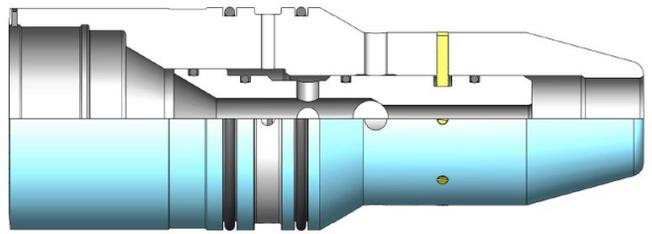
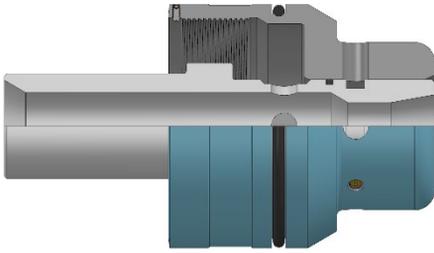


Hydraulic Setting Nose



The Hydraulic Setting Nose (HSN) is designed to be run in conjunction with the Hydraulic Release Tool (HRT) and the Mechanical Release Tool (MRT). The HSN is installed to the bottom of these release tools. Hydraulic pressure activates the components of the HRT and HSN to set and release Hydraulic Retrievable Hangers (HRH) downhole.

The unique design of Core Designs hangers can allow the setting and releasing of their hangers in two different methods.

- Set and Release functions are carried out using one hydraulic motion, using 1 ball drop.
- Set and release functions are carried out using two separate hydraulic motions, using 2 ball drops to operate the set and the release independently.

The 1 ball drop system does not include the HSN attached to the HRT. The HRT will set and release using a larger ball. The hydraulic pressure initially shears a set of pins that will start the setting of the seals and slips. Once they are set using a predetermined pressure, further increase of this pressure will shear a second set of pins that release the HRT from the hanger.

The 2 ball drop system will have the HSN attached to the bottom of the HRT. The HSN consists of a sliding piston that is activated by a ball drop and pressure. The size of HSN ball is smaller than the HRT ball. This allows the HSN ball to pass through the HRT (or MRT) without affecting their function movements. When the ball sits within the piston seat, pressure is diverted into the HRH to move and set the Elastomer elements, slips, and the ratchet device of the HRH. Once these operations are completed, shear pins within the HSN will shear, allowing downward movement of the piston to a set distance. At this point, the fluid direction will be changed to allow circulation of the annulus back to the surface. When circulation is regained to surface, the second larger ball can be dropped to function the HRT to release from the HRH. If the HSN was attached to an MRT, then right hand rotation will be applied to release the HRH.

The top of the HSN contains a box connection that connects to all Core Design Release Tools. When accessory tools are not connected to the bottom of the release tools, an open-ended cap is installed to the release tool pin threads.

APPLICATION

- Used to hydraulically function and set Core Design HRH tools.
- When the setting of the hanger elements are kept separate from the releasing of the hanger.

FEATURES

- Can be connected to all Core Design Release tools.
- Minimal pump pressure required to function (eliminates the use of a pump truck).
- Allows pipe drainage while pulling out of hole.
- Manufactured with high grade materials.
- Functions in vertical or horizontal positions.

BENEFITS

- Allows the setting of hydraulic tools in conjunction with the hydraulic or mechanical release of that same tool, in the same trip.
- HSN function stages can be monitored and tracked with surface pump pressures.



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