

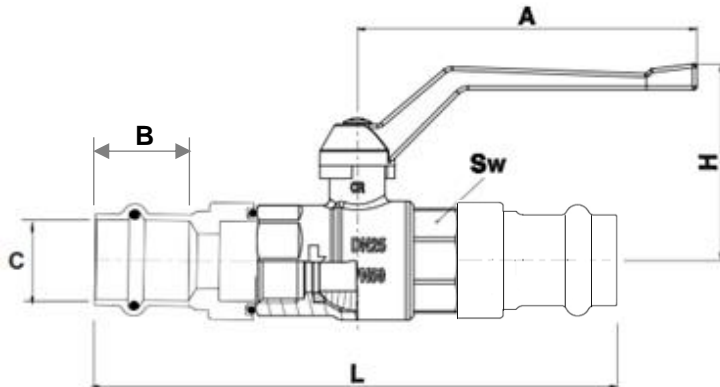


HERZ Pressfit Ball Valve

With lever handle DZR

Data sheet for C 2190 0x, Issue 0521

☑ Dimensions



Order Nr.	DN	A [mm]	B [mm]	C [mm]	H [mm]	L [mm]	SW [mm]	Weight [kg]
C 2190 01	15	90	24	15	53	133	25	0.33
C 2190 02	20	90	24	22	56	139	32	0.46
C 2190 03	25	135	26	28	77	155	41	0.87
C 2190 04	32	135	26	35	81	167	48	1.25
C 2190 05	40	180	41	42	95	214	55	2.07
C 2190 06	50	180	43	54	101	244	70	3.38

☑ Material and construction

Body:	forged brass acc. to EN 12165, CW602N DZR
Ball:	forged brass acc. to EN 12165, CW617N, hollow, full bore, hard chrome plated
Spindle:	machined brass acc. to EN 12164, CW614N
Handles:	lever handle, red, silumin
Ball seals:	PTFE
Spindle seals:	PTFE
Pressfit ends:	Conex >B< Press, red brass (gunmetal) acc. to EN 1982, CC 449K

☑ Operating data

Max. operating pressure:	16 bar
Min. operating temperature:	-10°C
Max. operating temperature:	110°C

Medium:

Heating water quality according to ÖNORM H5195 or VDI-Standard 2035. The use of ethylene or propylene glycol in a mixing ratio 25- 50% is allowed. Please refer to manufacturers documentation when using ethylene glycol products for frost and corrosion protection. HERZ ball valve for heating and chilled water is not suitable for use with aggressive medium (such as: acids, alkalis, combustible and explosive gases) because it can destroy sealing components.

Pursuant to Article 33 of the REACH Regulation (EC No. 1907/2006), we are obliged to point out that the material lead is listed on the SVHC list and that all brass components manufactured in our products exceed 0.1% (w / w) lead (CAS: 7439-92-1 / EINECS: 231-100-4). Since lead is a component part of an alloy, actual exposure is not possible and therefore no additional information on safe use is necessary.

Pressfit connection

Conex >B< Press connections fitted to Herz valves benefit from patented 'leak before press' O-ring technology which indicates if a joint has not been pressed. The O-ring contains two in-built water pathways that allow water to pass through and create a noticeable leak when the system is tested at low pressure (0.1 to 6.0 bar). Any un-pressed joints can easily be identified during the test phase and pressed, saving valuable time and money. There is no need to drain down as the pressing operation can be carried out while the water is still in the system.

>B< Press fittings are installed using a press tool with a compatible press jaw. Jaws are sized to match the fitting required. When force is exerted through the press tool the jaw closes to make a permanent joint.

The >B< Press design has the advantage of a 3-point press profile; comprising of two mechanical presses on either side of the bead, and one press on the O-ring bead. The EPDM O-ring compresses to form a permanent leakproof joint.

>B< Press red brass fittings maintain earth continuity without the need for additional continuity straps.

