

Datasheet

Si-704 EN

3-piece full bore ball valve

Edition: 2017-10

H3-T

H3-BW/EB

H3-F1

Threaded ends

Short/long weld ends

Flanged ends

Nominal pressure

PN 63

PN40

Nominal size (H3-T)

DN 15 - 50

Nominal size (H3-BW/EB)

DN 15 - 50

DN 65 - 100

Nominal size (H3-F1)

DN 15 - 100

3-piece full bore ball valve type H3 consists of two pipe ends between which the valve body is bolted in. The valve body is equipped with mounting flange where actuators could be mounted in accordance with ISO standard.

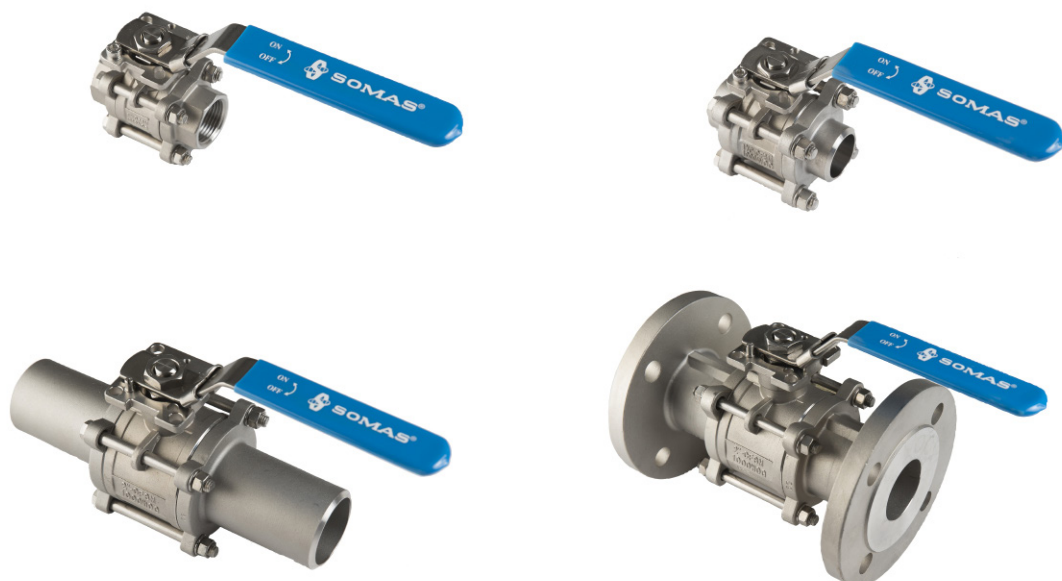
The valve is suitable for shut-off applications of most liquids and gases in the process industry. The pipe ends are available with threaded connection (H3-T), with short welding ends (BW H3), with long welding ends (H3-EB) or with flanges (H3-F1). It is also possible to combine different types of pipe ends.

The ball valve has a maintenance free design, but is at the same time the valves main parts are easy to disassemble for replacement or inspection.

When disassembling the valve only one of the two bolt under the mounting flange (going through guide holes under the flange) is removed. When the other bolts are loosened (DN15 - 80) the valve body can be turned out and internal parts (seats, ball and sealings) can be accessed.

On the DN100 valve one of the two bolts under the mounting flange is removed, but also the bolt directly below is removed. When the other bolts loosened valve body then can be turned out and internal parts (seats, ball and sealings) can be accessed.

The seat is available in two different materials: PTFE that is standard or carbon filled PTFE (PTFE 25) for steam. The valves meet the requirements of the PED and are marked CE 0035.





