



Section 18

Butterfly Valves

MAX
BODY
SEAT: N
TRIM: SS316
CWP: 232PSI

Butterfly Valves

Resilient seat Butterfly Valves are used in a wide range of Industries including HVAC, Gas, Petrochemical, Pulp & Paper, Water & Wastewater Treatment, Brewing, Food processing, mining, Textile and General Industry. They are compact and give bubble tight shut off as well as having good regulating capabilities.

1. Wafer Butterfly Style

The body design is such that it can be used with most international flanges including AS2129, BS10, ANSI, DIN & JIS Standards in sizes 50mm to 300mm. The wafer style is designed for inline service and relies on a flange either side of the valve to secure in the pipeline.

*AAP 50mm to 300mm Wafer Butterfly Style EPDM version is Australian Standard Watermark (Certificate No: WMKA25460) approved and using Akzo Nobel Paint

Materials (Cast Iron Butterfly)		Materials (SS Butterfly)	
PART	MATERIAL	PART	MATERIAL
Body	Cast Iron	Body	CF8M
Handle	Ductile Iron	Handle	SS304
Stem	SS416	Stem	SS416
Hub Shaft	CF8M	Hub Shaft	SS416
Bushing	P.T.F.E.	Bushing	PTFE
O-Ring	NBR	O-Ring	EPDM

2. Lugged Butterfly Style

Like the wafer style, the lugged body is compact but has a series of lugs cast into the body which are tapped with a metric thread for the fixing of a flange on one side at a time. The benefit of this being the valve can be mounted at the end of a pipeline without the need for a flange on the downstream (discharge) side of the valve.

*AAP 50mm to 300mm Lugged Butterfly Style EPDM version is Australian Standard Watermark (Certificate No: WMKA25460) approved and using Akzo Nobel Paint

Materials List		Specifications	
PART	MATERIAL		
Body	Ductile Iron	Cold Working Pressure (50-300mm)	1600kPa
Handle	Ductile Iron	Cold Working Pressure (350-600mm)	1000kPa
Stem	SS416	Top Flange	ISO 5211
Hub Shaft	CF8M		
Bushing	P.T.F.E.		
O-Ring	NBR		

Gear Operators (Optional)

For precise regulation of Butterfly valve where flow control is critical Levers & Notch plates only have 10 position setting

Product Summary						
CODE	DESCRIPTION	SIZE RANGE	BODY	DISC	SEAT	GEAR-OP (STD)
VW##	WAFER	2' - 12'	CAST IRON	SS316	NBR	
		14' - 24'	CAST IRON	NICKEL PLATED DUCTILE IRON	NBR	Y
VWE##	WAFER	2' - 14'	CAST IRON	SS316	EPDM	
VWEX##SS	WAFER	14' - 24'	CAST IRON	SS316	EPDM	Y
VWV##	WAFER	2' - 8'	CAST IRON	SS316	VITON	
VWSS##	WAFER	2' - 6'	CF8M (SS316)	SS316	PTFE	
VWLG##	LUGGED	2' - 12'	DUCTILE IRON	SS316	NBR	
		14' - 24'	DUCTILE IRON	NICKEL PLATED DUCTILE IRON	NBR	Y
VWLGE##	LUGGED	2' - 12'	DUCTILE IRON	SS316	EPDM	
VWLGE##SS	LUGGED	14' - 24'	DUCTILE IRON	SS316	EPDM	Y
VWLGA	LUGGED	2' - 6'	DUCTILE IRON	SS316	NBR	

