

Blockage and erosion resistant orifice plates for slurries

IPRCs enable the controlled reduction of the pressure of a flowing solids slurry without concerns for blockage and erosion; this is particularly useful when considering discharge of pressurized sand slurry to atmospheric handling systems. Conventional orifice plates will be prone to erosion and the small orifices required makes them highly prone to blocking. IPRC have larger orifices and instead rely on creating controlled vortices within the ceramic passages to create additional pressure drop. Stacked ceramic disks within the assembly allow the design pressure drop to be modified by removal or addition of disks, with each disk designed to produce 4 bar of pressure drop.





Benefits:

- Robust and blockage resistant
- Erosion resistant
- Pressure drop can be changed in the field by disk removal
- Up to 30 bar pressure drop in a single unit
- Suitable for low flows
- NOV expertise in solids handling

Design specifications

Design, material	ASME B31.3, Alumina ceramic disks
Rated pressure, temperature	To pipe specification
Max operating pressure/ temperature	30 bar/90°C
Typical capacity	4, 8, 12, 16 m³/h

