



# VALVES



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# GATE VALVES

## GATE VALVES OVERVIEW

ON-OFF GATE VALVES DESIGNED FOR THE PRIMARY FUNCTION OF FLOW ISOLATION

Gate valves feature a sliding partition that can be closed to block flow or opened fully for maximum flow.

Gate valves are used to isolate sections of pipelines, branch off-takes and pieces of equipment. They are on-off valves designed for the primary function of flow isolation and should only be operated in the fully closed or fully open positions. The sliding motion of the gate is effected by a rotating screw, known as a spindle or stem.

Sluice valves are gate valves and prior to the introduction of fusion bonded coatings they were of a heavier construction to endure buried service applications, whereas gate valves were associated with above ground applications. Today's modern coating systems remove the need for distinction between buried and above ground applications and therefore no need for sluice valve and gate valve distinction.



There is a growing industry trend to use gate valves in flow regulating and scour applications. When gate valves are used in these applications it is essential that they are operated in the fully opened position and any regulation of flow controlled by other means, such as orifice plates.

Orifice plates choke the flow and reduce head loss across the gate valve thus preventing valve damage.

Gate valves should not be used for throttling or adjusting flow as associated turbulence and high velocity can lead to vibration, chattering and fretting wear, as well as cavitation damage of the valve and downstream pipeline.

When used as a control or modulating valve this can also lead to these problems, the installation of a secondary valve for isolation purposes is recommended.

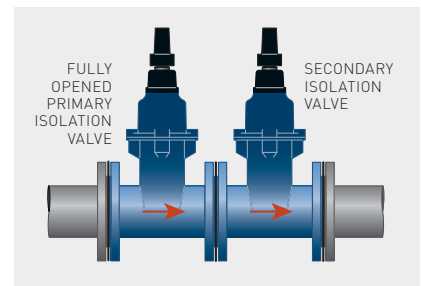
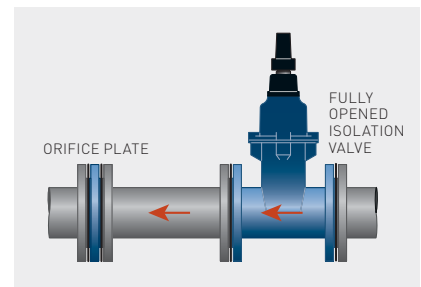
Secondary isolation valve used for control or modulating purposes. Primary isolation valve used for isolation purposes only.

When throttling is necessary, globe or butterfly valves should be used.

### THROTTLING

When gate valves are fully opened their head loss coefficient  $K_L$  is in order of 0.12.

Note. The flow through the valve is not directly proportional to the number of turns of the valve spindle.



### CERTIFICATIONS

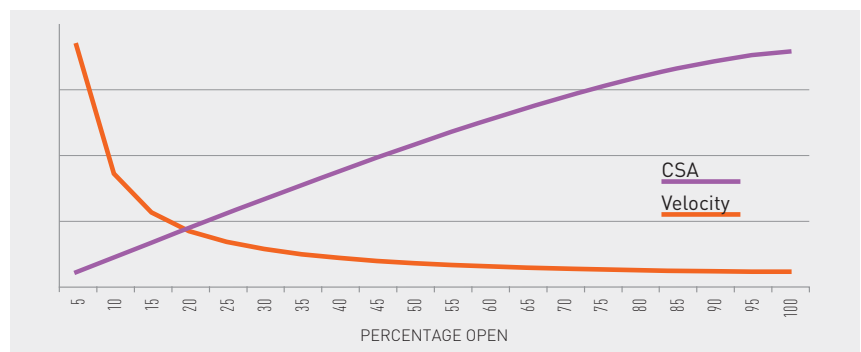
AS2638.1 - Metal Seated Gate Valves  
AS2638.2 - Resilient Seated Gate Valves

Certified Product - AS2638.1/AS2638.2

WaterMark Level 1 Certification



### CSA – Velocity VS Percentage Open





## GATE VALVES OVERVIEW

### DESIGN OPTIONS – METAL SEATED OR RESILIENT SEATED

There are two design options for Gate Valves, Metal Seated and Resilient Seated. These two options can also be split into two categories Non-Rising Spindle (Inside Screw) and Rising Spindle (Outside Screw).

Non-Rising Spindle Gate valves are suitable for above ground and underground installations but are used predominately in underground installations because spindle movement is rotational only and additional cover is not required to accommodate the opened valve.

Rising Spindle Gate valves are predominately used for above ground and valve pit installations. They are commonly used in fire service applications where a positive indication of the open or closed position is necessary.

The SUREFLOW® range of Gate Valves employs an articulated gate design where the wedge nut is located separately within a housing in the gate. This articulated gate design has key advantages over systems where the stem nut is integral with the gate. It overcomes the risk of damage through direct pressure on the stem, stem nut or other components during operation or transitional throttling.

The use of gate valves for end of line isolation is not recommended. If the valves are to be fitted to the end of a line we recommend the use of a blank flange or plug to ensure isolation of the line.



#### METAL SEATED GATE VALVES

Metal seated gate valves comprise a metal gate, typically wedge shaped and made of gunmetal for valves up to and including 200mm and ductile iron with gunmetal sealing rings for larger sizes.

The gate and body are fitted with metal sealing rings by threading or plastic deformation to prevent loosening in service. A continuous seal is provided behind the rings to prevent corrosion.

The valve is closed by appropriate rotation of the spindle which drives the gate down between the sealing rings. Sealing is effected by the mating of the sealing rings. Sometimes the sealing surfaces can become damaged from the impact of foreign debris or from foreign debris being lodged between the sealing faces.

Throttling of a metal seated gate valve is the most common cause of damage to the sealing faces. Repair of the sealing surfaces is not a simple operation and a factory refit is normally necessary.

In metal seated gate valves, maximum torque on the spindle is associated with initial opening or 'cracking' of the valve. Properly operated and closed, these valves can effect a drop tight seal but leakage rates of 2-10 ml/min are acceptable under AS 2638.1.



#### RESILIENT SEATED GATE VALVES

Resilient seated gate valves contain an EPDM rubber encapsulated ductile iron gate. The valve is closed by appropriate rotation of the spindle which drives the gate against the cast internal sealing surfaces of the valve body. These surfaces are normally coated with fusion bonded polymers such as epoxy or nylon.

Sealing is achieved by the compression of the EPDM rubber coating on the gate against the valve body. In resilient seated gate valves, maximum torque of the spindle is associated with closing the valve to overcome the effects of friction and compression of the EPDM rubber coating. Properly operated and closed, these valves can effect a drop tight seal.

The gate is body guided throughout the major portion of its closure and secondary guides become effective near the end of its travel to ensure correct seat alignment.

# RESILIENT SEATED VALVES

## RESILIENT SEATED VALVES

## RESILIENT SEATED FLANGED



## SUREFLOW FLANGED PN16 - DN80-DN600

Code	Size (MM)	Closing	H1	H2	L1	W-Width	Weight (kg)
3703784	80	ACC	324	397	203	190	13
3703787		CC					
3703795	100	ACC	347	430	229	218	16
3703791		CC					
3703798	150	ACC	429	572	267	285	34
3703789		CC					
3703713	200	ACC	563	726	292	332	52
3703788		CC					
3703714	225	ACC	643	828	305	370	87
3703717		CC					
3703782	250	ACC	656	858	330	405	93
3703786		CC					
3703793	300	ACC	739	967	356	455	126
3703796		CC					
3703800	375	ACC	917	1192	381	550	227
3703801		CC					
3703802	400	ACC	930	1220	406	580	237
3703803		CC					
1014781	450	ACC	1147	1467	432	860	480
1014780		CC					
1014797	500	ACC	1175	1527	457	860	510
1014796		CC					
1014805	600	ACC	1314	1726	508	969	720
1014804		CC					

## FLANGED PN25 - DN80-DN600

Code	Size (MM)	Closing	H1	L1	W-Width	Weight (kg)
3703819	80	ACC	350	203	200	22
1008671		CC				
3703821	100	ACC	380	229	235	30
3703822		CC				
3703823	150	ACC	485	267	300	52
3703824		CC				
1008672	200	ACC	595	292	360	80
1008673		CC				
1008674	250	ACC	680	330	425	132
1008675		CC				
3704068	300	ACC	755	356	485	180
3704069		CC				

## RESILIENT SEATED GATE VALVE

RESILIENT SEATED SOCKET, SPIGOT AND FLANGED-SOCKET



SUREFLOW SOCKETED PN16 - DN80-DN300

Code	Size (MM)	Closing	H1	H2	L2	W- Width	Weight (kg)
3704080	80	ACC	324	393	94	174	14
1008676		CC					
3703881	100	ACC	347	465	102	195	18
3703882		CC					
3703883	150	ACC	429	574	123	275	32
3703884		CC					
3704041	200	ACC	563	707	153	335	54
3704042		CC					
3704043	225	ACC	643	801	186	422	84
3704044		CC					
3704045	250	ACC	656	828	186	422	88
3704046		CC					
3704047	300	ACC	739	942	207	452	118
3704048		CC					
3704049	375	ACC	917	1166	230	564	224
3704051		CC					



SUREFLOW SPIGOTED PN16 - DN80-DN300

Code	Size (MM)	Closing	H1	H2	L3	W- Width	Weight (kg)
3704071	80	ACC	324	378	280	174	13
3704073		CC					
3704074	100	ACC	347	417	320	195	16
3704076		CC					
3704078	150	ACC	429	526	360	275	34
3704079		CC					
3704034	200	ACC	563	686	420	335	55
3704036		CC					
3704038	225	ACC	643	791	448	422	88
3704039		CC					
3704040	250	ACC	656	808	448	422	92
3704029		CC					
3704031	300	ACC	739	930	460	452	123
3704053		CC					

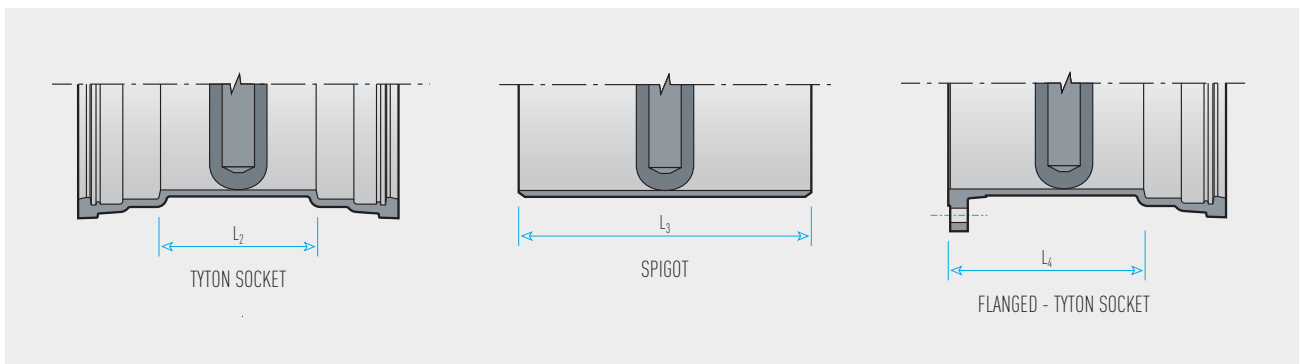
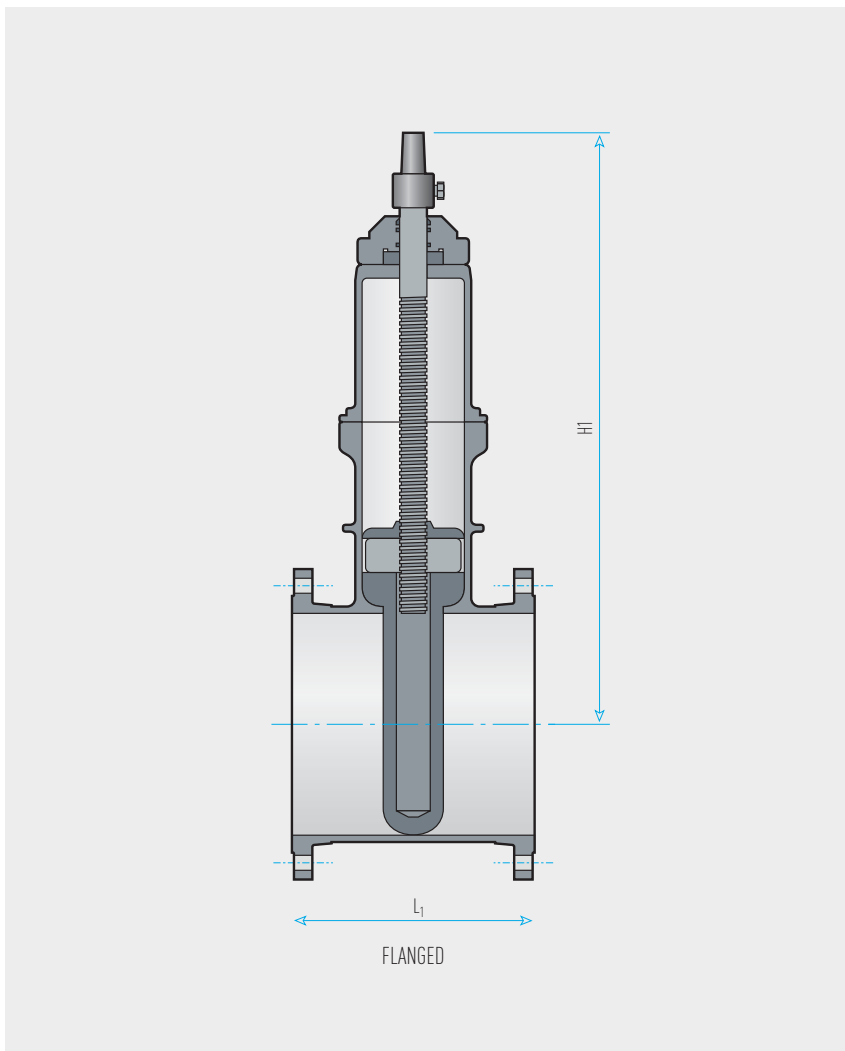


SUREFLOW FLANGE-SOCKET PN16 - DN100-DN150

Code	Size (MM)	Closing	H1	H2	L4	W- Width	Weight (kg)
3703804	100	ACC	347	432	207	174	16
3703806		CC					
3703807	150	ACC	429	563	233	195	32
3703808		CC					

## RESILIENT SEATED GATE VALVE

RESILIENT SEATED SOCKET, SPIGOT AND FLANGED-SOCKET



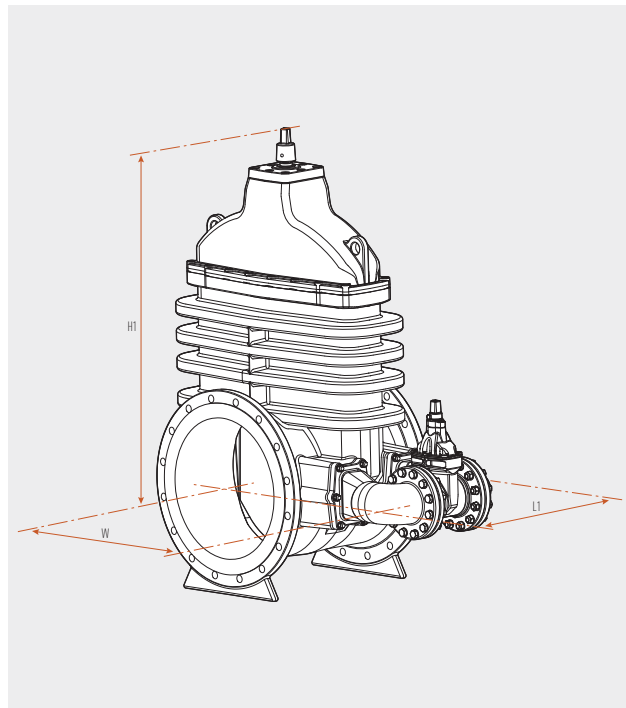
## RESILIENT SEATED GATE VALVE

RESILIENT SEATED INTEGRAL BYPASS



SUREFLOW INTEGRAL BYPASS PN16 - DN450-DN600

Code	Size	Bypass Size	Closing	H1	H2	L1	W- Width	Weight (kg)
1014785	450	100	ACC	1147	1467	660	1130	565
1014784			CC					
1014789	450	150	ACC	1147	1467	660	1170	582
1014788			CC					
1014799	500	100	ACC	1175	1527	710	1130	605
1014798			CC					
1014801	500	150	ACC	1175	1527	710	1170	622
1014800			CC					
1014809	600	100	ACC	1314	1726	785	1250	830
1014808			CC					
1014813	600	150	ACC	1314	1726	785	1290	847
1014812			CC					



