed while full of fluid, and the fluid later expands due to temperature variations, the valve may be severely damaged and the fluid may leak into the environment.

This product has been inspected according to Piping Logistics quality procedures. If you ascertain that this valve contains a defect in material and / or due to workmanship, please return it to your seller with a copy of the original box label and the details of your claim (in the event of failure during operation, you should forward details concerning the product position in the system and an analysis of the media flowing through the product. In such cases it is moreover essential to record the installation status in the system through detailed pictures before removing the product). In case of improper application, installation, or maintenance, no claim is accepted. Deterioration or destruction of any part of the valve causes the need for complete replacement of the valve itself; replacement or modification of parts / components of the valve (included assembled devices), causes the immediate withdrawal of Piping Logistics liability, warranty and certification. Where applicable and / or required by regulations or rules, tamper proof seal is applied on the operating device (handle).

The packing materials and, when necessary, the valve itself must be disposed of according to the local laws in force. In case of discrepancy between the different versions of these instructions, the reference text is in English language.

WARNING:

- Any deterioration or destruction of any part of the manually operated ball valve and closed bottom taper plug valve shall result in the need to replace the complete valve: alterations to any part of the complete valve shall result in the valve no longer being in compliance with the performance requirements of this document;
- Ensure that the manually operated ball valve and closed bottom taper plug valve allows an adequate flow rate for its intended use;
- All installations should be performed in accordance with existing local installation regulations and codes of practice where they exist;
- It is imperative to follow the installation instructions of the manually operated ball valve and closed bottom taper plug valve manufacturer and of the appliance manufacturer, including those for the correct position of the connection point for the valve.

These instructions and warnings may be supplemented as required by drawings.

The EU Declaration of Conformity complete with product line, size and batch references is issued upon request.

In accordance with REACH Regulation (EC) No. 1907/2006, we hereby inform that brass alloy components used in this product contain lead (CAS No. 7439-92-1) as an alloying element above 0.1% (w/w). Lead was added to the SVHC Candidate List on 27 June 2018. Under normal and intended conditions of use of the product, no exposure to lead is expected. This information is provided to allow safe use of the product in accordance with Article 33 of the REACH Regulation.

Our valves are approved by or in compliance with

- The Australian Gas Association (Australia).
- SVGW (Switzerland).
- FM Approvals (Factory Mutual - United States).
- BSI Group (United Kingdom).
- RoHS Compliant (EU).
- DIN-DVGW (Germany) – MOP 5 B 0,1.
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus).
- ARGB-KVBG (Belgium) – MOP 5 bar for outside building gas installation, MOP 100 mbar for inside the buildings.
- **NOTE:** approvals apply to specific configurations / sizes only.



GENERAL INFO

- Installers should be trained or experienced to install and understand the product.
- Read and understand all technical datasheets and installation instructions before attempting to install, remove or adjust any Profit piping products.
- Depressurise and drain the sprinkler installation system before attempting to install, remove or adjust any Profit piping products.
- Never work on piping systems that are pressurised and / or filled with water.
- Piping Logistics reserves the right to change specifications, designs and / or standard equipment without notice and without incurring in any obligations.
- Use the necessary Personal Protection Equipment (PPE) to avoid personal injury (helmet, safety shoes and goggles, Profit gloves).



Failure to follow these instructions could result in death or serious injury and property damage.

We advise to always store our products in closed and dry environments, the products do not need any specific maintenance once installed on an aboveground sprinkler installation.

REVISION TABLE

Date	△	Notes
29/10/2024	A	Page 3 - Addition of the THB-F ¼ and THB-F 2½.