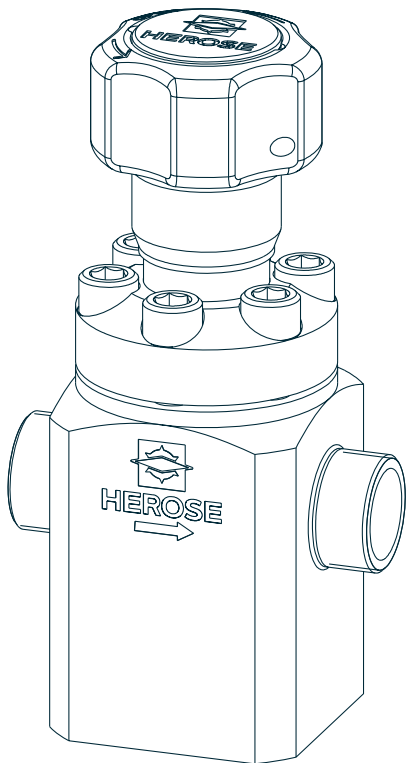
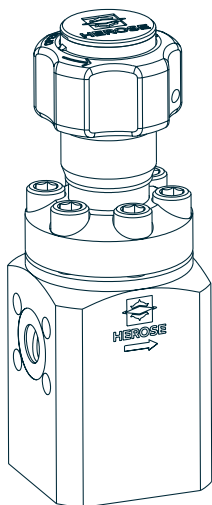




HEROSE



Operating instructions

Art.-No.: 37000.0026.0100

DE

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Important

Read carefully before use.

Retain for later use.



1st issue 03/2026

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Installation, maintenance and operating instructions

Designation
Shut-off valve

Model number
01C07

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About these instructions

Principles

The operating instructions are part of the valve named on the front page.

Applicable documents

Document	Contents
Data sheet	Description of the valve

For accessories, refer to the respective manufacturer's documentation.

Hazard levels

The warning notes are marked and classified according to the following hazard levels:

DANGER

Identifies a hazard with a high risk level that will result in death or serious injury.

WARNING

Identifies a hazard with a moderate risk level that could result in death or serious injury.

CAUTION

Identifies a hazard with a low risk level that could result in a minor or moderate injury.

NOTICE

Identifies a risk to property. Damage to property may occur if this notice is ignored.

Safety

Intended application

The valve is intended for installation in a pipeline or pressure tank system to shut off or allow the flow of media within the maximum permissible operating conditions. The maximum permissible operating conditions are specified in these operating instructions.

The valve is suitable for the media listed in these operating instructions; see section "Media".

Operating conditions and applications deviating from these require the approval of the manufacturer.

Only media may be used to which the materials used for the valve body and seals are resistant. Contaminated media or usage outside of the pressure and temperature specifications can lead to damage to the valve body and seals. An ignition source analysis was carried out for the valve. This valve has no potential ignition sources and is therefore not subject to ATEX 2014/34/EU. The valve may be used in zones with a risk of explosion.

Avoidance of foreseeable misuse

- › Do not exceed the permissible operating limits for pressure and temperature specified in the data sheet or in the documentation.
- › Follow all safety instructions and operating procedures in these operating instructions.
- › Warranty claims against HEROSE GMBH will be rejected if the HEROSE seal is broken by unauthorised companies.

Meaning of the operating instructions

The operating instructions must be read and followed by the responsible technical personnel before installation and start-up.

As part of the valves, the operating instructions must be kept nearby. People could be seriously injured or killed if the operating instructions are not followed.

- › Read and observe the operating instructions before using the valve.
- › Retain the operating instructions and make sure they are available.
- › Pass the operating instructions to subsequent users.

Requirements for people who work with the valve

People could be seriously injured or killed if the valve is used improperly.

To avoid accidents, all persons who work on the valve must meet the following minimum requirements:

- › They are physically capable of controlling the valve.
- › They can safely carry out the work with the valve within the scope of these operating instructions.
- › They understand the operating principles of the valve within the scope of their work and are able to recognise and avoid the hazards of the work.
- › They have understood the operating instructions and are able to implement the information of the operating instructions.

