



Flow Control

Tyco Valves
& Controls

Wafer style ball valves, full bore, providing 90° shut-off with minimum weight and space requirements.

Features

- For assembly as wafer units within flanged piping systems to PN 16.
- Ball profile contained within body dimensions, in both open and shut positions.
- Suitable for flow in either direction.
- Tested to ISO 5208, with Category A tightness.
- Flanged holes tapped to PN 16.
- 3-stage stem seal arrangement, TA Luft approved.
- 90° lever operation with travel stops.
- Suitable for vacuum service.
- Pressure/temperature limits according to seat material (see page 4).
- Fire tested and anti-static (model V74).

Options

- Flange drilling:
Sizes DN80 and DN200 drilled PN10
- Jacketed body design
- Cavity filler seats
- PN25/40 and ANSI 150, 300
- Locking handle device



Application

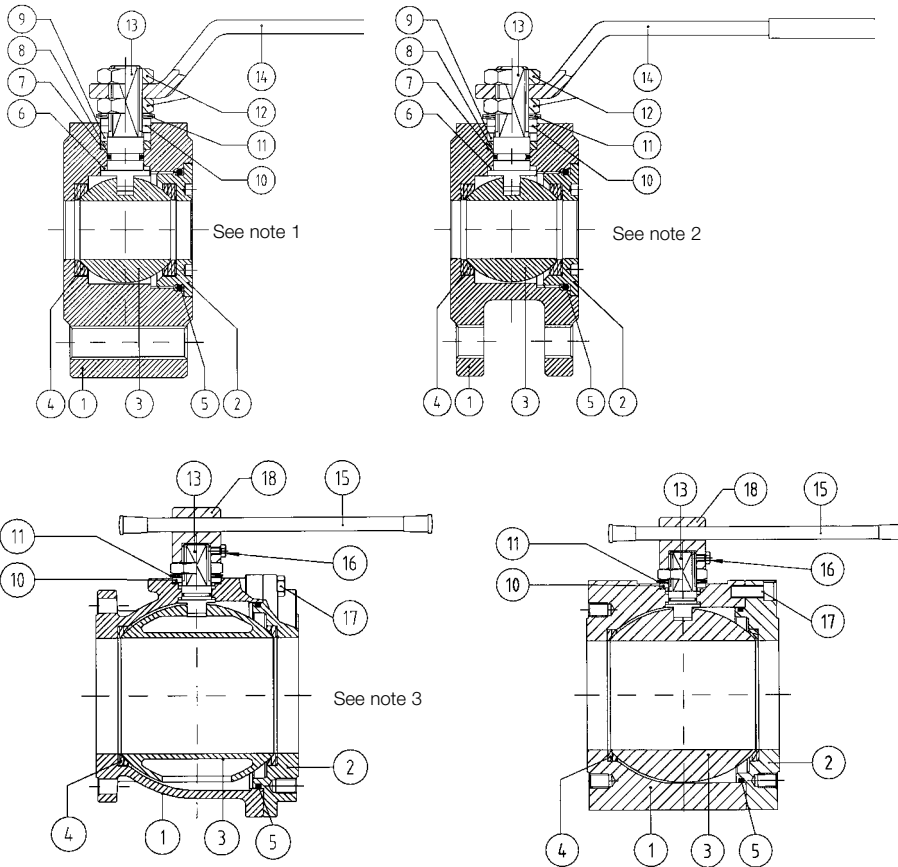
For use in flanged pipe systems, where space and weight are major considerations. Particularly recommended for use in transportation markets - for instance, on tankers, containers, etc.

Technical Data

Size range	DN15 - 200 1/2" - 8"
Maximum pressure	PN16
Temperature range	-20°C to +160°C
Maximum vacuum	10 ⁻³ torr
Seat material	PTFE Carbon Filled PTFE (Fire tested version) Glass Filled PTFE (ANSI 300 and PN40 models)

Fig V72/V74 Wafer Style Ball Valves

materials of construction



Materials of construction

Pos.	Part Name	Materials		N ^o P.
1	Body	Stainless steel models AISI 316/CF8M ⁽¹⁾	Carbon steel models ASTM A105 ⁽²⁾	1
2	End connection	aisi 316	ASTM A105	1
3	Ball	AISI 316/CF8M ⁽³⁾	AISI 304	1
4	Seat	PTFE		2
5	Body seal	PTFE		1
6	Stem seal	PTFE		1
7	'O' ring	PTFE		1
8	Packing	PTFE		1
9	Packing gland	AISI 12L14 (Ni PLated)		1
10	End stop	AISI 12L14 (Ni PLated)		2 / 1
11	Spring washer	UNI 3545		2
12	Nut	UNI 5771		2
13	Stem	AISI 316 ⁽⁴⁾		1
14	Handle	Steel (Ni plated) / PVC Sleeve		1
15	Handle (DN 150-200)	Burnished Steel		1
16	Screw	Steel		1
17	Screw	Steel		8-12
18	T-Bar adaptor	GG 25 UNI 5007		1

