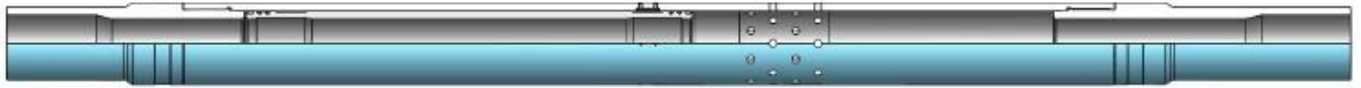


Annulus Communication Tool



The Annulus Communication Tool (ACT) is used to equalize the pressure from the injection/production string to the annulus. The ACT also allows circulation of the annulus in both directions. The ACT is capable of two positions. The shifting of the sleeve that controls the position of the ACT is carried out using a standard (OTIS) hydraulic shifting tool. The shifting tool can be functioned using threaded tubular or coiled tubing. An upward shift opens the tool and a downward shift closes the tool. Each shift requires approximately 2,000 lbf to function.

When the tubing string is used to inject, the ACT will be in the closed position. This will stop any injection gases or fluids from entering the casing annulus cavity.

When the tubing string is used to produce, the ACT can be in an open or closed position depending on the type of lifting methods used. If for example, the formation pressures are high enough to lift production fluids to surface, the ACT would be closed. In a situation where a pump is required to lift fluids to surface and is located above the ACT, then the ACT could be left open. This open position would allow accumulated gases within the production fluid to enter the annulus versus entering the pump. This stops pump cavitation. These gases that enter the annulus can then be vented at surface through the wellhead.

APPLICATION

- Where gas pump cavitation is present
- Thermal well applications (SAGD and CSS)

FEATURES

- High Temperature (650°F)
- Made of non-corrosive materials.
- Two-position selections to open or close communication between the tubing and the annulus.
- A preset shifting force of 2,000 lbs to indicate correct locations.
- Port open area can be custom designed.

BENEFITS

- Allows gas separation from produced fluids to take place downhole.
- Allows communication between the tubing annulus and the casing annulus
- Allows circulation and reverse circulation of the annulus.



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