



CheckFlo Wafer Swing Check Valves

Manufacturers of Nozzle Check, Silent and Swing Check Valves for Optimum Surge Protection

Why Series SLM Wafer Swing Check Valves?

Robust Design

A self acting, single plate, wafer type Swing Check valve which provides high quality and reliability within a simplified construction.

Available in both Carbon Steel and Stainless Steel.

Steel options available in a variety of coatings

Low Headloss

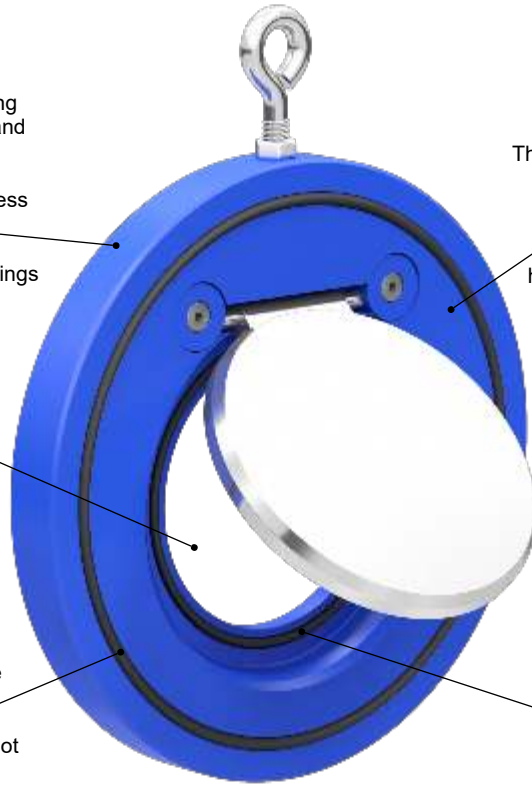
The low inertia Disc is designed to open and close under low differential pressure conditions.

The short pattern design and straight flow path minimises pressure drop across the valve.

Economical Design

The low weight and short face to face dimensions provide an economical, space saving solution.

Additionally, flange gaskets are typically not required due to the built in, body seal O-Rings



Versatile Design

The CheckFlo valve can be installed between flanges of different standards.

The valve can be installed in a horizontal or vertical position but is not recommend for a vertical installation with a downward flow.

Standard Resilient Soft Seat

Soft seats available in a variety of materials combined with a gravity assisted disc help to ensure a positive shutoff which creates a bubble tight seal

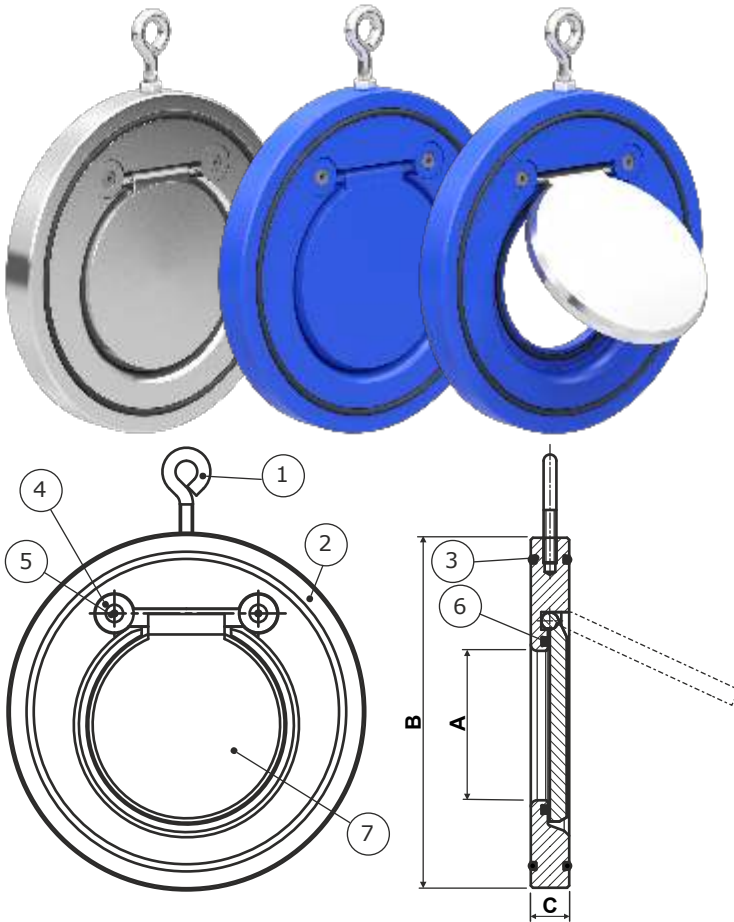
Series SLM Wafer Swing Check Valves Features and Benefits

