

3-Piece Flange End Ball Valve Model: Series 3E

• Features

Chevron stem packing reduces wear and increases sealing performance
3-piece swing-out design enables in-line maintenance
Blowout-proof stem
V-port options available in 10°, 30°, 60°, 90° for control applications
Certified according to PED 2014/68/EU
EN 10204-3.1 Material Certificate is complementary

• Body Material

ASTM CF8M, CF8, WCB
DIN 1.4408, 1.4308, 1.0619

• Size Range

1/4" - 4" (DN8~DN100)

• Pressure Rating

DIN PN16
DIN PN40 up to 2"

• End Connection

Flange

• Temperature Range

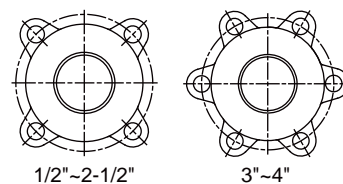
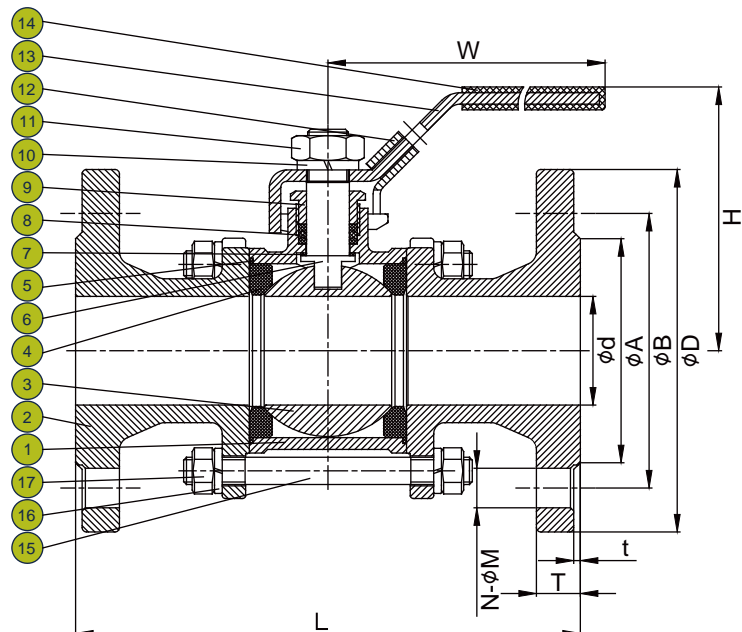
-4°F to 350°F (-20°C to 180°C) with PTFE seats
-4°F to 400°F (-20°C to 200°C) with MG1241 seats

• Inspection Standard

API 598, ISO 5208 or EN 12266-1

Materials List:

NO	PART NAME	MATERIAL
1	BODY	1.0619 / 1.4308 / 1.4408
2	CAP	1.0619 / 1.4308 / 1.4408
3	BALL	1.4308 / 1.4408
4	BALL SEAT	PTFE / MG1241
5	BODY SEAL	PTFE / MG1241
6	STEM	SS316
7	THRUST WASHER	PTFE / MG1241
8	STEM PACKING	PTFE
9	GLAND	SS304
10	HANDLE WASHER	SS304
11	HANDLE NUT	SS304
12	LOCKING DEVICE	SS304
13	HANDLE	SS304
14	HANDLE SLEEVE	PLASTIC
15	BODY BOLT	SS304
16	BODY BOLT WASHER	SS304
17	BODY BOLT NUT	SS304



1/2"~2-1/2"

3"~4"

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Dimensions (mm):

SIZE IN	DN	d	L	H	D	B	A	T	t	W	N	M
1/2"	15	15	130	68	95	65	45	16	2	123	4	14
3/4"	20	20	150	80	105	75	58	18	2	133	4	14
1"	25	25	160	84	115	85	68	18	2	133	4	14
1-1/4"	32	32	180	92	140	100	78	18	2	190	4	18
1-1/2"	40	38	200	98	150	110	88	18	3	190	4	18
2"	50	50	230	103	165	125	102	20	3	190	4	18
2-1/2"	65	65	290	143	185	145	122	18	3	264	4	18
3"	80	80	310	154	200	160	138	20	3	264	8	18
4"	100	100	350	183	220	180	158	20	3	503	8	18

Size		Cv	Kv
Inch	DN		
1/4"	8	7	6.1
3/8"	10	8.3	7.2
1/2"	15	24	20.8
3/4"	20	47	40.7
1"	25	81	70.1
1-1/4"	32	132	114.2
1-1/2"	40	202	174.7
2"	50	376	325.2
2-1/2"	65	642	555.3
3"	80	901	779.4
4"	100	1588	1373.6

The upper table represents the Flow Coefficients (CV) and Flow Factor (Kv) for DIE ERSTE Series AC-305 ball valves. This number represents the volume of water at 60°F that will flow in US gallon per minute through a valve with a 1 lb/in² pressure drop across in the full open position. For Kv, it is the flow of water with temperature from 5°C - 30°C in cubic meters per hour (m³/h) with a pressure drop of 1 bar.

$$Cv = F \sqrt{\frac{SG}{\Delta P}}$$

The Cv value is dependent on flow rate, pressure drop, specific gravity. The larger the Cv value, the easier the fluid will flow within the valve. However, Cv value is easily affected by various factors, such as fluid type, fluid viscosity, saturated steam pressure.

