



*PN16 & 35 Metal Seated
Swing Check Valves
DN80 - DN900*



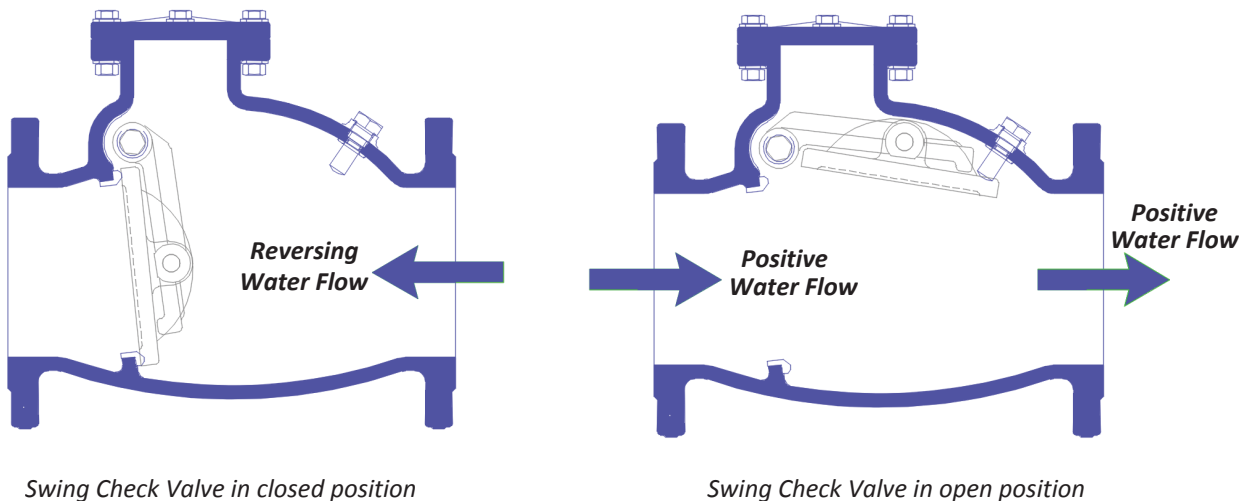
*Series: VSCM16
VSCM35*

Check Valves

Check valves are designed to prevent backflow (or reversing) of flow media by only allowing flow to occur in one direction. There are many types of check valve including: Swing Check, Spring Check, Lift Check, Ball Check, Tilting disc, etc. Swing Check Valves are referenced by a variety of names within industry including: Swing Check Valves, Non-Return Vales, Reflux Valves, Flap Valves, etc.

Essentially they are an ingress/egress, dual port device, used to automatically control directional flow without manual assistance. The disc (flow inhibitor), swings on a hinge pin, either closing onto the seat and blocking reverse flow or lifting off the seat to allow positive forward flow. The seat opening cross-section is set at an angle, perpendicular to the centerline between the two ports.

Swing Check Valve Operating Positions



Dobbie Swing Check Valves

Extensive research and meticulous engineering verification has enabled the development and ongoing refinement of the Dobbie Swing Check Valve range. These superior valves lead the way in innovative design, robust manufacture and reliable performance. Featuring precise disc angle, comparative weight distribution and truncated disc travel, the Dobbie valve is at the pinnacle of hydraulic design.