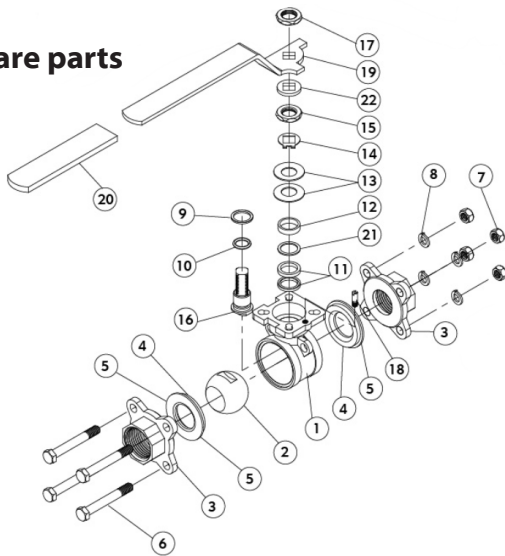
Types and materials

Type	DN	Connection	Body/Ball/End cap	Seat
H3-T	15-50	Threaded ends (BSP)	CF8M	PTFE
H3-BW	15-100	Weld ends (Butt weld)	CF8M	PTFE
H3-EB	15-100	Long welds ends	CF8M	PTFE
H3-F1	15-100	Flanged end caps (DIN PN 40)	CF8M	PTFE

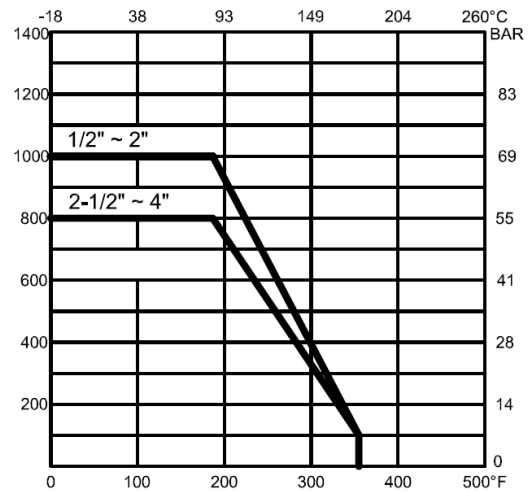
Type	DN	Connection	Body/Ball/End cap	Seat
H3-25-T	15-50	Threaded ends (BSP)	CF8M	PTFE 25
H3-25-BW	15-100	Weld ends (Butt weld)	CF8M	PTFE 25
H3-25-EB	15-100	Long welds ends	CF8M	PTFE 25
H3-25-F1	15-100	Flanged end caps (DIN PN 40)	CF8M	PTFE 25

CF8M is equivalent to A 351 CF8M which is comparable to SS 2343, AISI 316.

