



FloReg™ High-Inject Inflow Control Device

The Weatherford FloReg high-inject (HI) inflow control device (ICD) helps evenly distribute inflow throughout a horizontal wellbore. This device reduces the tendency of early water or gas production, enabling the reservoir to drain more efficiently while maximizing production and recovery.

Due to increasing water and gas well challenges, the requirement has arisen for an inflow control device that accommodates and withstands high-injection flow rates, now becoming common in today's well-completion scenarios.

The FloReg HI ICD is designed and built similarly to the standard Weatherford FloReg ICD and incorporates the same methodology. The device is designed to withstand high injection rates without imposing any erosion risk with larger flow areas upstream and downstream of the flow ports, accommodating higher flow rates and eliminating the risk of erosion.

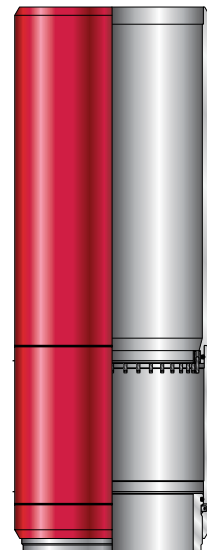
The system can be interfaced with a range of Weatherford screens.

Applications

- Wells experiencing high fines/sand loading during injection phase
- Wells requiring high injection rates
- Well applications with predicted high risk of erosion

Features, Advantages, and Benefits

- The large flow area accommodates higher flow rates, eliminating erosion risk.
- The system length has been increased, reducing the risk of screen erosion during the injection phase.
- The number of open flow ports can be adjusted based on well-test results before deployment, optimizing well-inflow performance and saving rig time.





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Features, Advantages, and Benefits (continued)

- Rigorous flow testing and computational fluid dynamics (CFD) modeling has confirmed the performance characteristics of the device, enabling the development of empirical operating envelopes.
- Flow ports are made of tungsten carbide, mitigating flow-induced erosion.
- Each device is standard, rather than machined to suit a specific application, reducing the need for multiple screens held in inventory on location and saving costs.

Specifications

Size (in.)	2-3/8	2-7/8	3-1/2	4	4-1/2	5	5-1/2	6-5/8	7
Suitable screen selection	Metal-mesh and wire-wrap screens								
Overall tool length (in., <i>mm</i>)	21.850 555.00								
OD (in., <i>mm</i>)	--	--	--	--	5.630 143.00	--	7.000 177.80	--	--
Flow port quantity ¹	5	20							
Flow port sizes (in., <i>mm</i>)	0.125 or 0.094 3.175 or 2.381								
Length of flow port (in., <i>mm</i>)	0.500 12.70								
Flow port material	Tungsten carbide								
Base material and stress intensity (ksi, <i>MPa</i>)	13Cr 110 758								
Elastomer material ²	FKM95								

¹ Quantity of ports can be changed to suit application.

² Alternative elastomer material is available.