BALL VALVE
AL 35-88

Description

AL 35-88 is a three piece ball valve in stainless steel with full bore and mounting plate according to ISO 5211. Protected bolts through body bolts and body seal in separate tracks. Manual with hand lever and springloaded striker or optional with direct mounted actuator. Unique stem seal for long and reliable operation. The valve can be equipped with control ball 30°, 60° or 90°.

Applications: Shut-off valve for simple to demanding applications with neutral to aggressive liquids and gases.

Marking: The valve is marked AL 35-88.
Dimension: DN 8-100
Connection: Thread
Weld
Butt weld - DIN / ISO
Long weld - DIN / ISO
Pressure class: DN 8-25 - PN 125
DN 32-50 - PN 100
DN 65-100 - PN 64
Pressure: Max 64-125 bar (see pressure/temperature diagramme)
Temperature: -50 - +240°C (see pressure/temperature diagramme)

Stem seal

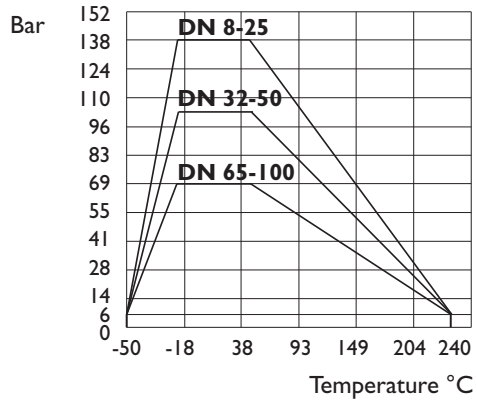
Stem seal is designed for long, reliable operation even at a larger number of controls. The seal consists of a combination of:

- Stem seal in RPTFE with a 45 degree bevel.
- O-ring in Viton.
- V-seals in Chevron V-ring PTFE x 3 pcs.
- Gland in SS 2343
- Spring washers, Belleville washers for continuous engagement of the box.
- Stem, polished for best seal.

Approvals

- CE/PED 2014/68/EU
- ATEX 2014/34/EU
- TA Luft
- SIL3 compliant

Pressure / Temperature



Seat PTFE (TFM1600)



Installation

The valve can be installed in horizontal and vertical lines. The valve is maintenance free but should be operated at regular intervals depending on the installation. Welding with short ends: - open valve - spot weld - remove the valve body - finish weld - cool - reassemble. See separate manual for more detailed instructions.

Optional

- V-control ball 30°, 60° alt 90°
- Position indicator
- Reduced bore
- Cavity filler, filler in PTFE between ball and body.
- NPT thread
- Limit switch
- Spring return safety hand lever
- Electric actuator
- Pneumatic actuator

