

# FIG. 145, GROOVED-END BUTTERFLY VALVE, 20.7 BAR/ 300 PSI

**Size: DN 65 - 250 mm**

## SPECIFICATION

- Gear Operator for both Indoor or outdoor use
- NFS Certified Polyimide Coated Ductile Iron body for Excellent Protection.
- Elastomer Encapsulated Disc with Outstanding Flow Characteristics.
- Extended Neck, Low Torque Operation.
- Options of Double Internal Supervisory Switches.
- FM Approved & UL/ULC Pending,
- Supply by: FlowCom

### PRESSURE/TEMPERATURE RATINGS

Working pressure	300PSI/ 20.7 bar
Testing Pressure	Shell: 450 PSI, Seat: 330 PSI
Working temperature	EPDM ≤85°C
Suitable Media	

### MATERIALS Specifications

Part	ASTM Spec.
1 Upper Stem	Stainless Steel ASTM A276 Type 420
2 Upper Bearing	PTFE Bronze Sintered on Steel
3 O-Ring	EPDM
4 Body	Ductile Iron ASTM A536, Polyimide Coated
5 Disc	Ductile Iron ASTM A536 with EPDM Encapsulation
6 Lower Bearing	PTFE Bronze Sintered on Steel
7 Lower Stem	Stainless Steel ASTM A276 Type 420
8 Dust Plug	PVC
9 Name Plate	Stainless Steel
10 Gear Operator	Cast Iron and Steel
11 Indicator Flag	Cast Iron
12 Handwheel	Cast Iron

