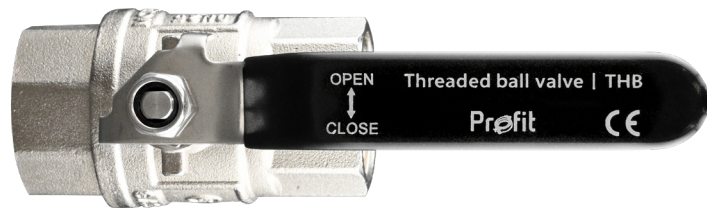


Size range: ½" - 2"

CE



The THB is an economical and durable ball valve, used to control the flow of liquids and gases in a pipeline. The main purpose is 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.
- DN shows the nominal flow diameter.
- Design Standard: EN 331:1998 + A1:2010.
- Dual sealing system allows valve to be operated in either direction making installation easier.
- 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.
- Stainless Steel ball for longer life.

### Working pressure & temperature for liquids

- PN40: 4,00 MPa / 40,0 bar / 580 psi.
- -20 °C to +100 °C.
- WARNING: freezing of any fluid in the valve may severely damage the valve.

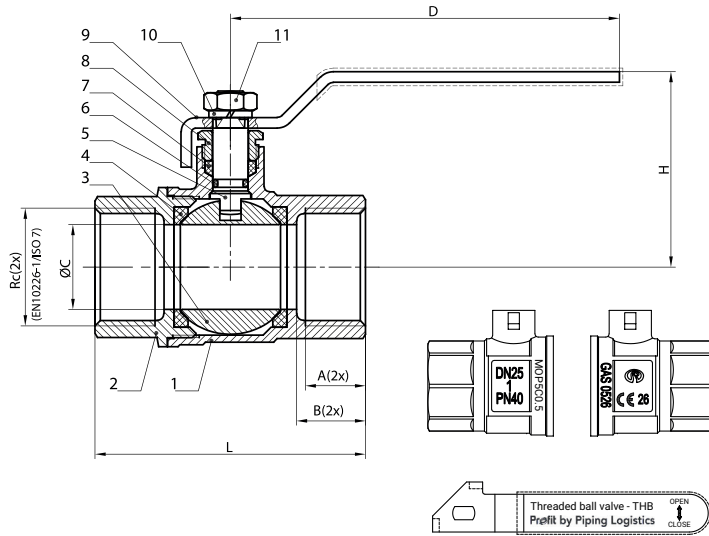
### Working pressure & temperature for gases

- MOP 5: 0,5 MPa / 5,0 bar / 72,5 psi.
- -20 °C to +60 °C.

### Approvals

- CE-marked in accordance with Regulation (EU) No 305/2011 (CPR).

## Dimensions



| Size   | L<br>mm | A<br>mm | B<br>mm | C<br>mm | H<br>mm | D<br>mm | Weight<br>g |
|--------|---------|---------|---------|---------|---------|---------|-------------|
| 1/2"   | 55      | 13,5    | 15      | 14      | 44,15   | 95      | 220         |
| 3/4"   | 63,5    | 14      | 16      | 19      | 51,75   | 110     | 335         |
| 1"     | 76,5    | 17      | 19,5    | 24      | 55,25   | 110     | 496         |
| 1 1/4" | 86      | 17,5    | 20      | 30      | 82,25   | 140     | 735         |
| 1 1/2" | 98      | 17,5    | 20      | 38      | 89      | 140     | 1180        |
| 2"     | 123     | 24      | 26,5    | 49      | 98,75   | 165     | 1820        |

## Material specifications

| Item no. | Component     | Qty | Material                         |
|----------|---------------|-----|----------------------------------|
| 1        | Body          | 1   | CW617N                           |
| 2        | Bonnet        | 1   | CW617N                           |
| 3        | Ball          | 1   | SS304                            |
| 4        | Seat          | 1   | PTFE                             |
| 5        | Stem          | 1   | CW617N                           |
| 6        | O-ring        | 1   | NBR (HA70)                       |
| 7        | Packing       | 2   | PTFE                             |
| 8        | Packing gland | 1   | SS304                            |
| 9        | Handle        | 1   | SS304 (black cover / white text) |
| 10       | Spring washer | 1   | 65Mn                             |
| 11       | Handle nut    | 1   | SS304                            |

## Body

- Hot forged sand blasted brass body, Bright Nickel plating thickness: 1,0 - 2,5 µm.
- DN, CE-marking, PN and MOP indicated on body.

## Stem

- Blowout-proof nickel plated brass stem, Bright Nickel plating thickness: 1,0 - 2,5 µm.

## Sealing

- PTFE self-lubricating seats.

### Threads

- BSPT female (Rc) to EN 10226-1 / ISO 7-1.

### Handle

- Stainless steel 304 handle with thick PVC dip coating.
- Handle removable with valve in service.

