

HERZ-Ball Valves 2190

Data sheet for
2190
Issue 0811

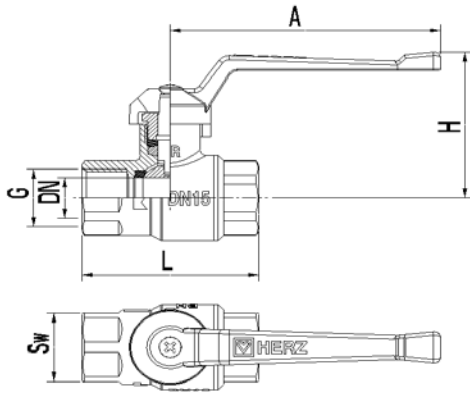


Figure	Dimension:	PN	DN	G	L	H	A	Sw
1 2190 01	1/2"	50	15	1/2"	59	53	90	25
1 2190 02	3/4"	50	20	3/4"	65	57	90	32
1 2190 03	1"	50	25	1"	80	71	135	41
1 2190 04	1-1/4"	40	32	1-1/4"	91	75	135	48
1 2190 05	1-1/2"	40	40	1-1/2"	104	93	180	55
1 2190 06	2"	40	50	2"	125	101	180	70

dimensions
(mm)

Body: forged DZR brass acc. EN 12420 (corrosive resistant),
 Connection: female thread acc.ISO 228
 Ball: pressed brass, full bore, machined to a microsmooth finish, chrome plated
 Spindle: brass
 T Handle: Aluminium alloy, plastic red dipped
 Handle: steel with plastic cover
 Handle: steel, galvanic Zn plated

Design

HERZ ball valve with extended spindle

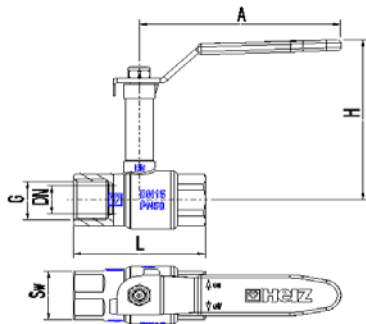


Figure	Dimension:	PN	DN	G	L	H	A	Sw
1 2190 21	1/2"	25	15	1/2"	59	90	90	25
1 2190 22	3/4"	25	20	3/4"	64	93	90	32
1 2190 23	1"	25	25	1"	80.5	107	135	41
1 2190 24	1-1/4"	25	32	1-1/4"	91	111	135	48
1 2190 25	1-1/2"	25	40	1-1/2"	100	136	180	55
1 2190 26	2"	25	50	2"	118	144	180	68

Dimensions (mm)

Connections: female thread acc.ISO 228
 Sealing elements: PTFE- polytetrafluoretylen (ball and spindle)
 Maximum pressure: Depends on dimension (bar)
 Minimum temperature: -10°C (short period -50°C), water 0.5°C
 Maximum temperature: 130°C (short period 150°C), water 110°C

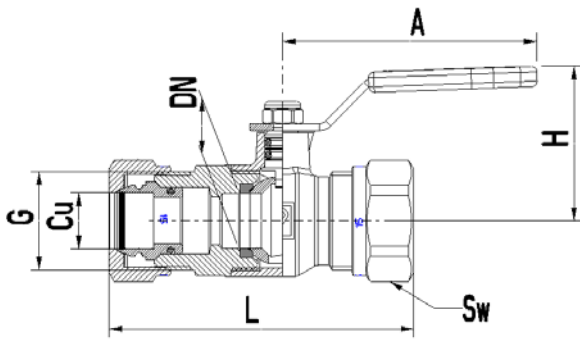
Operating data

We reserve the right to make modifications in line with progress in engineering.

Use spinning material, PTFE, Teflon ribbon or sealing paste to seal the connection between the pipe and the ball valve end connections. Screw the pipe into end connections with a suitable assembly tool (Sw) not to exceed the maximum torque moment.
 We recommend using the Ball valve in the index position, fully open or closed, not in a mid position.
 The ball valve does not need special maintenance.
 At least twice per year exercise the valve.

Instruction for
assembly and
maintenance

HERZ ball valve with compression Ends



Model	Dimension	PN	Cu	G	L	H	A	Sw
1 2190 41	DN15	16	15	3/4"	84	42	70	30
1 2190 42	DN20	16	22	1"	86	49	90	36
1 2190 43	DN25	16	28	1-1/4"	111	61	135	46
1 2190 44	DN32	16	35	1-1/2"	135	65	135	55
1 2190 45	DN40	16	42	1-3/4"	147	84	180	55
1 2190 46	DN50	16	54	2-3/8"	181	90	180	75
1 2190 61	DN15	16	15	3/4"	84	90	70	30
1 2190 62	DN20	16	22	1"	86	97	90	36
1 2190 63	DN25	16	28	1-1/4"	111	110	135	46
1 2190 64	DN32	16	35	1-1/2"	135	113	135	55
1 2190 65	DN40	16	42	1-3/4"	147	135	180	55
1 2190 66	DN50	16	54	2-3/8"	181	143	180	75

dimensions (mm)

Connections: Compression fitting ends to BS 864/2

Sealing elements: PTFE- polytetrafluorethylene (ball),
EPDM 70 ShA (spindle, compression rings)

Maximum pressure 16 bar (20 °C)

Maximum temperature 120 °C (5 bar)

Operating data

The ball valve is used in installations as an isolation valve.

