

# BALL VALVE

## AL 37-33

### Description

AL 37-33 is a 3-way ball valve in steel with reduced bore and mounting plate according to ISO 5211. Manual operation with hand lever and spring-loaded locking device, or as an option with direct mounted actuator. Unique triple-sealing stem seal for long and reliable operation. The ball is available in L and T versions. See configuration for available flow paths. The valve is antistatic with a self-adjusting packing.

**Applications:** 3-way valve (shift or mixing) for liquids, gases and chemicals.

**Connection:** Thread / Weld / Flange  
**Pressure class:** See pressure/temperature diagramme  
**Temperature:** -20° - + 180 °C (see pressure/temperature diagramme)

### Stem sealing

The stem seal is designed for long, reliable operation even at a larger number of operations. 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.

### Optional

- Alternative flow paths
- 4-way valve
- Other seat materials
- ANSI
- Stem extension
- Electric actuator
- Pneumatic actuator

### Approvals

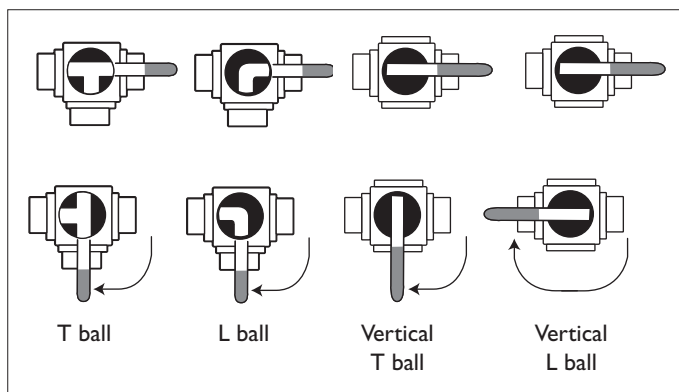
- CE/PED 2014/68/EU
- ATEX 2014/34/EU
- TA Luft

### Installation

See separate manual.