### Hydraulic data

Kv/Cv values and pressure drop curves are based on water flow testing at approximately 20 - 30 °C with the valve in fully open position, in accordance with GB/T30832-2014.

#### Kv/Cv

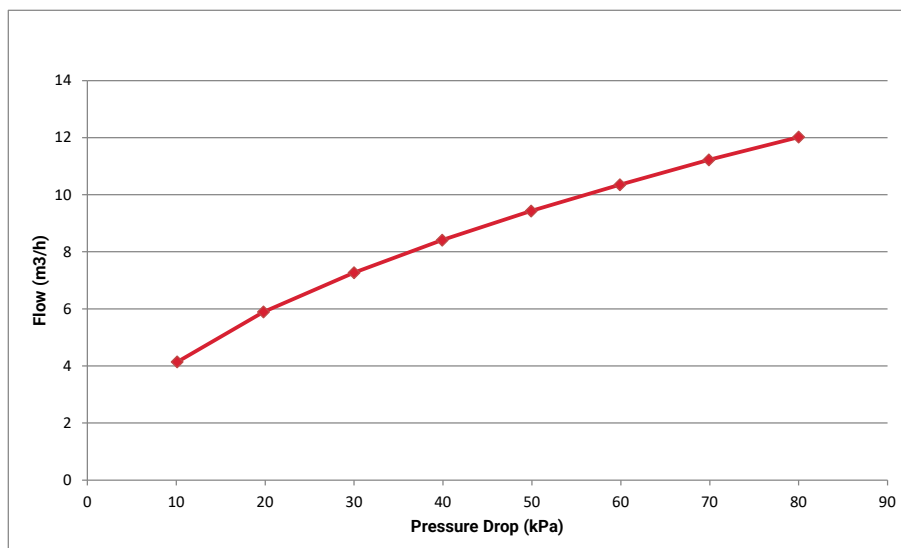
| Size   | DN mm | Kv*   | Cv**  |
|--------|-------|-------|-------|
| 1/2"   | 15    | 13,3  | 15,4  |
| 3/4"   | 20    | 27,7  | 32,1  |
| 1"     | 25    | 30,6  | 35,6  |
| 1 1/4" | 32    | 58,8  | 68,2  |
| 1 1/2" | 40    | 94,7  | 109,8 |
| 2"     | 50    | 171,9 | 199,4 |

\*Kv is the flow coefficient expressed in m³/h at a pressure drop of 1 bar.

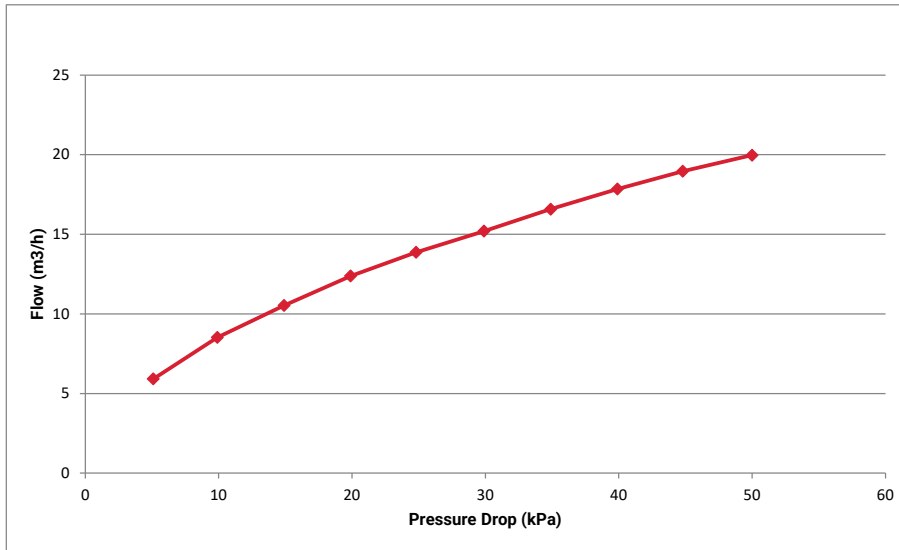
\*\*Cv is the flow coefficient expressed in gpm at a pressure drop of 1 psi.

