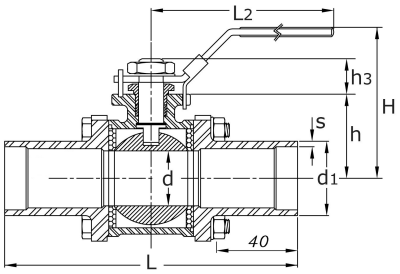
orbital weld-on ball valve

short name: ORK3*

3-piece, full bore PN 63

cavity free, coated ball

connection acc. DIN 11852

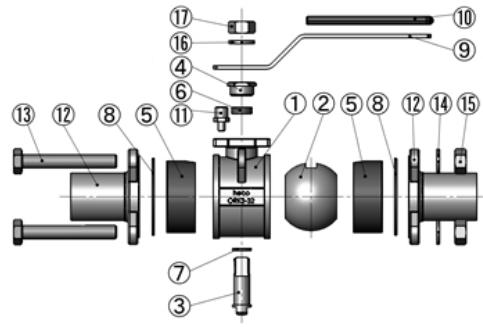


technical product sheet

DN	Zoll	d1	s	d	L	l	H	h	W	kg	Art.-Nr.
10	3/8"	13,0	1,5	10	121	40	51	28	105	0,480	ORK3-13
16	1/2"	19,0	1,5	16	124	40	55	29	125	0,476	ORK3-19
20	3/4"	23,0	1,5	20	128	40	59	33	130	0,713	ORK3-23
26	1"	29,0	1,5	26	139	40	73	38	140	0,920	ORK3-29
32	1 1/4"	35,0	1,5	32	144	40	78	43	140	1,387	ORK3-35
38	1 1/2"	41,0	1,5	38	164	40	91	49	190	2,204	ORK3-41
50	2"	53,0	1,5	50	173	40	108	59	190	3,089	ORK3-53

available material: V4A

Industrial valves › ball valves › butt weld ends › orbital weld-on ends › DIN 11852



PART LIST

No.	Designation	Material
1.	Housing	V4A (CF8M/ 1.4408)
2.	Ball*	V4A (CF8M/ 1.4408)
3.	Control shaft	V4A (CF8M/ 1.4408)
4.	Tensioning screw	V4A (CF8M/ 1.4408)
5.	Seat seal (2x)	PTFE
6.	Stem packing seal	PTFE
7.	Shaft seal	PTFE
8.	Housing seal (2x)	PTFE
9.	Handle	V2A (AISI 304)
10.	Hand sleeve	PVC (blue)
11.	Stop	V2A (AISI 304)
12.	Flange (2x)*	V4A (CF8M/ 1.4408)
13.	Hexagon head screw (4x)	V2A (AISI 304)
14.	Lock washer (4x)	V2A (AISI 304)
15.	Hex-head nut (4x)	V2A (AISI 304)
16.	Retaining disk	V2A (AISI 304)
17.	Hex-head nut	V2A (AISI 304)
19.	Locking device	V2A (AISI 304)

* Surface roughness of the polished inner surfaces ra <= 0,8µm

ISO top flange plate according to ISO 5211

for mounting directly on actuator

DN	ISO	a	b	z	y	x
10	F03	25.5	37	5	9.5	5/16x24
16	F03	25.5	37	5	13	M8x1.25
20	F03	25.5	37	5	13	M8x1.25
26	F04	29.7	42	6.5	14	7/16x14
32	F04	29.7	42	6.5	14	7/16x14
38	F05	35.4	50	8.5	17.5	M12x1.75
50	F05	35.4	50	8.5	17.5	M12x1.75

Installation

Before welding the ends of the connections, the middle section of the ball valve must be disassembled to prevent damaging the seals.

1. Clamp the valve carefully in a vise. You can prevent damage
to the ends of the housing using protective wedges.
Unscrew the hex-head nuts crosswise and pull the screws out of the housing.
Remove the middle section of the ball valve. Make sure that the seals and the ball do not
fall out of the housing. Place the parts aside with care. You should mark the ends in order
to be able to determine which ends are for connection later during reassembly.

2. Mount a piece of tube with a length equal to that of the middle section between the ends of the connections.

3. Allow the ends of the connections to cool off adequately before you install the middle section.
Remove the piece of tube mentioned above.
Push the middle section of the ball valve between the ends of the connection. If necessary, orient the middle
section so it attaches to the corresponding ends of the connection.
Make sure that all seals are seated properly and that there is no dirt or contamination on the
seals or the ball.
Push the hex-head screw through the holes in the ends of the connection. Tighten the nuts evenly
by tightening them crosswise. Note the maximum torque of the screws when tightening.
Test the function of the ball valve. Test all connections to ensure they do not leak.

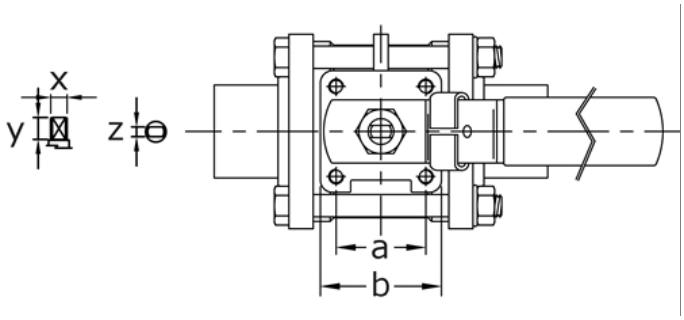
Maintenance and Inspection

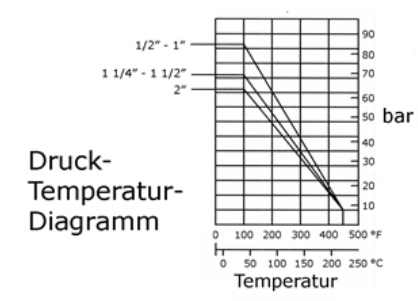
The ball valves are maintenance-free under normal operating and ambient conditions.
However, the following inspections should be performed at regular intervals depending
on the frequency of activation and the operating conditions:

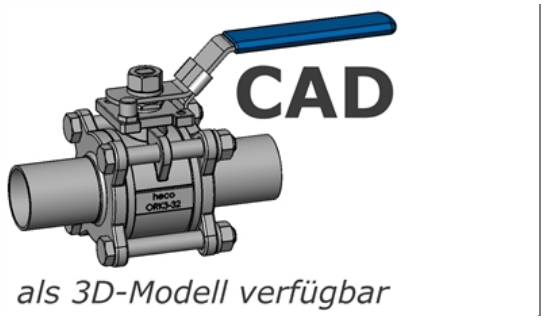
> Testing the spindle seal for leaks
If the seal is failing, then the stem packing must be tightened at operating pressure.
Tighten the nut until the spindle seal is tight again and does not leak any more.
Make sure that the ball valve is still easy to operate.

> Testing the ball seal for leaks
If the seal is not tight enough, the ball and/or the seal set of the ball valve can be replaced.
For 3-part ball valves, you only need to remove the middle part of the ball valve.

You absolutely must follow our installation and operating instructions!
See www.heco.de/Downloads/Anleitungen


x
y
z
a
b


1/2" - 1"
1 1/4" - 1 1/2"
2"
90
80
70
60
50 bar
40
30
20
10
0 100 200 300 400 500 °F
0 50 100 150 200 250 °C
Temperatur
Druck-
Temperatur-
Diagramm


CAD
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