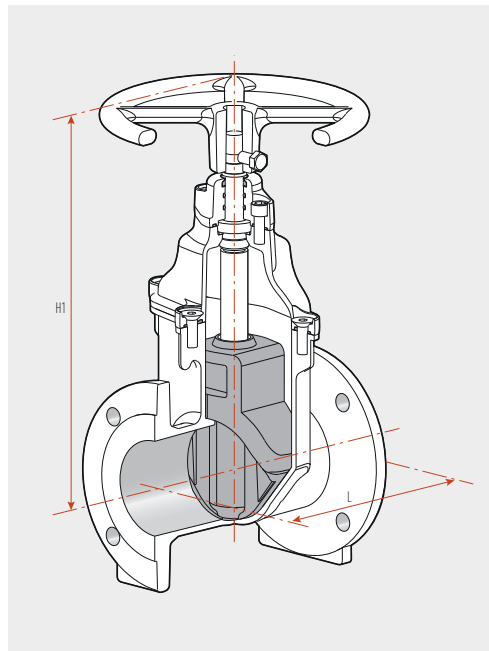
## RESILIENT SEATED GATE VALVE

RESILIENT SEATED FLANGED HANDWHEEL FOR ABOVE GROUND USE



SUREFLOW HANDWHEEL - FLANGED PN16 - DN80-DN300

Code	Size (MM)	Closing	H1	H2	L1	W- Width	Weight (kg)
1008677	80	ACC	317	390	203	190	15
1008678		CC					
1008679	100	ACC	340	423	229	218	18
1008680		CC					
1008681	150	ACC	423	565	267	285	34
1008682		CC					
1008683	200	ACC	517	682	292	332	56
1008684		CC					
1008685	225	ACC	604	789	305	370	94
1008686		CC					
1008687	250	ACC	617	819	330	405	100
1008688		CC					
1008689	300	ACC	700	927	356	455	133
1008690		CC					



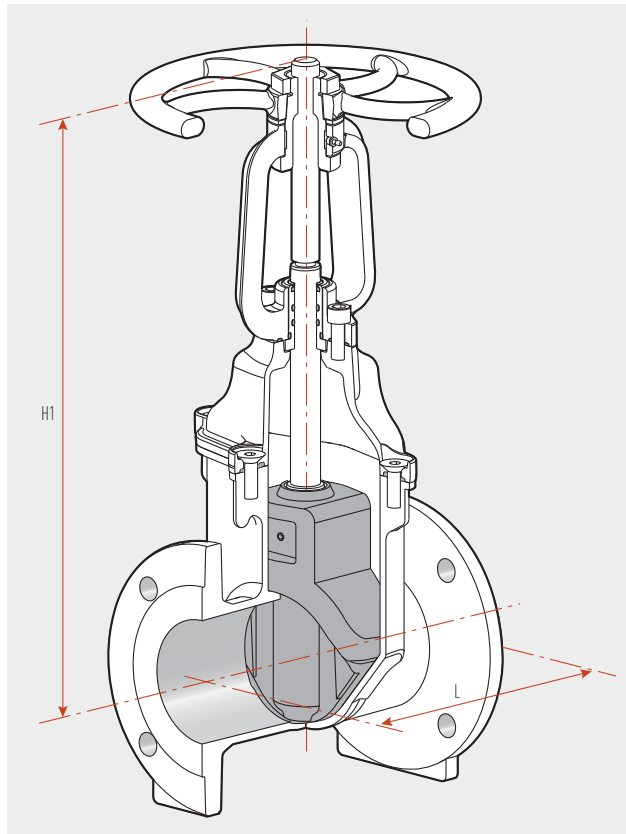
## RESILIENT SEATED GATE VALVE

RESILIENT SEATED FLANGED OS&Y FOR ABOVE GROUND USE



SUREFLOW RISING SPINDLE (OS&Y) - FLANGED TABLE E PN16 - DN80-DN300

Code	Size (MM)	Closing	H1	H2	L1	W- Width	Weight (kg)
1005610	80	CC	454	527	203	174	19
1005615	100	CC	473	556	229	195	22
1005620	150	CC	671	813	267	275	46
1005625	200	CC	761	925	292	335	64
1008670	225	CC	957	1141	305	422	112
1005630	250	CC	970	1171	330	422	118
1002420	300	CC	1052	1279	356	452	150





# METAL SEATED GATE VALVES

## METAL SEATED GATE VALVES

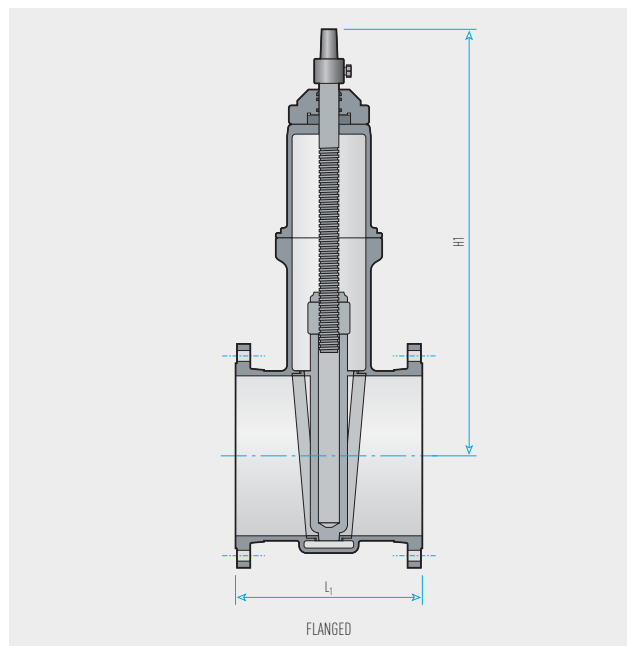
## METAL SEATED FLANGED



## SUREFLOW FLANGED PN35 - DN80-DN600

Code	Size (MM)	Closing	H1	H2	L1	W-Width	Weight (kg)
3703479	80	ACC	367	470	280	209	18
3703482		CC					
3703488	100	ACC	402	517	305	231	30
3703492		CC					
3703493	150	ACC	502	655	330	321	50
3703494		CC					
3703495	200	ACC	610	795	380	393	130
3703496		CC					
3703497	225	ACC	649	852	405	429	160
3707744		CC					
3703420	250	ACC	723	938	420	461	180
3703422		CC					
3703423	300	ACC	810	1055	430	560	250
3703424		CC					
3703425	375	ACC	960	1250	610	685	450
3703431		CC					
3703438	450	ACC	1145	1483	660	855	750
3703444		CC					
3703447	500	ACC	1290	1658	710	970	1000
3707749		CC					
3707751	600	ACC	1467	1892	785	1160	1400
3707753		CC					

Note: Sizes above DN600 available upon request, subject to customer requirements.



## METAL SEATED GATE VALVES

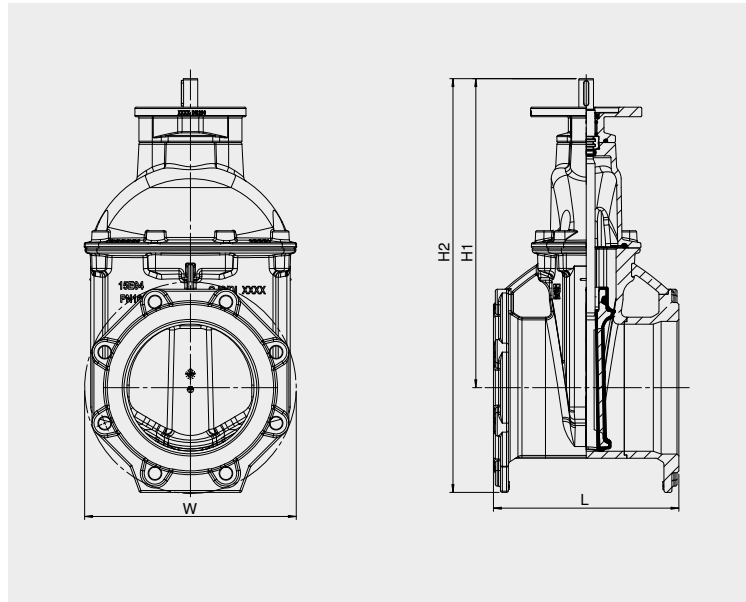
## METAL SEATED FLANGED ISO MOUNT



## SUREFLOW ISO FLANGED PN16 - DN80-DN600

Code	Size	Closing	H1	H2	L1	W-Width	Weight (kg)
3707947	80	ACC	304	404	203	185	19
3707946		CC					
3707949	100	ACC	336	446	229	215	26
3707948		100					
3707951	150	ACC	415	558	267	280	45
3707950		150					
3707953	200	ACC	517	687	292	335	77
3707952		200					
3707955	225	ACC	575	760	305	370	99
3707954		100					
3707957	250	ACC	588	790	330	405	107
3707956		100					
3707959	300	ACC	670	897	356	455	149
3707958		100					
3707881	375	ACC	983	1283	381	608	288
3707880		100					
3707893	400	ACC	983	1283	381	608	288
3707892		100					
3707911	450	ACC	1113	1438	432	674	375
3707910		100					
3707923	500	ACC	1186	1551	457	734	472
3707922		100					
3707935	600	ACC	1347	1787	508	836	629
3707934		100					

Note: Shoe and Channel Variants also available upon request



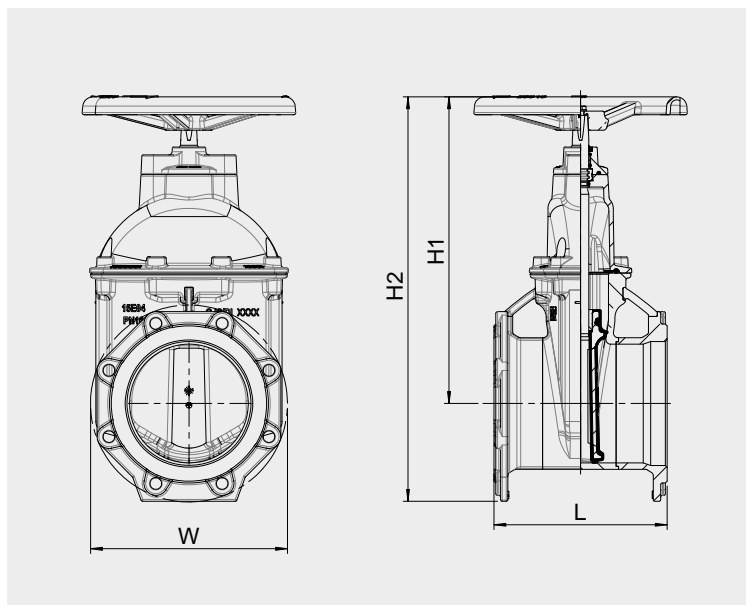
## METAL SEATED GATE VALVES

## METAL SEATED FLANGED HANDWHEEL



## SUREFLOW HANDWHEEL FLANGED PN16 - DN80-DN600

Code	Size	Closing	H1	H2	L1	W-Width	Weight (kg)
3707961	80	ACC	338	438	203	280	21
3707960		CC					
3707963	100	ACC	371	481	229	320	29
3707962		100					
3707965	150	ACC	460	602	267	360	50
3707964		150					
3707967	200	ACC	555	725	292	500	84
3707966		200					
3707969	225	ACC	618	803	305	500	106
3707968		100					
3707971	250	ACC	631	833	330	500	114
3707970		100					
3707973	300	ACC	708	936	356	500	156
3707972		100					
3707883	375	ACC	983	1283	381	608	288
3707882		100					
3707895	400	ACC	983	1283	381	608	288
3707894		100					
3707913	450	ACC	1113	1438	432	674	375
3707912		100					
3707925	500	ACC	1186	1551	457	734	472
3707924		100					
3707937	600	ACC	1347	1787	508	836	629
3707936		100					



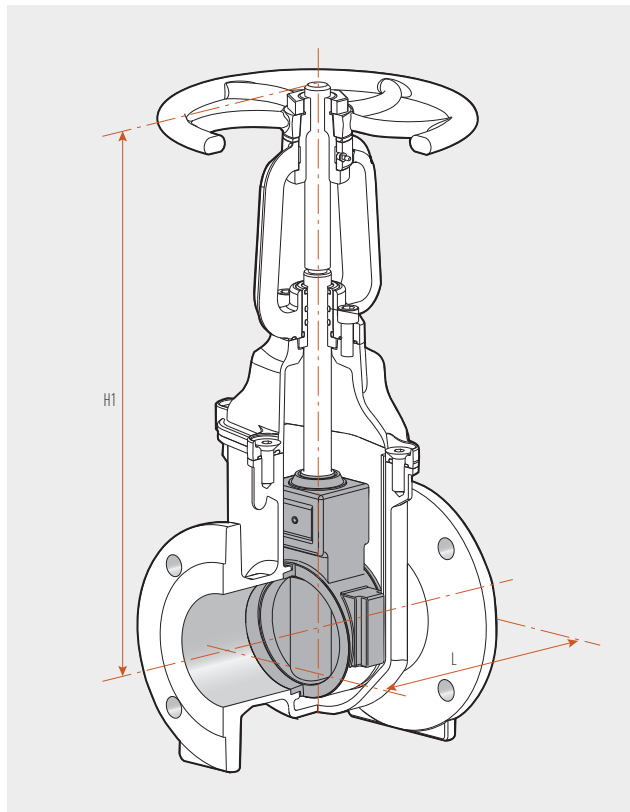
## METAL SEATED GATE VALVES

METAL SEATED FLANGED FIGURE 601



## SUREFLOW FLANGED PN16 - FIG 601 DN80-DN300

Code	Size (MM)	Closing	H1	H2	L1	W-Width	Weight (kg)
VGDEE08600C	80	CC	425	518	203	290	20
VGDEE10600C	100	CC	483	591	229	231	27
VGDEE15600C	150	CC	630	770	267	321	48
VGDEE20600C	200	CC	722	890	292	393	83
VGDEE25600C	250	CC	940	1143	330	461	122
VGDEE30600C	300	CC	1080	1308	356	560	178



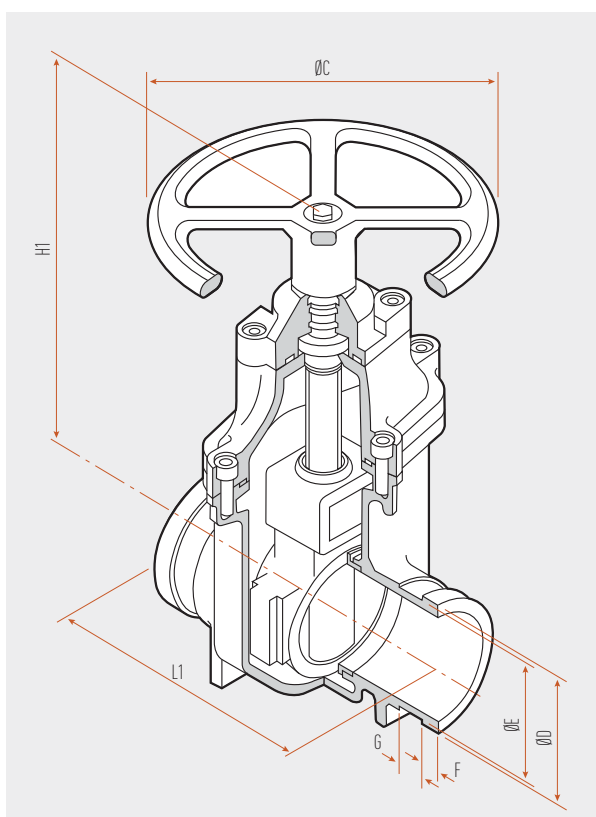
## METAL SEATED GATE VALVES

METAL SEATED SHOULDERED END



## SUREFLOW FLANGED PN35 - SHOULDERED END DN100-DN150

Code	Size (MM)	Closing	H1	H2	L1	W-Width	Weight (kg)
3703418	100	CC	375	470	229	280	27
3703419	150	CC	465	585	267	280	47



## DIMENSIONS

DN	Height H1	Length L1	Handwheel ØC	ØD	ØE	F	G
100	400	230	275	122.2	114.3	17.5	24.5
150	490	270	275	175.1	166.1	17.5	38.5

## SUREFLOW® METAL SEATED GATE VALVE

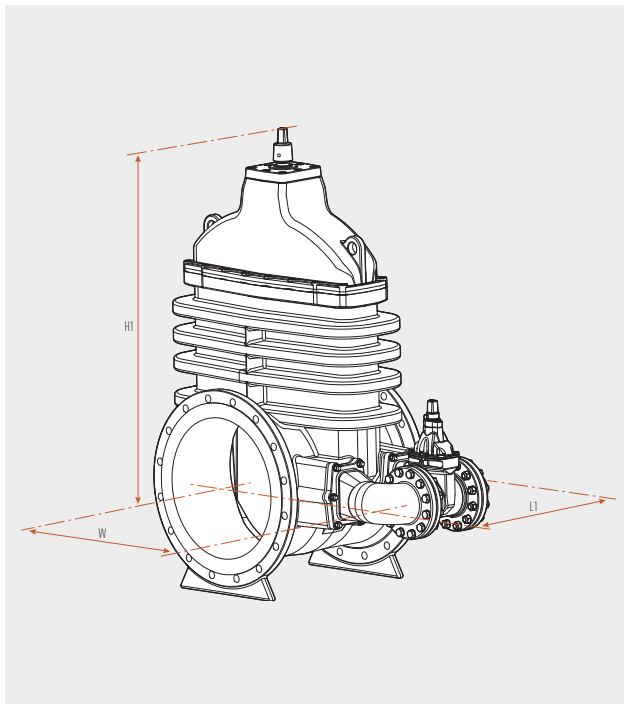
METAL SEATED INTEGRAL BYPASS



## SUREFLOW INTEGRAL BYPASS PN35 - DN375-DN600

Code	Size (MM)	Bypass Size	Closing	H1	H2	L1	W-Width	Weight (kg)
3707745	375	80	ACC	1070	1360	610	995	650
3707746			CC					
3707747	450	100	ACC	1145	1495	660	1200	740
3703446			CC					
3707748	500	150	ACC	1280	1680	710	1421	1200
3707750			CC					
3707752	600	150	ACC	1470	1920	785	1590	1700
3707754			CC					

Note: Sizes above DN600 available upon request, subject to customer requirements.





