



## Check-Flex® G5 Inline Check Valve

The Check-Flex® G5 valve is the latest generation of inline check valve and offers a smooth upstream profile with a full 150° roof connection. The G5 is built from radial layers of fabric reinforced rubber, which are hot vulcanised into a single piece valve. The unique fold away design of the inner sleeve delivers near full port flow and fast drainage.

The materials used are rated for severe service including unscreened highway run off and even steam detergent wash down areas in food plants. The fibre reinforcement prevents tearing from glass shards, grit and debris. The neoprene will flex without fatigue in the same way as a tyre flexes each rotation.

The one piece design allows the valve to flex without the point stress of older three piece assembled design. The valve combines a Sealing Gasket, Moving Flap and Container into a single integrated product. There is no hinge mechanism to be maintained.

Sealing directly to the pipe means no work to the existing wall opening or benching. Angled pipe openings, ring manholes and damaged pipe ends, need no extra work as the installer can recess the valve into these pipes to make the valve-to-pipe seal.

The tough one piece reinforced construction is offers long life in all drainage locations, including coastal and saltwater areas without periodic maintenance.

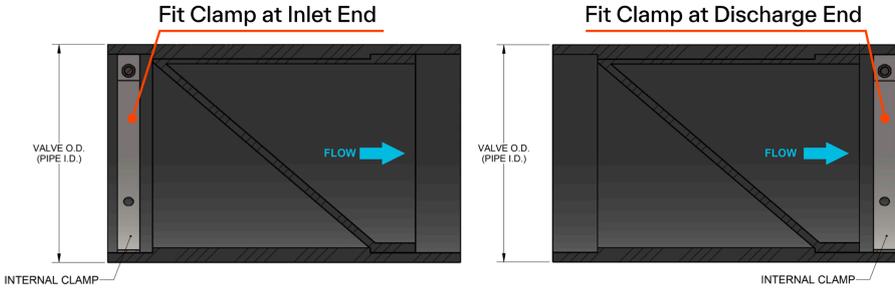
The low headloss and fast installation with hand tools means these valves are a simple addition to any property to protect against public sewer surcharging, flooding and odours. These valves are often fitted to car park drains in retail and commercial sites to prevent odours and flooding.

Flanged models are available and these are ideal for connecting to mating flanges on process tanks and pipework. In civil headwalls, the flange bolt circle may meet the end of the pipe and compromise the connection. Insert Direct to Pipe models have the same pressure rating and are the most common connection choice.

The Check-Flex G5 requires no external power and is silent in operation. The valve has a virtually instant response to backflow and is suitable for odour control applications.

## IDP model

Insert Direct to Pipe with Universal Clamp for simple and secure installation



The expanding C-Clamp of the Check-Flex® G5 valve can be used in either the Inlet End or the Discharge End of the valve.

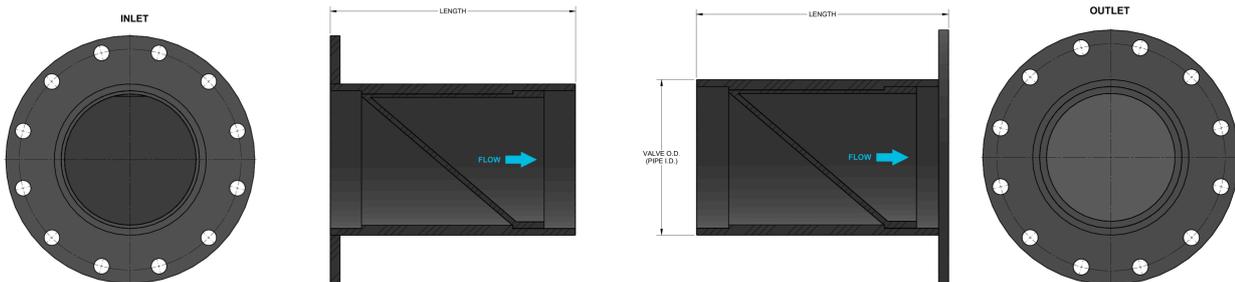
Simply insert the clamp and expand to create a watertight seal to the pipe wall.

Sealing directly to the pipe means no work to the existing wall opening or benching. Angled pipe openings, ring manholes and damaged pipe ends, need no extra work as the installer can recess the valve into these pipes to make the valve-to-pipe seal.

The expanding C-Clamp uses the valve wall as a gasket to seal against the bore of the pipe. The valve-to-pipe sealing method works on drainage pipes with slight out of roundness and surface imperfections.

