ReAct Clean Out Valve (RCOV)

The ReAct™ clean out valve (RCOV) is a time delay based device that is run as an integral part of the completion string where sand screens are utilized. Its function is for unloading mud and cleaning up the wellbore.

Certain sections of some wellbores, particularly laterals, require many sections of sand screens to prevent the influx of sand into the completion. The great cost associated with this hardware and rig time for installation of the completion can be dramatically reduced by only completing a short section of the mother bore with screens. However, the success of this may be jeopardized due to mud and solids unloading through the screens and permanently plugging them off.

The RCOV presents very large open flow ports for unloading drilling mud, solids, or lost-circulation material (LCM). Following a delay of up to 178 days and once the well flow is clean and stable, a ReAct™ electronic timer system actuates a mechanism that allows well pressure to flood an atmospheric chamber and provide a large closing force to shut off these flow ports. A chamber containing a tracer fluid is opened, which gives a surface indication that the tool has functioned.

In so doing, the clean well flow is now directed through the sand screens in the main bore for the remainder of the lifetime of the well.

The device is an integral part of the tubing string and features premium-threaded connections. The timer features two electronic units, which are totally independent of each other for full redundancy.

A manual override feature is provided within the RCOV that can be actuated by wireline or coiled tubing intervention. A prong will unlock the ported sleeve from the hydraulic piston assembly allowing the ported sleeve to be positioned manually to the closed position.



Features

- Accurate time-delay mechanism
- Independent back-up electronics
- · Mechanical override
- · Large flow areas
- Available with tracer pocket for activation confirmation
- Field-proven electronics
- Delayed closure for up to 178 days

Benefits

- Increased clean up of wellbore
- Enhances well production
- Minimizes plugging of sand screens
- Reduces length of sand screens required in completion

Applications

- Deployed with sand screens
- Clean up across multi-lateral junctions

ReAct Clean Out Valve Specifications

Technical data

Size in.	End connections	Material*	Max. OD* in.	Min. ID* in.	Flow area	Length in.	Tensile rating lbf	Working pressure psi	Temperature rating °C	Time delay	Actuating force per 1,000 psi lb
6.625	6%-in. premium connection	80 ksi	7.675	3.50	48	92.00	465,000	6,000	135	Programmable up to 178 days	14 ×(1()

^{*}Other sizes and materials available on request.