Resilient Seat Material for Butterfly Valves

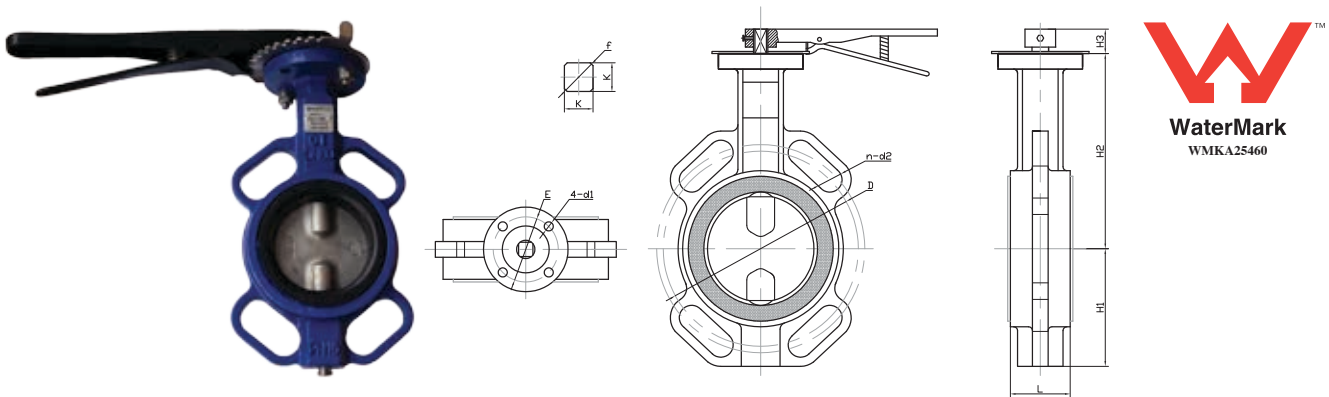
Resilient Seat Material for Butterfly Valves				
COMMON NAME	ASTM DESIGNATION D1418-64	COMPOSITION	GENERALLY RESISTANT TO	GENERALLY AFFECTED OR ATTACKED BY
Buna-N or Nitrile	NBR	Nitrile Butadiene	Many Hydrocarbons, fats, oils, greases, hydraulic fluids and chemical	Ozone's, keytones, esters, aldehydes, chlorinated and nitro hydrocarbons
	Temp. + 100°C			
EPT or EPDM	EPDM	Ethylene-propylene-dieneterpolymer	Animal and vegetable oils, ozone, strong and oxidising chemicals	Mineral oils and solvents, aromatic hydrocarbons
	Temp. + 120°C			
Viton	FPM	Hexfluoropropylene Vinylidene Fluoride	All aliphatic, aromatic and halogenated Hydrocarbons, acids, animal and vegetable oils	Keytones, Low mole weight ester and nitro containing compounds
	Temp. + 150°C			
Teflon	TFE	Tetrafluoro-Ethylene Resin	Most know fluid chemicals	-
	Temp. + 230°C			

Specific Resistance				
	NBR	EPDM	VITON	TFE
Abrasion	Good	Good	Good	Good
Oxidisation	Good	Excellent	Excellent	Excellent
Heat Aging	Good	Excellent	Very Good	Excellent
Flame	Poor	Poor	Excellent	Excellent
Oil	Very Good	Poor	Excellent	Excellent
Fuel	Good	Poor	Excellent	Excellent
Keytones/Esters	Fair	Excellent	Poor	Excellent
Aliphatic Hydrocarbon	Excellent	Poor	Excellent	Excellent
Aromatic Hydrocarbon	Fair	Poor	Excellent	Excellent
Water	Good	Very Good	Very Good	Excellent

Torque	
SIZE	PN16 (N.M)
2	16.51
2 1/2	19.435
3	26.364
4	38.87
5	68.107
6	89.57
8	129.454
10	340.288
12	343.07
14	730.08
16	1132.04
18	1508.78
20	1885.52
24	2389.66

