

## FEATURES & SPECIFICATIONS

- Higher strength for disc with pinned single shaft ensure optimal alignment
- Centrally mounted disc and hydrodynamic design minimize pressure loss
- Can be installed at horizontal or vertical pipe line
- Phenolic backed rubber seat is non-collapsible, stretch resistant and easily replaceable
- Excellent flow characteristic with flow in either direction
- Design conforms to BS EN 593 / BS 5155 / MSS SP-67 / API 609
- Precision machining of disc for low operating torque



## TECHNICAL SPECIFICATIONS

Size	DN40 ... DN700
Body Design	Lugged
Working Pressure	16bar
Shell Test Pressure (x1.5)	24bar
Seat Test Pressure (x1.1)	17.6bar
Working Temperature	-20°C ... 110°C (EPDM Seat) -10°C ... 80°C (NBR Seat) 5°C ... 120°C (PTFE Seat) -10°C ... 135°C (FPM Seat)
Applicable Medium	Water, Oil, Gas
Operator	Lever, Wormgear, Electric Actuator
Connection	BS 4505 PN10 / PN16 EN1092-2 PN10 / PN16 JIS B2239 10K / 16K ANSI B16.1 Class 125 / 150
Optional Accessories	Chain Wheel, Limit Switch

## MATERIAL SPECIFICATIONS

Part	Material	Part	Material
Body	Ductile Iron	Stem	Stainless Steel 410
	Stainless Steel 304		Stainless Steel 431
	Stainless Steel 316		Stainless Steel 316
Disc	Ductile Iron	Taper Pin	Stainless Steel 316
	Aluminium Bronze		Stainless Steel 410
	Stainless Steel 304	O-Ring	NBR
	Stainless Steel 316		Bushing
Seat	EPDM		
	NBR		
	PTFE (Teflon)		
	FPM (Viton)		

# FULL LUG BUTTERFLY VALVE

PN16 V1216



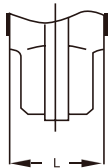
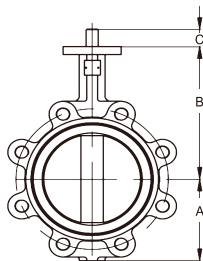
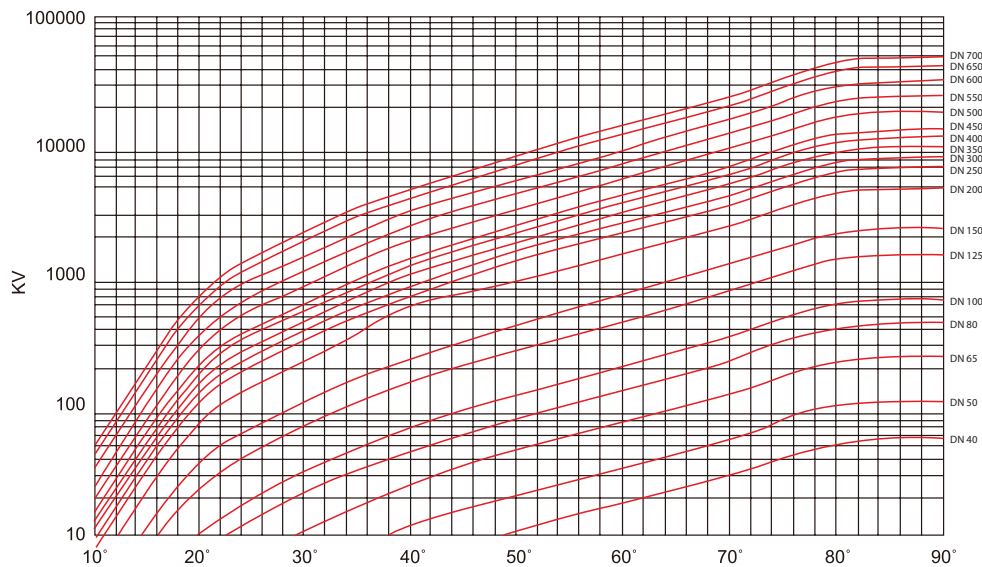
## VALVE COEFFICIENT (FULL OPEN)

DN (mm)	40	50	65	80	100	125	150	200	250
DN (inch)	1½	2	2½	3	4	5	6	8	10
Cv	69	135	220	302	600	1022	1579	3136	5340

