

ReAct Clean Out Valve (COV)

The ReAct™ clean out valve (COV) 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 COV is designed with very large flow ports for unloading drilling mud, solids, or lost-circulation material (LCM). Following a delay of up to 365 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.

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 COV that can be actuated by wireline or coiled tubing intervention.



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 365 days

Benefits

- Increased clean up of well bore
- Enhances well production
- Minimises plugging of Sand Screens
- Reduces length of Sand Screens required in completion

Applications

- Deployed with Sand Screens
- Clean up across multi-lateral junctions

Technical Data

Nominal Size (in.)	Bottom Thread Type (in.)	Material	OD (in.)	ID (in.)	Length (in.)	Tensile Rating (klbs)	Working Pressure (psi / bar)	Temperature Rating (°F / °C)	Minimum Flow Area (in ²)
6½	6½ Premium	13Cr-80	7.67	3.19	92	465	6,000 psi / 413 bar	275 / 135	48.0
5½	5½ Premium	S13Cr-110	8.15	4.42	92	600	11,500 psi / 791 bar	275 / 135	15.3
4½	4½ Premium	13Cr-80	5.75	3.25	86	185	6,400 psi / 440 bar	275 / 135	8.6
4½	4½ Premium	S13Cr-95	5.75	3.25	86	220	7,600 psi / 523 bar	275 / 135	8.6
4½	4½ Premium	S13Cr-110	5.75	3.25	86	255	8,800 psi / 605 bar	275 / 135	8.6
4½	4½ Premium	125ksi	5.75	3.25	86	390	10,000 psi / 688 bar	275 / 135	8.6