# CHECK VALVES

## SWING CHECK VALVES

RESILIENT SEATED FREE ACTING & COUNTERWEIGHT

### FEATURES

Swing Check Valves are suitable for water and wastewater applications. Used to prevent backflow within a pipeline.



### TECHNICAL DATA

#### Size Range

DN 100 and DN 150

#### Allowable Operating Pressures

1600kPa

#### Maximum Temperature

40°C

#### Minimum Flow

Disc fully open-1.4m/s

#### End Connections

Flanged to AS 4087 Fig B5

#### Standards

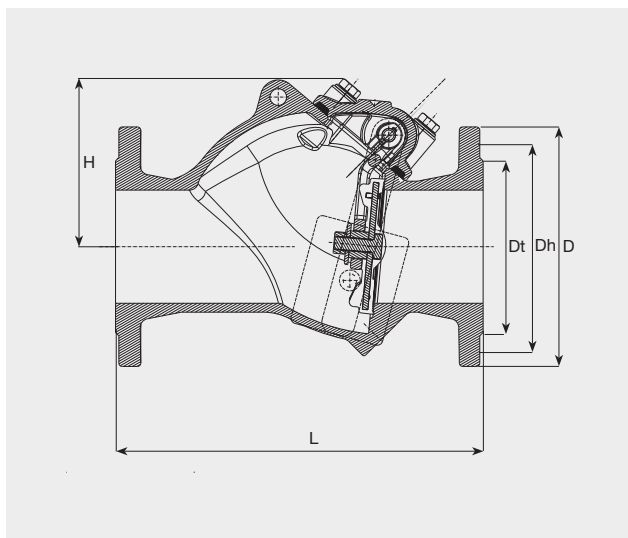
AS 4794 Non-return valves  
- Swing check and tilting disc

#### Certifications

AS/NZS 4020 Testing of products for use  
in contact with drinking water

### SUREFLOW FREE ACTING CHECK VALVES - DN80-DN300

Code	Size	H1	H2	L1	Weight (kg)
1007699	80	140	233	260	16
1007715	100	150	258	330	23
1007717	150	195	335	410	49
1007719	200	230	398	540	80
1007776	250	270	473	640	200
1007778	300	300	528	700	249



### SUREFLOW FREE ACTING CHECK VALVES - DN80-DN300

Code	Size	H1	H2	L1	Weight (kg)
1007714	80	140	233	260	16
1007929	100	150	258	330	23
1007873	150	195	335	410	49
1007775	200	230	398	540	80
1007777	250	270	473	640	200
1007779	300	300	528	700	249

## RSSC SWING CHECK VALVES

RESILIENT SEATED SWING CHECK VALVE ACCORDING TO AS4794

### FEATURES

- Idea for use on water and sewerage.
- Designed to prevent backflow in horizontal or vertical pipelines.
- Angled disc seat holds the disc open avoiding fluctuations.
- Designed and tested in accordance with AS4794.
- Body and bonnet are made of high grade ductile iron to AS1831.
- Fusion Bonded Epoxy coating to AS4158 internally and externally providing longer life and excellent corrosion resistance.
- Full bore design gives non-clogging performance and reduces head loss.
- The NBR encapsulated disc prevents corrosion and provides drip tight closure with long life.
- Extended shaft design allows installation of limit switches and counterweight.
- Bonnet allows for easy access for cleaning and maintenance without having to remove valve from pipeline.
- Lifting lugs and support feet for easy handling.
- Applicable to water & waste water applications - desalination, pumping, industrial processing, irrigation and general industries.

### TECHNICAL DATA

#### Size Range

DN80 - DN375

#### Pressure Classes

PN16

#### Face to Face

According to AS4794

#### Temperature Range

0°C to 60°C

#### Flange Connection

AS4087 B5 (Table D)

#### Coating

AS4158

#### Certifications

Approved: According to: AS4794

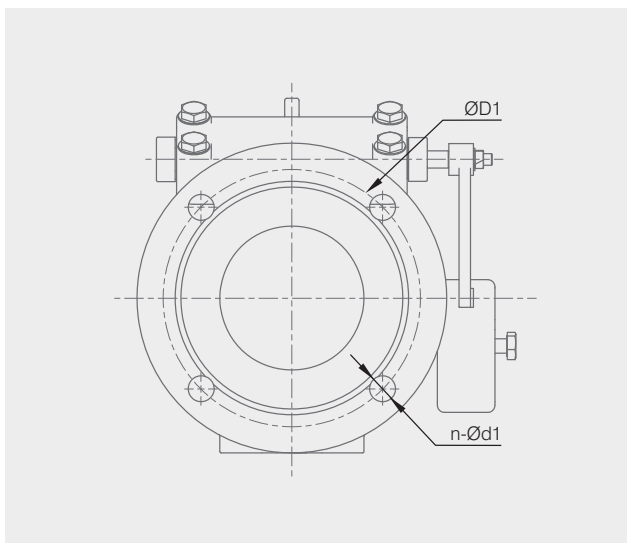
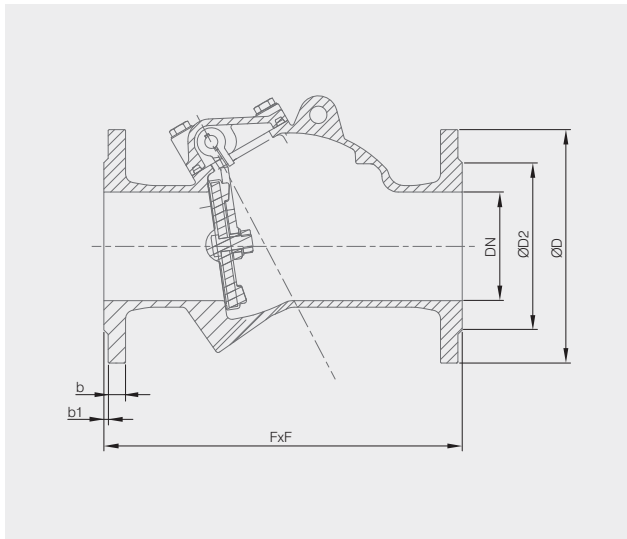
#### Options

- Alternative flange connections available on request.
- With or without lever & weight.
- Open/closed mechanical switches
- No flow proximity sensors



## RSSC SWING CHECK VALVES

RESILIENT SEATED SWING CHECK VALVE ACCORDING TO AS4794



### DIMENSIONS (MM)

RSSC DN 80 – DN 375

DN	FxF	B	B1	ØD	ØD1	ØD2	N-ØD1	Weight (KG)
80	260	18	3	185	146	122	4-18	20
100	330	20	3	215	178	154	4-18	28
150	410	23	3	280	235	211	8-18	56
200	540	23	3	335	292	268	8-18	92
250	640	24	3	405	356	328	8-22	164
300	700	30	4	455	406	378	12-22	242
375	820	34	4	550	495	463	12-26	410

Conforms to AS4794

## RSFC SWING CHECK VALVES

NON SLAM RESILIENT SEATED CHECK VALVE ACCORDING TO AS 4794

### FEATURES

- Non slam.
- 100% sealing.
- Non clogging.
- Lower power consumption due to lower headloss.
- Will not flutter like traditional swing check valves.
- One moulded part (no maintenance).
- No counterweight needed.
- Meets AS4794 (material & dimensional standards).

### Certifications

Approved: AS4020 According to: AS4794



### TECHNICAL DATA

#### Size Range

DN80-DN600

#### Pressure Classes

PN16

#### Face to Face

According to AS4794 (excluding 500mm)

#### Temperature Range

1°C to +80° (higher on request)

#### Flange Connection

AS4087, Class 16

#### Pressure Testing

To AS4794

#### Coating

AS4020 approved epoxy.

### FLANGED - PN16 - DN80 - DN600

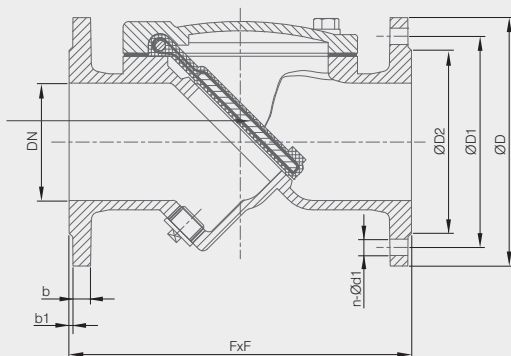
Code	Size (MM)	Description
VCAVF080FA	80	80MM PN16 F/A REFLUX VALVE
VCAVF100FA	100	100MM PN16 F/A REFLUX VALVE
VCAVF150FA	150	150MM PN16 F/A REFLUX VALVE
VCAVF200FA	200	200MM PN16 F/A REFLUX VALVE
VCAVF225FA	225	225MM PN16 F/A REFLUX VALVE
VCAVF250FA	250	250MM PN16 F/A REFLUX VALVE
VCAVF300FA	300	300MM PN16 F/A REFLUX VALVE
VCAVF375FA	375	375MM PN16 F/A REFLUX VALVE
VCAVF400FA	400	400MM PN16 F/A REFLUX VALVE
VCAVF450FA	450	450MM PN16 F/A REFLUX VALVE
VCAVF500FA	500	500MM PN16 F/A REFLUX VALVE
VCAVF600FA	600	600MM PN16 F/A REFLUX VALVE

### DIMENSIONS (MM)

#### RSFC DN 50 - DN 600

DN	FxF	B	B1	ØD	ØD1	ØD2	N-ØD1	Weight (KG)
80	260	18	3	185	146	122	4-18	15
100	330	20	3	215	178	154	4-18	21
150	410	23	3	280	235	211	8-18	40
200	540	23	3	335	292	268	8-18	76
225	610	24	3	370	324	300	8-18	93
250	640	24	3	405	356	328	8-22	122
300	700	30	4	455	406	378	12-22	218
375	820	33	4	550	495	463	12-26	247
400	914	33	4	580	521	489	12-26	311
450	970	33	4	640	584	552	12-26	416
500	978	35	4	705	641	609	16-26	520
600	1220	42	5	825	756	720	16-30	790

Conforms to AS4794



## ACB-100 SERIES BALL CHECK VALVES

DN 32 – DN 500 BALL CHECK VALVE DUCTILE IRON PN 16 SUITABLE FOR DUCTILE IRON BODY

## TECHNICAL DATA

**Size Range**DN50-DN500 (Flanged)  
DN32-DN65 (Threaded)**Pressure Classes**

PN16

**Face to Face**

EN-558-1 series 48 (DIN3202 F6)

**Temperature Range**

10°C to +80°C

**Threaded Connection:**

BSP

## TECHNICAL DATA

**Flange Drilling**

AS4087 CL16

**Leakage Tests**

EN12266

**Coating**

Fusion Bonded Epoxy

**Minimum Backpressure**

0.3-0.5bar



Flanged Connection



Threaded Connection (BSP)

## FLANGED - PN16 – DN80 - DN500

Code	Size (MM)	Description
VCBAVF050	50	50 BALL CHECK FL B5 DI FC
VCBAVF065	65	65 BALL CHECK FL B5 DI FC
VCBAVF080	80	80 BALL CHECK FL B5 DI FC
VCBAVF100	100	100 BALL CHECK FL B5 DI FC
VCBAVF125	125	125 BALL CHECK FL B5 DI FC
VCBAVF150	150	150 BALL CHECK FL B5 DI FC
VCBAVF200	200	200 BALL CHECK FL B5 DI FC
VCBAVF250	250	250 BALL CHECK FL B5 DI FC
VCBAVF300	300	300 BALL CHECK FL B5 DI FC
VCBAVF350	350	350 BALL CHECK FL B5 DI FC
VCBAVF400	400	400 BALL CHECK FL B5 DI FC
VCBAVF500	500	500 BALL CHECK FL B5 DI FC

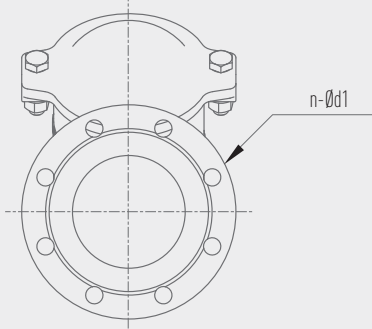
## THREADED - PN16 – DN32 - DN65

Code	Size (MM)	Description
VCBAVF032-BSP	32	32 BALL CHECK BSP DI FC
VCBAVF040-BSP	40	40 BALL CHECK BSP DI FC
VCBAVF050-BSP	50	50 BALL CHECK BSP DI FC
VCBAVF065-BSP	65	65 BALL CHECK BSP DI FC

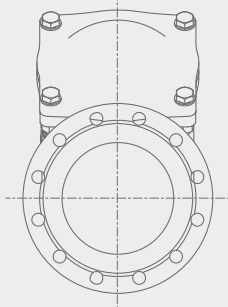
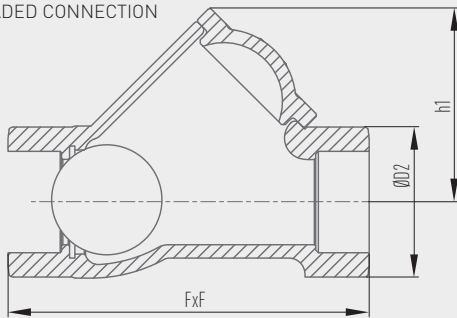
## ACB-100 SERIES BALL CHECK VALVES

DN 32 – DN 500 BALL CHECK VALVE DUCTILE IRON PN 16 SUITABLE FOR DUCTILE IRON BODY

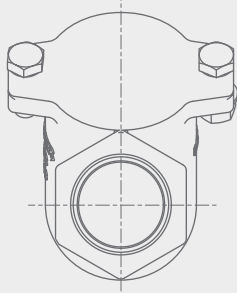
DN 50 – DN 150



DN 200 – DN 500

FIGURE 4.  
THREADED CONNECTION

DN 32 – DN 65



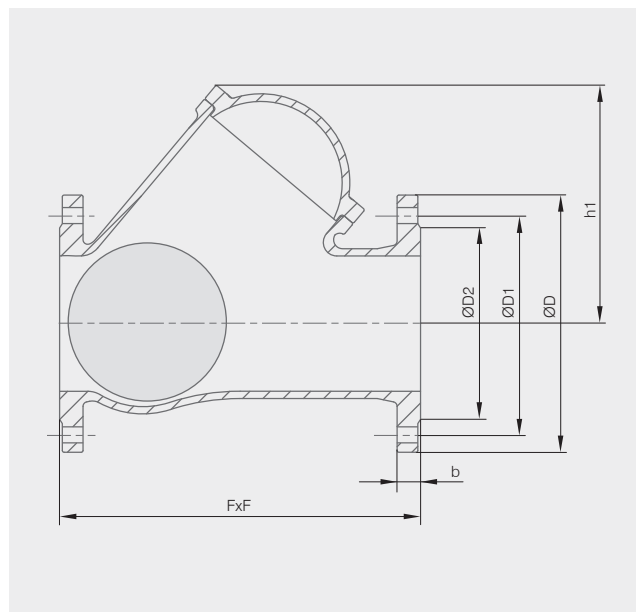
## DIMENSIONS (MM)

## ACB-100 SERIES FLANGED CONNECTION

DN	FxF	b	h1	ØD	ØD1	ØD2	n-Ød1	Weight (KG)
50	200	19	100	165	114	90	4-18	6.5
65	240	19	125	185	127	103	4-18	11
80	260	19	136	200	146	122	4-18	14.35
100	300	20	185	220	178	154	4-18	19.98
125	350	20	196	250	210	186	8-18	30.4
150	400	23	265	285	235	207	8-18	42.3
200	500	23	340	340	292	264	8-18	73.5
250	600	24	420	405	356	328	8-22	128
300	700	30	480	460	406	374	12-22	180
350	800	33	580	505	470	438	12-26	290
400	900	33	730	580	521	490	12-26	420
500	1100	33	900	705	641	609	16-26	580

## ACB-100 SERIES THREADED CONNECTION

DN	FxF	h1	ØD	Weight (KG)
32	135	72	50	2
40	145	85	60	2
50	175	100	70	3
65	200	125	90	5



## AC10 DUO CHECK WAFER VALVE

DN 50 – DN 1000

### FEATURES

Body (optional carbon steel, ductile iron or duplex).

Disc (optional carbon steel, ductile iron or duplex).

Upper and lower PTFE thrust bearings.

Standard EPDM Sealing O-Ring (optional NBR or Viton).

Dual springs for quicker activation long life and even distribution of force over both plates.

Fusion bonded epoxy coated body (internal & external).

Long leaf springs (prevent rubbing of disc on seat).

