METROL®

ARC-V™

RUPTURE VALVE

The Annulus Rupture Circulating Valve.

DESCRIPTION

The ARC-V is a single shot circulation valve, operated by applying annulus pressure to burst a rupture disc. Once actuated, the reversing ports are locked open. The ARC-V is typically opened at the end of a drill stem test to reverse out fluids produced during the test.

A ratchet holds the valve in the closed position until the disc is ruptured. When the rupture disc bursts, hydrostatic pressure is applied to the mandrel, moving it against the atmospheric chamber.

Eight circulating ports with a combined flow area that is equivalent to the ID of the tool are exposed to allow efficient well killing operations.

After pressure has ruptured the disc, and the circulating valve has functioned, the mandrel is positively held open using the same ratchet that originally held it closed.

FEATURES & BENEFITS

- Positive lock in the open and closed position
- Full bore flow area circulating ports
- Integral pip tag if required
- Restrictors can be fitted to flow ports if required
- Field replaceable rupture disc

SPECIFICATIONS

Operational Temperature Range	180°C [356°F]
Max O.D	5.5" [139.7mm]
Max I.D	2.25" [57mm]
Length	4.92ft [1.5m]
Operational Cycles	Single Shot
Maximum Absolute External Pressure	20,500 psi [141 MPa]
Maximum Absolute Internal Pressure	20,500 psi [141 MPa]
Maximum Differential Pressure	17,500 psi [121 MPa]
Maximum Working External Pressure	17,500 psi [121 MPa]
Maximum Working Internal Pressure	17,500 psi [121 MPa]
Min. Hydrostatic Required	1,200 psi [8.3 MPa]
Tensile Rating	493,500 lbf [2,195 kN]
Compression Rating	493,500 lbf [2,195 kN]
Service NACE MR-0175	H2S, acid

*Limited by lowest pressure rating of Metrol rupture disc.
Can be lower upon request.

Specifications subject to change without notice.
Contact Metrol for API 19TT specifications.