

ReAct Completion Circulation Valve

The ReAct™ completion circulation valve (RCCV) is a remotely activated completion valve that is run above the upper completion production packer. The valve incorporates our unique ReAct technology, which allows downhole tools to be remotely activated without the need for control lines or intervention runs.

The valve offers significant cost and time savings compared to conventional operations. Depending on the well design, multiple wireline runs can be eliminated, or in many cases, entire middle completion strings can be eliminated, saving both significant rig time and cost. The RCCV can be deployed above any packer and is run closed to allow for packer setting and packer/tubing testing. Once the production packer is set, the operator can pressure test the tubing against the closed RCCV. Applying increased annulus pressure then bursts a rupture disk to open communication ports to circulate between the tubing and the annulus and vice versa.

Once the tool is open, tubing fluid is then circulated out to a lighter fluid to allow the well to flow naturally. The valve is then closed by applying a ReAct pressure signal. In addition to fully redundant primary and backup ReAct modules, the RCCV has full mechanical redundancy with a standard mechanical shifting tool in the unlikely event that it is not possible to activate any of the ReAct modules.

The ReAct completion circulation valve has great flexibility as all operational parameters are fully adjustable until deployment.



Features

- Incorporates NOV's unique ReAct technology
- Allows on-demand annulus-to-tubing communication above the production packer
- Dual electronic redundancy
- Valve permanently locked shut after operation
- Shifting profiles provided to allow manual override
- ISO 14998 V0 barrier qualified

Benefits

- No need for control lines
- No need for intervention runs to operate valve
- Potentially removes the requirement for a middle completion string
- Maximum flow area through circulating ports
- Pressure signal can be fully adjusted up until deployment

Applications

- Displacement of completion fluids

Technical data

Size in.	End connections*	Material*	Max. OD* in.	Min. ID* in.	Flow area in. ² (cm ²)	Length in.	Compressive rating lbf	Working pressure psi	Temperature rating °C	Time delay
5.500	Customer specific	13%Cr-80, L-80, etc.*	8.250	4.562	16.345	161.0	600,000	10,000	135	Programmable up to 365 days

*Other sizes and materials available on request.