### TECHNICAL DATA

#### Size Range

DN40-DN1000

Pressure Classes PN10, PN16, PN25

#### Face to Face

DIN3202-K3

#### Temperature Range

-20°C to +100°C (standard EPDM seat)

-20°C to +80°C (optional NBR seat)

-20°C to +150°C (optional Viton seat)

#### Pressure Testing

AP1598

#### Coating

Fusion Bonded Epoxy



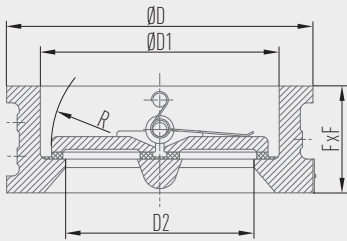
### PN16 – DN50 - DN800

Code	Size (MM)	Description
VCWDAVF050	50	50 DUO CHECK CI FC
VCWDAVF065	65	65 DUO CHECK CI FC
VCWDAVF080	80	80 DUO CHECK CI FC
VCWDAVF100	100	100 DUO CHECK CI FC
VCWDAVF125	125	125 DUO CHECK CI FC
VCWDAVF150	150	150 DUO CHECK CI FC
VCWDAVF200	200	200 DUO CHECK CI FC
VCWDAVF250	250	250 DUO CHECK CI FC
VCWDAVF300	300	300 DUO CHECK CI FC
VCWDAVF350	350	350 DUO CHECK CI FC
VCWDAVF400	400	400 DUO CHECK CI FC
VCWDAVF450	450	450 DUO CHECK CI FC
VCWDAVF500	500	500 DUO CHECK CI FC
VCWDAVF600	600	600 DUO CHECK CI FC
VCWDAVF700	700	700 DUO CHECK CI FC
VCWDAVF800	800	800 DUO CHECK CI FC

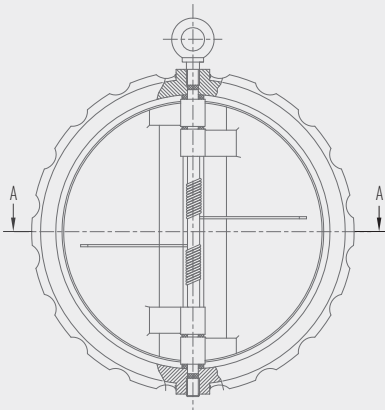
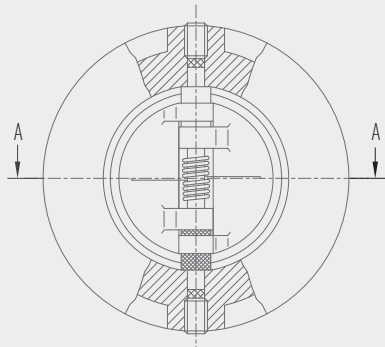
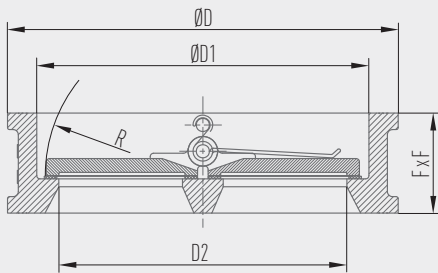
## AC10 DUO CHECK WAFER VALVE

DN 50 – DN 1000

DN50 - DN500 SECTION A - A



DN600 - DN800 SECTION A - A



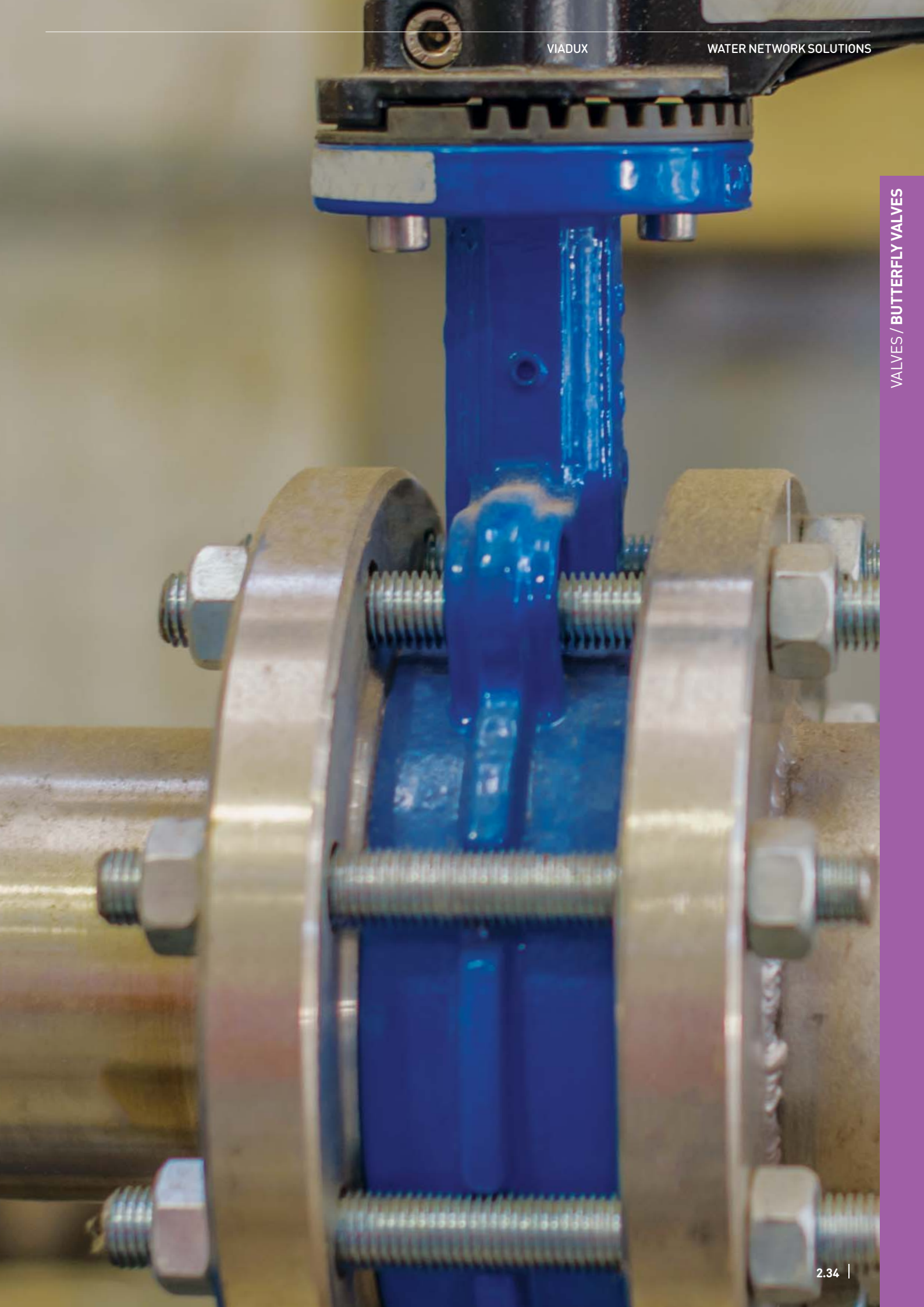
## DIMENSIONS (MM)

## AB10 DN 50 – DN 800

DN	Fx F	ØD	ØD1	ØD2	R	Weight (KG)
50	43	96	65	40	27	1.3
65	46	110	80	60	35	2.1
80	64	128	94	70	42	2.9
100	64	156	117	88	50	4.3
125	70	187	145	115	64	6.4
150	76	213	171	134	77	9.1
200	89	267	224	182	102.5	15.2
250	114	328	265	220	125	26.5
300	114	375	310	260	146	37
350	127	444	360	298	170	55
400	140	495	410	350	195	80
450	152	558	450	385	215	101
500	152	615	505	438	238	114
600	178	723	624.5	573	292	172
700	229	812	720	680	350	258
800	241	948	825	770	400	322



# BUTTERFLY VALVES



## AB SERIES BUTTERFLY VALVES

DN 50 & DN 1200 AVFI'S AB SERIES BUTTERFLY VALVES ARE SUITABLE FOR MOST GENERAL PURPOSE APPLICATIONS



### LEVER OPERATED – PN16 – DN50 - DN300

Code	Size (MM)	Description
VBWAVF050L	50	50 WAFER BFLY VLV T/D&E LEVER
VBWAVF065L	65	65 WAFER BFLY VLV T/D&E LEVER
VBWAVF080L	80	80 WAFER BFLY VLV T/D&E LEVER
VBWAVF100L	100	100 WAFER BFLY VLV T/D&E LEVER
VBWAVF125L	125	125 WAFER BFLY VLV T/D&E LEVER
VBWAVF150L	150	150 WAFER BFLY VLV T/D&E LEVER
VBWAVF200L	200	200 WAFER BFLY VLV T/D&E LEVER
VBWAVF250L	250	250 WAFER BFLY VLV T/D&E LEVER
VBWAVF300L	300	300 WAFER BFLY VLV T/D&E LEVER

### GEARBOX OPERATED – PN16 – DN50 - DN300

Code	Size (MM)	Description
VBWAVF080GB	80	80 WAFER BFLY VLV T/E GBX
VBWAVF100GB	100	100 WAFER BFLY VLV T/E GBX
VBWAVF150GB	150	150 WAFER BFLY VLV T/E GBX
VBWAVF200GB	200	200 WAFER BFLY VLV T/E GBX
VBWAVF250GB	250	250 WAFER BFLY VLV T/E GBX
VBWAVF300GB	300	300 WAFER BFLY VLV T/E GBX

### FEATURES

Designed and manufactured to AS4795  
Phenolically backed replaceable liner.

Rated to 1600kpa from 50mm up to 600mm  
and 1000kpa from 700mm up to 1200mm.

Stainless steel fasteners.

Bi-directional bubble-tight sealing, with no  
leakage under pressure.

ISO top mounting flange for easy actuation.

Gearbox fitted as standard on all sizes  
350mm and above.

#### Certifications

According to: AS4795, API609, MSS SP67,  
ISO5752, EN1092

Approved to WaterMark approval for AB30W  
& AB30L only [Refer pages 3.78 & 3.81]

### TECHNICAL DATA

#### Size Range

DN50-DN1200

#### Pressure Classes

PN10, PN16, PN21 & PN25

#### Face to Face

According to AS4795

#### Top Flange

According to ISO 5211

#### Temperature Range

-20°C to +150°C (depending on material)

#### Leakage Tests:

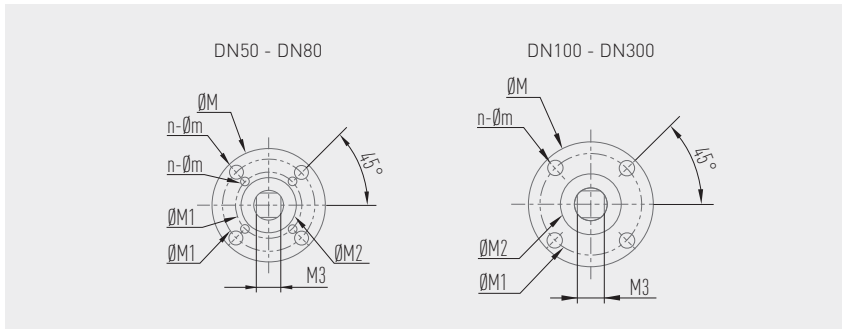
According to AS4795

#### Coating

Fusion Bonded Epoxy (for all cast and  
ductile iron bodied valves)

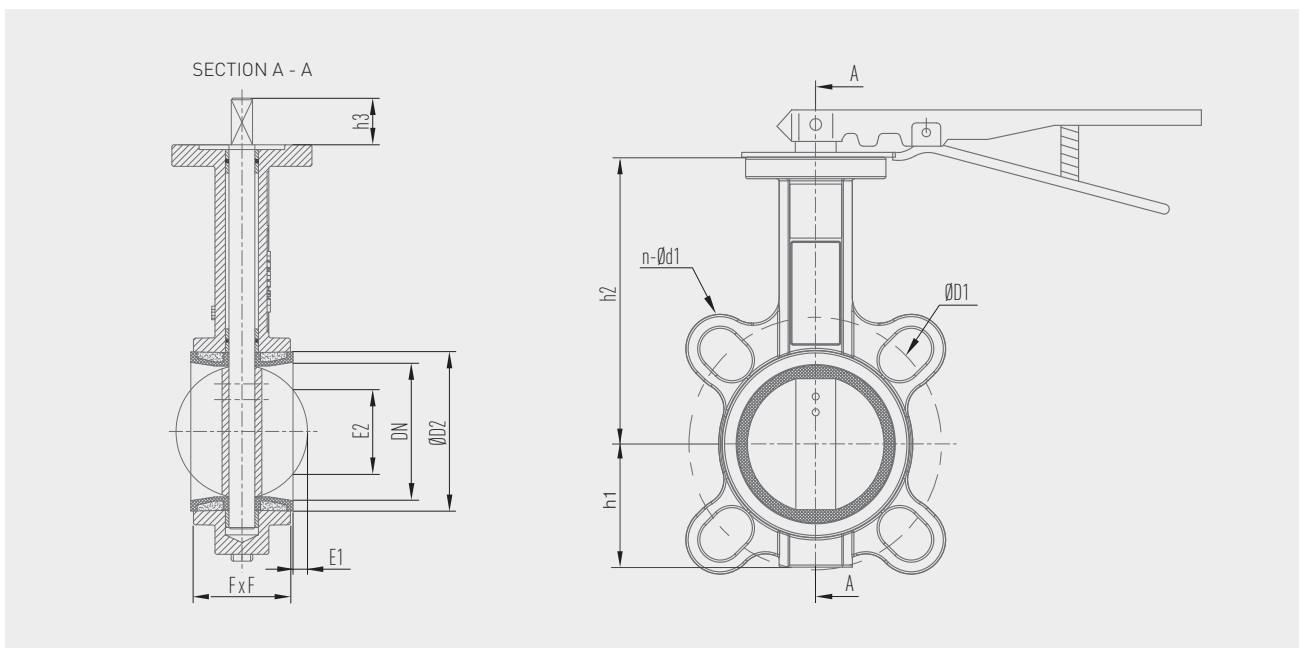
# AB30W WAFER TYPE BUTTERFLY VALVE

BUTTERFLY VALVE FOR DN 50 – DN 300



Nominal Pressure		PN16
Test:	Strength Test	24 Bar
Pressure:	Sealing Test	17.6 Bar
Max Working Temperature:		-25° to +100°C
Suitable Media		W.O.G etc

Note: PN21 & PN25, dimensions available on request. Designed and manufactured to AS4795.



## DIMENSIONS (MM)

WAFLER TYPE BFLY DN 50 – DN 300								AS2129 T/D AS2129 T/E	AS2129 T/D	AS2129 T/E	ANSI150 MM		ISO 5211 TOP FLANGE						Weight (KG)
DN	FxF	h1	h2	h3	E1	E2	ØD2	ØD1	n-ØD1	n-ØD1	ØD1	n-ØD1	Flange No.	ØM	n-Øm	ØM1	ØM2	M3	
50	43	57	143	29	3.2	25.1	77	114	4-18	4-18	120.6	4-19	F05/F07	90	4-8/4-10	50/70	35.5	11x11	3.66
65	46	68	155	29	7.6	41.1	89	127	4-18	4-18	139.7	4-19	F05/F07	90	4-8/4-10	50/70	35.5	11x11	4.28
80	46	82	160	29	14.9	61.8	104	146	4-18	4-18	152.4	4-19	F05/F07	90	4-8/4-10	50/70	35.5	11x11	4.6
100	52	100	181	29	25.1	89.1	135	178	4-18	8-18	190.5	8-19	F07	90	4-10	70	55.5	11x11	5.8
125	56	112	194	29	32.6	108.7	159	210	8-18	8-18	215.9	8-22.4	F07	90	4-10	70	55.5	14x14	8
150	56	126	202	29	48.9	144.6	189	235	8-18	8-22	241.3	8-22.4	F07	90	4-10	70	55.5	14x14	9.5
200	60	162	240	35	70	192.5	239	292	8-18	8-22	298.4	8-22.4	F10	125	4-12	102	70.5	17x17	16
250	68	193	272	35	90.3	240.5	293	356	8-22	12-22	361.9	12-25.4	F10	125	4-12	102	70.5	22x22	21
300	78	236.5	318	35	111	290.8	345	406	12-22	12-26	431.8	12-25.4	F10	125	4-12	102	70.5	22x22	35

## AB10W WAFER TYPE BUTTERFLY VALVE

DN 350 – DN 600 SUITABLE FOR PN 10 OR PN 16



### GEARBOX OPERATED – PN10 – DN350 - DN600

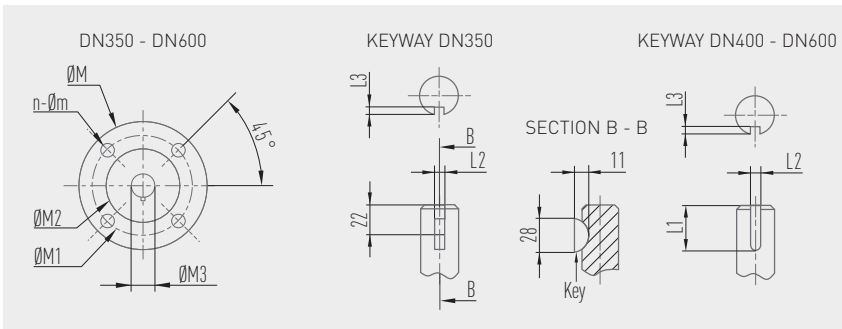
Code	Size (MM)	Description
VBWAVF350GBPN10	350	350 WAFER BFLY VLV PN10 T/D&E/ANSI GBX
VBWAVF400GBPN10	400	400 WAFER BFLY VLV PN10 T/D&E/ANSI GBX
VBWAVF450GBPN10	450	450 WAFER BFLY VLV PN10 T/D&E/ANSI GBX
VBWAVF500GBPN10	500	500 WAFER BFLY VLV PN10 T/D&E/ANSI GBX
VBWAVF600GBPN10	600	600 WAFER BFLY VLV PN10 T/D&E GBX