- **Compact Design** - Short face to face wafer design makes for economical design of pump stations.
- **Virtually Maintenance Free** – The valve has only one moving part resulting in minimal wear and long service life.
- **Surge protection** – Spring loaded option with a quick dynamic response minimises damaging water hammer.
- **Ease of installation** – A wafer design with an e bolt that easily fits between two flanges and can easily be located and adjusted via the eyebolt.
- **Tight shutoff** – This is accomplished by means of a dynamic soft O-Ring sealing design or metal-to-metal seating for high temperatures.
- **Highly customisable** – CheckFlo Series SLM is designed to suit a wide variety of applications and can be supplied in a wide variety of materials, seat designs and pressure ratings to suit the client's application.
- **Technical support** – We provide assistance with surge analysis and protection strategies for specific critical velocity and valve response requirements.

CheckFlo Series SLM Swing Check Valves are part of a range of other leading CheckFlo products which include:

- **CheckFlo Series DGB** High Performance Nozzle Check Valves
- **CheckFlo Series BCB** Silent Check Valves
- **CheckFlo Series BWB** Tilting Disc Check Valves
- **CheckFlo Series GBB** Foot Check Valves

Series SLM Wafer Swing Check Valves Weights and Dimensions



DESIGN TYPE

Wafer Swing Check Valve Design

ACCEPTABLE MEDIA

Potable Water, Sea Water, Waste Water, Food stuff, All kinds of Oil, Weak Acids and Alkaline Liquids

OPERATING PRESSURE RANGE

PN16, PN 25 and PN 40

OPERATING TEMPERATURE RANGE

Nitrile Max. 80°
 EPDM Max. 120°
 PTFE Max. 180°
 Metal to Metal Max. 180°

SIZE RANGE

DN50 to DN600

MATERIALS OF CONSTRUCTION

- Steel Fusion Bonded Epoxy Coated to 300 microns.
- All Stainless Steel 304 or 316
- Steel Galvanised
- Steel Nickel Plated
- Steel Epoxy Coated with Stainless Steel Disc
- Steel Epoxy Coated with Nickel Plated Disc

FLANGE CONNECTIONS

Flanged SABS 1123 or EN 1092 or ANSI B16.5

DESIGN AND MANUFACTURE

Design and Manufacture and Face to Face: API 6D
 Testing in accordance to: API 598

NO:	DESCRIPTION	STEEL	STAINLESS
1	Eye Bolt	Nickel Plated Steel	AISI 304/316
2	Body	Steel WA 350 Epoxy Coated or Nickel Plated or Galvanised	AISI 304/316
3	O-Ring Flange	Nitrile Alternatively EPDM/FPM/PTFE	Nitrile Alternatively EPDM/FPM/PTFE
4	Screw	AISI 304/316	AISI 304/316
5	Washer	AISI 304/316	AISI 304/316

