

3-piece Cryogenic Ball Valve



- Extended bonnet design
- Uni-directional flow path
- High flow rate
- Actuation packages available
- Positive shut off for the most demanding cryogenic applications

Features

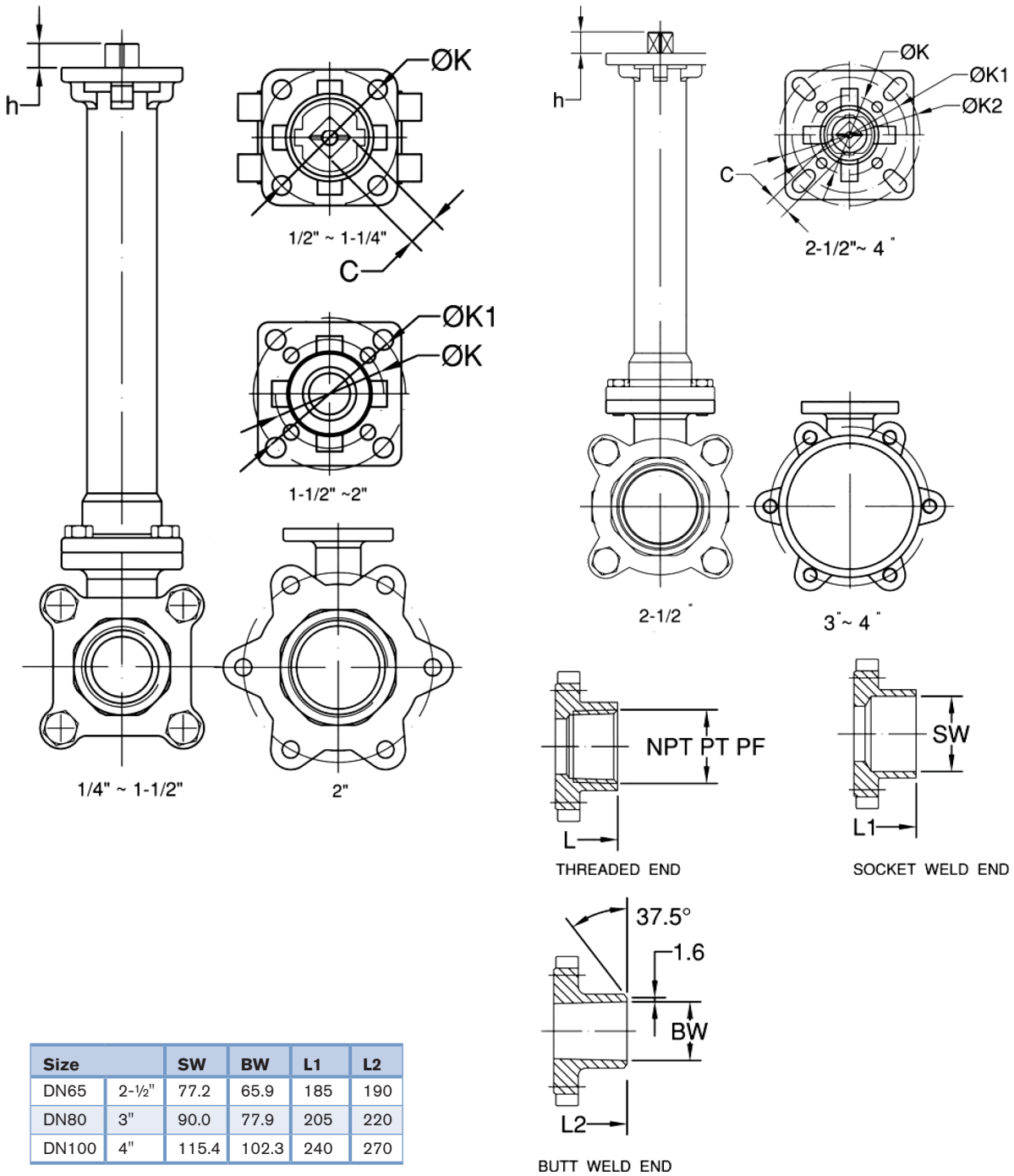
- Lost-wax injection casting
- Extended bonnet design
- Materials: stainless steel
(ASTM A351 CF8, CF8M, CF3M)
- Reduce bore is applicable
- Fire safety design upon request
- Automation application (on/off control)
- Seat materials: TFM1600, PCTFE

Applications

- LN₂ O₂, Ar, CO₂, He, H₂, LNG
- Liquefied gases
- LNG storage and distribution
- Food processing
- Automated filling systems
- Lyophilization Systems
- CO₂ and nitrogen injection

Application Standard	
Body wall thickness	ASME B16.34
Basic Design	ASME B16.34
Body material	ASTM A351 CF8M
Seat	TFM 1600, PCTFE
Face to face	Manufacture standard
End connections	B1.20.1 NPT
	B16.11 socket weld ends
	B16.25 butt weld ends
	Extended tube ends
	BS 21 (BSP)
	BSPT
	ISO 228-1
	DIN 2999
	ISO7-1Rp
Pressure	1/2"~2": 2000 PSI, 2 - 1/2"~4": 1000 PSI
Temperature	TFM1600: -56°F to 356°F (-49°C to 180°C)
	PCTFE: -320°F to 356°F (-196°C to 180°C)
Valve test	API 598