Personal protective equipment

Missing or unsuitable personal protective equipment increases the risk of damage to health and injuries to people.

- › The following protective equipment must be provided and worn during work:
 - » Protective clothing
 - » Safety shoes
- › Define and use additional protective equipment depending on the application and the media:
 - » Safety gloves
 - » Eye protection
 - » Ear protection

- › Wear the specified personal protective equipment for all work on the valve.

Additional equipment and spare parts

Additional equipment and spare parts that do not meet the manufacturer's requirements can negatively affect the operational safety of the valve and cause accidents. To ensure operational safety, use original parts or parts that conform to the manufacturer's requirements. If in doubt, have these confirmed by the dealer or manufacturer.

Comply with technical thresholds

If the technical thresholds of the valve are not adhered to, the valve may be damaged, accidents may occur, and people may be seriously injured or killed.

- › Adhere to the thresholds. See chapter "Description of the valve".
- › The valve is designed to handle a dynamic load of 15,000 full pressure cycles according to EN 13445-3:2021.

Safety instructions

DANGER

Hazardous medium.

The escaping operating medium can cause poisoning, cauterisation, suffocation and burns!

- › Wear the prescribed personal protective equipment.
- › Ensure safe discharge.
- › Provide suitable collection containers.
- › Ensure adequate ventilation.
- › Keep away from ignition sources.

Falling or ejected objects.

Danger to life from falling parts!

- › Do not suspend the valve by the handwheel / actuator.
- › Note the weight specifications and the centre of gravity.
- › Take suitable measures to prevent valves and components from falling (e.g. using lifting equipment).
- › Use suitable and approved load handling equipment.
- › Follow the assembly and disassembly instructions.

WARNING

Harmful and / or hot / cold conveyed media, lubricants and operating fluids

Hazardous for persons and the environment!

- › Collect and dispose of rinsing medium and any residual media.
- › Wear protective clothing and a protective mask.
- › Observe legal regulations regarding the disposal of harmful media.

Risk of injury caused by improper maintenance work!

Incorrect maintenance can lead to serious injury and considerable material damage!

- › Only trained personnel are permitted to carry out repairs.

- › Ensure there is adequate space for installation before starting work.
- › Only dismantle the valve when it is not under pressure.
- › Keep the assembly area neat and tidy! Parts and tools in loose piles or lying around are sources of accidents.
- › If any components have been removed, ensure they are installed correctly.
- › Before putting back into service, ensure:
 - › All maintenance work has been performed and completed.
 - › There are no persons in the hazard area.
 - › All covers and safety devices are installed and operating correctly.

Installation of the valve in the installation position 0° – 180°.

Overload or malfunction of the musculoskeletal system caused by a forced posture! Risk of injury due to improper installation!

- › Wear the prescribed personal protective equipment.
- › It is recommended to use a small scaffolding when installing the valve at a height of > 1 m.
- › Use suitable installation/lifting aids.

CAUTION

Cold / hot pipelines and / or valves.

Risk of injury due to thermal influences!

- › Insulate valves.
- › Install warning signs.

Medium escaping at high speed and high / low temperature.

Risk of injury!

- › Wear the prescribed protective equipment.

NOTICE

Impermissible stress due to operating conditions and extensions/added structures.

Leaks, a crack in the valve housing or damage to the actuator!

- › Provide suitable support.
- › Do not use the valve as a foothold.
- › Additional loads such as traffic, wind or earthquakes are not explicitly considered as standard and require a separate design.

Condensation and icing.

Blocking of the actuation mechanism!

Damage due to corrosion!

- › Observe the operating conditions.

Improper handling.

Leaking valve or damage to the valve!

- › Do not store tools and/or other objects on the valve.
- › Do not use tools to actuate the handwheel or increase the torque.

Incorrect installation.

Damage to the valve!