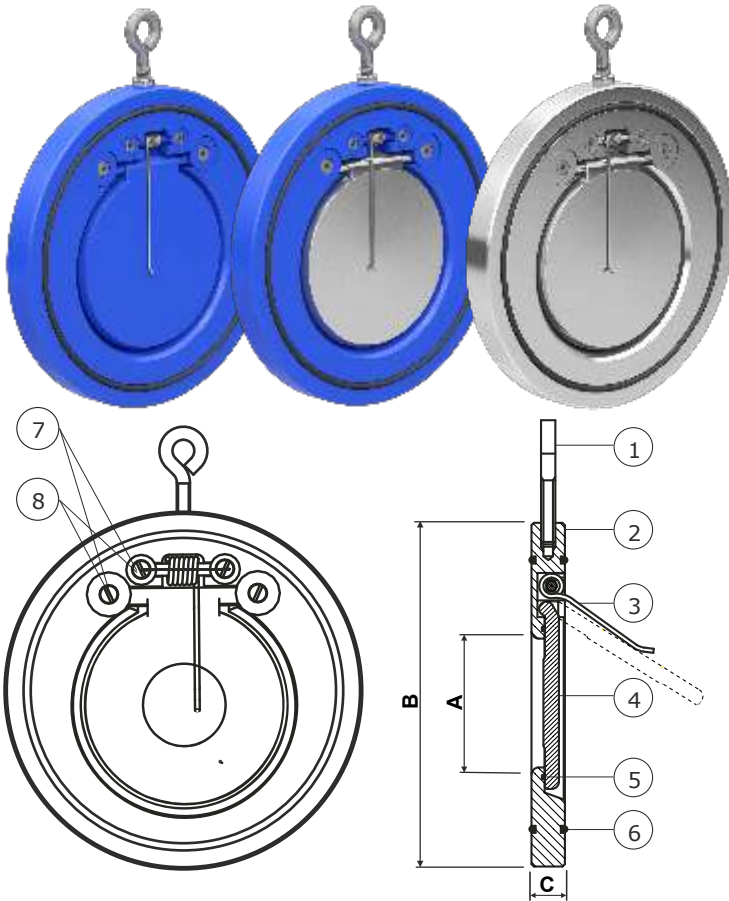
NO:	DESCRIPTION	STEEL	STAINLESS
6	O-Ring Seat	Nitrile Alternatively EPDM/FPM/PTFE	Nitrile Alternatively EPDM/FPM/PTFE
7	Disc	Steel 350 Epoxy Coated or Nickel Plated or Galvanised	AISI 304/ 316

Weights & Dimensions Wafer Design

Size DN mm	A mm All Sizes	B mm PN 16	C mm PN 16	B mm PN 25	C mm PN 25	B mm PN 40	C mm PN 40	Weight kg PN 16	Weight kg PN 25	Weight kg PN 40
50	32	107	14	107	20	107	20	1.4	2.3	2.3
80	54	142	14	142	22	142	22	2.4	3.4	3.4
100	70	162	18	170	25	188	25	2.5	5.1	5.1
150	114	218	20	228	30	260	30	4.6	8.9	8.9
200	154	273	22	288	28	314	32	6.4	10.7	14.4
250	200	329	26	343	30	395	38	10.5	15.2	25
300	235	384	28	403	32	451	40	14.2	19.7	36.9
350	280	444	38	460	38	456	45	20.5	29.6	48
400	316	491	44	517	44	558	50	29	41.7	63.4
450	360	550	50	567	50	606	60	38.8	51.0	72.3
500	405	610	56	627	56	676	70	48	65.7	103.3
600	486	724	62	737	62	783	84	88.8	97.6	163.4

Checkflo WAFER SWING CHECK VALVES

Series SLM Spring Loaded Swing Check Valves Weights and Dimensions



DESIGN TYPE
Spring Loaded Wafer Swing Check Valve Design

ACCEPTABLE MEDIA
Potable Water, Sea Water, Waste Water, Food stuff, All kinds of Oil, Weak Acids and Alkaline Liquids

OPERATING PRESSURE RANGE
PN16, PN 25 and PN 40

OPERATING TEMPERATURE RANGE
Nitrile Max. 80°
EPDM Max. 120°
PTFE Max. 180°
Metal to Metal Max. 180°

SIZE RANGE
DN50 to DN600

MATERIALS OF CONSTRUCTION
- Steel Fusion Bonded Epoxy Coated to 300 microns.
- All Stainless Steel 304 or 316
- Steel Galvanised
- Steel Nickel Plated
- Steel Epoxy Coated with Stainless Steel Disc
- Steel Epoxy Coated with Nickel Plated Disc

FLANGE CONNECTIONS
Flanged SABS 1123 or EN 1092 or ANSI B16.5

DESIGN AND MANUFACTURE
Design and Manufacture and Face to Face : API 6D
Testing in accordance to: API 598