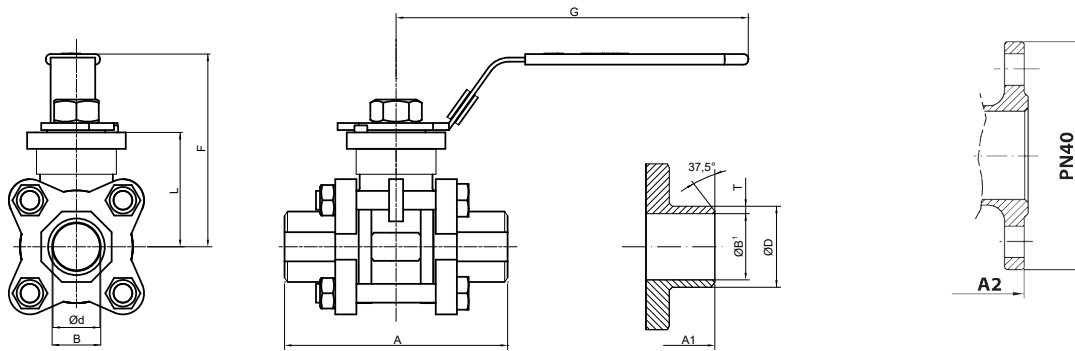
Spare parts



Pressure and temperature curve



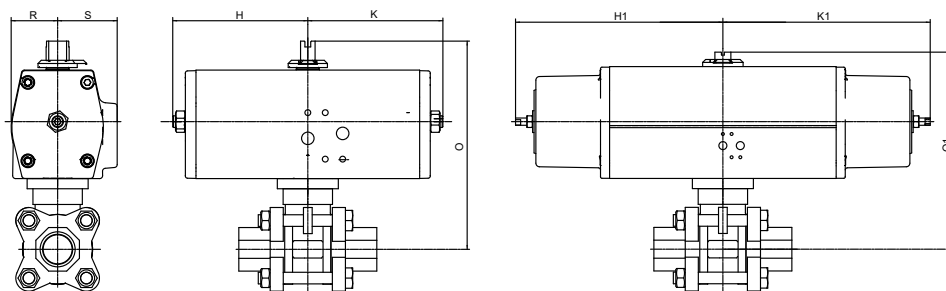
Pos No.	DN 15-80 Q'ty	DN 100 Q'ty	Detail	Material
1	1	1	Body	CF8M
2	1	1	Ball	CF8M
3	2	2	End cap	CF8M
4	2	2	Seat	PTFE/PTFE 25
5	2	2	Sealing ring	Viton
6	4	6	Scew	Stainless steel AISI 304
7	4	6	Nut	Stainless steel AISI 304
8	4	6	Spring washer	Stainless steel AISI 304
9	1	1	Sealing washer	PTFE
10	1	1	O-ring	Viton
11	1	1	Stuffing box kit	PTFE
12	1	1	Bushing	AISI 304
13	2	2	Spring washer	Stainless steel AISI 301
14	1	1	Locking washer	Stainless steel AISI 304
15	1	1	Nut	Stainless steel AISI 304
16	1	1	Shaft	Stainless steel AISI 316
17	1	1	Nut	Stainless steel AISI 304
18	1	1	Stop screw	Stainless steel AISI 304
19	1	1	Lever	Stainless steel AISI 304
20	1	1	Lever	Vinyl
21	1	1	Sealing washer	PTFE
22	1	1	Washer w. square hole	Stainless steel AISI 304



DN	A	A1	A1	A2	B	Ød	F	G	L	Mounting flange	Shaft connection (FK)	Weight H3-T	Weight H3-BW	Weight H3-EB	Weight H3-F1
15	66	73	220	130	1/2"	15	73	111	36	F03/F04	9	0.7	0.7	1	3.5
20	70.5	84	220	150	3/4"	20	78	111	41	F03/F04	9	0.9	0.9	1.3	3.8
25	87	95	240	160	1"	25	87.5	186	49.5	F04/F05	11	1.3	1.3	1.8	4
32	96	100	254	180	1 1/4"	32	94	186	56	F04/F05	11	1.6	1.6	2.9	5.1
40	113.5	119.5	260	200	1 1/2"	40	109	197	70	F05/F07	14	2.8	2.8	3.8	6.6
50	129	134.5	270	230	2"	50	117	197	78	F05/F07	14	3.9	3.9	5	10.2
65	-	167	338	290	-	65	139	265.5	98	F07/F10	17	-	8.5	9.8	14.7
80	-	182	350	310	-	80	149.5	265.5	108.5	F07/F10	17	-	12.7	13.2	24
100	-	225	350	350	-	100	195	321	140	F10/F12	22	-	20	24	34

DN	Standard BW		Standard EB		ISO BW1/EB1		mm BW2/EB2	
	B'	ØD	B'	ØD	ØD	T	ØD	T
15	18	22	15	22.8	21.3	2	20	2
20	23	28	20	28.2	26.9	2	25	2
25	28	31.5	25	36	33.7	2	30	2
32	35	40	32	44.9	42.4	2	38	2
40	41	46	40	49	48.3	2	44.5	2
50	53	60	50	63.1	60.3	2	54	2
65	69	78	65	77	76.1	2	69	2
80	84	91.5	80	91	88.9	2	84	2
100	104	121.5	100	117.1	114.3	2	104	2

ISO BW1/EB1 = weld ends acc. to ISO-pipe.
mm BW2/EB2 = weld ends acc. to mm-pipe.