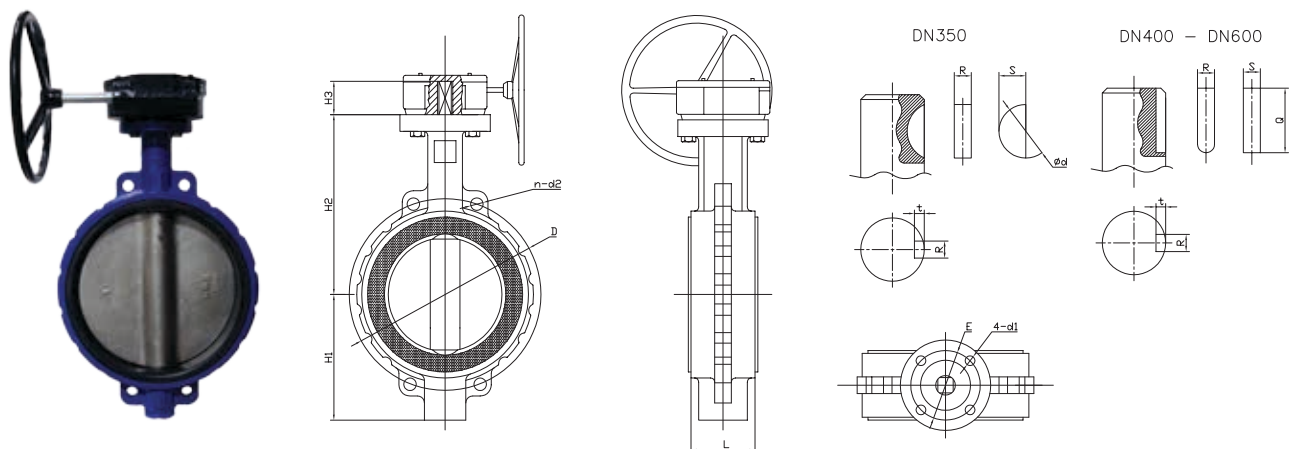
Wafer Butterfly Valve

Wafer Butterfly Valve with Stainless Steel Disc														
AAP CODE			IMPERIAL SIZE	H1	H2	H3	D	L	K	F	E	N-D2	4-D1	APPROX. KG/PC
NBR	EPDM	VITON												
VW50	VWE50	VWV50	2	70	140	31.8	125	42.04	11	14.1	70	4-19	10	3.09
VW65	VWE65	VWV65	2 1/2	79	155	31.8	145	44.68	11	14.1	70	4-19	10	3.8
VW80	VWE80	VWV80	3	83	160	31.8	160	45.21	11	14.4	70	8-19	10	4.29
VW94	VWE94	VWV94	4	107	180	31.8	180	52	14	18.1	70	8-19	10	5.08
VW95	VWE95		5	127	193	31.8	210	54.36	17	22.1	70	8-19	10	7.1
VW96	VWE96	VWV96	6	139	200	31.8	240	55.7	17	22.1	70	8-23	10	8.1
VW98	VWE98	VWV98	8	170	240	35.5	295	60.1	17	22.1	102	12-23	12	14
VWX25	VWEX25		10	200	272	35.5	355	65.63	22	28.2	102	12-28	12	21
VWX30	VWEX30		12	242	317	35.5	410	76.5	22	28.2	102	12-28	12	34