### GEARBOX OPERATED – PN16 – DN350 - DN600

Code	Size (MM)	Description
VBWAVF350GB	350	350 WAFER BFLY VLV PN16 T/D&E/ANSI GBX
VBWAVF400GB	400	400 WAFER BFLY VLV PN16 T/D&E/ANSI GBX
VBWAVF450GB	450	450 WAFER BFLY VLV PN16 T/D&E/ANSI GBX
VBWAVF500GB	500	500 WAFER BFLY VLV PN16 T/D&E/ANSI GBX
VBWAVF600GB	600	600 WAFER BFLY VLV PN16 T/D&E GBX

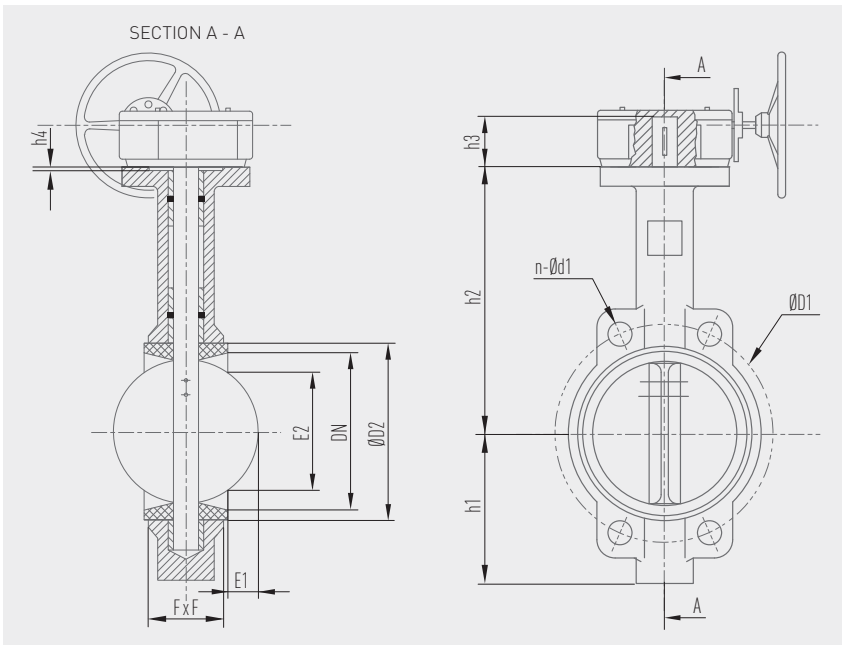
# AB10W WAFER TYPE BUTTERFLY VALVE

DN 350 - DN 600 SUITABLE FOR PN 10 OR PN 16



Nominal Pressure		PN10	PN16
Test:	Strength Test	15 Bar	24 Bar
Pressure:	Sealing Test	11 Bar	17.6 Bar
Max Working Temperature:		-20° to +100°C	
Suitable Media		W.O.G etc	

Note: PN21 & PN25, dimensions available on request. Designed and manufactured to AS4795.



KEYWAY			
DN	L1	L2	L3
350	22	8	8
400	45	10	5
450	45	10	5
500	56	10	5
600	58	16	6

## DIMENSIONS (MM)

WAFER TYPE BFLY DN 350 - DN 600								AS2129 T/D AS2129 T/E	AS2129 T/D	AS2129 T/E	ANSI150 MM		ISO 5211 TOP FLANGE								Weight (KG)
DN	FxF	h1	h2	h3	E1	E2	ØD2	ØD1	n-Ød1	n-Ød1	ØD1	n-Ød1	Flange No.	ØM	n-Øm	ØM1	ØM2	ØM3	h4		
350	78	267	368	45	126.9	323.7	376	470	12-26	12-26	476.2	12-28.4	F10	125	4-12	102	70.5	31.6	3.5	58	
400	102	299	400	51.2	149.7	378.8	440	521	12-26	12-26	539.7	16-28.4	F14	175	4-18	140	100.5	33.15	4.5	107	
450	114	318	422	51.2	166	427.3	491	584	12-26	16-26	577.8	16-31.8	F14	175	4-18	140	100.5	38	4.5	122	
500	127	355	480	64.2	178.4	472.8	536	641	16-26	16-26	635	20-31.8	F14	175	4-18	140	100.5	41.15	4.5	160	
600	154	444	562	70.2	218.4	571.9	655	756	16-30	16-33	749.3	20-35.1	F16	210	4-22	165	130.5	50.65	5.5	260	

## AB30L LUGGED TYPE BUTTERFLY VALVE

DN 50 – DN 300 WATERMARK APPROVED TABLE E LUGGED TYPE BUTTERFLY VALVE



### LEVER OPERATED – PN16 – DN50 - DN300

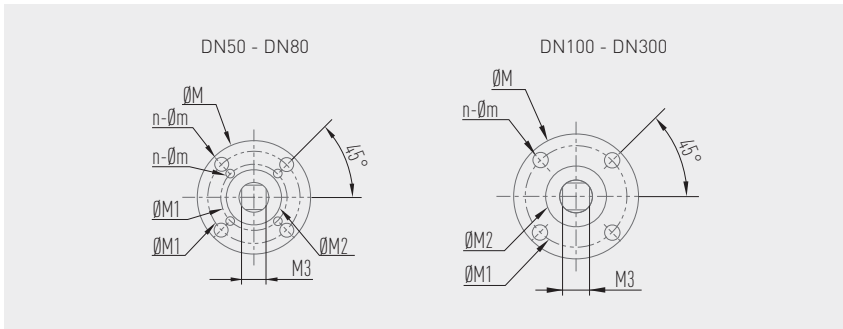
Code	Size (MM)	Description
VBLAVF050L	50	50 LUGGED BFLY VLV T/D&E LEVER
VBLAVF065L	65	65 LUGGED BFLY VLV T/D&E LEVER
VBLAVF080L	80	80 LUGGED BFLY VLV T/D&E LEVER
VBLAVF100L	100	100 LUGGED BFLY VLV T/D LEVER
VBLAVF125L	125	125 LUGGED BFLY VLV T/D&E LEVER
VBLAVF150L	150	150 LUGGED BFLY VLV T/D LEVER
VBLAVF200L	200	200 LUGGED BFLY VLV T/D LEVER
VBLAVF250L	250	250 LUGGED BFLY VLV T/D LEVER
VBLAVF300L	300	300 LUGGED BFLY VLV T/D LEVER

### GEARBOX OPERATED – PN16 – DN80 - DN300

Code	Size (MM)	Description
VBLAVF080GB	80	80 LUGGED BFLY VLV T/D&E GBX
VBLAVF100GB	100	100 LUGGED BFLY VLV T/D GBX
VBLAVF150GB	150	150 LUGGED BFLY VLV T/D GBX
VBLAVF200GB	200	200 LUGGED BFLY VLV T/D GBX
VBLAVF250GB	250	250 LUGGED BFLY VLV T/D GBX
VBLAVF300GB	300	300 LUGGED BFLY VLV T/D GBX

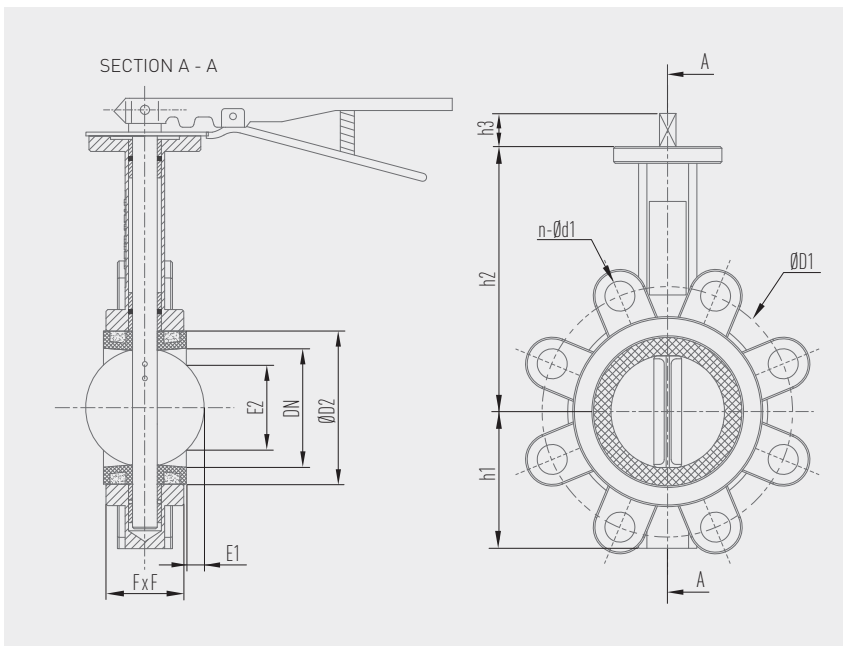
## AB30L LUGGED TYPE BUTTERFLY VALVE

DN 350 – DN 600 SUITABLE FOR PN 10 OR PN 16



Nominal Pressure		PN16
Test:	Strength Test	24 Bar
Pressure:	Sealing Test	17.6 Bar
Max Working Temperature:		-20° to +100°C
Suitable Media		W.O.G etc

Note: PN21 & PN25, dimensions available on request. Designed and manufactured to AS4795.



### DIMENSIONS (MM)

LUGGED TYPE BFLY DN 50 – DN 300								AS2129 TABLE D/E (MM)		ISO 5211 TOP FLANGE					Weight (KG)	
DN	FxF	h1	h2	h3	E1	E2	ØD2	ØD1	n-ØD1	Flange No.	ØM	n-Øm	ØM1	ØM2		M3
50	43	57	143	29	3.2	25.1	77	114	4-M16	F05/F07	90	4-8/4-10	50/70	35.5	11x11	4.5
65	46	68	155	29	7.6	41.4	89	127	4-M16	F05/F07	90	4-8/4-10	50/70	35.5	11x11	5
80	46	82	160	29	14.9	61.8	104	146	4-M16	F05/F07	90	4-8/4-10	50/70	35.5	11x11	6.2
100	52	100	181	29	25.1	89.1	135	178	8-M16	F07	90	4-10	70	55.5	11x11	9.2
125	56	112	194	29	32.6	108.7	159	210	8-M16	F07	90	4-10	70	55.5	14x14	11.6
150	56	126	202	29	48.9	144.6	189	235	8-M20	F07	90	4-10	70	55.5	14x14	13.2
200	60	162	240	35	70	192.5	239	292	8-M20	F10	125	4-12	102	70.5	17x17	21
250	68	193	272	35	90.3	240.5	293	356	12-M20	F10	125	4-12	102	70.5	22x22	31
300	78	236.5	318	35	111	290.8	345	406	12-M24	F10	125	4-12	102	70.5	22x22	46.4

## AB10L LUGGED TYPE BUTTERFLY VALVE

DN 350 - DN 600 TABLE E LUGGED TYPE BUTTERFLY VALVE SUITABLE FOR PN 10 OR PN 16



### GEARBOX OPERATED – PN10 – DN350 - DN600

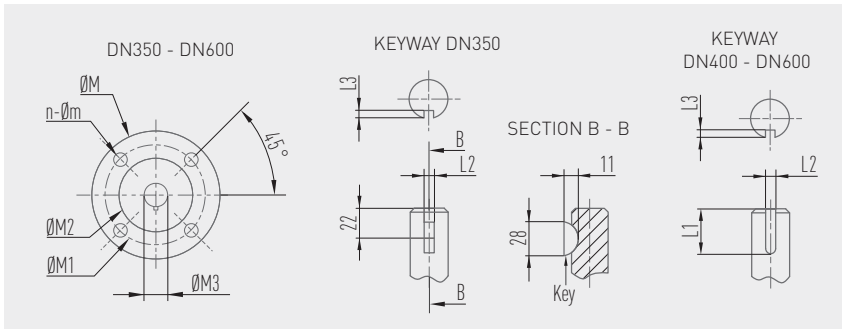
Code	Size (MM)	Description
VBLAVF350GBP10	350	350 LUGGED BFLY VLV PN10 T/D&E GBX
VBLAVF400GBP10	400	400 LUGGED BFLY VLV PN10 T/D&E GBX
VBLAVF450GBP10	450	450 LUGGED BFLY VLV PN10 T/D GBX
VBLAVF500GBP10	500	500 LUGGED BFLY VLV PN10 T/D&E GBX
VBLAVF600GBP10	600	600 LUGGED BFLY VLV PN10 T/D GBX

### GEARBOX OPERATED – PN16 – DN350 - DN600

Code	Size (MM)	Description
VBLAVF350GB	350	350 LUGGED BFLY VLV PN16 T/D&E GBX
VBLAVF400GB	400	400 LUGGED BFLY VLV PN16 T/D&E GBX
VBLAVF450GB	450	450 LUGGED BFLY VLV PN16 T/D GBX
VBLAVF500GB	500	500 LUGGED BFLY VLV PN16 T/D&E GBX
VBLAVF600GB	600	600 LUGGED BFLY VLV PN16 T/D GBX

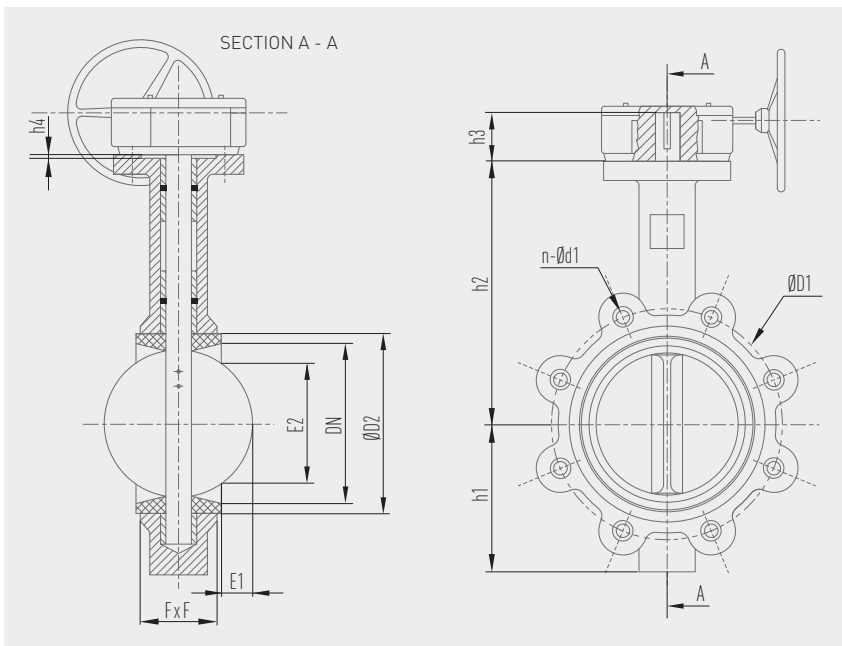
## AB10L LUGGED TYPE BUTTERFLY VALVE

DN 350 - DN 600 TABLE E LUGGED TYPE BUTTERFLY VALVE SUITABLE FOR PN 10 OR PN 16



Nominal Pressure		PN10	PN16
Test:	Strength Test	15 Bar	24 Bar
Pressure:	Sealing Test	11 Bar	17.6 Bar
Max Working Temperature:		-20° to +100°C	
Suitable Media		W.O.G etc	

Note: PN21 & PN25, dimensions available on request. Designed and manufactured to AS4795.



### DIMENSIONS (MM)

LUGGED TYPE BFLY DN 350 - DN 600								AS2129 TABLE D/E (MM)		ISO 5211 TOP FLANGE								KEYWAY		
DN	FxF	h1	h2	h3	E1	E2	$\varnothing D2$	$\varnothing D1$	n- $\varnothing d1$	Flange No.	$\varnothing M$	n- $\varnothing m$	$\varnothing M1$	$\varnothing M2$	$\varnothing M3$	h4	Weight (KG)	L1	L2	L3
350	78	267	368	45	126.9	323.7	376	470	12-M24	F10	125	4-12	102	70.5	31.6	3.5	81	22	8	8
400	102	299	400	51.2	149.7	378.8	440	521	12-M24	F14	175	4-18	140	100.5	33.15	4.5	140	45	10	5
450	114	318	422	51.2	166	427.3	491	584	16-M24	F14	175	4-18	140	100.5	38	4.5	176	45	10	5
500	127	348	480	64.2	178.4	472.8	536	641	16-M26	F14	175	4-18	140	100.5	41.15	4.5	226	56	10	5
600	154	444	562	70.2	218.4	571.9	655	756	16-M30	F16	210	4-22	165	130.5	50.65	5.5	336	58	16	6

## AB13F DOUBLE FLANGED BUTTERFLY VALVES

DN 50 – DN 2000



Lever Operated

## LEVER OPERATED – PN16 – DN80 - DN300

Code	Size (MM)	Description
VBFLAVF080L	80	80 DOUBLE FLANGED BFLY LEVER
VBFLAVF100L	100	100 DOUBLE FLANGED BFLY LEVER
VBFLAVF125L	125	125 DOUBLE FLANGED BFLY LEVER
VBFLAVF150L	150	150 DOUBLE FLANGED BFLY LEVER
VBFLAVF200L	200	200 DOUBLE FLANGED BFLY LEVER
VBFLAVF250L	250	250 DOUBLE FLANGED BFLY LEVER
VBFLAVF300L	300	300 DOUBLE FLANGED BFLY LEVER

## FEATURES

Designed and manufactured to AS4795.