DN (mm)	300	350	400	450	500	550	600	650	700
DN (inch)	12	14	16	18	20	22	24	26	28
Cv	8250	11917	16388	21705	27908	35170	43116	45620	49500

Cv = 1.17Kv



## DIMENSIONS - VALVE BODY

DN (mm)	40	50	65	80	100	125	150	200	250
DN (inch)	1½	2	2½	3	4	5	6	8	10
A	66	68.6	76	99	119	129	142	176	209
B	130	141.2	150.4	156.5	168	186.5	205.7	230.6	269.9
C	15	15	19	19	19	19	19	25	32
L	33	42	45	45	51	55	55	60	67

DN (mm)	300	350	400	450	500	550	600	650	700
DN (inch)	12	14	16	18	20	22	24	26	28
A	248.5	267	309	327	389	433	453	484	530
B	327.8	368	400	422	480	533	562	540	626
C	32	40	52	52	64	70	70	70	95
L	76	76	102	114	127	151	151	172	165

Note : DN650 only available in ANSI Class 150 Flange.

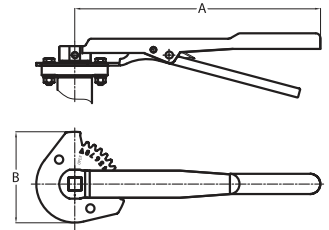
## DIMENSIONS - VALVE OPERATOR

Malleable Iron / Stainless Steel Lever

Stainless Steel SUS304 Top Indicator Plate

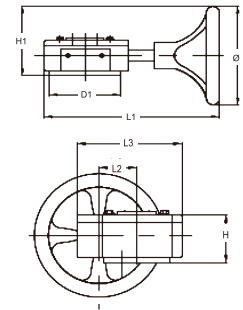
(mm)

DN	(mm) (inch)	40-80 1.5-3	100-125 4-5	150 6	200-300 8-12
A		195	266	328	386
B		95	109	109	164



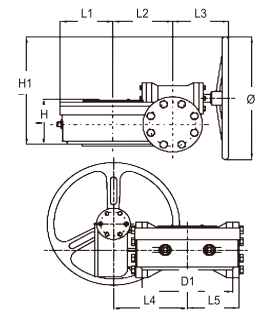
Cast Iron 1-Stage Worm Gear and Handwheel  
Carbon Steel Gear Box Shaft

VALVE DIAMETER	D1	∅	H	H1	L1	L2	L3
DN40 - DN80	65	150	33	70	216	45	127
DN100 - DN150	90	150	33	70	216	45	127
DN200 - DN250	125	285	36	76	303	63.5	170
DN300 - DN350	125	285	40	79	300	80	190
DN400	175	385	79	232.5	300	80	190
DN450 - DN550	175	390	108	251	397/427	120	279



Cast Iron 2-Stage Worm Gear and Handwheel  
Carbon Steel Gear Box Shaft

VALVE DIAMETER	D1	∅	H	H1	L1	L2	L3	L4	L5
DN600 - DN650	210	285	125	271	107	100	156	168	107
DN700	300	425	149	378	146	140	197	230	146



## INSTALLATION & OPERATION GUIDE

1. Ensure sufficient space for valves for easy installation, operation, maintenance and replacement.
2. Verify the valves are suitable for the operating condition such as medium, operating pressure / temperature, etc.
3. Check the I.D. of the flange and pipe to ensure free disc movement.
4. Valves shall be mounted on flanges only after the counter flanges have been welded to pipe and cooled down to the atmospheric temperature. Welding heat may damage the rubber seat of the valves. Never weld the flanges with valves installed. No gasket is required for installation of rubber seated butterfly valves.
5. Position the valves carefully between flanges. Accurate centering between flanges is essential to prevent any damages and problems during operation.
6. Valves should be installed by placing bolts through the hole and tightening carefully, ensuring even contact between the flange and seat. Too tight of space may cause damages to the seat and should be avoided.
7. Cross tighten all the bolts diagonally to distribute the loads evenly over the valves.
8. Turning the valves to ensure sufficient disc clearance.
9. Valves equipped with manual operators must be operated manually. Excessive external force on the operation of valve may damage the valve and / or operator.
10. Blind flange with short pipe should be used for dead end installation.