NO:	DESCRIPTION	STEEL	STAINLESS
1	Eye Bolt	Nickel Plated Steel	AISI 304/316
2	Body	Steel WA 350 Epoxy Coated or Nickel Plated or Galvanised	AISI 304/316
3	Spring	AISI 304	AISI 304/316
4	Disc	Steel 350 Epoxy Coated or Nickel Plated or Galvanised	AISI 304/ 316

NO:	DESCRIPTION	STEEL	STAINLESS
5	O-Ring Seat	Nitrile Alternatively EPDM/FPM/PTFE	Nitrile Alternatively EPDM/FPM/PTFE
6	O-Ring Flange	Nitrile Alternatively EPDM/FPM/PTFE	Nitrile Alternatively EPDM/FPM/PTFE
7	Washer	AISI 304/316	AISI 304/316
8	Screw	AISI 304/316 Epoxy Coated or Nickel Plated or Galvanised	AISI 304/316

Weights & Dimensions Wafer Design

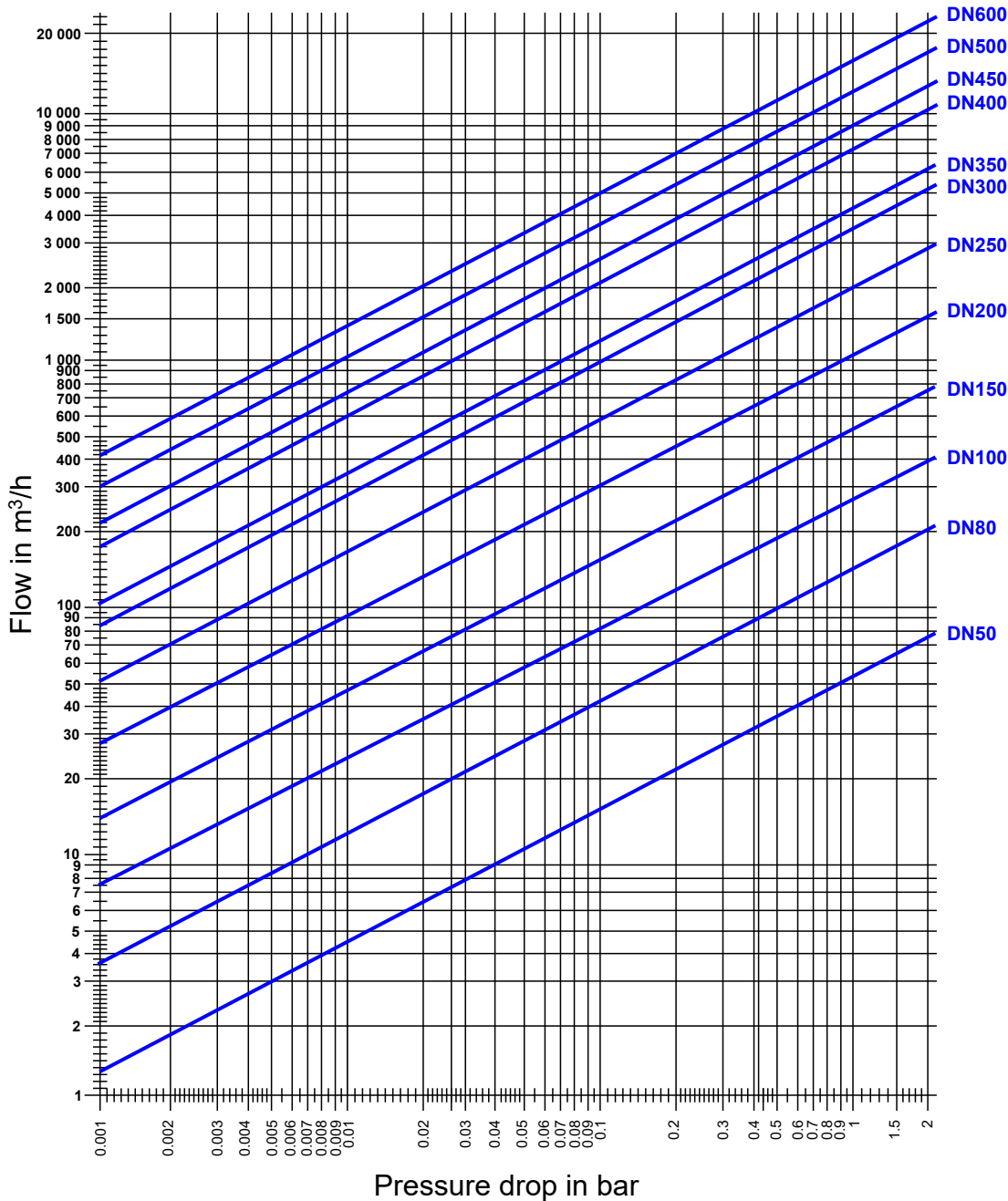
Size DN mm	A mm All Sizes	B mm PN 16	C mm PN 16	B mm PN 25	C mm PN 25	B mm PN 40	C mm PN 40	Weight kg PN 16	Weight kg PN 25	Weight kg PN 40
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450	360	550	50	567	50	606	60	38.8	51.0	72.3
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WAFER SWING CHECK VALVES