>B< Press red brass fittings can be used on hard, half-hard and soft copper tube to EN 1057, Stainless Steel tubes to EN10312 and Carbon Steel tubes to EN10305.

Please note that Carbon Steel is susceptible to Galvanic Corrosion due to the coating and the normal precautions need to be applied.

Red Brass on Carbon Steel is also more susceptible to Bi-Metallic corrosion.

It is recommended that all pipework jointing connections are made un-pressed within a contained section to avoid disturbing any valve connection joints during construction. Once a section is completed, all connection joints should be pressed together in one operation.

Field of application

The HERZ Pressfit ball valve with lever handle is designed for domestic, heating and cooling systems and can withstand continuously changing working system parameters. The valve allows safe system operation even under conditions of significant changes of medium temperatures and sudden pressure loads. The HERZ Pressfit ball valve with lever handle is made from CW602N; and the Pressfit end is made from gunmetal, both materials have good corrosion resistance properties. The ball valve is bi-directional, which means it allows flow of the medium in both directions.

Maintenance instruction

The ball valve does not require any special maintenance. It is recommended to close and open the ball valve periodically (at least twice a year).

Disposal instruction

The disposal of HERZ ball valves must not endanger the health or the environment. National legal regulations for proper disposal of the HERZ ball valves have to be followed.

>B< Press fittings Installation instructions

☑ Compatible Press Tools

12 to 35mm Compact machines			
Manufacturer	Press machine	Press jaws	Jaw profile
Rothenberger	Romax compact	Rothenberger - Compact	SV
	Romax compact TT	Rothenberger - Compact	SV
Rems	Mini Press ACC	Rems - Mini	V
Klauke	MAP1/MAP2L/MAP215	Klauke - SBM	KSP4
	MAP219/MAP2L19	Klauke - SBMX	KSP4
Novopress	ACO102/ACO103	NovoPress - V-PB1	V
Milwaukee	M12	Milwaukee - J12	V
Hilti	NPR 019 IE-A22	Hilti - NPR PM V	V
Ridgid	RP 200/210/240/241	Ridgid - Compact Series	V
Conel	PM 1	Conel - V-PB1	V
Viega	Pico	Viega Pico	PT2

12 to 54mm Standard 32kN machines			
Manufacturer	Press machine	Press jaws	Jaw profile
Rothenberger	Romax 3000/4000	Rothenberger - Standard*	SV
Rems	Power-Press/ Akku-Press	Rems - Standard*	V
Novopress	ECO/ACO202/203	NovoPress - V-PB2*	V**
Conel	PM 2	Conel - V-PB2*	V
Klauke	UAP2/UAP3L/UAP332	Klauke - Standard SB**	KSP4
Ridgid	RP 320/330/340	Ridgid - Standard Series	V
Hilti	NPR 019 IE-A22	Hilti - NPR PS V*	V
Milwaukee	M18	Milwaukee - J18*	V**
Viega	Pressgun 5/6	Viega Standard*	PT2

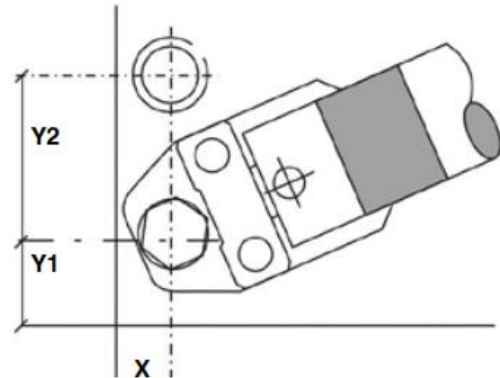
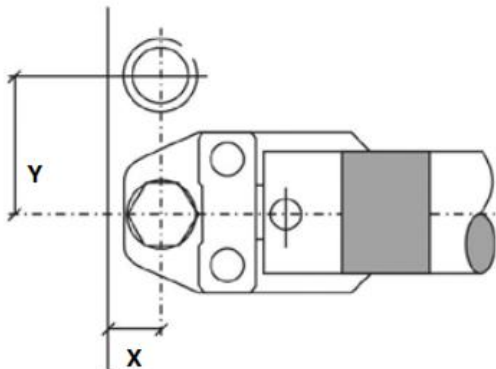
* Press Jaw only – not press slings, collars, chains or rings