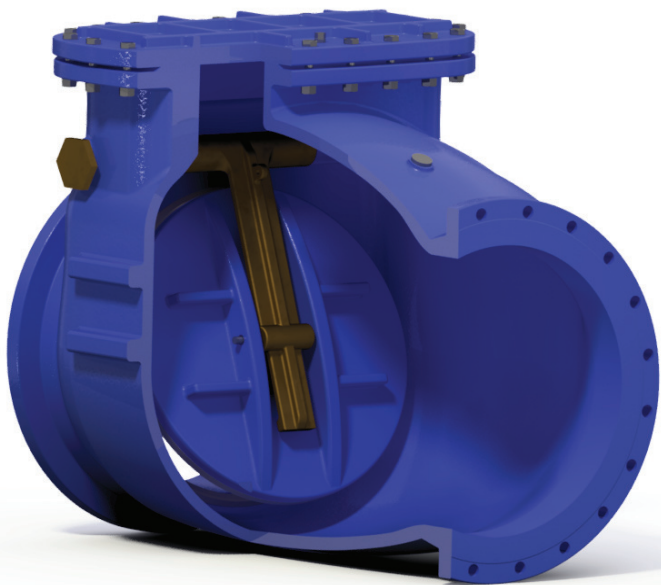
Dobbie Swing Check Valves are designed for a variety of fluid media (Water, waste water, sewage, etc.) and are manufactured on site in Perth, Western Australia. The Dobbie metal seated design provides full access to the internal disc and mechanism via a bolt on bonnet, which allows for complete serviceability and, on those rare occasions requiring it, repair, all whilst the valve remains in situ.

Dobbie swing check valves are offered in diameters ranging from 80mm to 900mm.

Dobbie Swing Check Valves are best suited to horizontal installation and are suitable for both above ground and below ground applications.

Construction

Dobbie Swing Check Valves are designed and manufactured right here in Perth, Western Australia, for strength, abrasion resilience, impact resistance and durability. They are engineered to provide long term, trouble free performance coupled with minimal maintenance obligations. They are constructed from high grade 500-7 Ductile Iron. Seats are manufactured in copper alloy (C83600 - AS1565) and the discs cast in either: copper alloy (to 600mm); or ductile iron (750mm – 900mm), which is then hermetically sealed with thermally applied polymeric coating, and fitted with a gunmetal seating ring. All fasteners are Grade #316 Stainless Steel for PN16 rated valves, and Grade 8.8 High Tensile Galvanised for PN35 rated valves.



Features

- Low Friction Loss / Low Head Loss
- Durability / Long Life
- Low Maintenance
- Ease of Serviceability. Service inline / in situ
- Drip Tight Seating
- Fully Ported
- Suitable for Line Flushing / Scouring
- Angled Disc position
- Travel Stop
- Bleed Valve

Options

- Free Acting
- Lever & Counter Weight
- Limit Switch
- Proximity Switch
- Safety Guard
- Disc Position Indicator
- Flange Connections: AS/NZS 4087
- Flange Options: (ANSI / ASME, BSEN 1092, etc) or as per custom specification

Specifications

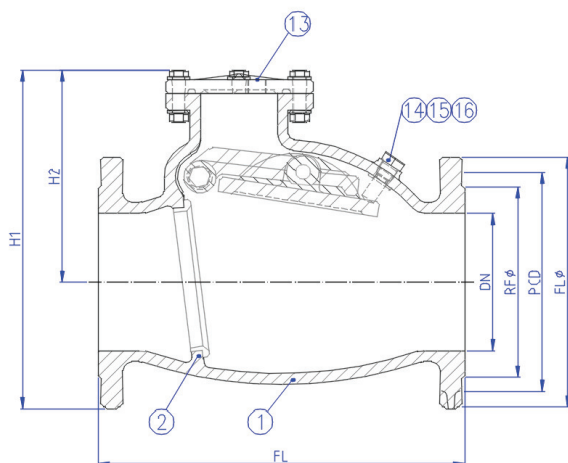
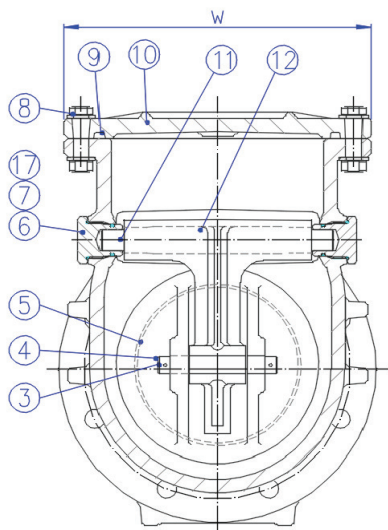
Dobbie Swing Check valves are manufactured under strict Quality Assurance controls. All valves are manufactured to the governing Australian Standard AS 4794. They are either PN16 or PN35 pressure rated with appropriate flanging conforming to AS/NZS 4087. All valves feature a thermally bonded polymeric coating, which carries both an AS/NZS 4158 & AS/NZS 4020 approval. Dobbie Swing Check Valves are therefore suitable for all applications incorporating potable (drinking) water.

