

# Assembly Instructions, LK Ball Valves

## DESIGN



**NOTE!**  
Read the assembly instructions carefully and save it for future reference, before installation or servicing of the LK Systems ball valve.

- This product may be used with water and air, within pressure and temperature limits stated in the *Technical Data* table.
- When water is used in heating systems, water quality must meet prescriptions of VDI 2035 directive.
- If other media than water and air is used or, with special configurations or approvals etc. please consult LK Systems at [info@lksystems.se](mailto:info@lksystems.se) alternatively your LK representative.
- The LK Ball valves are independent of flow direction.

Certain conditions may damage the valve without creating any liability attributable to LK., such as:

- Use with particularly viscous or abrasive fluids.
- High differential pressure.
- Use in environments with chlorine, amine, ammonia and sulphur dioxide.



The image shows four types of LK System ball valves.



## TABLE OF CONTENTS

Design	1
Installation	2
Compression-End, Brass Ball Valves	2
Operating Instructions	2
Inspections/Checks	2
Maintenance	3
Faulty devices - reclamation	3
Technical Data	3
Recycling	3
Measurements	4



## INSTALLATION



### NOTE!

Products should be installed by qualified personnel only. All installations should be performed in accordance with local regulations and plumbing codes.



### NOTE!

Tightness of connections between fittings, couplings or hoses with valves must be verified carefully on site after installation, before the system is started. Verification applies also when the valve is supplied with such components mentioned already, assembled.

### Sealing

1. Seal pipe threads with linen and paste or thread tape.
2. Facilitate assembly with connection couplings and joints with compression couplings by lubricating with a little oil or grease.

### Installing the valve

1. Use the key grip of the valve. Use fixed spanners instead of a wrench. Pipe pliers must not be used as they can damage the valve.
2. Do not torque the valve excessively.  
*Note! Over-torque may damage the valve.*
3. After assembling, rinse the whole system (valves – pipes etc) to remove contaminants.
4. Before releasing the system for use, this shall be tested and absence of leaks ascertained. See LK Systems' *Assembly instructions for LK PressPex and PressPex Eco*.

## COMPRESSION-END, BRASS BALL VALVES

### Installation

1. Install LK PressPex Valve coupling according to LK Systems' *Assembly instructions for LK PressPex and PressPex Eco*.
2. Put some lubricant on the valve and nut threads to ease assembly.

3. Tighten the nut by hand.
4. Use a fixed spanner or wrench and tighten the coupling nut 1/4 to 1/2 turn. *Note! Avoid using pipe wrenches as this can damage the nut/valve.*

## OPERATING INSTRUCTIONS

1. Turn the handle slowly 90 degrees. The position of the handle shows the position of the valve. If the handle is turned too quickly, the movement can cause pressure shock.
  - When the handle is parallel to the pipe the valve is open.
  - When the handle is perpendicular to the pipe, the valve is closed.

## REGULAR INSPECTIONS

Exercise 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.
- In the event of valves being subject to vibrations, bending and/or torsion, thus inspections must be increased.
- 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!**

Follow the instructions below, before removing the valve from the line or disassembling it. Wear protective clothing and equipment normally required when working with the media involved.

Depressurize the line and cycle the valve as follows:

1. Open the valve and drain the line/pipe.
2. Repeatedly open and close the valve to relieve residual pressure in the body cavity.
3. Remove the valve from the line.
4. Turn the handle to the half-open (45°) position, collect any residual liquid for suitable disposal.



**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.

## FAULTY DEVICES – RECLAMATION

This product has been inspected according to LK Systems’ 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, forward the details concerning the product’s position in the system and an analysis of the media flowing through the product. In such cases it is 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 LK liability, warranty and certification.

## TECHNICAL DATA

Pressure/ Temperature	Value	Ball valve, angled
Working-pressure	10 Bar. (non shock-cold working-pressure)	Ball Valve 703B <b>angled</b> G20 inner/outer threading RSK 481 00 37.  Ball Valve 703R <b>angled</b> G20 inner/outer threading RSK 481 00 38.
Working-temperature	-20°C +100°C	Ball Valve 704B <b>angled</b> G20 outer threading RSK 481 00 39.  Ball Valve 704R <b>angled</b> G20 outer threading RSK 481 00 40.

Pressure/ Temperature	Value	Ball valve, straight
Working-pressure	10 Bar. (non shock-cold working-pressure)	Ball Valve 801B <b>straight</b> G20 inner/outer threading RSK 481 00 41.  Ball Valve 801R <b>straight</b> G20 inner/outer threading. RSK 481 00 42.
Working-temperature	-20°C +120°C	Ball Valve 802B <b>straight</b> Cu22 x G20 outer threading RSK 481 00 43.  Ball Valve 802R <b>straight</b> Cu22 x G20 outer threading RSK 481 00 44..

Pressure/ Temperature	Value	Ball valve, straight
Working-pressure	10 Bar. (non shock-cold working-pressure)	Ball Valve 821B <b>straight</b> G20 inner/outer threading. RSK 481 00 35.  Ball Valve 821R <b>straight</b> G20 inner/outer threading RSK 481 00 36.
Working-temperature	-20°C +120°C	

## RECYCLING

The packing materials and, when necessary, the valve itself must be disposed of according to the local laws in force.



## MEASUREMENTS