Vulcanized liner resists deformation.

Rated to 1600kpa from 50mm up to 600mm and 1000kpa from 700mm up to 1200mm.

316 Stainless steel fasteners.

Bi-directional bubble-tight sealing, with no leakage under pressure.

ISO top mounting flange for easy actuation.

Gearbox fitted as standard on all sizes 200mm and above.

## Certifications

According to: AS4795, API609, MSS SP67, ISO5752, EN1092

## TECHNICAL DATA

## Size Range

DN50-DN2000

## Pressure Classes

PN10, PN16

## Face to Face

According to AS4795

## Top Flange

According to ISO 5211

## Flange Drilling

AS4087

## Temperature Range

-10°C to +90°C (EPDM standard)

## Leakage Tests:

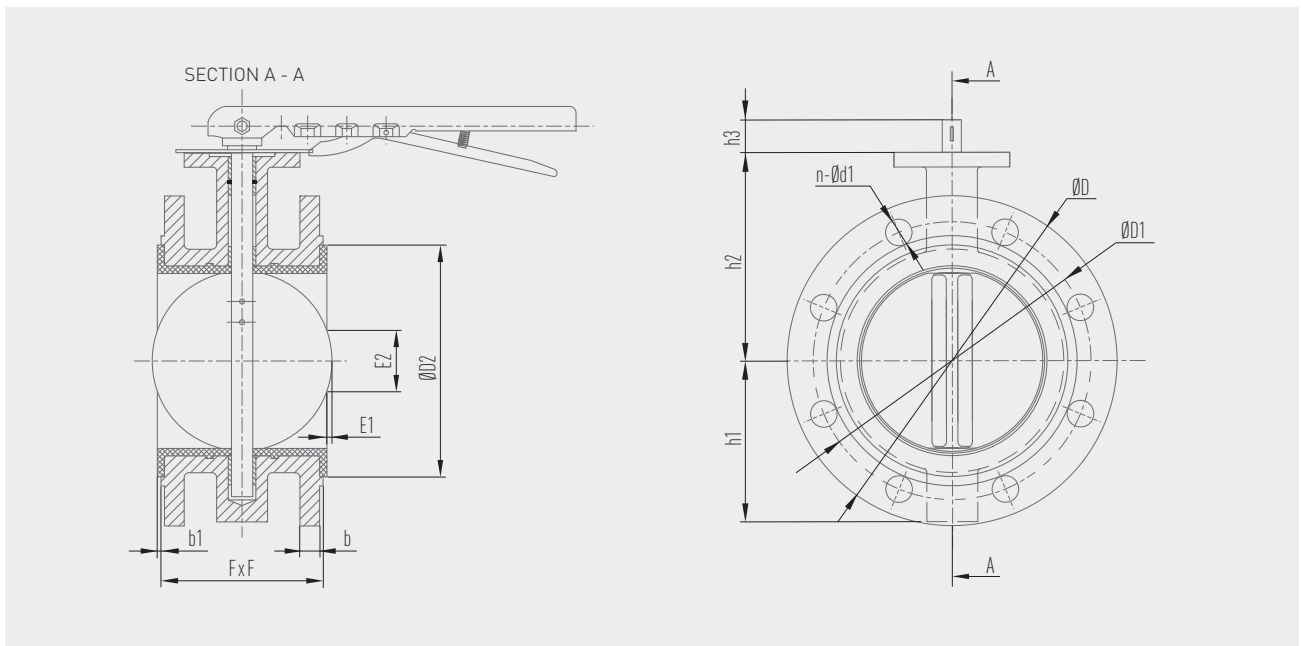
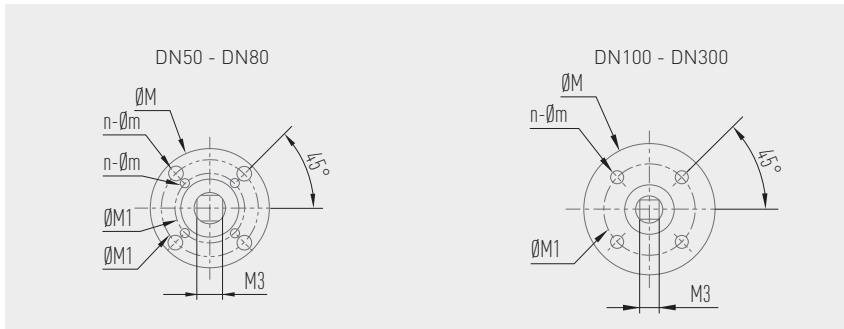
According to AS4795

## Coating

Fusion Bonded Epoxy (AS4020 approved)

## AB13F DOUBLE FLANGED BUTTERFLY VALVES

DN 50 – DN 2000



### DIMENSIONS (MM)

AB13F DN 50 – DN 200									AS4087 CL16 MM				ISO 5211 TOP FLANGE					Weight (KG)
DN	FxF	b	b1	h1	h2	h3	E1	E2	ØD	ØD1	ØD2	n-Ød1	Flange No.	ØM	n-Øm	ØM1	M3	
50	108	17	3	80	110	29	-	-	168.5	114	95	4-18	F05/F07	65/90	4-8	50/70	11x11	4.9
65	112	17	3	80	134	29	-	-	188.5	127	114	4-18	F05/F07	65/90	4-8	50/70	11x11	8.2
80	114	17	3	95	131	29	-	-	214	146	128	4-18	F05/F07	65/90	4-8	50/70	11x11	10.1
100	127	17	3	114	150	29	-	-	224	178	150	4-18	F07	90	4-10	70	11x11	13.4
125	140	17.8	3	113	170	29	-	-	250	210	180	8-18	F07	90	4-10	70	14x14	17.8
150	140	19	3	139	180	29	8.2	69.7	280	235	200	8-18	F07	90	4-10	70	14x14	21.5

Designed and manufactured to AS4795.

## AB13F DOUBLE FLANGED BUTTERFLY VALVES

DN 50 – DN 2000



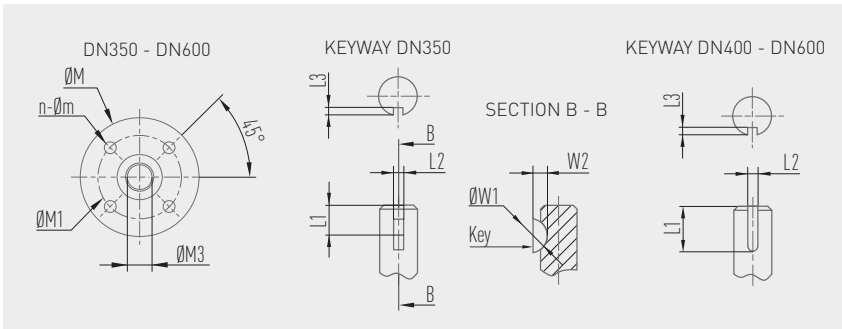
Gearbox Operated

## GEARBOX OPERATED – PN16 – DN80 - DN600

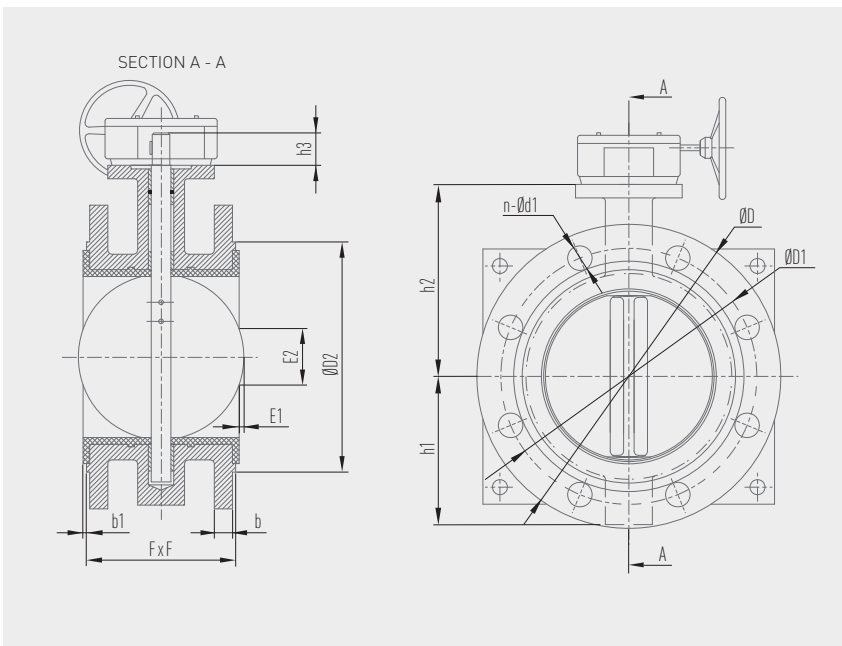
Code	Size (MM)	Description
VBFLAVF080GB	80	80 DOUBLE FLANGED BFLY GBX
VBFLAVF100GB	100	100 DOUBLE FLANGED BFLY GBX
VBFLAVF125GB	125	125 DOUBLE FLANGED BFLY GBX
VBFLAVF150GB	150	150 DOUBLE FLANGED BFLY GBX
VBFLAVF200GB	200	200 DOUBLE FLANGED BFLY GBX
VBFLAVF250GB	250	250 DOUBLE FLANGED BFLY GBX
VBFLAVF300GB	300	300 DOUBLE FLANGED BFLY GBX
VBFLAVF350GB	350	350 DOUBLE FLANGED BFLY GBX
VBFLAVF375GB	375	375 DOUBLE FLANGED BFLY GBX
VBFLAVF400GB	400	400 DOUBLE FLANGED BFLY GBX
VBFLAVF450GB	450	450 DOUBLE FLANGED BFLY GBX
VBFLAVF500GB	500	500 DOUBLE FLANGED BFLY GBX
VBFLAVF600GB	600	600 DOUBLE FLANGED BFLY GBX

# AB13F DOUBLE FLANGED BUTTERFLY VALVES

DN 50 – DN 2000



KEYWAY				
L1	L1	L1	ØW1	W2
12.7	5	5.5	19	7.5
18	8	8	28	11
22	8	8	28	11
22	8	8	28	11
45	10	5	-	-
45	10	5	-	-
45	10	5	-	-
56	10	5	-	-
58	16	6	-	-



## DIMENSIONS (MM)

AB13F DN 200 – DN 600									AS4087 CL16 MM				ISO 5211 TOP FLANGE					Weight (KG)
DN	FxF	b	b1	h1	h2	h3	E1	E2	ØD	ØD1	ØD2	n-Ød1	Flange No.	ØM	n-Øm	ØM1	ØM3	
200	152	20	3	175	210	35	25.5	134.4	340	292	262	8-18	F10	125	4-12	102	22.1	41
250	165	22	3	203	245	35	43.3	189.8	415	356	310	8-22	F10	125	4-12	102	28.5	53.5
300	178	23	4	242	276	35	61.8	243.4	457	406	364	12-22	F10	125	4-12	102	31.6	66.4
350	190	25	4	250	328	45	72	274.6	512	470	422	12-26	F10	125	4-12	102	31.6	84.8
375	190	29	4	265	350	51.2	82.5	305.3	550	495	450	12-26	F14	175	4-18	140	33.2	121.8
400	216	28	4	277.4	376	51.2	87.1	325	570	521	470	12-26	F14	175	4-18	140	33.2	121.8
450	222	30	4	295.2	406.6	51.2	109.6	381.3	620	584	520/538	12-26	F14	175	4-18	140	38	197.8
500	229	31.5	4	330	448	64.2	131.5	435.3	655	641	572/599	16-26	F14	175	4-18	140	41.2	279
600	267	36	4	418	518	70.2	163	529.5	790	756	672/710	16-30	F16	210	4-22	165	50.7	376.8

Designed and manufactured to AS4795.

# HYDRANT VALVES



## SUREFLOW® SPRING HYDRANT VALVES

DN 80 &amp; DN 100



## FEATURES

SUREFLOW Spring Hydrant Valves provide direct access to water pipelines for fire fighting purposes. Access is gained by the attachment of a standpipe to the hydrant lugs.

The hydrant valve can also be used as a scouring or flushing point.

## TECHNICAL DATA

**Allowable Operating**

Pressure 1600 kPa

**Seat Infiltration Resistance**

55 kPa (vacuum)

**Maximum Temperature 60°C**

End Connections

**Flanged to AS 4087 Fig B5,**

DN 80 and DN 100

**Certification**

ISC AS 3952:2002 Certified Product  
Licence No. PRD/R61/0412

AS/NZS 4020

Testing of products for use in  
contact with drinking water.

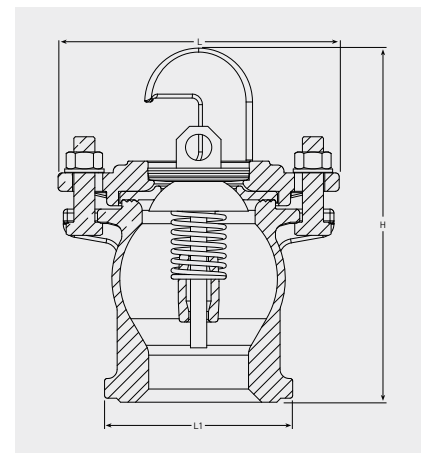
## STANDARD HYDRANT VALVES – SUREFLOW SPRING

Code	Size (MM)	Weight (KG)	Description
SHAC008S7K	80	8.5	80 SUREFLOW SPRING HYDRANT B5
SHAC010S7K	100	9.5	100 SUREFLOW SPRING HYDRANT B5

## STANDARD HYDRANT VALVES – SUREFLOW LILAC SPRING

Code	Size (MM)	Weight (KG)	Description
SHAC008S7KL	80	8.5	80 SUREFLOW LILAC SPRING HYDRANT B5
SHAC010S7KL	100	9.5	100 SUREFLOW LILAC SPRING HYDRANT B5

Designed and manufactured to AS3952.

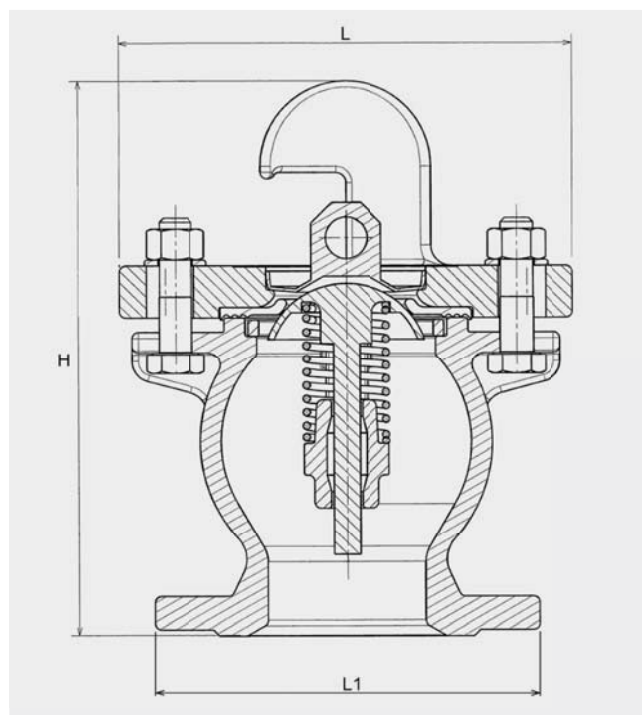


## DIMENSIONS (MM)

DN	H	L	L1	Weight (KG)
80	268	214	154	9.2
100	268	214	166	10.3

## SUREFLOW® SPRING SWAB HYDRANT VALVES

DN 80 &amp; DN 100



## SWAB HYDRANT VALVES – SUREFLOW SPRING

Code	Size (MM)	Weight (KG)	Description
SHAC008S7KSWAB	80	8.5	80 SUREFLOW SWAB SPRING HYDRANT B5
SHAC010S7KSWAB	100	9.5	100 SUREFLOW SWAB SPRING HYDRANT B5

## DIMENSIONS (MM)

DN	H	L	L1	Weight (KG)
80	268	218	185	12.45
100	268	218	215	14.25

## SWAB HYDRANT VALVES – SUREFLOW LILAC SPRING

Code	Size (MM)	Weight (KG)	Description
SHAC008S7KSWABL	80	8.5	80 SUREFLOW SWAB LILAC SPRING HYDRANT B5
SHAC010S7KSWABL	100	9.5	100 SUREFLOW SWAB LILAC SPRING HYDRANT B5

Designed and manufactured to AS3952.

## HYDRANT & AIR VALVE ISOLATORS

DN 80 & DN 100 PROVIDING ISOLATION OF ATTACHED APPURTENANCE FOR MAINTENANCE



### FEATURES

Hydrant and Air Valve Isolators can be used in conjunction with spring hydrants, air valves or screwed outlets to provide isolation of the appurtenance for maintenance purposes.