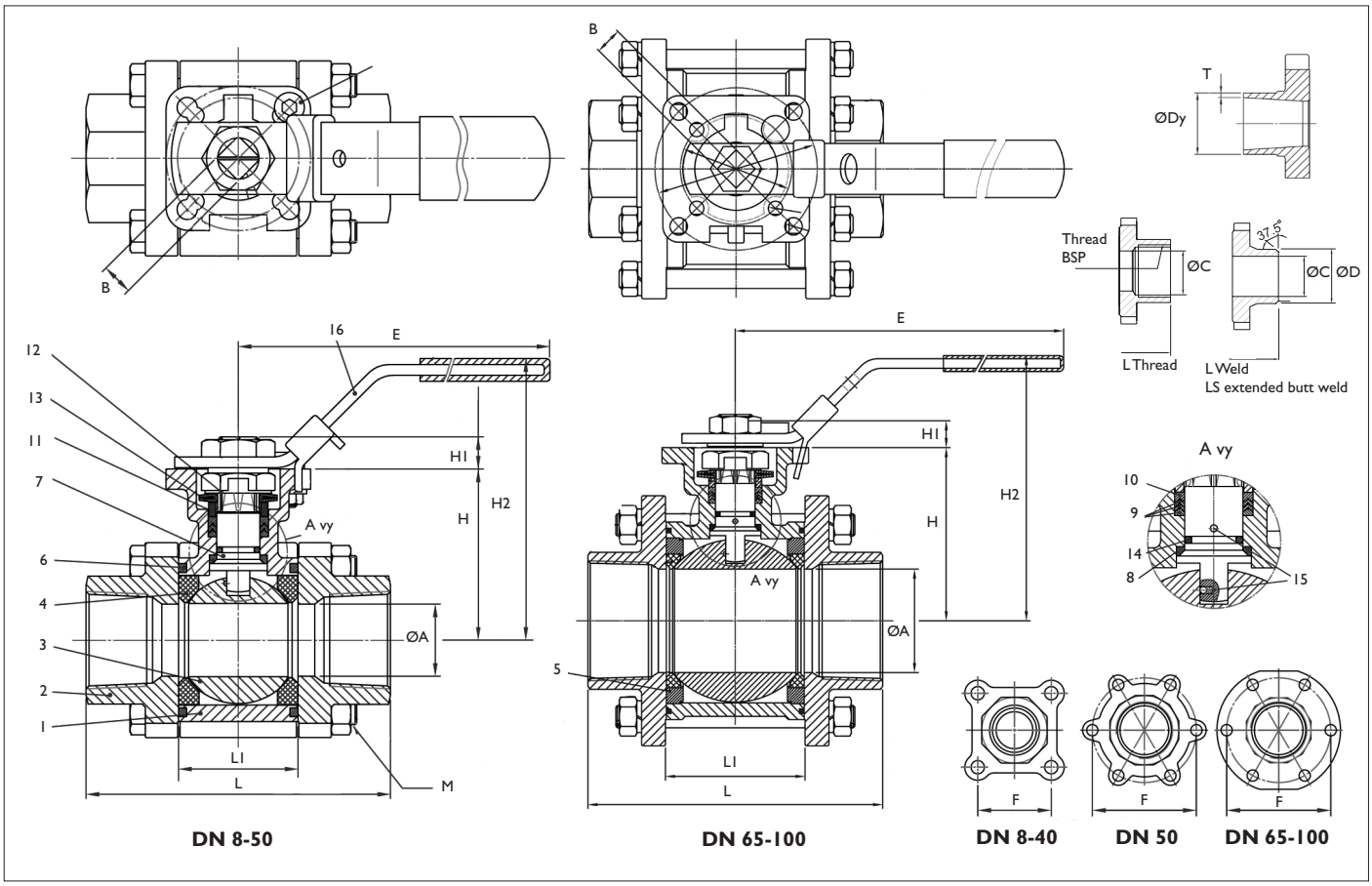
Actuator sizing

Media clean water 20°C and 16 bar, safety factor 30%. Supply air 6 bar.

Valve DN	Torque Nm	AL 77		AL 78 electr.	AL 79	
		DA	SR		DA	SR
8	8	210-DA	210-SR	003	045U-DA	051U-SR
10	8	210-DA	210-SR	003	045U-DA	051U-SR
15	8	210-DA	210-SR	003	045U-DA	101U-SR
20	9	210-DA	210-SR	003	045U-DA	101U-SR
25	14	210-DA	210-SR	003	051U-DA	101U-SR
32	22	210-DA	220-SR	005	101U-DA	201U-SR
40	30	210-DA	220-SR	005	101U-DA	201U-SR
50	44	220-DA	230-SR	005	201U-DA	251U-SR
65	61	230-DA	240-SR	009	251U-DA	301U-SR
80	114	230-DA	240-SR	015	301U-DA	351U-SR
100	174	240-DA	250-SR	019	351U-DA	451U-SR

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Material specification / Dimensions



Pos	Part	Material
1	Body	Stainless steel CF8M
2	End cap	Stainless steel CF8M (weld CF3M)
3	Ball	Stainless steel 316
4	Seat	PTFE (TFM1600*)
5	Seat ring	Stainless steel CF8M
6	Joint gasket	RTFE
7	Stem	Stainless steel 316
8	Stem seal lower	RTFE

Pos	Part	Material
9	Stem seal V-shaped	PTFE
10	Stem seal upper	RTFE
11	Gland	Stainless steel 304
12	Stop washer	Stainless steel304
13	Spring washer	Stainless steel 301
14	Stem seal O-ring	Viton
15	Antistatic spring - ball	Stainless steel 316
16	Lockable hand lever **	Stainless steel 304

* High quality PTFE. ** For DN 8-50 padlock with 6 mm shackle.