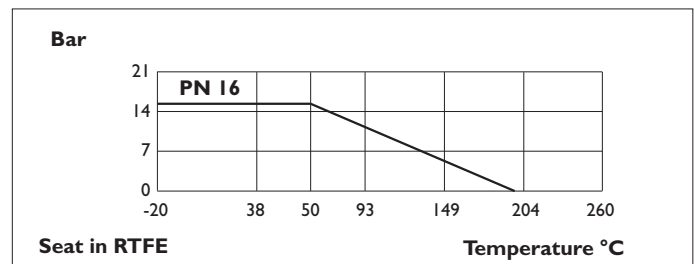
### Configurations

Alternative flow paths on request

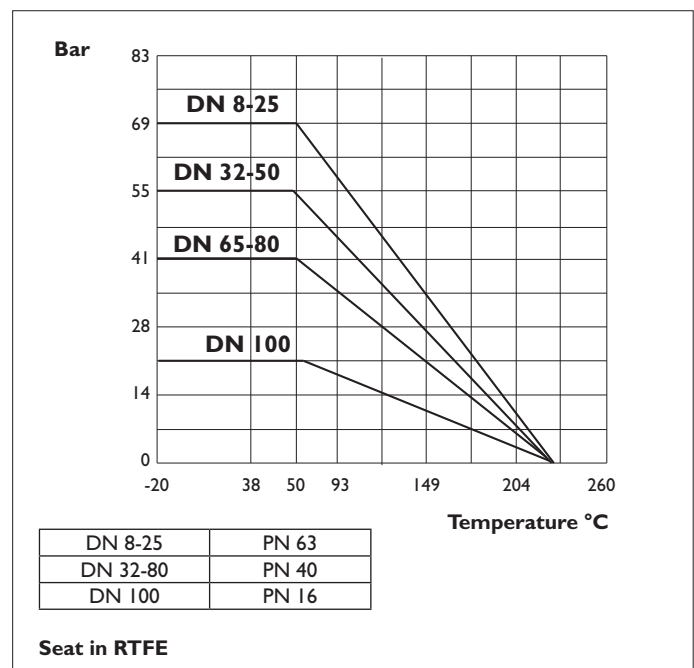


### Pressure / Temperature

#### Flange



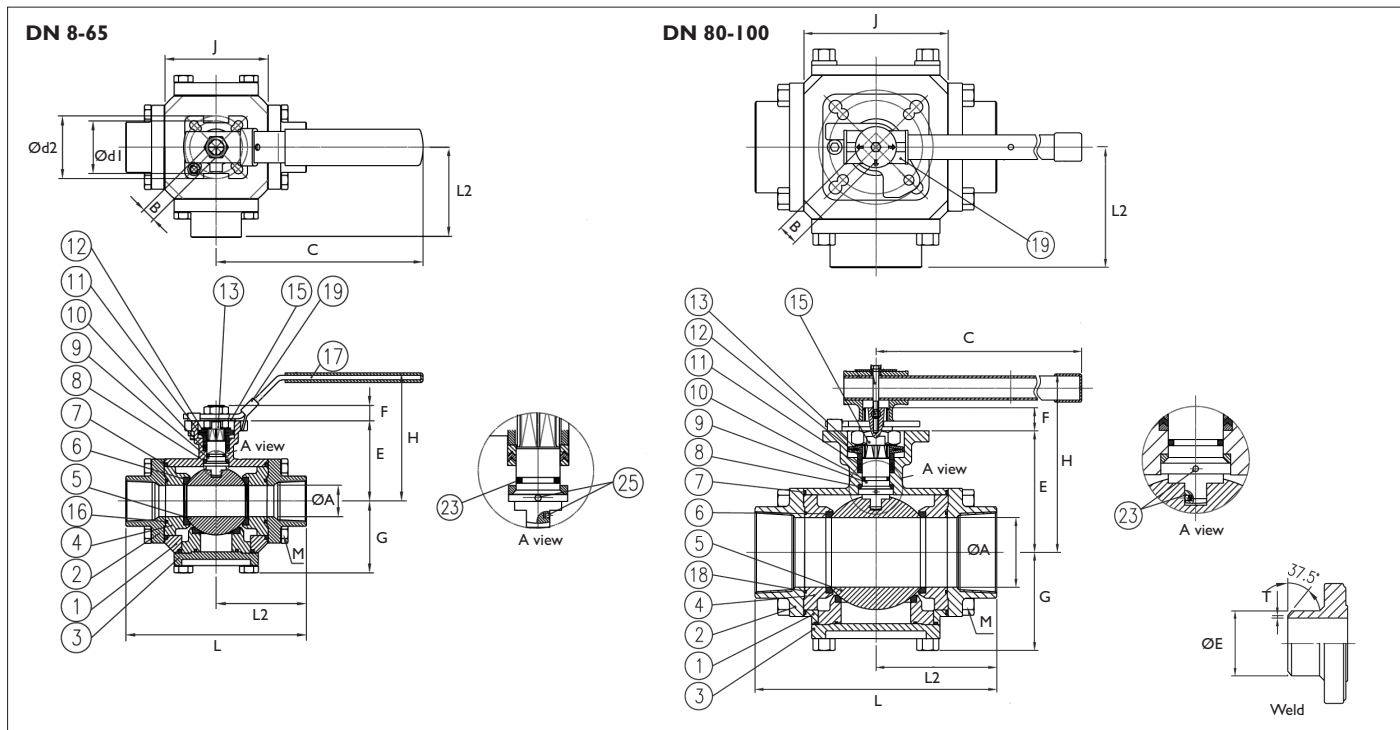
#### Thread / Weld



# BALL VALVE

## AL 37-33

### Thread / Weld



#### Material specification - DN 8-65

No	Qty	Part	Material
1	1	Body	ASTM A351 / ASTM A216 Gr WCB
2	3	End cap A	ASTM A351 / ASTM A216 Gr WCB
3	2	End cap B	ASTM A351 / ASTM A216 Gr WCB
4	5	Seat retainer	ASTM A351 / ASTM A216 Gr WCB
5	1	Ball	DN 8-15: ASTM A276 SS 316 DN 20-100: ASTM A351 Gr CF8M
6	5	Seat	RTFE
7	5	Joint gasket	PTFE
8	1	Stem seal	RTFE
9	1	Stem	ASTM A276 SS 316
10	1 set	Stem packing	25 % glasfiber fylld + PTFE
11	1	Gland	AISI 304
12	2	Belleville washer	AISI 301
13	1	Lock saddle	AISI 304
15	1	Stem washer	AISI 304
16	5	Retainer seal	PTFE
17	1	Hand lever	AISI 304
19	1	Locking device	AISI 304
23	1	O ring	FKM
25	2	Antistatic device	AISI 316