Available outlet option include:

- Screwed Outlet
- Spring Hydrant
- Air Valve

### TECHNICAL DATA

#### Size Range

DN 80 and DN 100

#### Allowable Operating Pressures

1600kPa or 3500kPa

#### Maximum Temperature

50°C

#### End Connections

Flanged to AS 4087 Fig B5 or B6

#### Certifications

AS/NZS 4020

Testing of products for use in contact with drinking water.

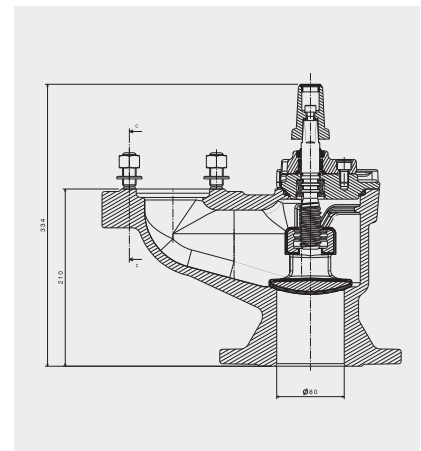
#### DN80 & DN100 – PN16

Code	Size (MM)	Description
VHDCC0808S7	80	80 B5/80 B5 CC H&AV ISOLATOR FC
VHDCC0808S7ACC	80	80 B5/80 B5 ACC H&AV ISOLATOR FC
VHDCC1010S7	100	100 B5/100 B5 CC H&AV ISOLATOR FC
VHDCC1010S7ACC	100	100 B5/100 B5 ACC H&AV ISOLATOR FC

#### DN80 & DN100 – PN35

Code	Size (MM)	Description
VHDF0808S7	80	80 B6/80 B6 CC H&AV ISOLATOR FC
VHDF1010S7	100	100 B6/100 B6 CC H&AV ISOLATOR FC

Designed and manufactured to AS3952.



## HYDRANT & AIR VALVE ISOLATORS

### BS750 UNDERGROUND FIRE HYDRANT - NORTHERN TERRITORY



#### DN80 - PN16

Code	Size (MM)	Description
VHDCN0808S7P	80	80 B5 HYD ISOLATOR NT BS750 SCREW DOWN

Conforms to power and water corporation specification w02-s5 – screw down hydrant

#### FEATURES

NT Underground Fire Hydrants provide direct access to water pipelines for fire fighting purposes. Access is gained with the attachment of a BS750 – 2 ½" x 2 TPI threaded attachment.

Jumper valve for back flow prevention.

Slotted mounting holes to match Dn80 AS4087 FIG B5 and Dn90 AS2129 Table D flanges.

Grade 316 stainless steel fasteners for long life application.

Insulation essential for installations subject to temperatures of 0°C and lower.

#### TECHNICAL DATA

##### Allowable Operating Pressures

Seat: 16 bar

Body: 24 bar

##### Maximum Temperature

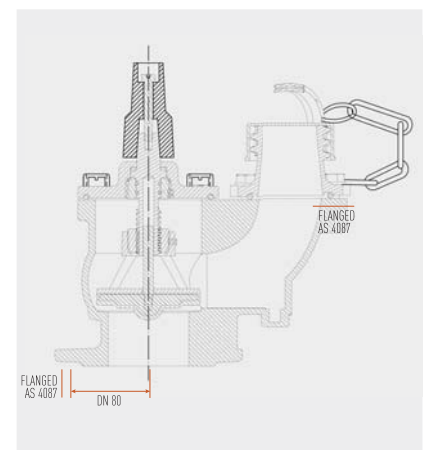
Valve designed for use up to 70°C Where applicable; for AS 4020 compliance, max temp 50°C

Note: Always observe pipe material recommended operating temperatures

##### End Connections

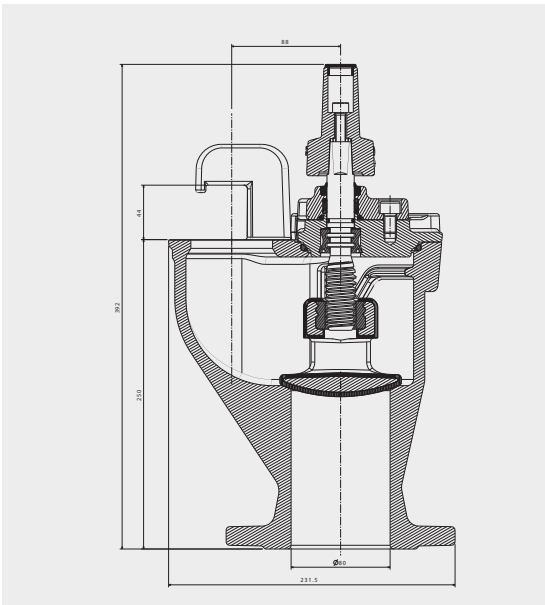
Universally drilled AS 4087 Dn80

FIG B5/AS 2129 Dn90 Table D slotted holes



## HYDRANT & AIR VALVE ISOLATORS

DN 80 FIRE HYDRANT ISOLATOR – SOUTH AUSTRALIA



### DN80 – PN16

Code	Size (MM)	Description
VHAC008S7	80	80 B5 AUSLITE SA FIREPLUG

### DN80 – PN35

Code	Size (MM)	Description
VHDF008S7	80	80 B6 HYD ISOLATOR-SA FIREPLUG

Conforms to South Australia water specification SAW2001.

### FEATURES

SA Fireplugs provide direct access to water pipelines for fire fighting purposes. Access is gained with the attachment of a standpipe to the hydrant lugs and opening of the valve.

Grade 316 stainless steel fasteners for long life application.

Special SA Water spindle cap.

### TECHNICAL DATA

#### Allowable Operating Pressures

1600kPa or 3500kPa

#### Maximum Temperature

50°C

#### End Connections

DN 80 flanged to AS 4087

#### Specifications

SA Water No. SAW 2001

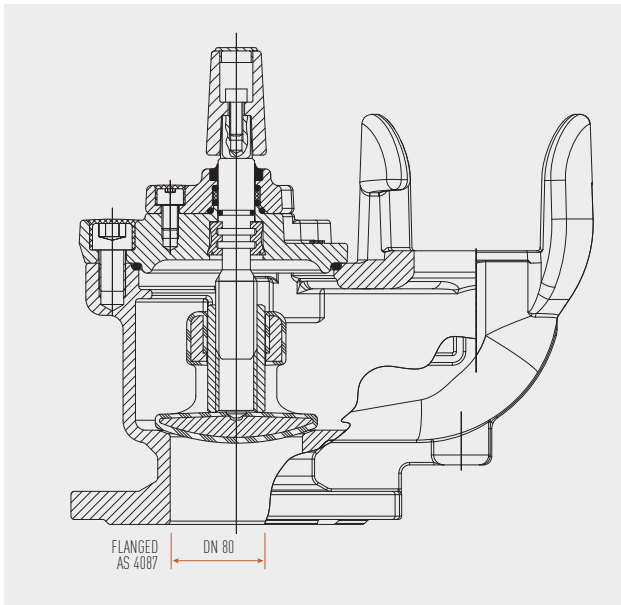
#### Certifications

AS/NZS 4020

Testing of products for use in contact with drinking water.

## HYDRANT & AIR VALVE ISOLATORS

### DN80 FIRE HYDRANT ISOLATOR – WESTERN AUSTRALIA



#### DN100 – PN16

Code	Size (MM)	Description
VHDC010S7	100	100 B5 WA HYD ISOLATOR WA FC

Conforms to Western Australia water corporation specification SPS292.

#### FEATURES

The WA Fire Hydrant is designed and manufactured to SPS 292.

Jumper valve for back flow prevention.

Slotted mounting holes to match existing Dn90 flanged risers.

WA Fire Hydrant Isolators provide direct access to water pipelines for fire protection services, water and neutral liquid applications. Access is gained with the attachment of a standpipe to the hydrant lugs.

Insulation essential for installations subject to temperatures of 0°C and lower.

#### TECHNICAL DATA

##### Allowable Operating Pressures-1600kpa

Hydraulic test to SPS 292:

Seat: 16 bar

Body: 24 bar

##### Maximum Temperature

Valve designed for use up to 70°C Where applicable; for AS 4020 compliance, max temp 40°C

Note: Always observe pipe material recommended operating temperatures

##### End Connections

Universally drilled AS 2129 Table D, DN90/ DN100, slotted holes

##### Certifications

AS/NZS 4020 Testing of products for use in contact with drinking water

# KNIFE GATE VALVES

## XDV-UDH KNIFE GATE VALVES

FLANGE DN50 – DN600 LUGGED



### FEATURES

- Special L shaped replaceable seat.
- Roller bearings in SS housing on all sizes.
- Fully lugged to suit AS4087 CL16.
- Stainless steel stem protection tube included.
- Gearbox included on DN450 and above.
- Stainless steel safety guards included on all sizes.
- Special adjustable gate guide ensures no leakage.
- Viton seat as standard.
- Temperature range up to 200°C (depending on seat).

### OPTIONS

- ISO mount type.
- WCB or Duplex body.
- Wafer type body.
- EPDM, NBR, PTFE or metal seat.
- Electric or pneumatic actuator.
- Non-rising stem.
- Limit switches.
- Chain wheel.
- Anti-clockwise close.
- Extensions.

### TECHNICAL DATA

#### Size Range

DN50-DN1200

#### Pressure Class

Max PN10 dependant on valve size

#### Face to Face

MSS SP-81

#### Maximum Temperature Rating: (at nil pressure)

200°C Viton (standard)  
120°C EPDM (optional)  
90°C NBR (optional)  
200°C PTFE (optional)  
200°C Metal (optional)

#### Lugged to suit

AS4087, Class 16. (others on request)

Code	Size (MM)	Description
VKGLAVF050HW	50	50 KNIFE GATE VLV ST/ST LUGGED HW
VKGLAVF065HW	65	65 KNIFE GATE VLV ST/ST LUGGED HW
VKGLAVF080HW	80	80 KNIFE GATE VLV ST/ST LUGGED HW
VKGLAVF100HW	100	100 KNIFE GATE VLV ST/ST LUGGED HW
VKGLAVF125HW	125	125 KNIFE GATE VLV ST/ST LUGGED HW
VKGLAVF150HW	150	150 KNIFE GATE VLV ST/ST LUGGED HW
VKGLAVF200HW	200	200 KNIFE GATE VLV ST/ST LUGGED HW
VKGLAVF225HW	225	225 KNIFE GATE VLV ST/ST LUGGED HW
VKGLAVF250HW	250	250 KNIFE GATE VLV ST/ST LUGGED HW
VKGLAVF300HW	300	300 KNIFE GATE VLV ST/ST LUGGED HW
VKGLAVF350HW	350	350 KNIFE GATE VLV ST/ST LUGGED HW
VKGLAVF375HW	375	375 KNIFE GATE VLV ST/ST LUGGED HW
VKGLAVF400HW	400	400 KNIFE GATE VLV ST/ST LUGGED HW
VKGLAVF450HW	450	450 KNIFE GATE VLV ST/ST LUGGED HW
VKGLAVF500HW	500	500 KNIFE GATE VLV ST/ST LUGGED HW
VKGLAVF600HW	600	600 KNIFE GATE VLV ST/ST LUGGED HW

# AIR VALVES

## ODOUR TECH VS-4 SMART VALVE

TWIN CHAMBER COMBINATION AIR RELEASE VALVE FOR ALL SEWERAGE AND POTABLE MAINS



### VS-4 SMART VALVE

Code	Style	Height	Width	Weight
3707133	Standard	501	445	23
3707765	Low Profile	460	445	23
3707766	High Flow	501	445	24

Odour Technologies have looked at the problems experienced by wastewater operators with air release valves. Over a period of 5 years we have designed and tested our double chamber valve that overcomes previously experienced faults found in single chamber valves.

### FEATURES

- Dual Chamber Design
- Self ejection of contaminants
- Anti-hammer and shock control
- 316 Stainless Steel construction
- Multiple valve ports to a single upstand
- Table D 100mm (4 hole)
- Pressure Rating: PN16

### APPLICATIONS

The VS-4 is the ideal valve of choice for waste line applications, where single chamber valves are likely to fail. Thanks to the dual chamber design, contaminants do not accumulate in the valve. Rather they are self ejected back into the line, vastly improving time between maintenance and overall life.

### BENEFITS

- Floats and seals protected from solids
- Seals at atmospheric pressure
- Easily serviced on-site
- Guaranteed anti-hammer air chamber
- Extra long service intervals

## BERMAD® A30 AUTOMATIC AIR VALVE

SINGLE ORIFICE, AIR ACCUMULATION PREVENTION, LOW PRESSURE SEALING



### BERMAD® A30 AUTOMATIC AIR VALVE

#### INLET 1" MALE BSP

Code	Size (MM)	Description
VAIR1A10	25	1" M BSP Small Orifice AV PN10 GRP Grey
VAWW1A30	25	1" M BSP Small Orifice AV PN16 GRP BLACK

Single orifice, air accumulation prevention, low pressure sealing

BERMAD A30 is a high quality automatic air release valve that allows efficient release of air pockets from pressurized pipes.

With its advanced design, this valve provides excellent protection against air accumulation with improved sealing in low pressure conditions.

#### FEATURES

- Large diameter automatic orifice.
- Compact, simple and reliable structure.
- Fully corrosion-resistant parts.

#### APPLICATIONS

Pipelines – Protection against air accumulation in horizontal or low slope lines and road / river crossings.

In proximity to control valves and water meters – Prevention of biased readings and inaccurate pressure regulation due to air flow through these devices.

Industrial and residential networks – Protection against air accumulation.

#### BENEFITS

- High air flow rates.
- Low pressure sealing (0.1bar).
- Lower maintenance and increased life span.

## BERMAD® C30 AUTOMATIC AIR VALVE

DOUBLE ORIFICE, AIR ACCUMULATION AND VACUUM PREVENTION, LOW PRESSURE SEALING



### BERMAD® C30 AUTOMATIC AIR VALVE

INLET 1"-2" MALE BSP OR DN80 FLANGED

Code	Size (MM)	Description
VAIR2C10	50	2" M BSP Comb AV PN12 GRP Grey/RED
VAIR3C10	80	3" flanged Comb AV PN12 GRP Grey/RED
VAWW1C30	25	1" M BSP Comb AV PN16 GRP
VAWW2C30	50	2" M BSP Comb AV PN16 GRP
VAWW3C30	80	3" flanged Comb AV PN16 GRP

Double orifice, air accumulation and vacuum prevention, low pressure sealing

BERMAD C30 is a high quality combination air valve for a variety of water networks and operating conditions. It evacuates air during pipeline filling, allows efficient release of air pockets from pressurized pipes, and enables large air volume intake in the event of network draining.

With its advanced aerodynamic design, this double orifice valve provides excellent protection against air accumulation and prevents vacuum formation with improved sealing in low pressure conditions.

### BENEFITS

Higher than usual air flow rates.

Low pressure sealing (0.1bar).

Lower maintenance and increased life span

Pressure gauge connection, check point or test drain for air valve function.

### FEATURES

Straight flow body with large diameter automatic orifice.

Aerodynamic full-body kinetic shield.

Compact, simple and reliable structure.

Fully corrosion-resistant parts.

Surge Protection (optional).

Inflow Prevention (optional).

Service Ports fitted (optional).

Threaded Side outlet (Optional for DN50/2").

### APPLICATIONS

Pipelines – Protection against air accumulation and vacuum formation at elevations, slope change points and road/ river crossings.

Water networks – Protection against air accumulation and vacuum formation. In proximity to control valves and water meters – Prevention of biased readings and inaccurate pressure regulation due to air flow through these devices.

Industrial and residential networks - Protection against air accumulation.

## BERMAD® C50 COMBINATION AIR VALVE

SEWAGE & WASTEWATER COMBINATION AIR VALVE – DOUBLE ORIFICE WITH SURGE PROTECTION, AIR ACCUMULATION & VACUUM PREVENTION, LOW PRESSURE SEALING AND EASY MAINTENANCE



### BERMAD® C50 COMBINATION AIR VALVE

INLET 2" FEMALE BSP OR DN50-DN80 FLANGED

Code	Size (MM)	Description
VAWW2BPC50SP	50	2" F BSP COMB SAV SP PN10 GRP
VAWW2BDC50SP	50	2" FL COMB SAV SP TD PN10 GRP
VAWW3BDC50SP	80	80mm FL COMB SAV SP TD PN10 GRP

Sewage & wastewater combination air valve – double orifice with surge protection, air accumulation & vacuum prevention, low pressure sealing and easy maintenance

BERMAD C50 is a high quality combination air valve for a variety of sewage and wastewater networks and operating conditions. It evacuates air during pipeline filling, allows efficient release of air and gas pockets from pressurized pipes, and enables large volume air intake in the event of network draining.

With its advanced aerodynamic design and double orifice, this valve provides excellent protection against air and gas accumulation and vacuum formation with improved sealing under low pressure conditions.

### BENEFITS

- Higher than usual air flow rates.
- Low pressure sealing (0.05 bar).
- Vortex back washing.
- Lower and easier maintenance.
- Increased life span.

### FEATURES

- Straight flow body with large diameter automatic orifice.
- Aerodynamic full-body kinetic shield.
- Elongated body design with non-stick coating.
- Valve is opened from the top.
- 2 service ports.
- Compact, simple, robust and reliable structure.
- Fully corrosion-resistant parts.
- Surge Protection (optional).
- Inflow Prevention (optional).
- Drainage valve (optional).