### Pressure drop chart

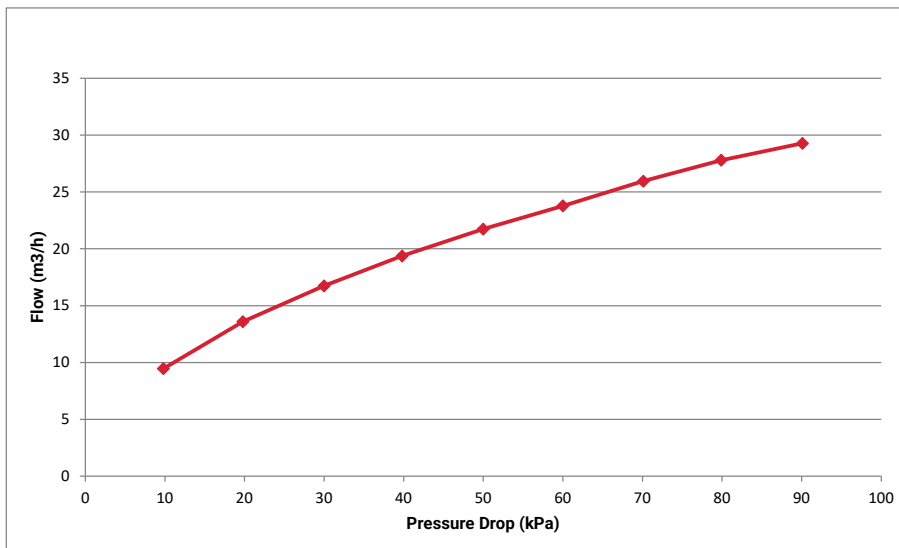
1/2" / DN15:



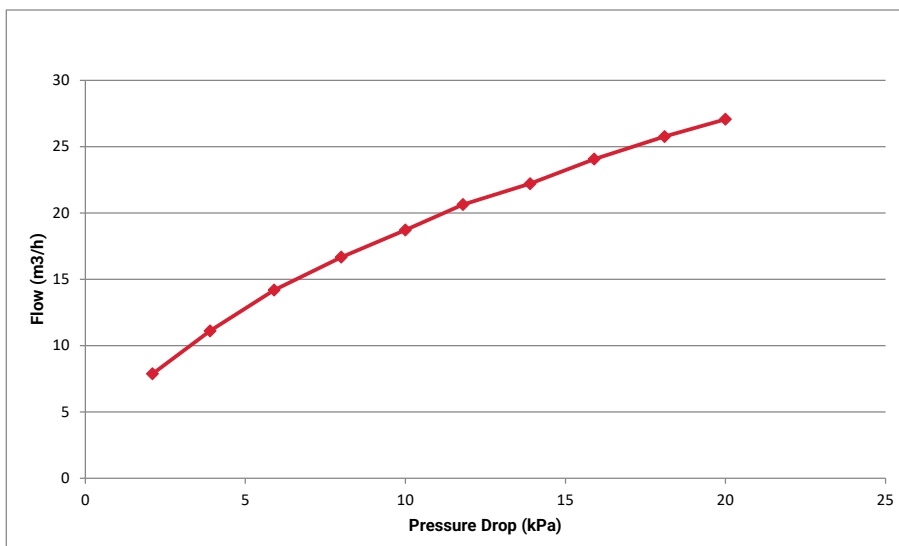
3/4" / DN20:



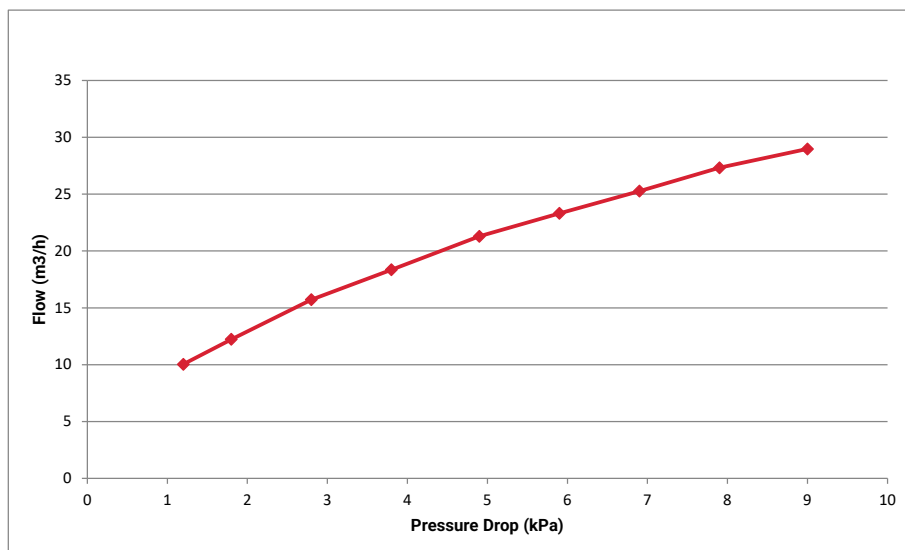
1" / DN25:



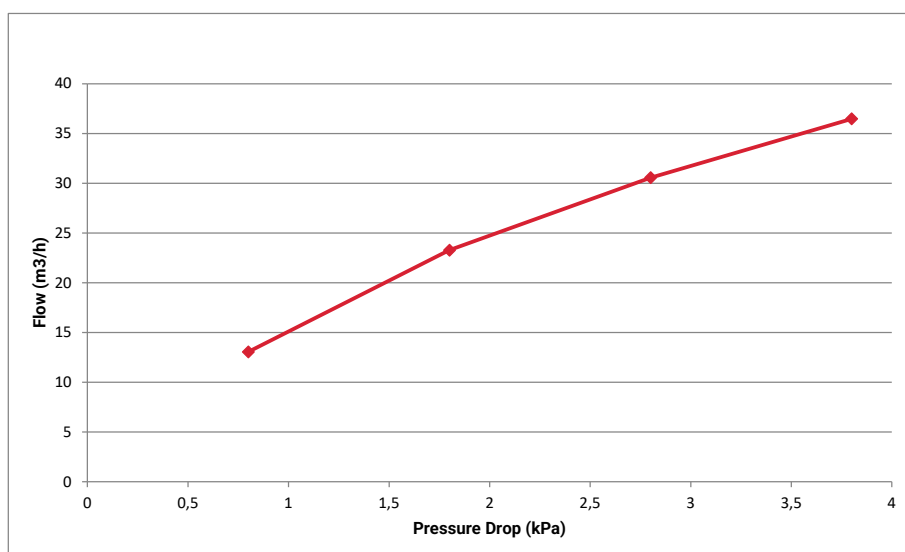
1 1/4" / DN32:



1½" / DN40:



2" / DN50:



## Installation, maintenance & operating instructions

**USE:** This valve is designed in accordance with EN 331 and is primarily intended for use with gas within the pressure and temperature limits specified in the datasheet.

The valve may also be used for water and other compatible non-aggressive fluids, provided that operating conditions remain within the specified limits. Use outside these limits or with aggressive media may result in damage or leakage.

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

If use with other media or special operating conditions is required, please consult the engineering department of Piping Logistics.

The valve is not suitable for throttling service or for use with abrasive, highly viscous or chemically aggressive media (e.g. chlorine, ammonia or sulphur compounds), as this may lead to damage or leakage.

### INSTALLATION

Installation must be carried out by qualified personnel in accordance with local regulations.

- Valves are bidirectional and can be installed in any flow direction.
- Ensure pipes are clean, aligned and free of debris before installation.
- Apply suitable thread sealing (EN 10226-1 as applicable).

### ASSEMBLY

- Tighten using the hexagon closest to the pipe side.
- The centreline of the valve should align with the centrelines of the pipes on both sides.
- Do not apply torque via handle or opposite side.
- Avoid excessive tightening (risk of seat deformation).

**After installation:**

- Check all connections for tightness.
- Perform leak test (e.g. pressure or leak detection fluid).

### OPERATING INSTRUCTIONS

- Open valve: turn handle 90° counter-clockwise.  
Position indication: handle parallel to pipe → open.
- Close valve: turn handle 90° clockwise.  
Position indication: handle perpendicular to pipe → closed.

Quick movements may cause water hammer and consequent damage to the system or parts of it.

Excessive operating torque may damage internal sealing components or stem assembly.

The operating torque required to actuate the valve shall not exceed the values defined below:

| DN<br>inch        | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" |
|-------------------|------|------|----|--------|--------|----|
| DN<br>mm          | 15   | 20   | 25 | 32     | 40     | 50 |
| Max. torque<br>Nm | 6    | 8    | 10 | 15     | 20     | 28 |

## INSPECTIONS

Check periodically:

- leakage at connections or stem.
- proper shut-off in closed position.

Increase inspection frequency under demanding conditions (high pressure, temperature, vibration, ...).

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

## Safety instructions

Before removing or servicing the valve:

- Depressurise and drain the system completely.
- Open and close the valve several times to release residual pressure.
- Wear appropriate PPE.

## Important

- Never work on pressurised systems.
- If the valve is closed while filled with fluid, thermal expansion may cause internal pressure build-up, resulting in damage or leakage.
- The valve is not suitable for throttling purposes.
- Any modification or replacement of components voids compliance and liability.

If a defect is detected, the valve must be replaced. No repair or modification is permitted.

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.

## GENERAL INFO

- Installers should be trained or experienced to install and understand the product.
- Before installation, carefully check the product on any damage during shipment or handling.
- Read and understand all technical datasheets and installation instructions before attempting to install, remove or adjust any Profit products.
- Check if the pressure rating of the product is compatible with the service conditions.
- Depressurise and drain the system before attempting to install, remove or adjust any Profit products.
- Never work on piping systems that are pressurised and / or filled with water or pressurised air.
- 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, goggles and gloves).



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

**Our product must always be stored in closed and dry environments. Once installed on an above ground system, they require no specific maintenance.**

## REVISION TABLE

| Date       | △ | Notes            |
|------------|---|------------------|
| 26/10/2026 |   | Initial release. |
|            |   |                  |