



# OPERATING INSTRUCTIONS FOR SERVICE VALVES

HRS (025, 026) / HRSN (02K, 02L)



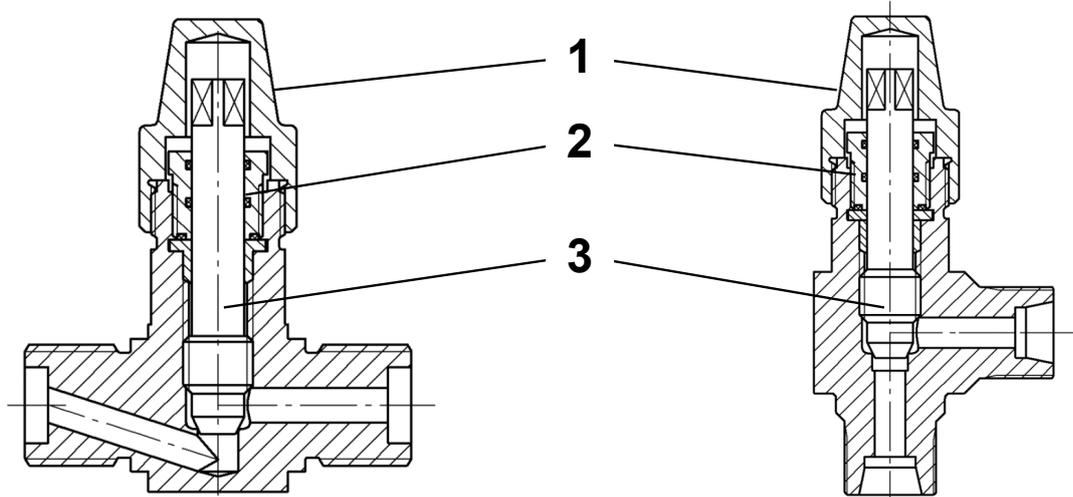
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# 1 Overview of types

## 1.1 Type HRS

Service valve HRS (type 025, 026, 025HT, 026HT)  
 (left: straight pattern, right: angle pattern)

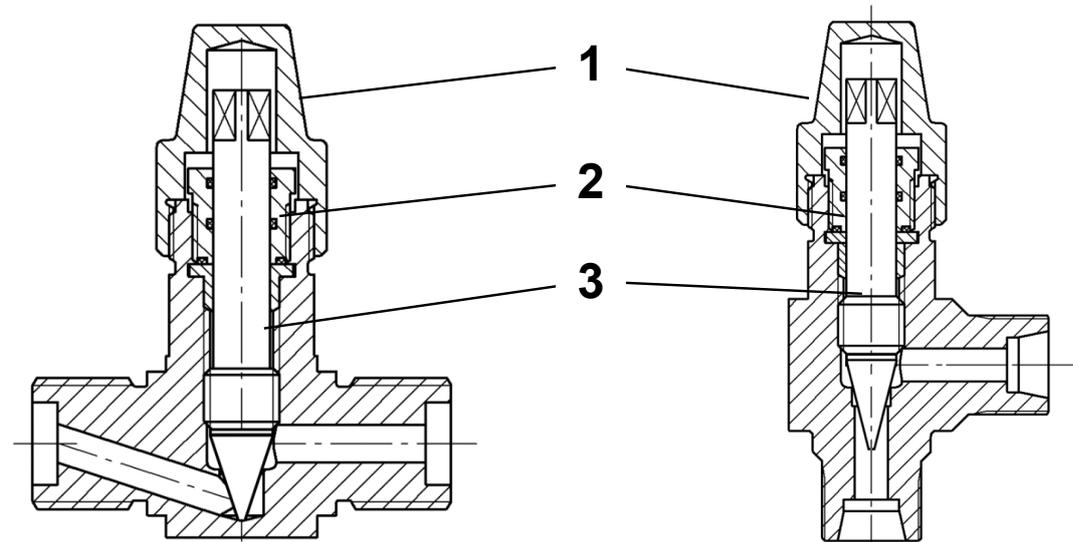


- 1 Cap
- 3 Stem, complete

- 2 Threaded bush

## 1.2 Type HRSN

Needle valve HRSN (type 02K, 02L, 02KHT, 02NHT)  
 (left: straight pattern, right: angle pattern)



- 1 Cap
- 3 Stem, complete

- 2 Threaded bush

# 2 Pressure / Temperature Limits

Temp. range:  
 Valves for refrigeration technology (RT): -60 °C to +150 °C

Valves for heating technology (HT): -10 °C to +200 °C  
 Pressure range: 63 bar

PN	DN	TB (MWT) [°C]	025, 026, 02K, 02L						025HT, 026HT, 02KHT, 02LHT			
			-60	-40	-25	-10	50	150	-10	50	150	200
63	8-15	PS (MWP) [bar]	47.25	63	63	63	63	63	63	63	63	63

Table acc. to AD 2000  
 Permissible ambient temperature range: -35 °C to +55 °C

### 3 Operating Mediums

Suitable for operation with refrigerants acc. to EN 378 Part 1, e.g. NH<sub>3</sub>, R22, R134a or mixtures with refrigeration oil, as well as for neutral gaseous and liquid media and glycol-based cooling brine.

### 4 Safety instructions

**⚠ WARNING**

**Verbrennungsgefahr bei extremen Temperaturen!**

Verbrennungen möglich.

- ▶ Ventil bei extremen Temperaturen mit Schutzhandschuhen bedienen.

