

Anti-Slam

# FlexCheck

Disc Check Valve  
Preventing Flow Reversal



PIONEERS IN PIPE SOLUTIONS

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## Perfect Solution for Water Hammer

### Ingenious design

Its simple, yet ingenious, design features a precision moulded fully-encapsulated steel disc, incorporating nylon reinforcement in the flex hinge. The 'O' ring profile seat face ensures a bubble-tight shut-off, preventing back flow at high and low working pressures.

The seating surface is at a 45 degree angle, moderating disc travel and permitting optimum flow rates. The disc's resulting 35 degree stroke is less than half the typical 80 or 90 degrees of a traditional swing check valve. Combine this with its flexible action and this results in significantly reduced valve closing time, flow reversal and both slam and 'water hammer' effects. All this enables installations in far more varied applications than traditional swing check valves. Close coupling to pumps, tees, other valves or accessories is also not a problem for this versatile product.

### Proven Technology

Developed primarily for use in water and wastewater applications, the FlexCheck valve is engineered to deliver dependable, maintenance-free performance over extended periods.

Manufactured from durable ductile iron, the unit comprises only three parts: body, bonnet and disc. The absence of moving parts minimises the risk of clogging and maximises operational reliability.

Standard features include 100% full-flow area and an epoxy-lined interior. A rubber-lined version is also available, ideal for the conveyance of abrasive or corrosive fluids.

FlexCheck is suitable for installation in horizontal or vertical pipes (flow must be upwards in vertical installations). Its in-built durability is demonstrated through an independent rigorous 1,000,000 continuous cycle test.

FlexCheck is supplied drilled and tapped for installation of the optional back-flushing device, commonly used for priming, backflushing, draining and system testing.

The FlexCheck is the perfect solution to noise, water hammer and high maintenance.



# FlexCheck Valve - Series 661

## Product Design Benefits

### Body & Cover

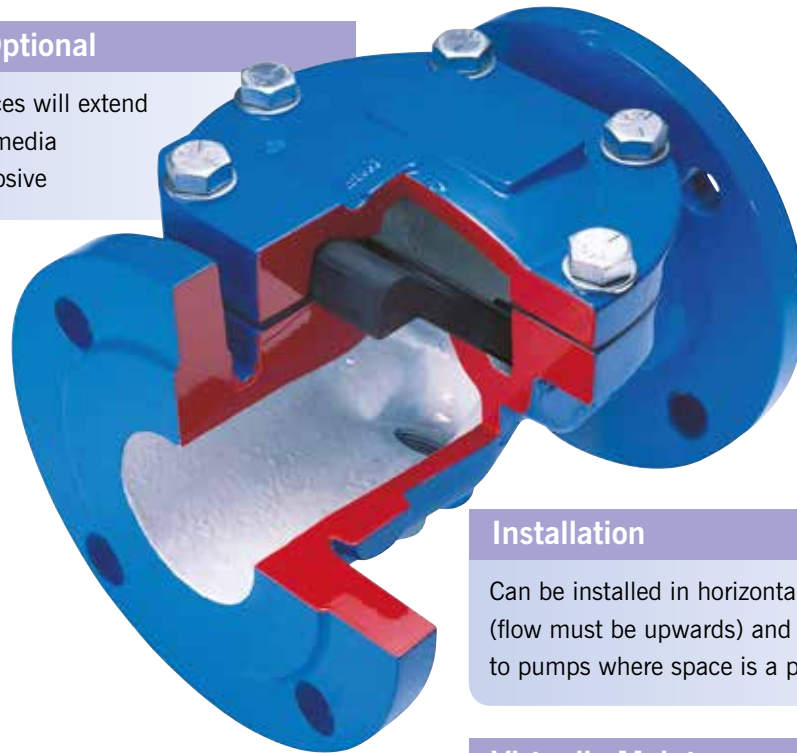
The FlexCheck valve body and cover is EN 1563: EN JS 1040 ductile iron for increased durability. Flanges are available drilled PN10, PN16 or ANSI B16.1 Class 125

### Rubber Lining – Optional

Lining of internal surfaces will extend product life where the media is either erosive or corrosive

### Interchangeable

The face to face dimensions on most FlexCheck valves are identical to BS5153 face to face dimensions, which enables fitting without pipeline modification