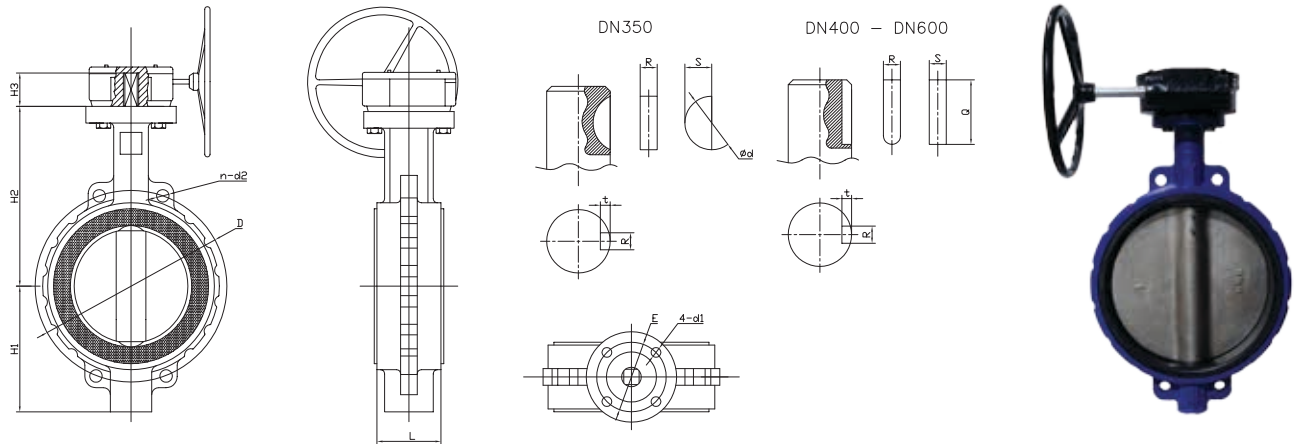
Wafer Butterfly Valve with Gear-Op

Wafer Butterfly Valve with Nickel Plate Ductile Iron Disc and G/O																	
AAP CODE		IMPERIAL SIZE	H1	H2	H3	D	L	E	R	S	T	Z	ØD	Q	4-D1	N-D2	APPROX. KG/PC
NBR	EPDM																
VWX35	VWEX35	14	368	267	45	470	78	102	8	11	8	31.6	28		12	12-28.4	45
VWX40		16	400	298.6	51.2	521	102	140	10	8	5	33.15		45	18	16-28.4	78
VWX45		18	422	318	51.2	584	114	140	10	8	5	38		45	18	16-31.8	93
VWX50		20	480	355	64.2	641	127	140	10	8	5	41.15		56	18	20-31.8	130
VWX60		24	562	444	70.2	756	154	165	16	10	6	50.65		58	22	20-35.1	260



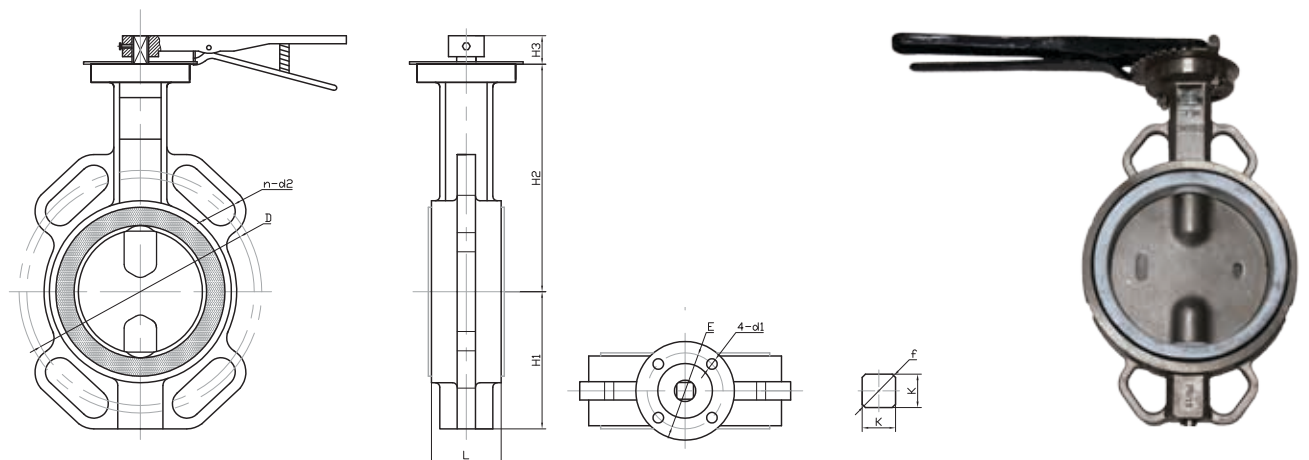
Wafer Butterfly Valve with Gear-Op

Wafer Butterfly Valve with Stainless Steel Disc and G/O (EPDM)																
AAP CODE	IMPERIAL SIZE	H1	H2	H3	D	L	E	R	S	T	Z	ØD	Q	4-D1	N-D2	APPROX. KG/PC
VWEX35SS	14	368	267	45	470	78	102	8	11	8	31.6	28		12	12-28.4	45
VWEX40SS	16	400	298.6	51.2	521	102	140	10	8	5	33.15		45	18	16-28.4	78
VWEX45SS	18	422	318	51.2	584	114	140	10	8	5	38		45	18	16-31.8	93
VWEX50SS	20	480	355	64.2	641	127	140	10	8	5	41.15		56	18	20-31.8	130
VWEX60SS	24	562	444	70.2	756	154	165	16	10	6	50.65		58	22	20-35.1	260