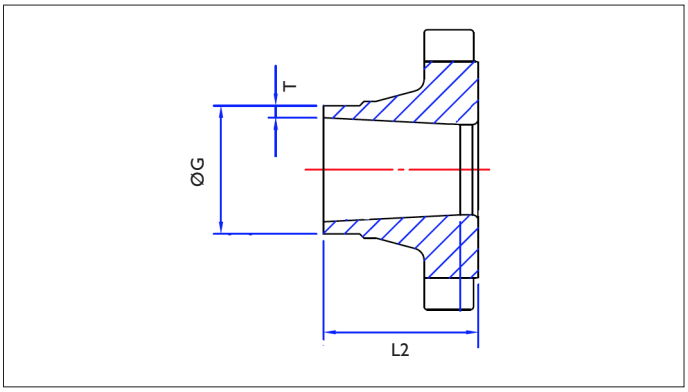
DN	ØA	Weld ends						F	L	LS	L1	E	H	H1	H2	M	B	ISO 5211	Kv	Weight, kg
		Standard		mm		ISO														
		ØC	ØD	ØDy	T	ØDy	T													
8	11,5	10,3	13,5	-	-	13,5	2	38,2	75	225	24,5	139	42,6	6,4	77	M6	9	F03/F04	6	0.9
10	12,6	12,8	17,2	-	-	17,3	2	38,2	75	225	24,5	139	42,6	6,4	77	M6	9	F03/F04	7	0,9
15	15	14,8	22,0	20	2	21,3	2	38,2	72	225	24,5	139	42,6	6,4	77	M6	9	F03/F04	13	0,8
20	20	20,0	27,2	25	2	26,9	2	44,3	85	225	31,4	139	48,8	8,6	82	M8	9	F03/F04	34	1,3
25	25	25,0	34,0	30	2	33,7	2	50	105	245,1	41,3	165	59,3	10,4	98,5	M8	11	F04/F05	60	2,0
32	32	32,0	42,7	38	2	42,4	2	57,2	111	255,1	48,4	165	62,6	10,4	102	M10	11	F04/F05	94	2,8
40	38	40,0	48,6	44,5	2	48,3	2	66,6	127	260	56,3	215	79	13,4	128	M10	14	F05/F07	213	4,2
50	50	50,0	60,5	54	2	60,3	2	114	143	275	71,4	215	87,7	13,4	137	M12	14	F05/F07	366	5,8
65	65	65,0	76,3	69	2	76,1	2	139	185	334	86,6	300	108.7	16,8	167	M24	17	F07/F10	595	12,0
80	80	80,0	90,0	84	2	88,9	2	160	205	354	99	370	117,7	17.8	176	M24	17	F07/F10	935	16,2
100	100	100,0	116,0	104	2	114,3	2	193	240	365	127	370	133,7	16,8	192	M24	17	F07/F10	1700	25,8

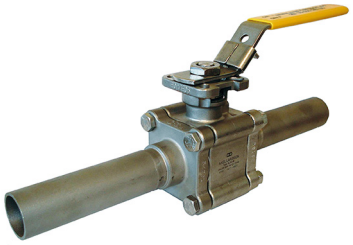
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Connection mm / ISO pipe

Butt weld - DIN / ISO

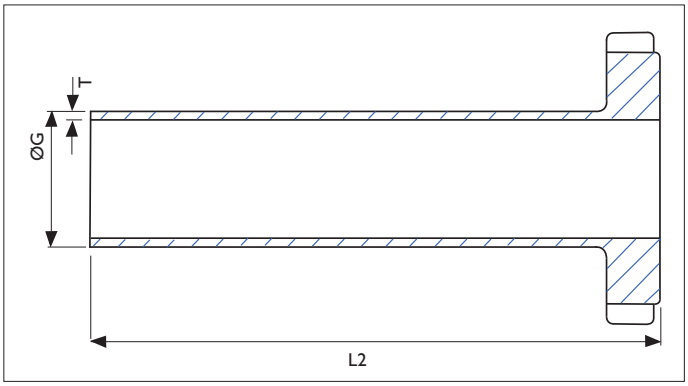
DN	BL Total lenght	L2	ØG		T
			mm	ISO	
10	62,7	19,55	-	17,3	2
15	65,7	21,05	20,0	21,3	2
20	76,2	24,1	25,0	26,9	2
25	86,2	26,15	30,0	33,7	2
32	102,8	30,15	38,0	42,4	2
40	119,4	33,1	44,5	48,0	2
50	131,4	33,4	54,0	60,3	2
65	164,0	38,5	69,0	76,1	2
80	182,7	41,85	84,0	88,9	2
100	236,2	54,6	104,0	114,3	2





Long weld added on butt weld casted ends - DIN / ISO

DN	BL Face-to-face	L2	ØG		T	
			mm	ISO	mm	ISO
10	225	100,7	-	17,3	-	1,6
15	225	100,7	20,0	21,3	2	1,6
20	225	98,5	25,0	26,9	2	2
25	245,1	105,6	30,0	33,7	2	2
32	255,1	106,3	38,0	42,4	2	2
40	260	103,4	44,5	48,0	2	2
50	275	105,2	54,0	60,3	2	2
65	334	123,5	69,0	76,1	2	2
80	354	127,5	84,0	88,9	2	2
100	365	119	104,0	114,3	2	2



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