#### Material specification - DN 80-100

No	Qty	Part	Material
1	1	Body	ASTM A351 / ASTM A216 Gr WCB
2	3	End cap A	ASTM A351 / ASTM A216 Gr WCB
3	2	End cap B	ASTM A351 / ASTM A216 Gr WCB
4	5	Seat retainer	ASTM A351 / ASTM A216 Gr WCB
5	1	Ball	ASTM A351 Gr CF8M
6	5	Seat	RTFE
7	5	Joint gasket	PTFE
8	1	Stem seal	RTFE
9	1	Stem	ASTM A276 SS 316
10	1	O ring	FKM
11	1 set	Stem packing	25 % glass fiber filled + PTFE
12	1	Gland	AISI 304
13	2	Belleville washer	AISI 301
15	1	Lock saddle	AISI 304
18	5	Retainer seal	PTFE
19	1	Hand lever	AISI 304
23	2	Antistatic device	AISI 316

#### Dimensions

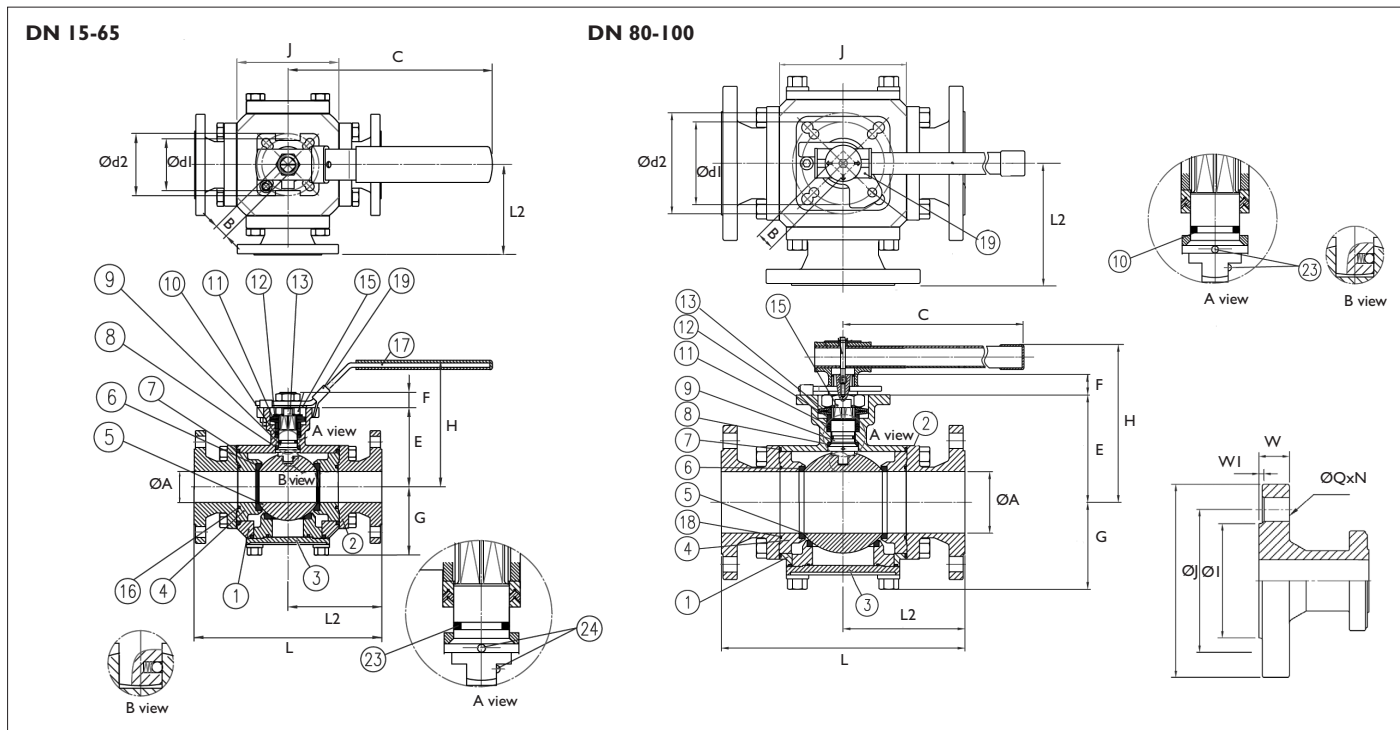
DN	Ø A	B	C	L2	E	F	G	H	J	L	M	Ø N	Ø d1	Ø d2	Ø E	T	Nm*	Kv L-port	Kv T-port	ISO 5211
8	11,6	9	150	46	44	9	35	85	51	92	M6	45	36	42	16,2	1,6	9	3,4	6,0	F03/F04/F05
10	12,7	9	150	46	44	9	35	85	51	92	M6	45	36	42	17,5	1,6	9	4,3	7,7	F03/F04/F05
15	15	9	150	46	44	9	35	85	51	92	M6	45	36	42	22,7	1,6	9	5,2	8,6	F03/F04/F05
20	20	11	165	55	54	11	45	93	67	110	M6	59	42	50	27,5	1,6	17	13,8	18,1	F04/F05
25	25	11	180	72	64	11	57	108	83	144	M8	74	42	50	34	1,6	29	26,7	31,0	F04/F05/F07
32	32	14	215	73	79	13	60	127	89	146	M8	83	50	70	42,7	1,6	35	27,5	49,9	F05/F07
40	38	17	263	82	95	18	72	152	109	164	M10	101	70	102	48,6	1,6	59	64,5	77,4	F07/F10
50	50	17	313	92	102	18	81	159	121	184	M12	116	70	102	60,5	1,6	72	120,4	150,6	F07/F10
65	65	17	344	114	120	18	97	177	146	228	M14	142	70	102	76,3	2	92	180,6	202,1	F07/F10
80	76	22	370	133	133	23	105	195	158	265	M16	160	102	125	90	2	198	322,5	387,0	F10/F12
100	100	22	510	159	164	23	132	226	209	317	M20	206	102	125	116	3,5	250	576,2	688,0	F10/F12