Notes

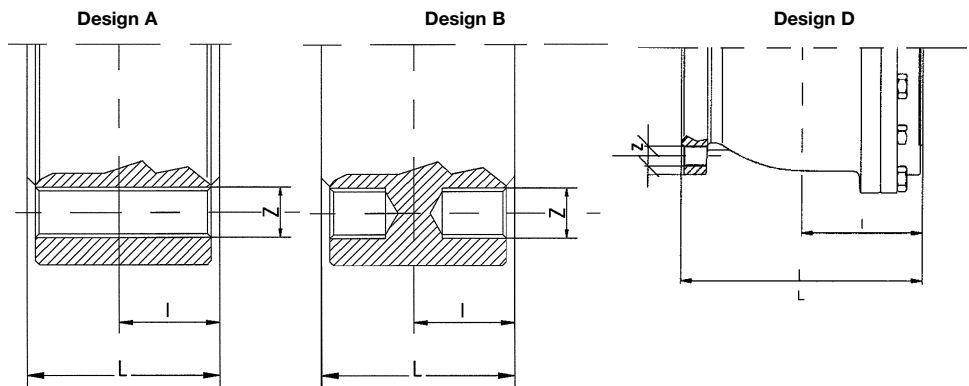
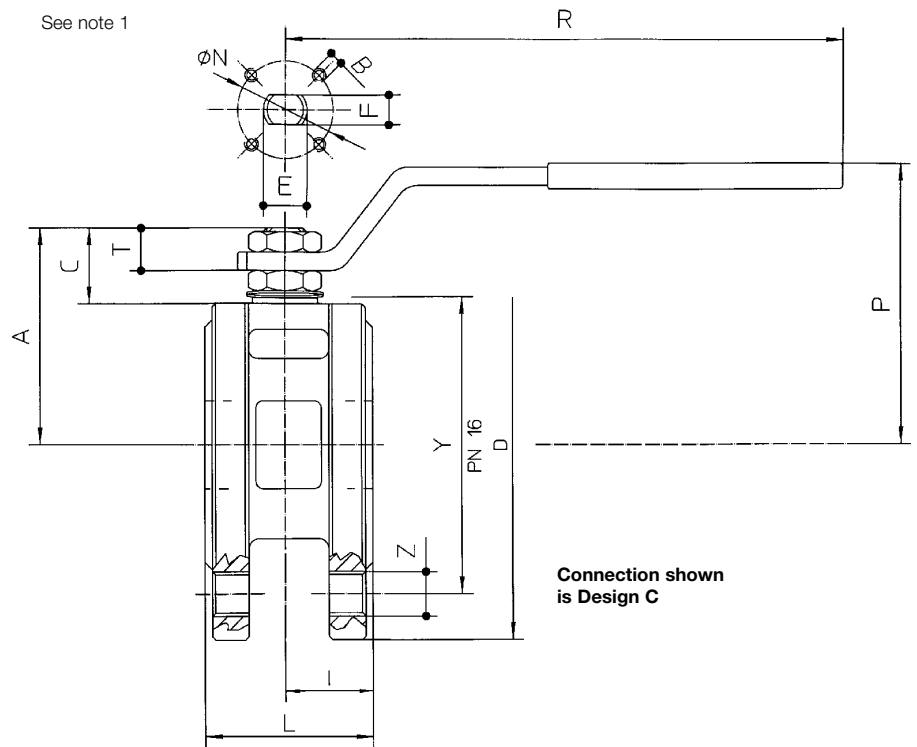
- (1) **Stainless steel models**
Body material is from bar stock for DN 15-32
Size DN 40 and above use a cast body
- (2) **Carbon steel models**
Body material is from bar stock for
DN 15-100
Size DN 125/150 use a cast body
- (3) **Ball material (Stainless steel models)**
DN 15-100 AISI 316
DN 125/200 CF8M
- (4) **Stem material (Carbon steel models)**
DN 15-150 AISI 304

Notes

1. DN 15 - 32 (Stainless steel models)
 DN 15 - 100 (Carbon steel models)
2. DN 40 - 100 (Stainless steel models only)
3. DN 125/150/200 (Stainless steel models)
 DN 200 (Carbon steel models)
4. DN 125/150 (Carbon steel models)

