

Product Sheet: Flow Activated Circulation Valve (FACV)

Product Description

The Flow Activated Cycle Valve (FACV) can be used as an equalising or circulating device. In its 'closed' configuration, the FACV will provide sealing integrity compliant with Grade Vo of ISO 14310.

The tool has a set of ports which can be cycled open in response to pressure and closed by pumping through the valve. The open-close sequence is adjustable which allows a choice of cycling pattern to meet specific operational requirements.

Product Application

The FACV can be used in place of ball valves, back pressure valves or circulating subs. It can be run in combination with intervention bridge plugs and packers. For example, it is ideally suited to being run below a plug to reduce the number of wireline runs during completion operations. It could be situated below the barrier (i.e. a plug) and then be deployed pre-installed, allowing the plug to be tested and then the FACV cycled open to allow the completion to run. When the completion is deployed the FACV can be cycled closed to enable packer setting and completion integrity testing. The FACV can then be reopened prior to retrieving the plug to ensure that pressure is equalised. There are a wide variety of applications for Interwell's versatile FACV.

Product Benefits:

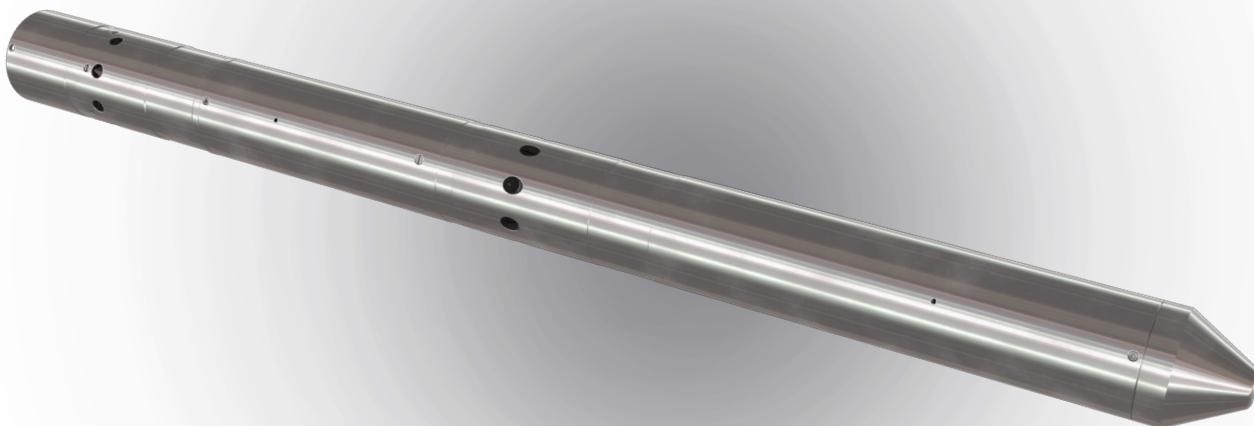
The valve is of a robust mechanical design which is free of electronics. This means its operational deployment will not be constrained due to the limitations of electronic components.

The annular piston is largely isolated from the flow path. This design feature reduces exposure of moving components in the flow path to a minimal level.

The open-close sequence is adjustable which allows a choice of cycling pattern to meet specific operational requirements.

The FACV features a cycling mechanism which is not depth-sensitive so the tool does not have to be specially configured prior to being deployed.

This feature also ensures that opening of the tool is not affected by any post-closure increase in pressure below the tool.



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Product Features

- Qualified to Vo grade of ISO 14310; 5,000 psi (345 bar) over 15 - 150°C
- Opening & closing mechanism is unaffected by both depth of deployment & post-closure increase in pressure below the tool*
- Easily adapted to connect onto different plugs and packers
- Flow rate to close the FACV can be adjusted within the approx range of 800 - 1200 litres per minute (5 - 7.5 bbl/min)
- Open-Close sequence pattern customisable to meet operational requirements
- Secondary equalisation mechanism via ball-drop

* within operating envelope of a 5,000 psi max differential pressure

Technical Specifications

Tool size	327 FACV
OD (max)	3.270" (83.0 mm)
ID (min)	0.728" (18.5 mm) [fitted with the 18.7 mm orifice]
Min. Flow Area	0.416 in ² (268.8 mm ²) at orifice [fitted with the 18.7 mm orifice]
Flow Port Area (min)	1.647 in ² (1061 mm ²)
Non-closing Flow range, typical**	0 - 600 lpm (0 - 3.8 bbl/min) [fluid & orifice dependant]
Max. Recommended reverse flow rate, typical**	1000 lpm (6.3 bbl/min) [fluid dependant]
Differential Pressure (max)	5,000 psi (345 bar)
Temperature range	59 - 302 °F (15 - 150 °C)
Length	41.73" (1060 mm)
Weight	71.5 lbs (32.5 kg)

** typical flow rate figures based on water as the flow medium