Ball valve with actuator type Remote

DN	Actuator Type	Weight								Actuator Type-SR/SRF	Weight							
		H	K	O	R	S	H3-T	H3-BW	H3-EB		H3-F1	H1	K1	O1	HT-3	H3-BW	H3-EB	H3-F1
15 ¹	RC210-DA	45	98	133	32	41	1.9	1.9	2.2	5.1	RC210-SR087	45	150	133	2.2	2.2	2.5	5.4
20 ¹	RC210-DA	45	98	138	32	41	2.1	2.1	2.5	5.4	RC210-SR087	45	150	138	2.4	2.4	2.8	5.5
25 ¹	RC210-DA	45	98	146.5	32	41	2.5	2.5	3	5.7	RC220-SR087	150	150	146.5	3.5	3.5	4	6.7
32 ¹	RC210-DA	45	98	153	32	41	2.8	2.8	4.1	6.8	RC220-SR087	150	150	153	3.8	3.8	5.1	7.8
40 ²	RC210-DA	45	98	167	32	41	4	4	5	8.3	RC230-SR087	65	200	203	7	7	8	11.3
50 ²	RC220-DA	98	98	175	32	41	5.5	5.5	6.6	12.3	RC230-SR087	65	200	211	8.1	8.1	9.2	14.9
65	RC230-DA	65	135	231	49	55	-	12	13.3	18.2	RC240-SR087	200	200	231	-	15.5	16.8	21.7
80	RC230-DA	65	135	241.5	49	55	-	16.2	16.7	27.5	RC250-SR087	90	285	286.5	-	25.1	25.6	36.4
100	RC240-DA	65	135	273	49	55	-	23.5	27.5	37.5	RC250-SR087	90	285	318	-	32.4	36.4	46.4

SR 087 = Supply pressure 5,5 bar/80 psi and springs for 87 psi (spring to close).

SRF 087 = Supply pressure 5,5 bar/80 psi and springs for 87 psi (spring to open).

¹⁾ Direct mounting not possible for H3-F1.

²⁾ Direct mounting only possible in mounting position A & C for H3-F1.



Actuating

The 3-piece full bore ball valve H3 is designed primarily as a hand-operated valve or actuated on/off valve.

When manually operated, the valve is provided with a lever, which can be easily locked in the open or closed position. The lock can be further secured with a padlock.

The valve can be remotely operated with actuators.

The valves mounting flange is designed according to ISO standards and in such a way that the actuator can be mounted directly without mounting bracket with the exception of flange version.

The valves are delivered as tested and ready to use units. See Tab 5 and 8 in SOMAS product catalogue, which also includes limit switches and solenoid valves.

In control applications recommended SOMAS segment valves type KVT/KVX, KVTW/KVXW or KVTF/KVXF.

The valves can be equipped with other makes of actuators and accessories as desired.

Ordering

State desired valve according to the valve specification system below as well as type of actuator, limit switches and accessories.



PA Ventiler AB



Valve specification system

H3 T - DN50 - FK14 - F05/F07

1 2 3 4 5

1 Valve type

H3 - 3- piece ball valve with standard PTFE seat
H3-25 - 3-piece ball valve with PTFE-25 seat

2 T = Threaded ends

BW = Weld ends
BW1 = Weld ends ISO-pipe
BW2 = Weld ends mm-pipe
EB = Long weld ends
EB1 = Long weld ends ISO-pipe
EB2 = Long weld ends mm-pipe
F1 = Flanged design

3 Nominal size, DN

4 Shaft dimension

5 Actuating

HL = Hand lever - lockable design (H3)
Actuator mounting (acc. to ISO 5211)

SOMAS reserves the right to make improvements without prior notice.



SOMAS[®]

P.O. Box 107, 661 23 SÄFFLE, SWEDEN

Phone: +46 (0) 533 167 00

Fax: +46 (0) 533 141 36

E-mail: sales@somas.se

www.somas.se