** Novopress & Milwaukee jaws with the  marking only

For inter tool compatibility please refer back to the manufacturer

Space required for the pressing process

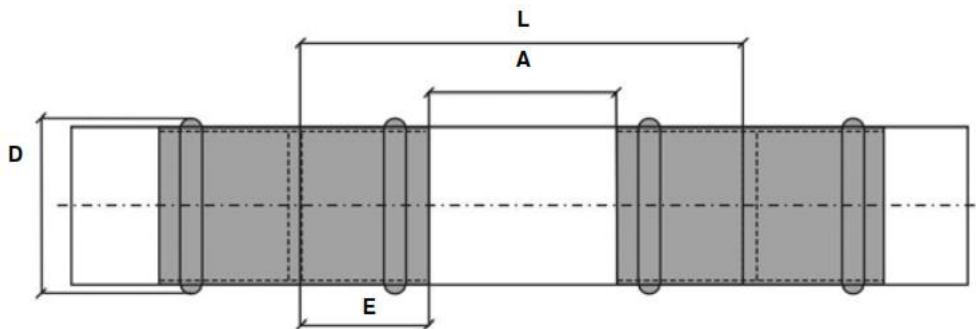
The following minimum clearances are required from structural components to allow operation of tool for press fitting.



Space required for the pressing process between fittings		
External tube	X	Y
Size mm	mm	mm
15	26	53
22	26	54
28	33	69
35	33	73
42	75	115
54	85	120

Space required for the pressing process between fittings			
External tube	X	Y1	Y2
Size mm	mm	mm	mm
15	31	45	73
22	31	45	76
28	38	55	80
35	38	55	85
42	75	75	115
54	85	85	140

Insertion depth and minimum distances between pressings



Size	External – Ø pressing bead	Min distance	Min tube length	Insertion depth
Size mm	D - mm	A - mm	L - mm	E - mm
15	22.6	10	54	22
22	31	20	66	23
28	37	20	68	24
35	44	25	77	26
42	53.4	30	102	36
54	65.4	35	115	40

Due to reforming of the tube profile when pressed, it is advised that a minimum distance is allowed between each fitting.

Minimum distance for press fittings from an existing brazed joint

To ensure proper sealing of both the brazed and pressed joints, the following minimum distances must be maintained between the joints.

Minimum distance from a brazed joint	
Tube size	mm
15	5
22	5
28	5
35	10
42	15
54	20

Minimum brazing distance to an existing pressed fitting

Caution: Brazing or soldering near to >B< Press joints should be avoided as this may cause the seal to degrade due to heat transfer. The table below states the minimum distance away from the press joint which is acceptable to braze. If this distance cannot be maintained then adequate precautions must be taken such as fabricating the brazed section prior to assembly with the press fittings, wrapping in a wet rag or applying a hot block, to prevent heat transfer to the press fitting during brazing.

Minimum distance brazing	
Tube size	mm
15	450
22	600
28	700
35	900
42	1200
54	1500

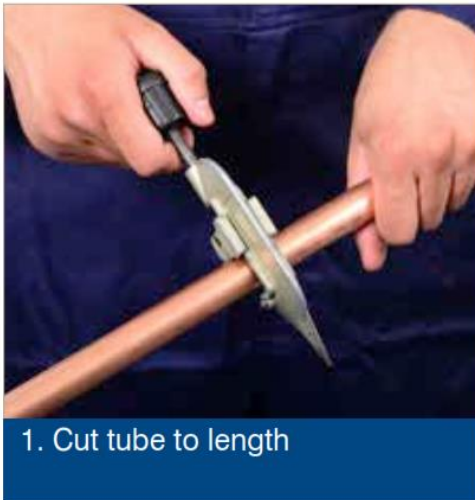
Minimum brazing distance to an existing pressed fitting

>B< Press fittings can be used on hard, half-hard and soft copper tube to EN 1057 with the wall thicknesses stated below.