### Door / Disc

Fully moulded door incorporating a steel disc for rigidity and nylon reinforcement in the hinge area that enhances flexibility and operating performance

### Installation

Can be installed in horizontal or vertical pipelines (flow must be upwards) and in close proximity to pumps where space is a premium

### Virtually Maintenance Free

As the FlexCheck has only one moving part and no bearings, pivot pins, mechanical hinges, linkages, mechanisms or packing, its simplicity in design and operation ensures minimal maintenance

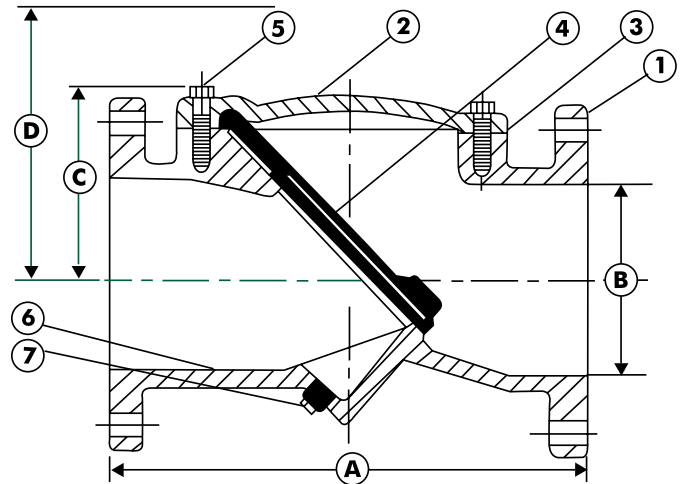
## Customer Benefits

- ▶ Ductile iron body and bonnet
  - for durability and reduced weight
- ▶ Fully moulded disk assembly
  - 'O' Ring profile seat ensures tight shut off
- ▶ Nylon reinforced hinge
  - provides extended operating performance
- ▶ Temperature rating:
  - (Nitrile) -10°C to 82°C
  - (EPDM) -10°C to 120°C
- ▶ External backflush device (DN50 - DN600)
  - optional inclusion for system priming or flushing
- ▶ Rubber lining (DN80 - DN600)
  - optional inclusion for abrasive media
- ▶ Flange drillings:
  - PN10, PN16, ANSI

# FlexCheck Valve - Series 661 DN50 to DN600

## Specifications

- Ductile iron body and bonnet
- Fully moulded disk assembly
- Nylon reinforced hinge
- Temperature rating:  
(Nitrile) -10°C to 82°C  
(EPDM) -10°C to 120°C
- Optional external backflush device (DN50 - DN600)
- Optional rubber lining (DN80 - DN600)
- Flange drillings: PN10, PN16, ANSI



## FlexCheck Valve

DN	Dimensions				Weight (kg)
	A (mm)	B (mm)	C (mm)	D* (mm)	
50	203	51	86	213	12
65	216	64	86	213	15
80	241	76	99	229	19
100	292	102	118	245	27
125	349	127	130	260	42
150	381	152	149	279	52
200	495	203	194	349	100
250	622	254	251	406	190
300	698	305	289	470	270
350	787	356	340	521	TBA
400	813	406	391	597	TBA
450	914	457	435	641	TBA
500	1016	508	485	743	TBA
600	1219	610	578	832	TBA

\* Clearance required to remove access cover

## Materials & Relevant Standards

### 1. Body

Ductile Iron, BS EN 1563:EN-JS1040, ASTM A-536-GR 65-45-12

### 2. Bonnet

Ductile Iron, BS EN 1563:EN-JS1040, ASTM A-536-GR 65-45-12

### 3. Resilient Gasket

Nitrile

### 4. Disc

Steel/Nitrile, BS 970:070 M20, ASTM A36/D-2000

### 5. Bonnet Bolts

Steel

### 6. Interior Lining

Epoxy

### 7. Plug

Malleable Iron

### Pressure Rating PN16

Maximum cwp 16 bar

### Hydrostatic Test

Shell: 24 bar

Seat: 17.6 bar

### Class 125

Maximum cwp 175 lbf/in<sup>2</sup>

### Hydrostatic Test

Shell: 350 lbf/in<sup>2</sup>

Seat: 220 lbf/in<sup>2</sup>

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ISO 14001 • EMS 51874



ISO 9001 • FM 00311



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