\*Torque including 30% safety margin

# BALL VALVE

## AL 37-33

### Flange



#### Material specification - DN 15-65

No	Qty	Part	Material
1	1	Body	ASTMA351 / ASTMA216 GrWCB
2	3	End cap A	ASTMA351 / ASTMA216 GrWCB
3	2	End cap B	ASTMA351 / ASTMA216 GrWCB
4	5	Seat retainer	ASTMA351 / ASTMA216 GrWCB
5	1	Ball	DN 8-15:ASTM A276 SS 316 DN 20-100:ASTMA351 Gr CF8M
6	5	Seat	RTFE
7	5	Joint gasket	PTFE
8	1	Stem seal	RTFE
9	1	Stem	ASTMA276 SS 316
10	1 set	Stem packing	25 % glass fiber filled + PTFE
11	1	Gland	AISI 304
12	2	Belleville washer	AISI 301
13	1	Lock saddle	AISI 304
15	1	Stem washer	AISI 304
16	5	Retainer seal	PTFE
17	1	Hand lever	AISI 304
19	1	Locking device	AISI 304
23	1	O ring	FKM
24	2	Antistatic device	AISI 316

#### Material specification - DN 80-100

No	Qty	Part	Material
1	1	Body	ASTMA351 / ASTMA216 GrWCB
2	3	End cap A	ASTMA351 / ASTMA216 GrWCB
3	2	End cap B	ASTMA351 / ASTMA216 GrWCB
4	5	Seat retainer	ASTMA351 / ASTMA216 GrWCB
5	1	Ball	DN 8-15:ASTM A276 SS 316 DN 20-100:ASTMA351 Gr CF8M
6	5	Seat	RTFE
7	5	Joint gasket	PTFE
8	1	Stem seal	RTFE
9	1	Stem	ASTMA276 SS 316
10	1	O ring	25 % glass fiber filled + PTFE
11	1 set	Stem packing	AISI 304
12	1	Gland	AISI 301
13	2	Belleville washer	AISI 304
15	1	Lock saddle	AISI 304
18	5	Retainer seal	PTFE
19	1	Hand lever	AISI 304
23	2	Antistatic device	AISI 304