Tube O/D	Tube wall thickness (mm)					
	Copper - R220		Copper - R250		Copper - R290	
15	1.0	–	0.7	1.0	1.0	–
22	1.0	1.2	0.9	1.1	1.0	1.5
28	–	–	0.9	1.2	1.0	1.5
35	–	–	1.2	–	1.0	1.5
42	–	–	1.2	–	1.0	1.5
54	–	–	1.2	–	1.2	2.0

>B< Press red brass fittings can also be used to connect stainless steel tube in accordance with EN 10312 parts 1 and 2 and Carbon Steel tubes to EN10305.

 >B< Press installation process

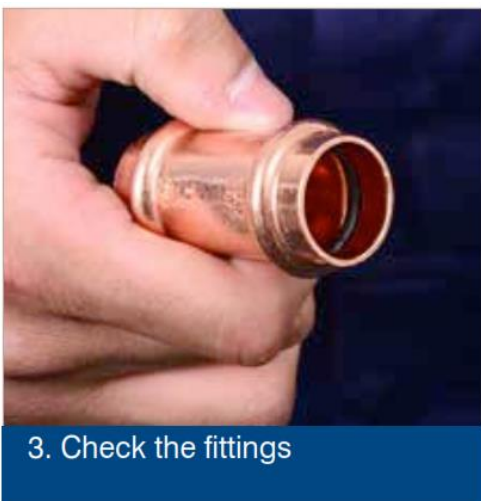


- Use a rotary tube cutter
- Ensure that the tube is cut square
- Check that the tube has retained its shape and is damage free



- Deburr the tube both internally and externally.
- Where possible angle the tube downwards to prevent filings entering the tube.
- Make sure the internal and external surfaces of the tube ends are smooth and free from burrs or sharp edges.

Caution: Please ensure that the tube surface is free from any deep scores or scratches

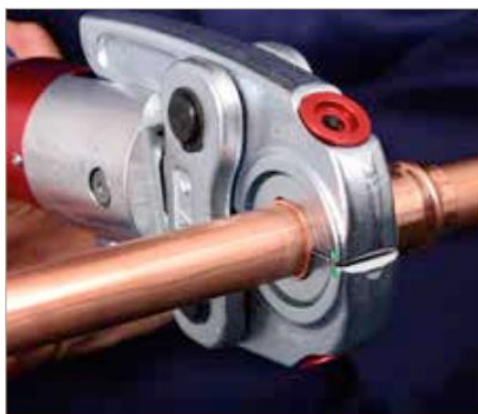


- Check the fitting is the correct size for the tube.
- Check the O-rings are present and correctly seated.
- Additional >B< Press lubricant (silicon oil) may be used to aid tube insertion.



4. Assemble and mark the insertion depth

- The tube must be fully inserted into the fitting until it reaches the tube stop.
- To reduce the risk of dislodging the O-ring, rotate the tube (if possible) while slipping it into the fitting.
- Mark the insertion depth on the tube.
- Prior to pressing ensure the tube has not moved out from the fitting socket.



5. Complete the joint with the press tool

- Ensure pipework is correctly aligned prior to pressing.
- Ensure the correct size jaw is inserted into the tool.
- The jaws must be placed squarely on the fitting, locating the groove on the bead.
- The bead on the fitting should fit centrally in the groove of the jaw.
- Depress and hold the start button on the press tool to complete the pressing cycle.
- Pressing is complete when the jaws are fully closed.
- Complete the press cycle once only – do not re-press.



6. Mark the completed joint

- Mark the completed joint after pressing.
- This enables joints to be inspected easily before testing.