For use in the central heating systems, energy systems, construction engineering and mechanical engineering.

Generally can be used with all non aggressive fluids such as hot water, wash liquids, dry compressed air.

For use where one expects durability even if the working conditions are exceeded.

Field of application

It is important to use proper tools for fitting compression unions, i.e. spanners, if possible open ring spanners. Never use tongs or pliers. These will damage the nuts (male threads) and olives.

Tools

1.1. Cut off at a right angle

Attention: Using a pipe cutter may cause deformation.

1.2. Carefully debur the pipe both inside and out.

1.3. Check for roundness, calibrate pipe if necessary.

1.4. In case of soft or thin-walled pipes, e.g. pipes supplied in coils or pipes with a wall thickness of 1 mm or less, we recommend the use of support sleeves.

1.5. Care must be taken that the pipe ends do not have any sharp edges, as these will destroy the inside O-ring. Use of a pipe cutter ensures perfectly rounded pipe ends. If the pipe is cut with a saw, special care must be taken with deburring.

Pipe

2.1. Connection elements (threaded cone, olive) can be lubricated with silicone oil, grease or Teflon spray so that they can be tightened more easily. Mineral oil lubricants may not be used.

2.2. Slide the locking nut (female thread) or locking nut (male thread) and olive over the end of the pipe. The olive must not be hit onto the pipe if it is difficult or impossible to slide on. In this case, the pipe must be calibrated.

Olive Connection

3.1. Make sure that the cone and the thread in the valve are clean.

3.2. Slide the pipe with compression union connection components on it into the fitting up to the stop and hold it.

3.3. Screw on the locking nut by hand until it rests.

3.4. Then, use a suitable tool to tighten the fitting. The pipe must not turn with the locking nut during tightening. The olive grips the pipe and automatically holds it.

3.5. Do not over tighten the nut, 15mm valves only require 3/4 of a turn (270°).

Installation

4.1. Each time the compression union is loosened, retighten the locking nut without applying more force than previously

Repeated Installation

<p>5.1. Pipe elbows In case of pipes leading towards the valve in a bend, the minimum length of the straight pipe end after the screw connection is 2.5 times the external pipe diameter (e.g. external pipe diameter 15 mm means a straight pipe end of $2.5 \times 15 =$ approximately 38 mm).</p> <p>5.2. Insulated Pipes When using insulated pipes, the insulation must be removed over a length of 35 mm from the pipe end.</p> <p>5.3. Pipe Ends of Coils and Rods Prior to installation, cut off at least one length corresponding to the external pipe diameter from the pipe end (external pipe diameter 15 mm – shorten pipe by at least 15 mm.)</p>	Minimum Dimensions
<p>In accordance with the installation procedure described, the pipe types specified below can be mounted safely and with perfect tightness. Pipes according to other standards may be used if they meet the requirements of the standards specified.</p>	Pipe Selection
<p>According to ÖNORM EN 1057, Material Conditions R 220, R 250, and R 290. Copper Pipes Support sleeves must be used for material conditions R 220 and R 250; for condition R 290 only in case of wall thickness below 1 mm. Nickel plated or chrome plated copper pipes cannot be used with this compression connection.</p>	Copper Pipes
<p>According to ÖNORM DIN 2391-St 35 NBK DIN 2391-St 35 NBK DIN 2393-St 37-2 NBK DIN 2394-St 37-2 NBK Support sleeves must be used in case of wall thickness below 1 mm. For hard special steel pipes use compression union 6275 (tolerance class D 4, in accordance with ÖNORM EN ISO 1127).</p>	Steel Pipes
<p>Pipe ends must be calibrated in case of pipes supplied in coils, otherwise only when the pipe end is out of round by more than the permissible deviation of the outside pipe diameter.</p>	Calibration
<p>Seams, pores, longitudinal marks, etc. must not exceed the permissible deviation of the outside pipe diameter.</p>	Pipe Surface

All specifications and statements within this brochure are according to information available at the time of printing and meant for informational purpose only. Herz Armaturen reserves the right to modify and change products as well as its technical specifications and/or its functioning according to technological progress and requirements. It is understood that all images of Herz products are symbolic representations and therefore may visually differ from the actual product. Colours may differ due to printing technology used.
In case of any further questions don't hesitate to contact your closest HERZ Branch-office.

HERZ Armaturen
Richard-Strauss-Straße 22 • A-1230 Wien
e-mail: office@herz.eu • www.herz.eu