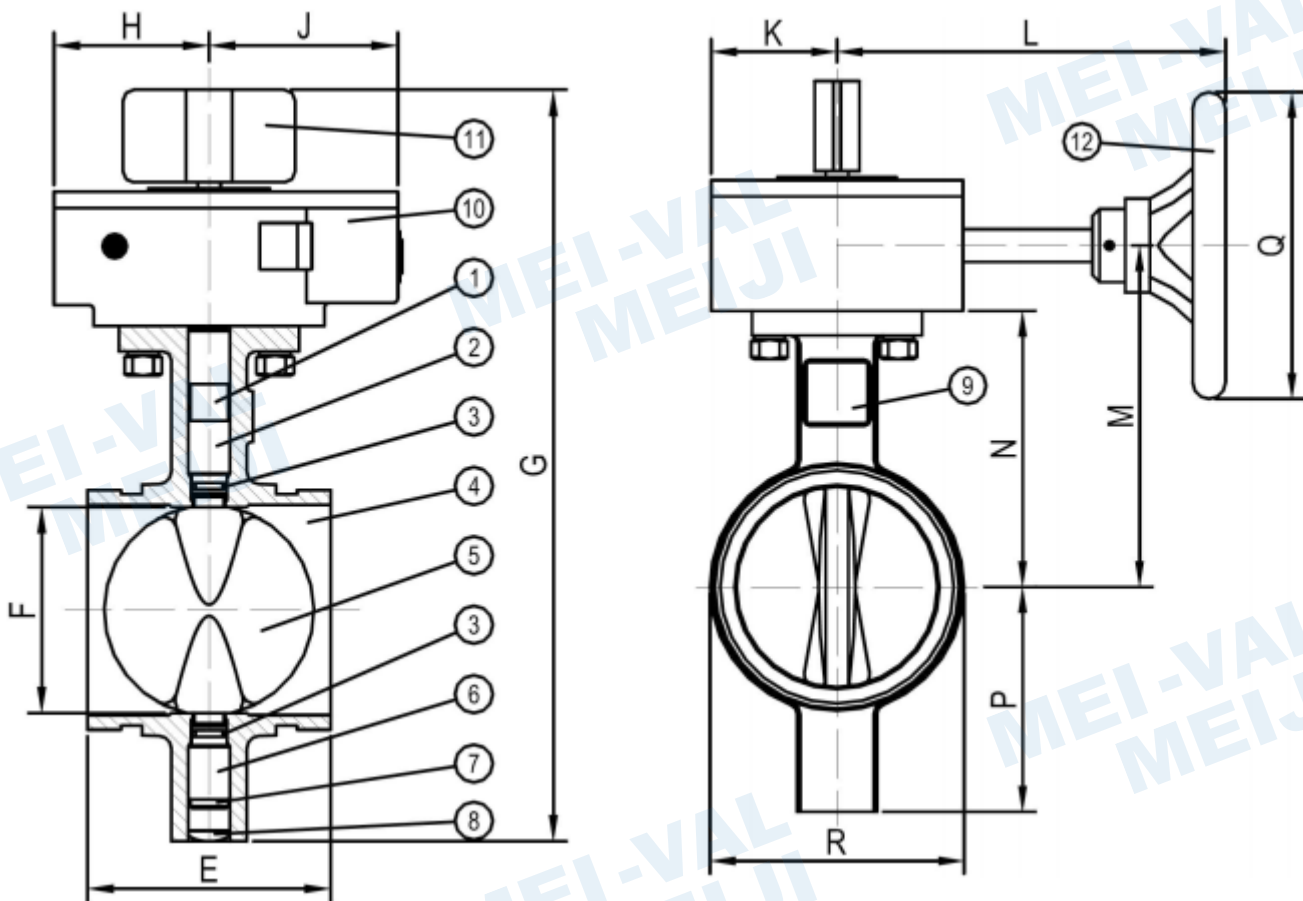


### Dimension

Part Number	Size		OD mm	E		F		G		H		J		K	
	In.	mm		In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm
145-073	2½	65	73	3.85	98	2.4	61	11.22	285	2.91	74	3.54	90	2.13	54
145-076	3OD	65	76.1	3.85	98	2.4	61	11.22	285	2.91	74	3.54	90	2.13	54
145-089	3	80	88.9	3.85	98	2.87	73	12.2	310	2.91	74	3.54	90	2.13	54
145-114	4	100	114.3	4.56	116	3.86	98	14.17	360	2.91	74	3.54	90	2.13	54
145-140	5½OD	125	139.7	5.86	149	4.8	122	15.35	390	2.91	74	3.54	90	2.13	54
145-141	5	125	141.3	5.86	149	4.8	122	15.35	390	2.91	74	3.54	90	2.13	54
145-165	6½OD	150	165.1	5.86	149	5.75	146	16.73	425	2.91	74	3.54	90	2.13	54
145-168	6	150	168.3	5.86	149	5.75	146	16.73	425	2.91	74	3.54	90	2.13	54
145-219	8	200	219.1	5.27	134	7.72	196	19.41	493	2.91	74	3.54	90	2.13	54
145-273	10	250	273	6.3	160	9.57	243	22.76	578	3.9	99	3.98	101	3.03	77

**FIG. 145, GROOVED-END BUTTERFLY VALVE, 20.7 BAR/ 300 PSI**

Dimension																
Part Number	Size		L		M		N		P		Q		R		Wt	
	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	Lbs	Kg.
145-073	2½	65	7.68	195	5.27	134	3.78	96	2.95	75	5.9	150	3.35	85	17.6	8
145-076	30D	65	7.68	195	5.27	134	3.78	96	2.95	75	5.9	150	3.35	85	18.3	8.3
145-089	3	80	7.68	195	5.83	143	4.1	105	3.54	90	5.9	150	3.82	97	18.9	8.6
145-114	4	100	7.68	195	6.81	173	5.31	135	4.33	110	5.9	150	4.88	124	23.4	10.6
145-140	5½OD	125	7.68	195	7.32	186	5.83	148	5	127	5.9	150	6.1	155	31.3	14.2
145-141	5	125	7.68	195	7.32	186	5.83	148	5	127	5.9	150	6.1	155	31.3	14.2
145-165	6½OD	150	7.68	195	8	203	6.5	165	5.71	145	5.9	150	7.2	183	34.8	15.8
145-168	6	150	7.68	195	8	203	6.5	165	5.71	145	5.9	150	7.2	183	35.5	16.1
145-219	8	200	8.03	204	9.58	242	8.03	203	6.89	175	9.84	250	9.29	236	50.5	22.9
145-273	10	250	9.49	241	11.4	280	9.65	245	8.27	210	11.8	300	11.4	289	86.6	40.2



### Butterfly Valve Performance Data

#### Formulas for $C_v$ Values

$$\Delta P = \frac{Q^2}{C_v^2}$$

$$Q = C_v \times \sqrt{\Delta P}$$

Where:  $Q$  = Flow rate (gallons per minute: GPM)

$\Delta P$  = Pressure drop across valve (PSI)

$C_v$  = Flow coefficient

Nominal Size		Pipe O.D.	$C_v$ (Full Open)	Nominal Size		Pipe O.D.	$C_v$ (Full Open)	Nominal Size		Pipe O.D.	$C_v$ (Full Open)
In.	mm	mm		In.	mm	mm		In.	mm	mm	
2 1/2	65	73.0	221	5 1/2 OD	125	139.7	1200	8	200	219.1	3874
3 OD	65	76.1	221	5	125	141.3	1200	10	250	273.0	5995
3	80	88.9	324	6 1/2 OD	150	165.1	1934				
4	100	114.3	670	6	150	168.3	1934				