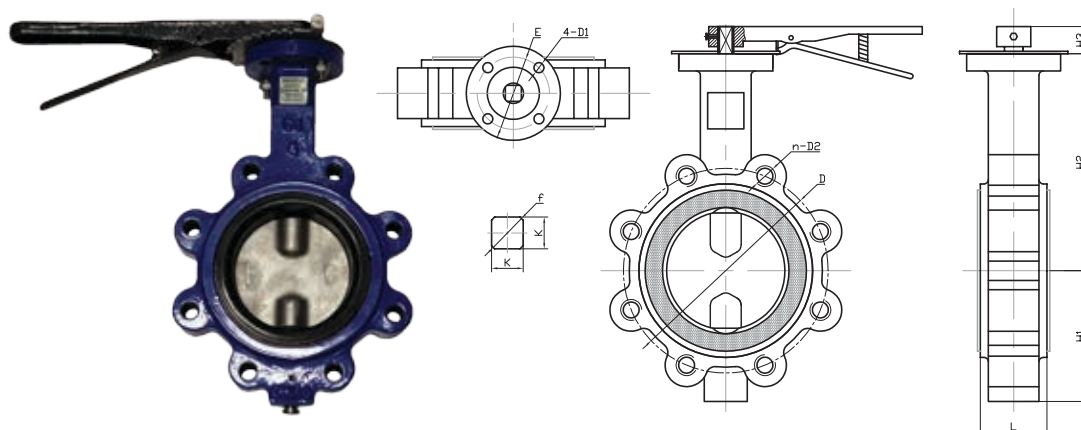
Stainless Steel Wafer Butterfly Valve

Stainless Steel Wafer Butterfly Valve with Stainless Steel Disc (PTFE)												
AAP CODE	IMPERIAL SIZE	H1	H2	H3	D	L	K	F	E	N-D2	4 -D1	APPROX. KG/PC
VWSS50	2	70	140	31.8	125	42.04	11	14.1	70	4-19	10	3.4
VWSS65	2 1/2	79	155	31.8	145	44.68	11	14.1	70	4-19	10	4
VWSS80	3	83	160	31.8	160	45.21	11	14.4	70	8-19	10	4.3
VWSS94	4	107	180	31.8	180	52	14	18.1	70	8-19	10	6
VWSS95	5	127	193	31.8	210	54.36	17	22.1	70	8-19	10	7.3
VWSS96	6	139	200	31.8	240	55.7	17	22.1	70	8-23	10	8.5