Series SLM Swing Check Valves Performance Characteristics

All Sizes and Pressure Ratings



The curves shown on the diagram represent pressure drop related to water at 20° C.

DN mm	50	80	100	150	200	250	300	350	400	450	500	600
Kv	54	144	275	527	1080	1988	3588	4306	7111	9000	11293	16741

$$Q = Kv \cdot \sqrt{\frac{\Delta P}{SG}}$$

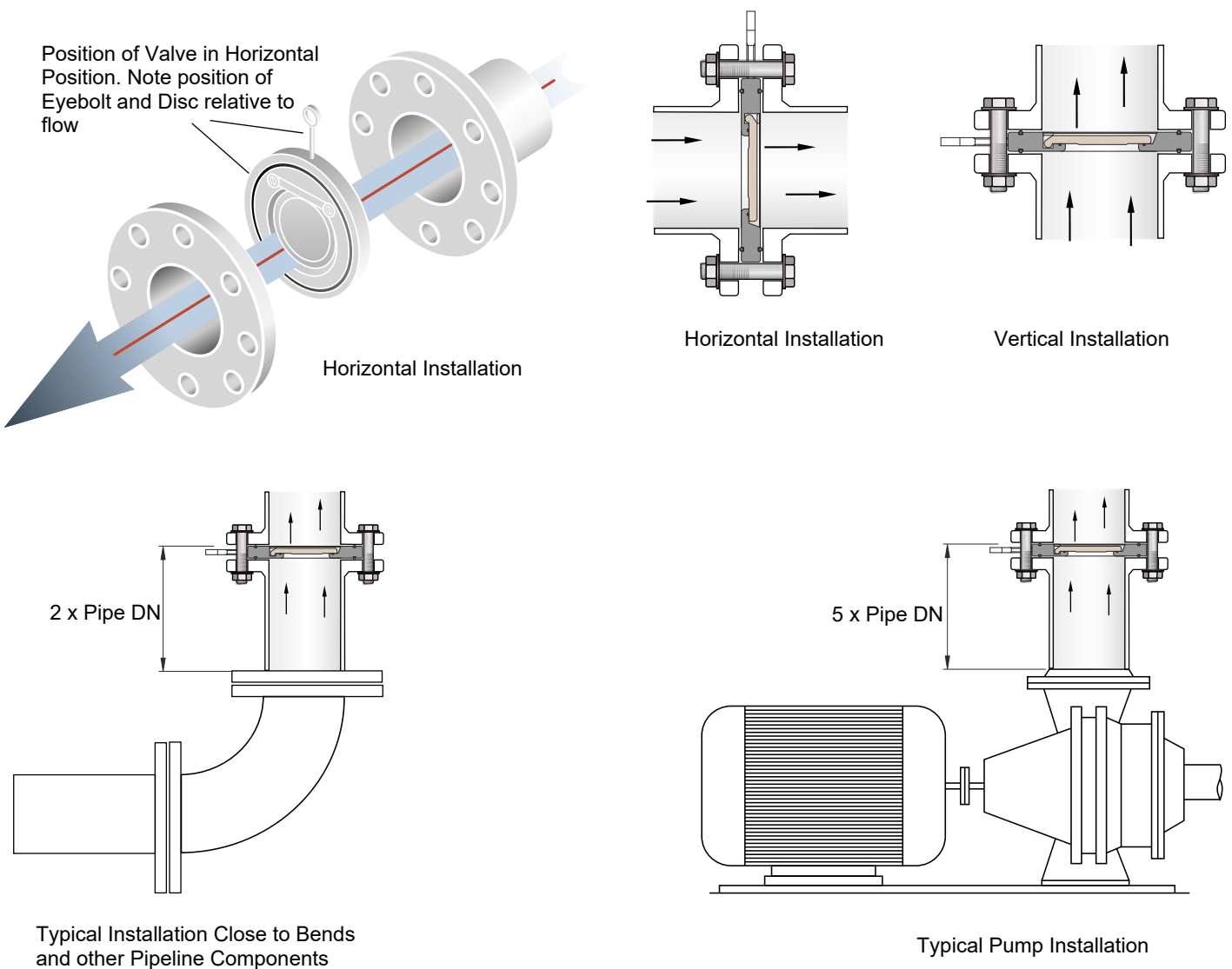
Q: Flow rate m³/hour
 ΔP: Pressure Drop bar
 SG: Specific Gravity
 (1 for water)
 Kv: Flow coefficient

