

DrawWorks AutoFill™ Casing Fill-up and Circulating System

Fill-up or Circulate While Casing is Being Run

The AutoFill™ casing fill-up and circulating equipment and the AutoValve™ mud saver valve are designed to allow filling or circulation of a casing string as it is being run.

This equipment is also well adapted to provide for capturing fluid which is flowing back from the casing string as it is being run in the casing where fill-up float equipment is used to prevent surging the well. Equipment is available in sizes from 4-1/2" to 20" casing. Unlike all other fill-up and circulating equipment the AutoValve provides a "full opening" mud saver valve allowing high fill-up or circulating rates and no surge of the well while taking fluid in the flow-back mode.

Accessories are available to provide for connecting the fill-up and circulating system to a top drive or the hook on a rotary rig. A push plate assembly is also available to allow the casing to be pushed into the well as well as providing a method of releasing the elevators should the casing become trapped between the push plate and elevators. Safety cables and hose assemblies are also available.

Features and Benefits

■ Circulator Assembly

- **Cup type seal** provides a high pressure passive reliable seal
- **Loosely mounted components** prevents loosening of threads in system while making a connection
- **Plastic gage ring** prevents damage to the casing threads and cup type seal when the circulator is inserted into the casing

■ Flex Hose Coating

- A special tough coating prevents damage to the exterior of the hose while maintaining its flexibility

■ AutoValve™

- The only "full opening" mud saver valve available
- Provides high flow rate capacity
- Prevents surging the well
- Immune to mud solids
- Automatically opens when inserted into the casing

■ Hose Adapter

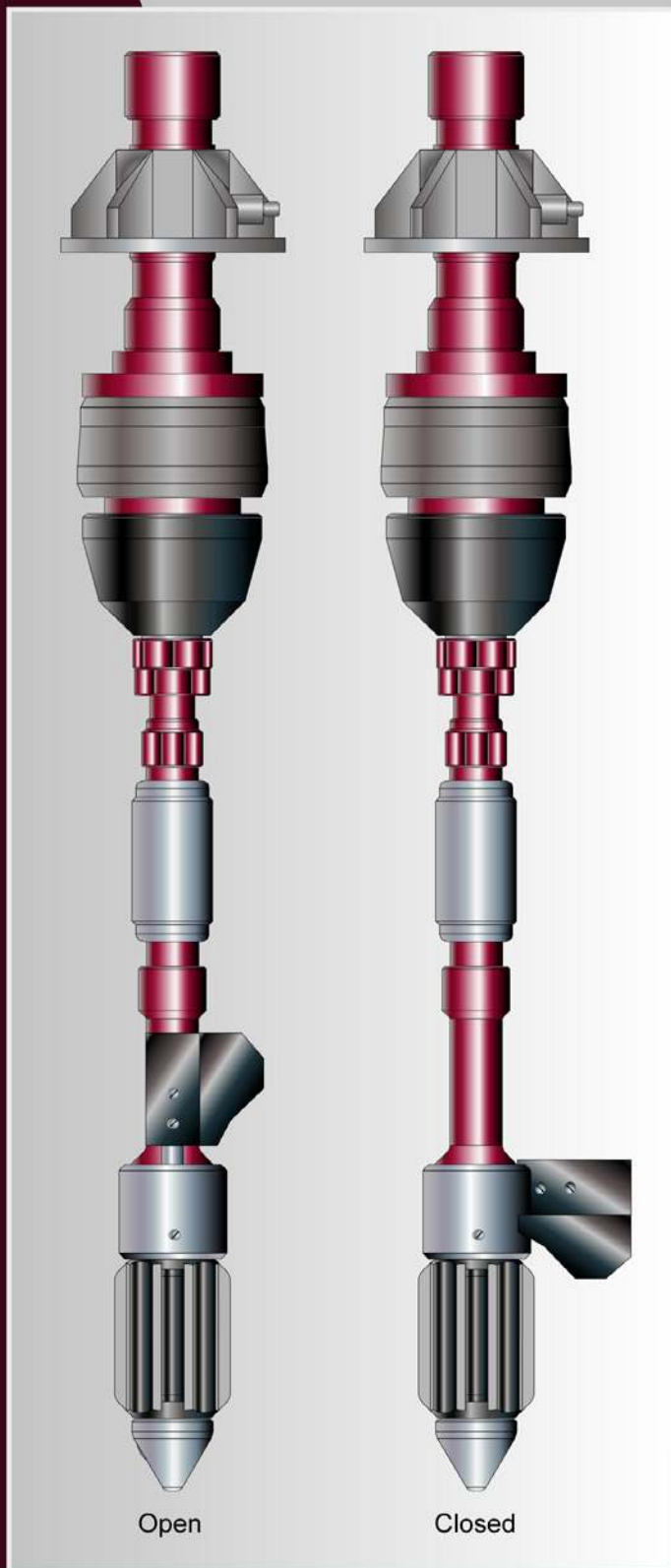
- Provides for rapid connection or disconnection of flex hose and AutoValve

■ Plastic Gage Rings

- Eliminates damage to threads



*Circulating and flow-back tools
for casing and drill pipe*



Covered by U.S. Patents 5,971,079 and 6,173,777