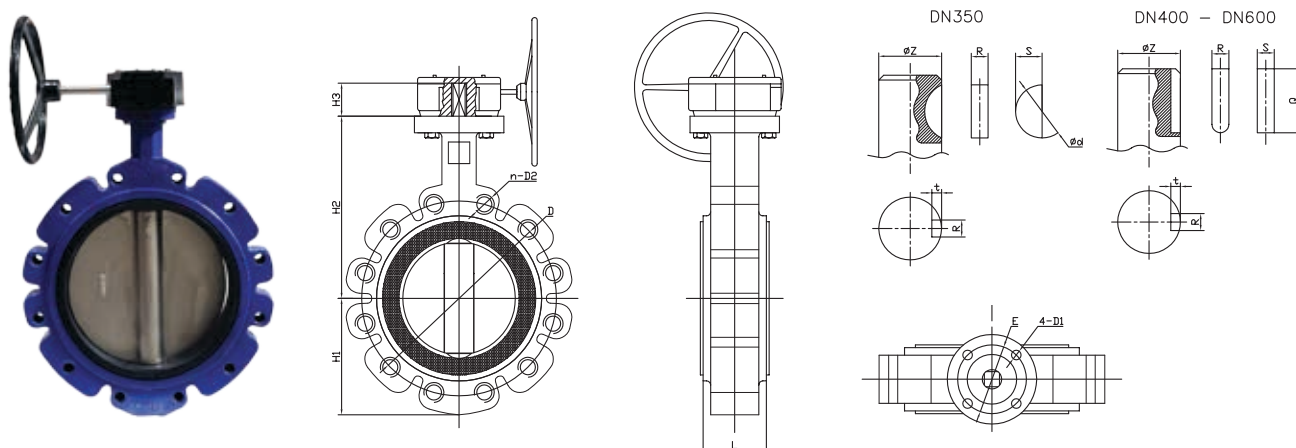
Lugged Butterfly Valve

Lugged Butterfly Valve with Stainless Steel Disc													
AAP CODE		SIZE IMPERIAL	H1	H2	H3	D	L	K	E	F	4-D1	N-D2	APPROX KG/PC.
NBR	EPDM												
VWLG50	VWLGE50	2	80	161	31.8	114	42.04	11	70	14.1	10	4-M16	4.73
VWLG65	VWLGE65	2 1/2	89	175	31.8	127	44.68	11	70	14.1	10	4-M16	5.28
VWLG80	VWLGE80	3	95	181	31.8	146	45.21	11	70	14.1	10	4-M16	5.42
VWLG94	VWLGE94	4	114	200	31.8	178	52	14	70	18.1	10	8-M16	8.84
VWLG95	VWLGE95	5	127	213	31.8	210	54.36	17	70	22.1	10	8-M16	11.06
VWLG96	VWLGE96	6	139	226	31.8	235	55.7	17	70	22.1	10	8-M20	13.01
VWLG98	VWLGE98	8	175	260	35.5	292	60.1	17	102	22.1	12	8-M20	20.01
VWLGX25	VWLGEX25	10	203	292	35.5	356	65.63	22	102	28.2	12	12-M20	29
VWLGX30	VWLGEX30	12	242	337	35.5	406	76.5	22	102	28.2	12	12-M24	44



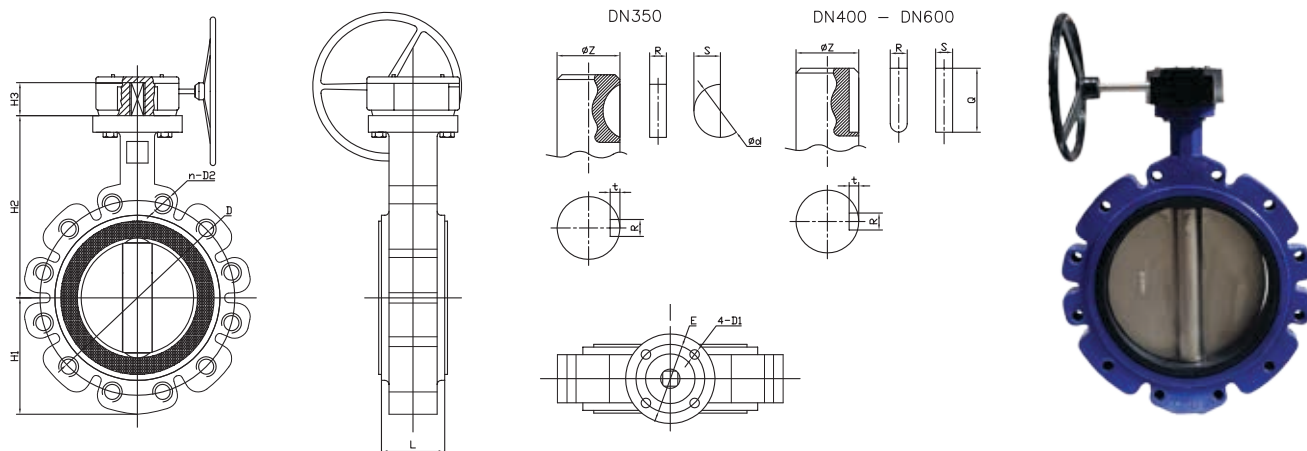
Lugged Butterfly Valve with Gear-Op

Lugged Butterfly Valve with Nickel Plated Ductile Iron Disc and G/O (NBR)																
AAP CODE	IMPERIAL SIZE	H1	H2	H3	D	L	E	R	S	T	Z	ØD	Q	4-D1	N-D2	APPROX. KG/PC
VWLGX35	14	368	267	45	470	78	102	8	11	8	31.6	28		12	12-M24	75
VWLGX40	16	400	298.6	51	521	102	140	10	8	5	33.15		45	18	12-M24	108
VWLGX45	18	422	318	51	581	114	140	10	8	5	38		45	18	16-M24	157
VWLGX50	20	480	355	64	641	127	140	10	8	5	41.15		56	18	16-M24	200
VWLGX60	24	562	444	70	756	154	165	16	10	6	50.65		58	22	12-M30	280