Series SLM Swing Check Valves Installation Guidelines

The valve can be installed either vertically or horizontally. When installed in a horizontal position, the vertical axis of the valve should be perpendicular to the horizontal plane and the Eyebolt should be at a perfect right angle to the horizontal plane as indicated.

In a vertical installation, the flow should always be from the bottom upwards as indicated. Please consult our technical office for a vertical flow where the flow is downward as we can provide our Series DGB Nozzle Check Valves for these applications.

Swing Check valves should be at least two (2) pipe diameters away from a bend or any other restriction and three (3) to five (5) diameters from the pump outlet to ensure minimise any potential turbulence.





Considerations when Selecting a Check Valve

Performance

CheckFlo provides one of the widest ranges of Check valves. All our Check valve designs have been developed to carefully take into account varying performance and surge protection requirements versus initial capital cost. Our entire range of CheckFlo check valves are designed to be virtually maintenance free.

Each design has only one moving part. In addition, each valve's flow path and disc design is such that it minimises flutter and wear during full flow thereby further reducing the need for maintenance. All CheckFlo designs are either supplied in a soft seat or metal to metal seated design to suit the most severe applications.

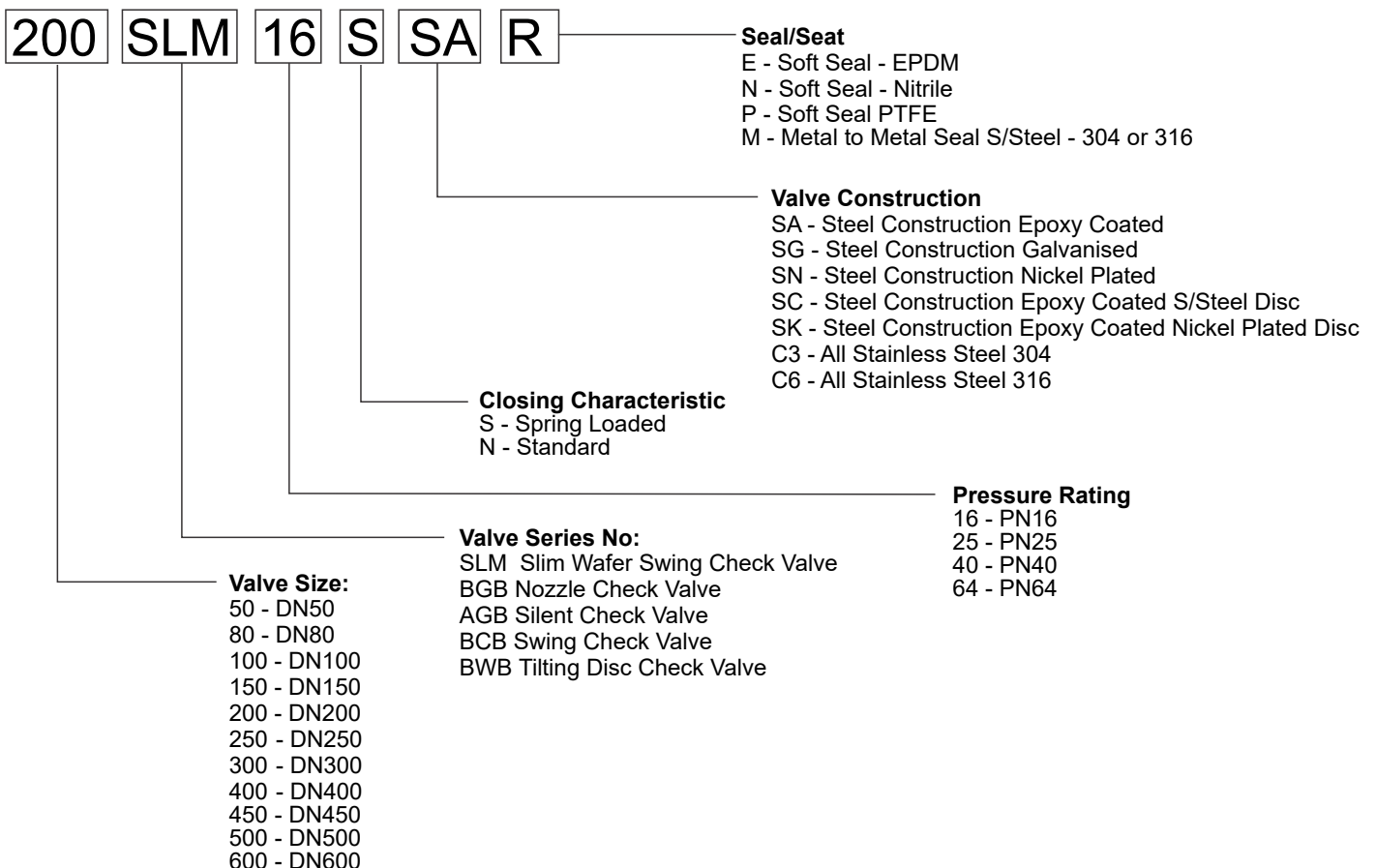
Initial Cost

All CheckFlo Check Valves are 100% locally manufactured. They are designed to balance initial cost with long term performance. CheckFlo Wafer Swing Check valves provide a short face to face and a wafer design to reduce cost without compromising performance. We keep stock across the size range but any out of stock CheckFlo valves have short lead times.

Why CheckFlo?