- › Remove protective caps before installation.
- › Clean the sealing surfaces.
- › Protect the body against impacts.

Painting of valves and pipelines.

Functional impairment of the valve / loss of information!

- › Protect the actuator, bonnet, connections and valve markings from paint.

Exceeding the maximum permissible operating conditions.

Damage to the valve!

- › The maximum permissible working pressure must not be exceeded, and the minimum and maximum permissible working temperatures must be observed

Particles and other contaminants in the conveyed medium.

Internal leak or damage to the valve!

- › Remove particles/contaminants from the conveyed medium.
- › It is recommended to install strainers/ dirt filters in the pipework system.

Transport and storage

Inspect condition on delivery

- › Inspect the valve for damage upon receipt.
- › In case of transport damage, determine and document the precise extent of the damage, and report it immediately to the supplying dealer/carrier and the insurer.

Transportation

- › Transport the valve in the packaging supplied.
- › The valve is delivered ready to operate with lateral connections covered by protective caps
- › Protect the valve against shocks, impacts, vibrations and dirt.
- › Adhere to a transport temperature range of –20 °C to +65 °C.

Storage

- › Store the valve in a clean and dry place.
- › In damp storage rooms, use desiccants or heating to prevent the formation of condensation.
- › Store at a temperature range of –20 °C to +65 °C.

Description of the valve

Refer to the respective data sheet for further detailed information.

Structure

Globe valve with handwheel that does not open and close automatically.

Component	Contents
Body	Straight-type
Bonnet	Flanged, external thread, handwheel
Operating mechanism	Rising thrust stem
Obturator	Metallic cone with seat seal made of non-metallic materials
Stem bushing	Self-sealing stem seal
Body end	With cone connection With flanged

Connections

Refer to the respective data sheet for further detailed information. Observe the maximum permissible operating pressure when selecting the unit.

Cone connection designed for the maximum permissible operating pressure according to DIN EN ISO 8434-1, suitable for weld cones. The dimensions of the cone connection may vary depending on the operating pressure.

Manufacturer-specific flange connection designed for the maximum permissible operating pressure. The dimensions of the flange connection and the bolts may vary depending on the operating pressure.

NOTICE! Suitable connection kits are available separately.



Cone connection



Flange connection

Marking

The globe valves are provided with an individual marking for identification.

Symbol	Explanation
	Manufacturer's mark "HEROSE"
	Flow direction arrow
01C07.Axxx.xxxxxx	Article no.
DNxxx	Nominal diameter
EN ISO 10297:2024, EN 13709, EN 1626	Standard
ISO V	Identification according to EN ISO 10297
p_w : xxx bar	Valve operating pressure (according to EN ISO 10297)
p_t : xxx bar	Valve test pressure
-xxx°C / +xxx°C	Temperature min. / max.
e.g. 2024/01	Year of construction YYYY/MM
e.g. 1234567	Serial no.
PNxxx	Rated working pressure
Π xxxx	PI mark and number of the notified body
ρ xxxx	Rho mark and number of the notified body
CE xxxx	CE mark and number of the notified body
UK CA xxxx	UKCA mark and number of the notified body
e.g. 1.4404	Material
INLET xxx	Inlet and connection type
OUTLET xxx	Outlet and connection type

Intended application

The globe valve is used to shut off and open the flow of the medium in mobile and stationary applications for refuelling, transport and storage. The globe valve must only be used within the pressure and temperature limits specified in the technical data, and with the specified gaseous media.

When open, the globe valve allows flow in both directions, making it suitable for loading and unloading operations. The internal sealing mechanism is designed to be direction-dependent, so it must be installed according to the intended flow direction.

The globe valve is intended solely for installation in pipework systems with connections of the same or lower pressure rating.

Turning the handwheel closes or opens the globe valve. Follow the marking on the handwheel for the direction of operation.