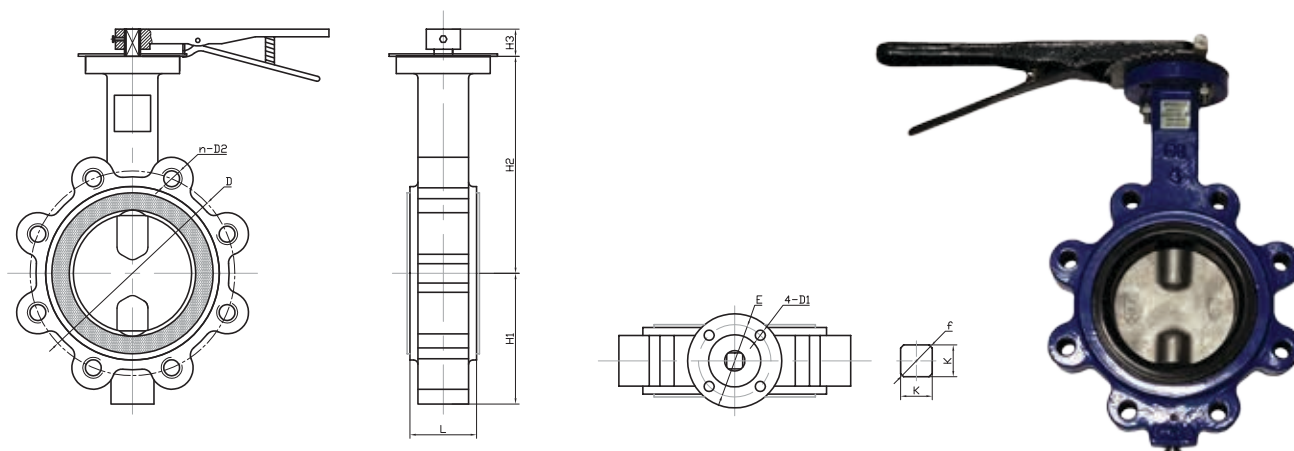
Lugged Butterfly Valve with Gear-Op

Lugged Butterfly Valve with Stainless Steel Disc and G/O (EPDM)																
AAP CODE	IMPERIAL SIZE	H1	H2	H3	D	L	E	R	S	T	Z	ØD	Q	4-D1	N-D2	APPROX. KG/PC.
VWLGEX35SS	14	368	267	45	470	78	102	8	11	8	31.6	28		12	12-M24	75
VWLGEX40SS	16	400	298.6	51	521	102	140	10	8	5	33.15		45	18	12-M24	108
VWLGEX45SS	18	422	318	51	581	114	140	10	8	5	38		45	18	16-M24	157
VWLGEX50SS	20	480	355	64	641	127	140	10	8	5	41.15		56	18	16-M24	200
VWLGEX60SS	24	562	444	70	756	154	165	16	10	6	50.65		58	22	12-M30	280



Lugged Butterfly Valve Table D

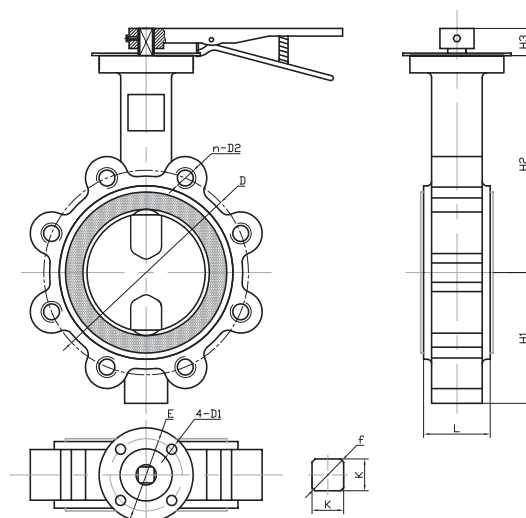
Lugged Butterfly Valve 'Table D' with Stainless Steel Disc (NBR)												
AAP CODE	IMPERIAL SIZE	H1	H2	H3	D	L	K	E	F	4-D1	N-D2	APPROX. KG/PC.
VWLG94D	4	114	200	31.8	178	52	14	70	18.1	10	4-M16	8.9
VWLGX25D	10	203	292	35.5	356	65.63	22	102	28.2	12	8-M20	29