**NOTICE**

**Danger from improper handling!**

Risk of property damage.

- ▶ Do not install valves with transport or storage damage.
- ▶ Valves must be free of axial forces, bending moments, and torsional moments and must not serve as fixed points for pipework.
- ▶ In the event of oxy-fuel welding or brazing, the flame must not touch the valve.
- ▶ Keep the interior of the valves free of contamination.
- ▶ Opening or closing the valves with a valve wheel wrench or other lever-extending objects is not permissible.
- ▶ Only dismantle valves when the pipework is depressurised, evacuated, and sufficiently ventilated.

**NOTICE**

**Danger from improper handling!**

Risk of property damage.

- ▶ For valves with a pressure gauge connection, the connection may only be made during operation when the valve is closed and vented.

### 5 Application

AWP service valves are intended for the connection of auxiliary equipment such as pressure gauges to refrigeration systems. They are therefore available with various connection variants.

## 6 Installation

1. Clean pipework and system components before installation. **NOTICE! The deviation from parallelism or perpendicularity of the welding ends or flange facings must not exceed 1°. Connecting flanges must be axially aligned. Valves with transport and storage damage must not be installed. After removing the pipe plugs, the valves can be welded or installed in any position. Observe the direction of flow (see arrow on nameplate). An opposite flow direction is permissible**
2. Before welding, move the stem to the central position using a handwheel (valve half open).
3. Before welding, remove the stem seal (threaded bush) to protect the sealing elements from burning.
4. Unscrew cap using a wrench with size 22.
5. Move the stem to the central position using a handwheel.
6. Unscrew threaded bush clockwise. Use a wrench with size 14 for this.
7. Cover the stem to protect it from welding spatters.
8. Weld in.
9. Grease threaded bush with refrigeration grease (e.g. RENOLIT UNITEMP 2) and tighten anti-clockwise (tightening torque: 15 Nm).
- 10 After installation, check the smoothness of the stem throughout the entire lift range.
- 11 The thread for screwing on the cap must remain free of paint. Grease the thread (e.g. with RENOLIT UNITEMP 2).
- 12 To unscrew the cap and change the stem seal, keep enough space free above the valve, or on the side where the cap is located.

## 7 Maintenance

AWP service valves operate maintenance-free. Stem seal replacement possible.

### 7.1 Changing the stem seal

1. Unscrew the cap! Use a wrench with size 22 for this.
2. Bring the stem to the uppermost position up to the stop using a handwheel.
3. Unscrew threaded bush clockwise. Use a wrench with size 14 for this. **NOTICE! Watch out for any escaping refrigerant! Leave the threaded bush loose in the bonnet until pressure is completely equalised. Only unscrew it after this.**
4. Clean the stem.
5. Grease threaded bush with refrigeration grease (e.g. RENOLIT UNITEMP 2) and tighten anti-clockwise (tightening torque: 15 Nm).
6. For leakage test, move the stem into central position and coat the area around the threaded bush and stem with a foaming agent.

## 8 Transport, storage and disposal

AWP components are transported protected against impact and covered with foil.

- Storage must take place in dry rooms.
- Ensure that the connection ports are sealed intact.
- Contamination of any kind must be kept away from the interior.
- The external surfaces are provided with a corrosion protection coating for dry storage at room temperature, which is effective for at least 1 year.

- The corrosion protection coating CELEROL® Reaktionsgrund 918 is a good adhesion promoter for 1- and 2-component top coats.
- Dismantle for disposal.
- Collect lubricants during dismantling. The materials must be separated from one another and disposed of in accordance with local regulations.

## 9 Garantie

Unless agreed otherwise, the statutory warranty provisions apply. For further information, please also refer to our General Terms and Conditions, available on our website [awpvalves.com](http://awpvalves.com).

## 10 Spare parts

The following spare parts are available for service valves:

Nominal size (DN)	Designation	Dimensions	Item number
8-15	Threaded bush (CR), complete	M15x1.5 LH	02500E07.8142001
8-15	Cap (steel)	M23x1.5/37	100097
8-15	Cap (NIRO)	M23x1.5/37	100098
8-15	Handwheel	∅ 60 x 6/9	36302.10.5280001

A washer and a screw for attachment to the stem are included in the scope of delivery of the handwheels. For threaded bushes with O-ring material other than CR, different item numbers apply than those specified above. In case of doubt, please contact our Sales Support either via our website [awpvalves.com/contact](http://awpvalves.com/contact) or by email to [info@awpvalves.com](mailto:info@awpvalves.com). The most reliable method to correctly identify the required spare part is to send a photo of the nameplate on which the serial number of the valve is clearly visible.

## 11 Marking

The marking of AWP service valves is carried out in accordance with Pressure Equipment Directive 2014/68/EU. The following information is stamped on the valve body:

- Valve type (HRS)
- Inlet / outlet connection
- Flow direction (arrow)

Serial numbers are not indicated on valves up to and including DN 20 as standard.

## 12 Hinweis auf Restgefahren entsprechend Druckgeräterichtlinie 2014/68/EU

Residual risks that cannot be avoided by the manufacturer exist due to:

### NOTICE

- ▶ Do not loosen bonnets (without authorisation) during operation.
- ▶ Do not incorrectly assemble flange connections (inlet and outlet flanges, flanged bonnets).
- ▶ Contamination in the operating medium or improper handling of internal components can lead to damage to the seat seal.
- ▶ Non-compliance with the operating limits and manufacturer's regulations according to these operating instructions.

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