Fig V72/V74 Wafer Style Ball Valves

valve dimensions



Dimensions

DN	D	Y	Z	I	L	R	P	A	C	T	E	F	N	B	Kv	Cv	Kg	
15	1/2"	90	65	4 x M12	19	35	131.5	64.5	47	15.5	9	10	7	32	4 x M5	16.3	18.9	1.3
20	3/4"	100	75	4 x M12	20	40	131.5	69	51.5	15.5	9	10	7	32	4 x M5	29.5	34.2	1.9
25	1"	110	85	4 x M12	24	46	174.5	80	60	19.5	12	12	8	42 F04	4 x M5	43	50	2.7
32	1 1/4"	130	100	4 x M16	28	54	174.5	84	64.5	16.5	12	12	8	52 F04	4 x M5	89	103	4.2
40	1 1/2"	150	110	4 x M16	31.75	63.5	250.5	100	76.5	23.5	14	16	10	50 F05	4 x M6	230	267	4.2
50	2"	165	125	4 x M16	41	82	250.5	108.5	86	24	15	16	10	50 F05	4 x M6	265	307	5.8
65	2 1/2"	185	145	4 x M16	51.5	103	321.5	128	104.5	28	18	20	14	70 F07	4 x M8	540	626	8.9
80	3"	200	160	8 x M16	61	122	321.5	137.5	114	28	18	20	14	70 F07	4 x M8	873	1013	12.4
100	4"	220	180	8 x M16	76	152	381.5	156.5	137	34.5	22	24	18	102 F10	4 x M10	1390	1612	18.6
125	5"	250	210	8 x M16	98	196	381.5	178.5	159	34	22	24	18	102 F10	4 x M10	1707	1980	37.3
150	6"	285	240	8 x M20	116	232	700	237	201.5	51.5	30	42	30	125 F12	4 x M12	2024	2258	48
200	8"	340	295	12 x M20	158.5	317	700	280	245	51.5	30	42	30	125 F12	4 x M12	2720	3155	79

Notes

- Diagram is representative only. The body design varies by size as shown on the previous page.
- Connection details vary by model as shown below.

Design A

DN15 - DN32 (Carbon and stainless steel models)

Design B

DN40 - DN150 (Carbon steel models)

Design C

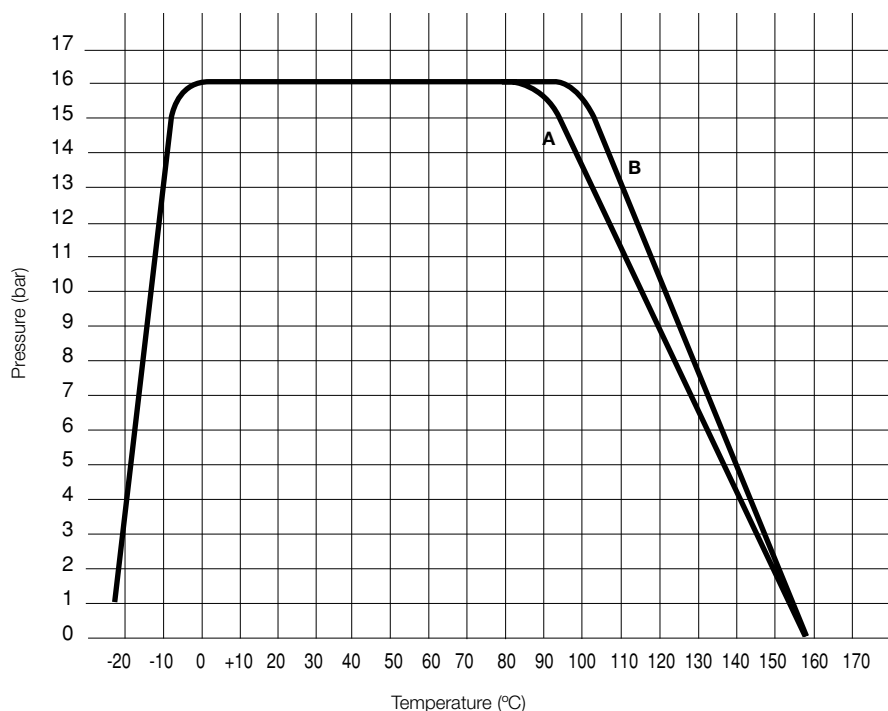
DN40 - DN100 (Stainless steel models)

Design D

DN125 - DN200 (Stainless steel models)

Fig V72/V74 Wafer Style Ball Valves

Pressure/temperature graph



Notes

The pressure/temperature graph applies to all sizes

Graph line A - Standard (Model V72)

Graph line B - Fire Tested (Model V74)

Operating torques (Nm)

Table 1

Size	1 bar	5 bar	10 bar	16 bar
DN 15	8	9	9	10
DN 20	16	17	17	18
DN 25	21	22	22	22
DN 32	22	23	23	23
DN 40	47	50	50	51
DN 50	48	51	54	56
DN 65	49	53	60	66
DN 80	109	140	144	154
DN 100	130	160	164	174
DN 125	270	300	310	330
DN 150	280	480	540	627
DN 200	300	740	830	880

Table 2

Size	-20°C	20°C	50°C	100°C	150°C
DN 15	15	8	18	10	8
DN 20	25	16	27	18	16
DN 25	30	21	33	24	21
DN 32	35	22	38	26	22
DN 40	45	37	47	42	37
DN 50	60	48	54	50	48
DN 65	90	49	58	54	49
DN 80	150	109	117	112	109
DN 100	250	130	170	150	140
DN 125	460	270	400	350	320
DN 150	710	280	490	400	350
DN 200	990	300	650	450	400

Notes

1. **Table 1** gives operating torques (Nm) with demineralised water at 20°C, using PTFE seats.

2. **Table 2** gives operating torque (Nm) with demineralised water at 1 bar differential pressure, using PTFE seats

3 CAUTION

Operating torque will vary depending on the nature of the fluid, its temperature and pressure, the frequency of operation, seat material, etc.