[18] BUTTERFLY VALVES

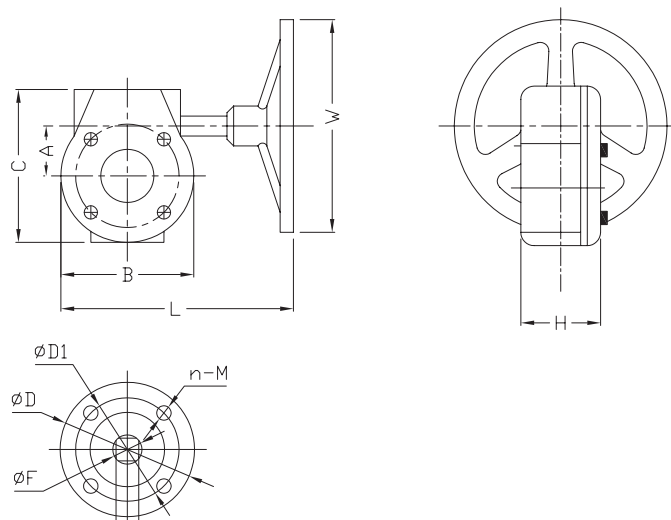
Lugged ANSI 150 Butterfly Valve

Lugged ANSI 150 Butterfly Valve with Stainless Steel Disc (NBR)												
AAP CODE	IMPERIAL SIZE	H1	H2	H3	D	L	K	E	F	4-D1	N-D2	APPROX KG/PC.
VWLGA50	2	70	140	31.8	120	42.04	11	70	14.1	10	4-5/8	4.7
VWLGA65	2 1/2	79	155	31.8	139	44.68	11	70	14.1	10	4-5/8	5.3
VWLGA80	3	85	160	31.8	152	45.21	11	70	14.1	10	4-5/8	5.4
VWLGA94	4	107	180	31.8	190	52	14	70	18.1	10	8-5/8	8.9
VWLGA95	5	127	193	31.8	215	54.36	17	70	22.1	10	8-3/4	11.06
VWLGA96	6	139	200	31.8	241	55.7	17	70	22.1	10	8-3/4	13.01
VWLGA98	8	170	240	35.5	298	60.10	17	102	22.1	12	8-3/4	20
VWLGA25	10	200	272	35.5	362	65.63	22	102	28.2	12	12-7/8	29
VWLGA30	12	242	317	35.5	432	76.50	22	102	28.2	12	12-7/8	44



Gear Operators

Gear Operators													
AAP CODE	IMPERIAL	A	B	C	H	L	W	D	D1	F	h	n-M	APPROX KG/PC
VWG50/80N	2, 2 1/2, 3	45	106	127	65	205	146	90	70	14.1	11	4-M8	2.5
VWG94N	4	45	106	127	65	205	146	90	70	18.1	14	4-M8	2.5
VWG95/96N	5 & 6	45	106	127	65	205	146	90	70	22.1	17	4-M8	2.5
VWG98N	8	63	145	170	69	295	287	125	102	22.1	17	4-M10	6.5
VWG25N	10	63	145	170	69	295	287	125	102	28.2	22	4-M10	6.5
VWG30N	12	80	156	190	71	291	287	125	102	28.2	22	4-M10	8.0



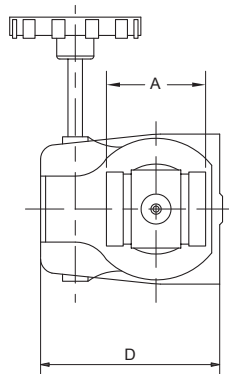
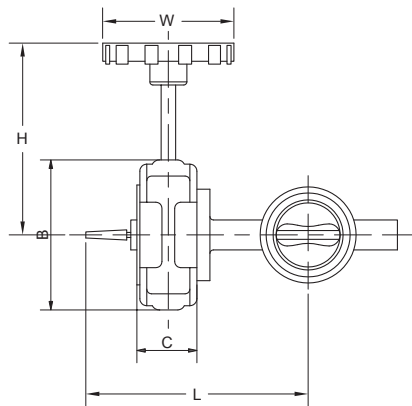
Roll Groove Butterfly Valve (for indoor use)

Materials	
PART	MATERIAL
MATERIAL	Nylon 11 coated ductile iron
Disc	EPDM encapsulated ductile iron
Stem	Hardened / Tempered stainless steel

* 50mm comes in Brass Body

Specifications	
Working Pressure	1200kPa
Max. Working Temp	120°C
UL / FM Approved	

Roll Groove Butterfly Valve									
AAP CODE	IMPERIAL SIZE	L	H	A	B	C	D	W	APPROX. KG/PC
GV50*	2	120	95	115	110	45	100	70	2.1
GV65	2 1/2	252	135	96	150	60	176	125	8.4
GV80	3	259	135	96	150	60	176	125	8.9
GV94	4	292	135	115	150	60	176	125	10.7
GV96	6	327	193	132	150	60	176	225	15.5
GV98	8	351	193	147	150	60	176	225	20.3



SWITCH WIRING DIAGRAM