### APPLICATIONS

Sewage and wastewater pumping stations  
– Air relief and vacuum prevention.

Sewage and wastewater pipelines  
– Protection against air and gas accumulation and vacuum formation at elevations, slope change points and at road /river crossings.

Municipal and industrial wastewater treatment plants – Protection against air and gas accumulation and vacuum formation.

## BERMAD® C60 / C65 COMBINATION AIR VALVE

SEWAGE & WASTEWATER COMBINATION AIR VALVE – DOUBLE ORIFICE WITH SURGE PROTECTION, AIR ACCUMULATION & VACUUM PREVENTION, LOW PRESSURE SEALING AND EASIER MAINTENANCE



### BERMAD® C60 / C65 COMBINATION AIR VALVE

INLET 2" FEMALE BSP OR DN50-DN100 FLANGED

Code	Size (MM)	Description
VAWW2BPC60SP	50	2" F BSP COMB SAV SP PN16 DI
VAWW2BDC60SP	50	2" FL COMB SAV SP TD PN16 DI
VAWW3BDC60SP	80	80mm FL COMB SAV SP TD PN16 DI
VAWW4BDC60SP	100	100mm FL COMB SAV SP TD PN16 DI

Sewage & wastewater combination air valve – double orifice with surge protection, air accumulation & vacuum prevention, low pressure sealing and easier maintenance

BERMAD C65 is a high quality combination air valve for a variety of sewage and wastewater networks and operating conditions. It evacuates air during pipeline filling, allows efficient release of air and gas pockets from pressurized pipes, and enables large volume air intake in the event of network draining.

With its advanced aerodynamic design, double orifice and anti-slam / slow closing device, this valve provides excellent protection against air and gas accumulation, surge and water hammers with improved sealing under low pressure conditions.

### BENEFITS

- Higher than usual air flow rates.
- Low pressure sealing (0.1bar).
- Vortex back washing.
- Lower and easier maintenance.
- Increased life span.

### FEATURES

- Straight flow body.
- Aerodynamic full-body kinetic shield.
- Elongated body design with non-stick coating.
- Valve is opened from the top.
- 2 service ports.
- Compact, simple, robust and reliable structure.
- Fully corrosion-resistant parts.
- Surge Protection (optional).
- Inflow Prevention (optional).
- Drainage valve (optional).

### APPLICATIONS

- Sewage and wastewater pumping stations
  - Air relief, vacuum prevention and surge protection.
- Sewage and wastewater pipelines
  - Protection against air and gas accumulation and vacuum formation at elevations, slope change points and at road/river crossings.
- Protection against vacuum formation, surge and water hammer at points likely to experience water column separation.
- Municipal and industrial wastewater treatment plants – Protection against air and gas accumulation and vacuum formation.

## BERMAD® C70 COMBINATION AIR VALVE

DOUBLE ORIFICE WITH SURGE PROTECTION, 2-STEP FUNCTION AUTOMATIC ORIFICE, AIR ACCUMULATION & VACUUM PREVENTION AND LOW PRESSURE SEALING



### BERMAD® C70 COMBINATION AIR VALVE

INLET 2" FEMALE BSP OR DN50-DN150 FLANGED

Code	Size (MM)	Description
VAWW2BPC70SP	50	2" F BSP COMB AV SP PN16 DI
VAWW2HPC70SP	50	2" F BSP COMB AV SP PN35 DI
VAWW2BDC70SP	50	2" FL COMB AV SP TD PN16 DI
VAWW2BHC70SP	50	2" FL COMB AV SP TD PN35 DI
VAWW3BDC70SP	80	80MM FL COMB AV SP PN16 DI
VAWW3BHC70SP	80	80MM FL COMB AV SP PN35 DI
VAWW4BDC70SP	100	100MM FL COMB AV SP PN16 DI
VAWW4BHC70SP	100	100MM FL COMB AV SP PN35 DI
VAWW6BDC70SP	100	150MM FL COMB AV SP PN16 DI
VAWW6BHC70SP	150	150MM FL COMB AV SP PN35 DI
VAWW8BDC70SP	150	150MM FL COMB AV SP PN16 DI
VAWW8BHC70SP	150	150MM FL COMB AV SP PN35 DI

Double orifice with surge protection, 2-step function automatic orifice, air accumulation & vacuum prevention and low pressure sealing

BERMAD C70 is a high quality combination air valve for a variety of water networks and operating conditions. It evacuates air during pipeline filling, allows efficient release of air pockets from pressurized pipes, and enables large volume air intake in the event of network draining.

With its advanced aerodynamic design, double orifice and anti-slam / slow closing device, this valve provides excellent protection against air accumulation, vacuum formation and pressure surges, with improved sealing in low pressure conditions. The valve minimizes water spraying during air release.

### APPLICATIONS

Pumping stations and deep well pumps  
– Air relief, surge protection and vacuum prevention.

Pipelines  
– Protection against air accumulation and vacuum formation at elevations, slope change points and at road / river crossings.

Water networks  
– Protection against vacuum formation, surge and water hammers at points likely to experience water column separation.

### BENEFITS

Higher than usual air flow rates.

Low pressure sealing (0.1bar).

Minimizes water spraying during air release.

Lower maintenance and increased life span.

Australian Standards - AS4956 approved (Licence No SMK25537 SAI Global) and AS/NZS 4020 approved.

### FEATURES

Straight flow body with nominal (equal) inlet and outlet size.

Aerodynamic full-body kinetic shield.

Innovative 2-step function, automatic orifice.

Optional outlets.

2 service ports.

Drainage valve.

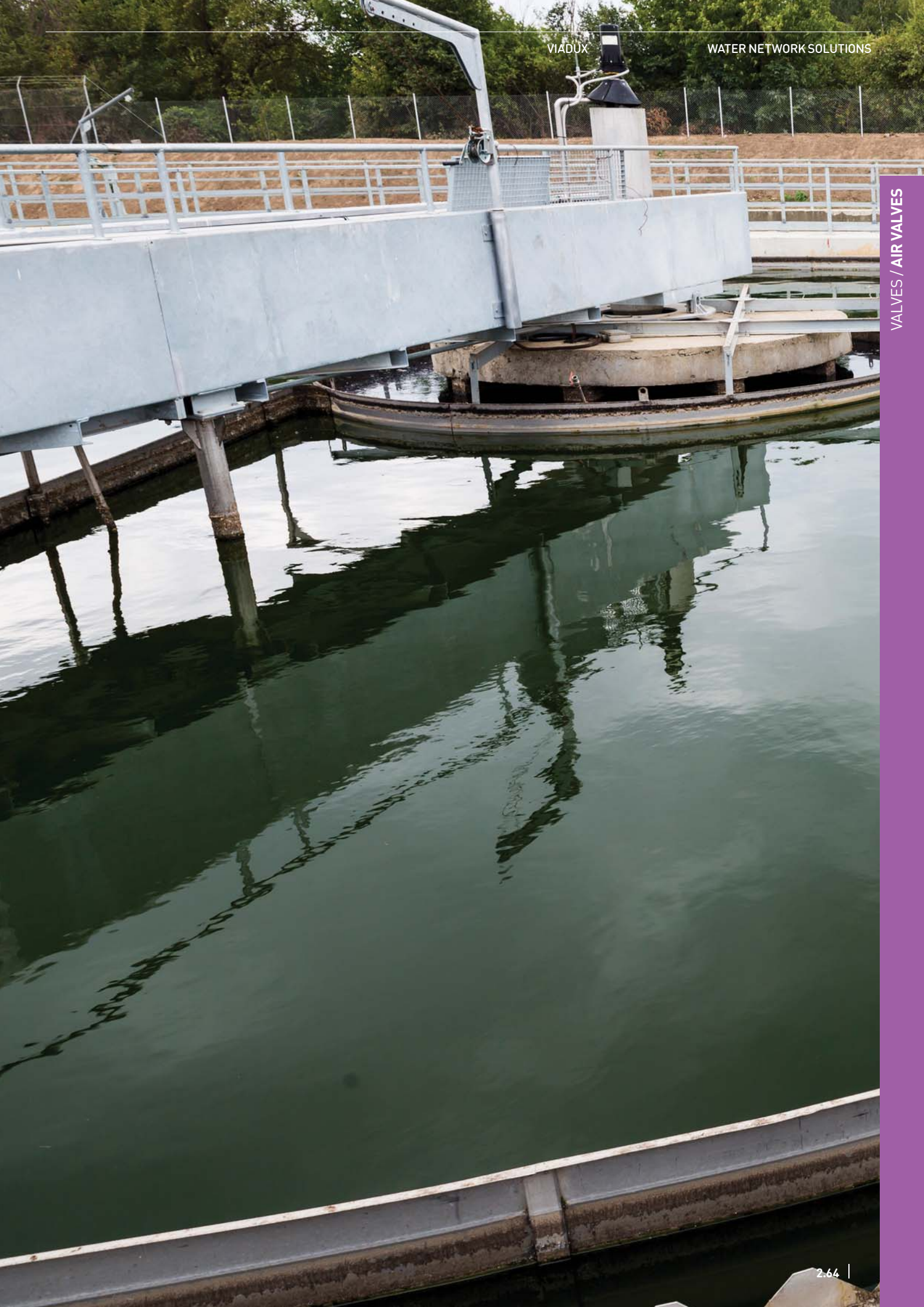
Compact, simple, robust and reliable structure.

Fully corrosion-resistant parts.

Surge Protection (optional).

Inflow Prevention (optional).

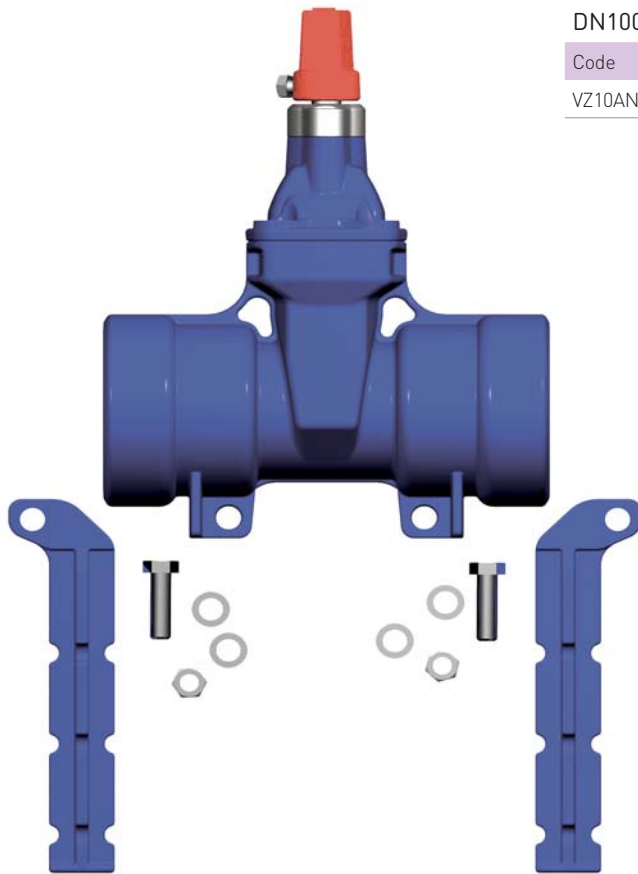
Insect Screen (optional).



# VALVE ANCILLARY

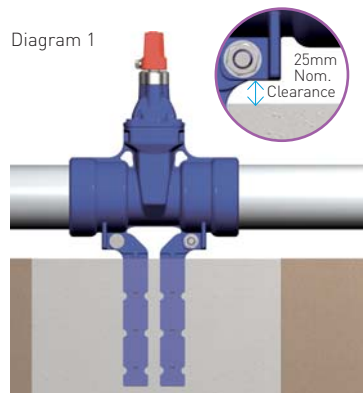
# SUREFLOW® VALVE ANCHOR KIT

VALVE THRUST RESTRAINT SYSTEM – DN 100 & DN 150 SOCKET GATE VALVES



## DN100 & DN150 SOCKET GATE VALVES

Code	Size (MM)	Description
VZ10ANCHORKIT	100-150	100-150 VALVE ANCHOR KIT



## VALVE SPINDLE EXTENSION

FACILITATE THE REMOTE OPERATING OF GATE VALVES WITH DUCTILE IRON PIPE SYSTEMS



### GENERAL APPLICATION

SUREFLOW® Valve Spindle Extensions facilitate the opening and closing of gate valves where the valves are located below ground, or in pits, at an extended distance from the operating level

### TECHNICAL DATA

#### Length

Minimum 250mm  
Maximum 7500mm

Note: longer lengths available upon request

#### Standards

AS 2638 Gate valves for waterworks purposes.

### SET LENGTH 150 – 600MM

Code	Length (MM)	Description
VZDXA0150S	150	VLV SPDLE EXT 150EL AS & SCREW
VZDXA0300S	300	VLV SPDLE EXT 300EL AS & SCREW
VZDXA0375S	375	VLV SPDLE EXT 375EL AS & SCREW
VZDXA0450S	450	VLV SPDLE EXT 450EL AS & SCREW
VZDXA0525S	525	VLV SPDLE EXT 525EL AS & SCREW
VZDXA0600S	600	VLV SPDLE EXT 600EL AS & SCREW

### VARIABLE LENGTH EXTENSION SPINDLE

Code	Description
VZDEA0500VAR	301-500 EL VALVE SPINDLE EXTENSION FAB
VZDEA0700VAR	501-700 EL VALVE SPINDLE EXTENSION FAB
VZDEA0900VAR	701-900 EL VALVE SPINDLE EXTENSION FAB
VZDEA1100VAR	901-1100 EL VALVE SPINDLE EXTENSION FAB
VZDEA1300VAR	1101-1300 EL VALVE SPINDLE EXTENSION FAB
VZDEA1500VAR	1301-1500 EL VALVE SPINDLE EXTENSION FAB
VZDEA1700VAR	1501-1700 EL VALVE SPINDLE EXTENSION FAB
VZDEA1900VAR	1701-1900 EL VALVE SPINDLE EXTENSION FAB
VZDEA2100VAR	1901-2100 EL VALVE SPINDLE EXTENSION FAB
VZDEA2300VAR	2201-2300 EL VALVE SPINDLE EXTENSION FAB
VZDEA2500VAR	2301-2500 EL VALVE SPINDLE EXTENSION FAB
VZDEA2700VAR	2501-2700 EL VALVE SPINDLE EXTENSION FAB
VZDEA2900VAR	2701-2900 EL VALVE SPINDLE EXTENSION FAB
VZDEA3100VAR	2901-3100 EL VALVE SPINDLE EXTENSION FAB
VZDEA3300VAR	3101-3300 EL VALVE SPINDLE EXTENSION FAB
VZDEA3500VAR	3301-3500 EL VALVE SPINDLE EXTENSION FAB
VZDEA3700VAR	3501-3700 EL VALVE SPINDLE EXTENSION FAB
VZDEA3900VAR	3701-3900 EL VALVE SPINDLE EXTENSION FAB
VZDEA4100VAR	3901-4100 EL VALVE SPINDLE EXTENSION FAB
VZDEA4300VAR	4101-4300 EL VALVE SPINDLE EXTENSION FAB
VZDEA4500VAR	4301-4500 EL VALVE SPINDLE EXTENSION FAB
VZDEA4700VAR	4501-4700 EL VALVE SPINDLE EXTENSION FAB
VZDEA4900VAR	4701-4900 EL VALVE SPINDLE EXTENSION FAB
VZDEA5100VAR	4901-5100 EL VALVE SPINDLE EXTENSION FAB
VZDEA5300VAR	5101-5300 EL VALVE SPINDLE EXTENSION FAB
VZDEA5500VAR	5301-5500 EL VALVE SPINDLE EXTENSION FAB
VZDEA5700VAR	5501-5700 EL VALVE SPINDLE EXTENSION FAB
VZDEA5900VAR	5701-5900 EL VALVE SPINDLE EXTENSION FAB
VZDEA6100VAR	5901-6100 EL VALVE SPINDLE EXTENSION FAB
VZDEA6300VAR	6101-6300 EL VALVE SPINDLE EXTENSION FAB
VZDEA6500VAR	6301-6500 EL VALVE SPINDLE EXTENSION FAB
VZDEA6700VAR	6501-6700 EL VALVE SPINDLE EXTENSION FAB
VZDEA6900VAR	6701-6900 EL VALVE SPINDLE EXTENSION FAB
VZDEA7100VAR	6901-7100 EL VALVE SPINDLE EXTENSION FAB
VZDEA7300VAR	7101-7300 EL VALVE SPINDLE EXTENSION FAB
VZDEA7500VAR	7301-7500 EL VALVE SPINDLE EXTENSION FAB

## VALVE HANDWHEEL

FOR USE ON DUCTILE IRON GATE VALVES



### HANDWHEEL AUSLITE III CC

Code	Description
3703402	80-150 Handwheel Auslite III CC FC
3704085	200 Handwheel Auslite III CC FC
3704089	225-300 Handwheel Auslite III CC FC
3704099	375-400 H'wheel Auslite III CC FC

### HANDWHEEL AUSLITE III ACC

Code	Description
3703398	80-150 Handwheel Auslite III ACC FC
3704082	200 Handwheel Auslite III ACC FC
3704087	225-300 Handwheel Auslite III ACC FC
3704096	375-400 Handwheel Auslite III ACC FC