Applications

Dobbie Swing Check Valves are suitable for use in a range of applications including:

- Potable Water Lines
- Sewage Lines
- Waste Water Systems
- Slurry Systems
- Storm Water Pump Stations

Technical Specifications & Information



Materials & Part Listing

No.	Component	Material / Specification
1	Body	Ductile Iron AS 1831 Grade 500-7
2	Seat	Gunmetal AS 1565 Grade C48600
3	Split Pin	Stainless Steel 316
4	Disk Pin	Stainless Steel ASTM A276-316
5	Disk	Gunmetal AS 1565 Grade C48600 (DN80-600)
	Disk	Ductile Iron AS 1831 Grade 500-7 (Coated) & Gunmetal Seat AS1565 Grade 83600 (DN900)
6	Gland	Gunmetal AS 1565 Grade C48600
7	O-Ring	EPDM AS1646
8	Fasteners	Stainless Steel ASTM A276-316
9	Cover Seal	EPDM AS1646
10	Cover	Ductile Iron AS 1831 Grade 500-7
11	Hinge Pin	Stainless Steel ASTM A276-316
12	Hinge	Gunmetal AS 1565 Grade C48600
13	Bleed Valve	Stainless Steel 316
14	Travel Stop	Stainless Steel ASTM A276-316
15	O-Ring	EPDM AS 1646
16	O-Ring	EPDM AS 1646
17	O-Ring	EPDM AS 1646

Technical Data

Size Range: DN80 - DN900

Allowable Operating Pressure - 1600kPa or 3500kPa

Manufactured to AS 4794

Certified to be suitable for contact with drinking water (AS/NZS 4020)

PN16 Data

DN	FL	H1	H2	FLØ	RF	PCD	W	Hole Ø & Qty
80	260	250	155	185	122	146	196	Ø18 / 4
100	330	305	195	215	154	178	225	Ø18 / 4
150	410	380	238	280	211	235	280	Ø18 / 8
200	540	475	305	335	268	292	395	Ø18 / 8
225	610	525	335	370	300	324	413	Ø18 / 8
250	640	580	370	405	328	356	490	Ø22 / 8
300	700	670	430	455	378	405	577	Ø22 / 12
375	820	820	540	550	463	495	655	Ø26 / 12
400	920	835	540	580	489	521	656	Ø26 / 12
450	970	925	600	640	552	581	710	Ø26 / 12
500	1070	1020	660	705	609	641	785	Ø26 / 16
600	1220	1180	760	825	720	756	970	Ø30 / 16
900	1700	1679	1020	1175	1050	1092	1325	Ø36 / 24

PN35 Data

DN	FL	H1	H2	FLØ	RF	PCD	W	Hole Ø & Qty
100	330	330	205	230	167	191	265	Ø18 / 8
150	410	420	255	305	232	260	326	Ø22 / 8
200	540	500	305	370	296	324	395	Ø22 / 12
225	610	545	335	405	324	356	413	Ø26 / 12
250	640	596	370	430	349	381	490	Ø26 / 12
300	700	687	430	490	406	438	579	Ø26 / 16
375	820	840	540	580	485	521	655	Ø30 / 16
400	920	855	540	610	516	552	656	Ø30 / 20
450	970	945	600	675	571	610	710	Ø33 / 20
500	1070	1035	660	735	634	673	785	Ø33 / 24
600	1220	1195	760	850	739	781	970	Ø36 / 24

Sizes shown are for Free Acting Valves Only.

H1 & H2 sizes are approximate only ± 5 mm.

Valves are available with Lever Arm & Counterweight, Position Indicators, Limit Switches & Guards.

Valves can be manufactured to suit client requirements including modified flange drilling to ANSI, BSEN1092 & others.

Dobbie

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Details shown may be subject to change due to Dobbie continual product development