The WD and WD-C Series dummy valves are retrievable, isolation tools installed in a side pocket mandrel to block the mandrel's injection ports. The valve with appropriate latch may be installed or retrieved prior to or after completion for various procedures.

**WD Series Dummy Valves**
- The WD-1 model is a 1” O.D. valve.
- The WD-1.5 model is a 1-1/2” O.D. valve.

**WD-C Series Dummy Valves**
This series includes an integral bottom collet latch and is typically used when a retrievable latch will not engage in the latch-pocket profile of a side pocket mandrel.
- The WD-1C model is a 1” O.D. valve with integral bottom collet latch.

**Applications**
Used to seal off the pocket of a side pocket mandrel, preventing communication between the casing and tubing. These valves are also used to blank off the tubing for production until gas lift valves are required. Other applications include pressurizing the tubing in various procedures, isolating tubing and casing flow during single-alternative production, and isolating tubing and casing flow for test purposes during multi-point water or gas injection floods.

**Features**
- Stainless steel or Monel® materials available
- Two sets of packing to straddle and pack off casing ports
- Accepts most common top latches
- Installs in most mandrel pockets depending on valve model
- Integral bottom collet latch (WD-C Series)

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**Technical Specifications**

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<tr>
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<td>1.0</td>
<td>Bottom Collet</td>
<td>0.875</td>
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Compatible running and pulling tool information available upon request.

**Note:** A core extension is required for the WD-1C model to keep the skirt from shouldering on the pocket, allowing for a shear release feature.
Plunger Tracking and Fluid-Level Measurement

Leutert’s sonoecho™ plunger-tracking and fluid-level measurement instrumentation tracks the fall velocity of any plunger during its shut-in to optimize production and ensure safety without the need for costly wireline techniques. The sonoecho™ includes equipment, software, and allows technicians to gather and interpret the fall data.

Applications

- Determination of plunger-fall times to ensure that the plunger has enough time to reach bottom
- Assessment as to whether the plunger got stuck in the tubing string, due to tight spots, hydrates, or scale
- Determination if liquid loading is preventing the plunger from surfacing
- Indication of tubing leak above the fluid level
- Understanding of the liquid levels and their effect on inflow performance, bottomhole pressure, fall velocity, and uplift potential

Features

- The sonoecho™ incurs less cost than wireline because it can be run easily on wells already operating with plungers with only equipment rental and the services of one technician.
- The sonoecho™ is attached to the lubricator with minimal disturbances to surface equipment so the well does not need to have to be shut in and can operate normally for an accurate plunger fall measurement.
- Because the well requires no additional shut-in that would build unneeded perforation pressure, the plunger is in a fluid column when it reaches bottom, which keeps personnel safe and avoids damage to the bottomhole, plunger, and surface equipment.
- Files from the software can be interpreted on site and sent by email to a remote office for timely well optimization.