Direction of operation



Position indicator closed



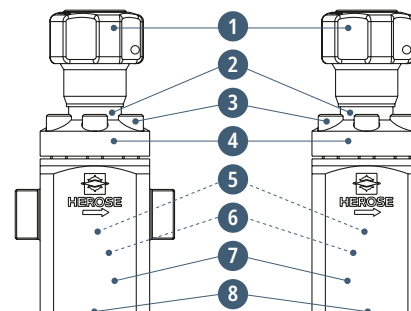
Position indicator open

NOTICE! Do not use tools to actuate the handwheel or increase the torque. The maximum closing torque is 7 Nm.

The globe valve also features a position indicator that appears when the handwheel is turned clockwise and disappears when it is turned anticlockwise.

A hole in the handwheel secures it against tampering.

Materials



No.	Name	Material
1	Handwheel	CC493K
2	Bonnet	1.4404
3	Bolts	A2-70
4	Top work	1.4571
5	Stem	1.4404
6	Obturator	1.4404 / Vespel
7	Body	1.4404
8	Flange	1.4404

Operational data

Type	Nominal diameter	Working pressure (p _w)	Allowable working temperature
01C07	DN15	500 bar	-40 °C bis +65 °C

Media

Gases and their gas mixtures, such as:

Name			
Hydrogen	Helium	Nitrogen	

The use of other media is only permitted after consultation with the manufacturer.

Scope of delivery

- › Globe valve
- › Operating instructions

Dimensions and weights

Refer to the respective data sheet for further detailed information.

Service life

The user is obligated to use HEROSE products for their intended purpose. In this case, a technical service life may be assumed in accordance with the underlying product standards (e.g. EN 1626 or EN ISO 10297).

The technical service life can be restarted several times through the exchange of wearing parts within the context of the maintenance intervals, and service lives of more than 10 years can be achieved.

If products are stored for a period exceeding 2 years, then the synthetic material components and sealing elements fitted to the product should be replaced as a precautionary measure before installation and use.

Assembly

Installation position

With regard to the installation position, pay attention to the arrow showing the flow direction.

The globe valve is designed for installation in vertical and horizontal pipelines.

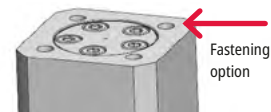
The installation position may be inclined up to 180° from the vertical.

Installation notice

- › Use suitable tools for the globe valve and connections.
- › Clean tools before installation.
- › Use suitable transport and lifting equipment for installation.
- › Only install the globe valve if the maximum working pressure and operating conditions of the plant correspond to the marking on the globe valve.
- › Open the packaging immediately before installation.
- › Do not open the sealed packaging of the globe valve until immediately before use and remove the protective caps and cover.
- › Inspect the globe valve for contamination and damage.
- › **Do not** fit any damaged or dirty globe valves.
- › Remove any dirt and residues from the pipeline to avoid leaks.
- › Avoid damaging the connections.
- › The sealing surfaces must remain clean and intact.
- › Seal the globe valve with suitable gaskets.
- › No sealant (sealing tape, liquid sealing tape) may enter the globe valve.
- › Use the connection kit only with original gaskets.
- › Connect pipelines in a force-free and torque-free manner.
- › Stress-free assembly.
- › To ensure correct operation, do not subject the globe valve to any excessive static, thermal or dynamic stresses.
- › Observe reaction forces.
- › Temperature-dependent changes in length in the pipework system must be compensated with expansion joints.

- › Apply the specified torques and tighten the bolts in a crosswise pattern.
- › Use suitable threadlocker where vibrations are present, depending on the application.
- › Install the globe valve using the mounting points provided on the body. (e.g. drilling pattern □ 50 / M10x18 / 50 Nm). The globe valve is not supported by the pipework system.
- › Do not seal the upstream pressure relief hole in the housing base.

- › The globe valve must be protected against dirt and damage during construction work.
- › Check leak-tightness after completion of the installation.



Connection kits

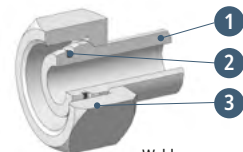
- › Refer to the corresponding data sheet for further and detailed information.
- › Observe the maximum permissible operating pressure when selecting the unit.
- › Adhere to the specified tightening torques.