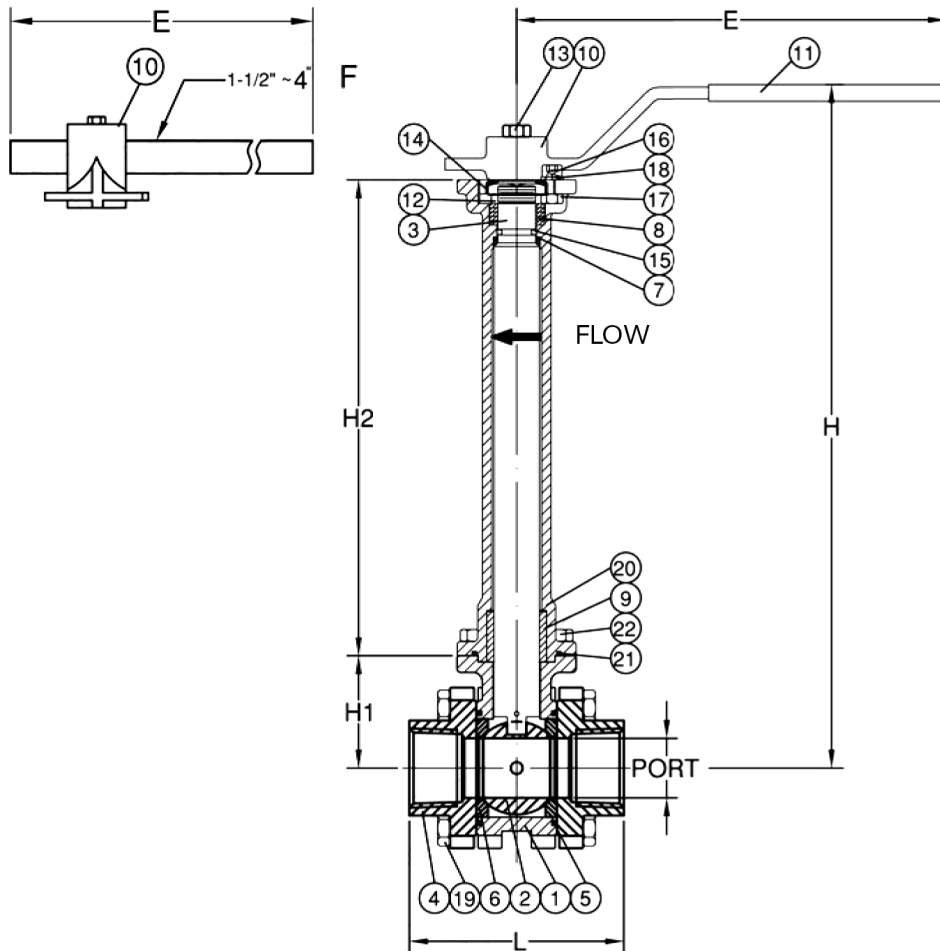
Dimensions [mm]



Size	SW	BW	L1	L2	
DN65	2-1/2"	77.2	65.9	185	190
DN80	3"	90.0	77.9	205	220
DN100	4"	115.4	102.3	240	270

Size	Port	L	E	H	H1	H2	h	C	ØK	ØK1	SW	BW	L1	L1	
DN8	1/4"	9.6	67	156	274	39	200	8	9	F04		14.4	10.4	67	67
DN10	3/8"	9.6	67	156	274	39	200	8	9	F04		17.8	13.7	67	67
DN15	1/2"	15	75	156	274	39.0	200	8	9	F04		22.0	15.8	75	75
DN20	3/4"	20	80	156	276	42.6	200	8	9	F04		27.4	20.9	80	90
DN25	1"	25	90	181	287	47.2	200	10	11	F05		34.1	26.6	90	100
DN32	1-1/4"	31	110	181	292	51.2	200	10	11	F05		42.9	35.0	110	110
DN40	1-1/2"	38	120	395	403	58.5	300	13	14	F05	F07	49.0	40.8	120	125
DN50	2"	50	140	395	423	76.2	300	13	14	F05	F07	61.5	52.5	140	150

Dimensions [mm]



Size	Port	L	E	H	H1	H2	h	C	ØK	ØK1	ØK2	
DN65	2-1/2"	63.5	185	495	438	92.4	301	19	17	F07	F10	F12
DN80	3"	76.0	205	495	448	101.9	301	19	17	F07	F10	F12
DN100	4"	97.0	240	650	469	123.5	301	21	22	F07	F10	F12

Torque value

Size	Normal Temperature	-196°C	Body bolt
(inch)	(IN - LB)	(IN - LB)	(IN - LB)
1/2"	80	180	155
3/4"	110	240	155
1"	140	300	155
1-1/4"	200	400	300
1-1/2"	250	500	300
2"	500	1100	520
2-1/2"	600	1400	690
3"	700	1600	690
4"	1200	2800	1000

Spare Parts

- ⑤ Body seal
- ⑥ Seat
- ⑦ Thrust washer
- ⑧ Stem packing
- ⑨ Thrust bearing
- ⑮ Stem o-ring
- ⑳ Extension gasket

To find your nearest Burkert facility, click on the orange box →

www.burkert-usa.com