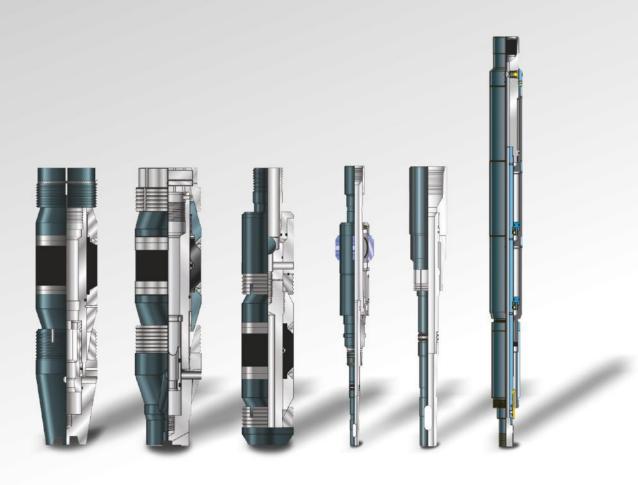


### CAST IRON PRODUCTS





# Technical Information Mechanical Set Cement Retainer Magnus PCR & Magnus 20MST













## Magnus PCR Cement Retainer (Mechanical Set)

Magnus PCR Cement Retainer is a mechanical set, high pressure retainer constructed of drillable gray cast-iron.

Magnus PCR is set mechanically by mechanical setting tool.

Opposing slips are carburized wicker type One-piece slips located above and below the rubber packing elements. The slips keep the cement retainer securely set in high hardness alloy grade casings including P-110.

The packing elements are contained by brass back-up rings that eliminate extrusion of the elements at high temperatures and pressures.

A one way ratchet lock ring retains the setting force mechanically applied to the opposing slips and rubber element to permanently maintain a pressure tight seal.

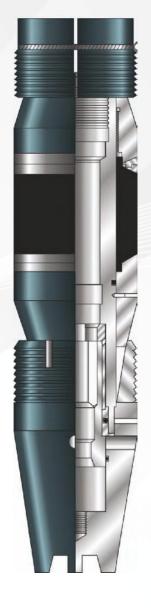
Once set the squeeze operation can begin and the operator controls the two way valve from the surface to hold the final squeeze pressure under the retainer or test tubing or keep hydrostatic pressure off the squeeze.

Straight pick up closes the valve and set down weight opens the valve. This retainer is ideal for where squeeze cementing operations are being performed.

Standard packing element is Nitrile (70 Duro) optional packing systems of Viton or Aflas are available on special order.

#### **Applications**

- Drillable cast iron construction
- Small OD's for extra clearance in heavy viscous fluids
- Cement Retainer to Bridge Plug conversion kits are available









## Magnus 20MST Mechanical Setting Tool (Drag Block Type)

Magnus 20MST is designed to run and mechanically set the Magnus PCR Cement Retainer or the Magnus Cast Iron Bridge Plug at any depth via tubing or drill pipe.

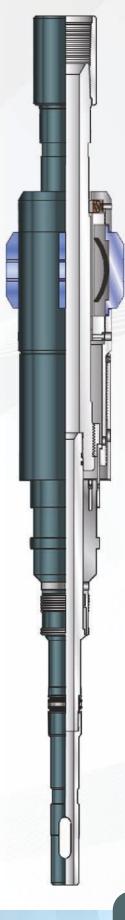
Drag Blocks eliminates the sluggish setting control when compared with leaf spring type splines (Centralizes).

#### **Benefits**

- Sets cement retainers or bridge plugs using mechanical slips
- Ideal tool to set & squeeze cement in single trip
- Ideal tool to set bridge plugs for well abandonment purposes

#### **Technical Specifications**

| Casing     |              | Drag Block     |                 | Magnus 20MST |                |
|------------|--------------|----------------|-----------------|--------------|----------------|
| Size (in.) | Weight (PPF) | Expanded (in.) | Collapsed (in.) | Min. I.D.    | Connection     |
| 5-1/2      | 17.0 - 23.0  | 5.150          | 4.500           | 0.75         | 2-3/8" EU 8 RD |
|            | 13.0 - 17.0  | 5.250          | 4.600           |              |                |
| 7.000      | 29.0 - 38.0  | 6.355          | 5.500           | 1.250        | 2-7/8" EU 8 RD |
|            | 17.0 - 32.0  | 6.930          | 5.920           |              |                |
| 9-5/8      | 32.0 - 61.0  | 9.190          | 8.235           | 1.250        | 2-7/8" EU 8 RD |









Magnus 20MST Mechanical Setting Tool (Drag Block Type)