The weld cone connection kit contains:

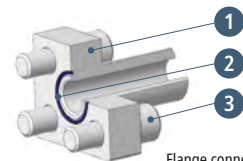
1. Weld cone
2. O-ring
3. Union nut

The flange connection kit contains:

1. Flange
2. O-ring
3. Bolts with wedge-locking washers



Weld cone connection kit



Flange connection kit

Operation

Prior to start-up

- › Check the following points prior to start-up:
 - › All assembly and installation work has been completed.
 - › The safety guards are in place.

- › Compare the material, pressure, temperature and installation position with the layout plan for the pipework system.
- › Dirt and residues from the pipeline and globe valve are removed to prevent leaks

Maintenance and service

Safety during cleaning

- › Use only cleaning products that are suitable for the materials.
- › Take note of the specifications in the safety data sheet and the general occupational health and safety rules if degreasers are used for process-related reasons for the cleaning of bearing parts, unions and other precision parts.
- › Maintenance or cleaning work must not be carried out when the globe valve is in operation.
- › Only external cleaning is permitted.

Maintenance

The maintenance and inspection intervals must be defined by the operating company according to the operating conditions and the national regulations. The manufacturer's general recommendations for the maintenance and inspection of the valves are given in the table below and are based on the national standards of the country of manufacture

Inspection and maintenance intervals

Description	Interval	Scope
Inspection	During start-up	› Visual inspection » of the valve for damage » of the marking for legibility » of the installation position › Leak-tightness » at the stem seal » between bonnet and body » at the seating (internal leak-tightness) › Test of the valve opening and closing function
Functional testing	Inspection and maintenance in accordance with the respective legal regulations. In Germany, e.g., according to the Operational Safety Ordinance	› Test of the opening and closing function of the valve, including visual inspection
External inspection	Inspection and maintenance in accordance with the respective legal regulations. In Germany, e.g., according to the Operational Safety Ordinance	› Function and tightness test including visual inspection

Description	Interval	Scope
Internal inspection	Every 2 years or after 2,000 operating cycles	› Replacement of all sealing elements if the tightness test, functional test and visual inspection yield negative results
Hydraulic test	Every 10 years	› Replacement of all sealing elements, including a function, leak and pressure test as well as an inspection

Maintenance instructions for stem seal

According to DIN EN ISO 10297, the leakage rate must be less than 6 cm³/h. The stem seal is maintenance-free and cannot be retightened.

Fault table

Fault	Cause	Remedy
Leak at the top of the stem bushing or the upstream pressure relief hole	Stem seal defective	› Replace the shut-off valve
Leak between bonnet and body	Bonnet loose	› Tighten the bolts crosswise to 50 Nm
Leak in the seating	Foreign bodies between obturator and seating	› Visual inspection of the inlet/outlet › Remove foreign bodies › Flush the system with an approved medium
	Seating damaged	› Replace the shut-off valve
	Obturator damaged	› Replace the shut-off valve
Body leaking	Discontinuity/material fault	› Replace the shut-off valve
Shut-off valve does not open / close	Thread seized	› Remove the handwheel and clean the thread
	Wear in the actuator	› Replace the actuator

Repairs of shut-off valves may be carried out only by HEROSE or by specialist workshops authorised by HEROSE and monitored by the regulatory authorities, using only original spare parts.

Use the Service form in case of returns / complaints.



herose.com → Service → Reklamationen
E-Mail: service@herose.com

Notices regarding the disassembly

- Observe all national and local safety requirements.
- The pipework system must be depressurised.
- The medium and shut-off valve must be at ambient temperature. Vent/flush the pipework system in the case of corrosive and aggressive media.
- Remove the shut-off valve from the pipework system.

- › Collect greases and lubricating fluids during dismantling.
- › Separate the materials:
 - › Metal
 - › Synthetic material
 - › Electronic scrap
 - › Greases and lubricating fluids
- › Carry out a sorted disposal of the materials.

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Built to Endure