## IE or DE Flanged model

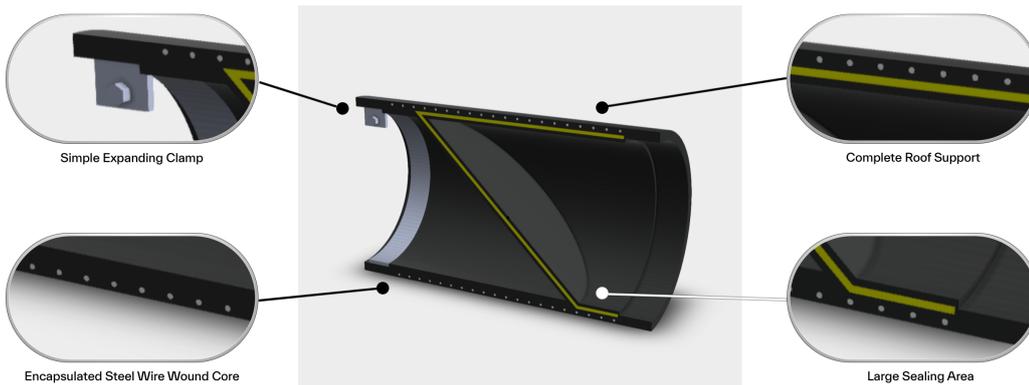
Inlet End and Discharge End models



Flanged models connect to mating flanges on existing pipes. There is no difference in the pressure rating of the flanged models compared to the IDP models.

In civil headwalls, the bolt circle may meet the end of PCC pipes and this should be checked to ensure sufficient embedment clearance for anchors.

The thick [27-40mm] rubber flange is the sealing. There is a retaining plate encapsulated within the rubber. Any flange drill pattern is available to order.



## Check-Flex® Gen5: the modern design

**Simple Expanding Clamp** the expanding C-Clamp uses the valve wall as a gasket to seal against the bore of the pipe. The valve-to-pipe sealing method works on old drainage pipes with slight out of roundness and surface imperfections. Installers will easily achieve an effective and secure valve connection in challenging conditions.

**Complete Roof Support** the latest generation of inline check valve has a smooth upstream profile with a full 160° roof connection along the length of the valve. This integral roof support can only be made with vulcanised construction. This large roof support means long-life as the internal upper half cannot sag. The angled fold away flap is free to move and expand to create a tight seal over millions of cycles, without point stress, similar to a car tyre. And most important - there are no pockets for debris to collect.

**Encapsulated Steel Wire Wound Core** the G5 is built from radial layers of bias reinforced rubber (can move in one direction only), which are hot vulcanised into a single piece valve. The central core of the valve is also reinforced with steel wire fully encapsulated within the walls of the valve. The bias reinforcement allows the expanding clamp areas to expose and seal to the pipe wall, without lengthening the valve.

**Large Sealing Area** the large sealing area works to seal around grit. The fibre reinforcement is a rip-stop against glass shards in road drainage. The rubber material can handle the typical abrasion in drainage without significant wear with a maximum recommended pipe velocity of 5.0 m/s. The 150° upper roof connection and lower large seal anchor the angled fold away flap as it expands under back pressure.

**Variable Angle Design** the Gen 5 design uses the optimum angle for best performance in each size valve. The shallow angle in small 100-225mm valves gives markedly better low flow performance while retaining high maximum back pressure rating. In larger valves the backpressure rating is improved with a steeper angle.

**Design Life** Check-Flex valves are designed for long life without maintenance. The standard two year warranty and this can be extended to five years.

# Check-Flex® G5 Inline Check Valve

## Technical Specification

### Check-Flex® CF-IL-G5 Specification [Option]

Nominal Diameter	100mm-2300mm
Elastomer	Neoprene to ASTM D2000: 5BC520 A14 C12 Eo34 G21 Z1 Z1= flame resistance per ASTM C1166 Meets and exceeds: D412 modulus (300%) D573 heat age test D1171 ozone resistance  Option: [EPDM]
Clamp	316 Stainless Steel EN 1.4404 [Duplex EN 1.4410, EN 1.4462]
Pipe Connection	Insert Direct to Pipe [encapsulated flange]
Cracking Pressure	200-400mm: 60-50% pipe Ø, 450-1000mm: 50-40% pipe Ø
Headloss	See Specific Size Curve
Max Temp	100°C [130°C]
Max Back Pressure	12.2 m sizes 100-300mm, 350-1000mm: 6.1m [on application]
Max Pipe Velocity	5.0 m/s [10 m/s]
Service	Foul service 225-2300mm Stormwater 100mm-2300mm Odour Control 100-2300mm

- Complete flow data for any application is available on request
- Valve performance data verified at Utah Water Research Laboratory
- The valves can be installed in any pipe orientation, horizontal orientation allows gravity to assist the sealing
- These valves are patented, with a continuous product development program

### Specification Notes

- Insert Direct to Pipe IDP valves have the same flow and pressure rating as flanged valves. IDP valves are easily fitted to ring manholes and quay walls
- Universal fitting means that any IDP G5 can be installed either way, by moving the clamp from the inlet end to the discharge end of the valve
- Check-Flex® G5 valves are usually installed in the outlet from a manhole. This prevents the manhole from surcharging and facilitates visual valve inspection without confined space entry. This is ideal for retrofitting to commercial and retail sites
- These valves are not designed to meet EN 13564 (inside a building), G5 valves are designed to be suitable for road, rail and surface water drainage in challenging locations external to a building
- Valves are delivered to match specific pipe inside diameters (bore)