ReAct Sand Control Inflow Valve

ReAct™ sand control inflow valves are permanently installed, electronically actuated sleeve-type valves that allow for the control of flow through a sand screen and the staged start up of production wells without the need for intervention. These valves improve productivity and well clean up and increase the drainage and overall recovery efficiency of the well.

The onboard ReAct electronics require no connection to the surface. The valves may be programmed to function upon the expiry of a pre-determined ReAct time delay, or by using ReAct pressure recognition technology. A combination of both the above methods may also be utilized. The valves are typically installed in a wellbore with isolation packers above and below to provide zonal control and isolation.

Multiple valves can be deployed in one well with differing programming allowing selective cleanup and water shut off. The use of this technology increases the productivity of less productive zones and overall well clean up, improving the drainage and overall recovery from the well.

The valves are typically run in the closed position and will open once initiated. Each valve features two independent ReAct electronic modules, either of which can provide the device's actuation. ReAct electronics are easily programmed from a laptop computer.

Contingency exists to open or close the valves while utilizing conventional wireline techniques to shift the valves to the open or closed position mechanically.

The sand control inflow valve uses the same field-proven ReAct technology currently available in products such as the cleanout valve, electronic liner shoe, tracer deployment valve, and inflow valves.

Features

- Field-proven electronics
- Delayed opening for up to 365 days
- Defaults to mechanical sleeve
- Utilizes existing wireline/intervention procedures when mechanically actuated
- Large flow areas
- Multiple valves in one well
- Programmable fail-safe mode
- Adaptable screen lengths / screen types
- ICD/AICD technology can be incorporated
- Dedicated chamber for the inclusion of tracer material for positive surface verification of zones contributing

Benefits

- Increased production due to better contribution from minor zones
- Increased production from improved recovery
- Increased production from subsequent water shut off
- No hydraulic lines or cables from the surface required to function
- Opens via a time delay or signal from surface

Applications

- Delay startup of prolific zones
- Isolate laterals to allow staged startup
- Water shut off after startup
- Test individual zones following or during startup

ReAct Sand Control Inflow Valve Specifications

Technical data

Size in.	End connections*	Material*	Max. OD* in.	Min. ID* in.	Flow area in.² (cm²)	Length in.	Tensile rating lbf	Compressive rating lbf	Working pressure psi	Temperature rating °C	Time delay
5.500	5½-in. premium connection	Super 13Cr, 110 ksi	8.150	4.420	14.610	136.00	600,000	600,000	11,500	135	Programmable up to 365 days

*Other sizes and materials available on request.