The CheckFlo range of Check Valves provide the most comprehensive and cost effective response to backflow prevention and water hammer protection. Our Check Valves are complemented by the AirFlo Variable Orifice range of Air Valves. These two product ranges work in harmony to provide holistic surge and water hammer protection on any pipeline application. All our products are backed up by excellent technical and aftersales support – try us!

Model Numbers





Checkflo

Nozzle Check Valves

CHECKFLO Nozzle Check Valves are available in the reliable Central Shaft design as well as the Annular Disc design for superior surge protection and efficient low head pipeline operation.

Valves are available in a variety of materials and trim options in both short and long face to face dimensions

Valves are available in sizes DN50 to DN1200 and for pressure ratings PN10 to PN63



Airflo

Variable Orifice Air Valves

Series ESP Model SA Variable Orifice Air Valve is a triple function valve with automatic surge protection for use in potable and strained raw water applications

Valves are manufactured in fusion bonded epoxy coated Steel. The top cover, jointing and internal trim are in Stainless Steel 304 or 316.

Valves are available in sizes DN25 to DN300 and for pressure ratings PN10 to PN100



Airflo

Variable Orifice Air Valves

Series ERP Variable Orifice Air Valves is a compact, triple function valve design with automatic surge protection for Sewer and Slurry applications.

Valves are manufactured in Stainless Steel 304 or 316 as standard or epoxy coated Steel with Stainless Steel 304 or 316 trim. Flush ports are optional extras.

Valves are available in sizes DN50 to DN300 and for pressure ratings PN16 and PN25



KII

Mechanical Couplings

KII Couplings, Flange Adaptors and Dismantling Joints are of a robust design available in both a wide range and dedicated fit.

All Couplings are available in Fusion Bonded Epoxy Coated Steel or in all Stainless Steel 304 or 316.

Couplings are available in sizes 40mm to 1600mm and for pressure ratings PN10 to PN40

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