

# FLOW-SURE SS™

THE WIRELESS SINGLE SHOT SLEEVE FROM METROL

The Metrol FLOW-SURE SS is a wirelessly controlled, hydrostatic pressure operated, in-flow control or circulating valve.

## DESCRIPTION

The FLOW-SURE SS is a sliding sleeve with a non-elastomeric high pressure sealing system that can be controlled from surface without pressure pulsing or control lines.

The wireless technology enables the sleeve to be sited either above or below a packer, without any requirement for packer feed-throughs.

Primarily intended for use in a well testing environment, the sleeve can be used to perform multi-zone well tests without the need to re-run the test string. It is possible to operate the sleeve as an alternate flow path enabling well kill, or continued flow in the event of plugging of screens.

The sleeve can also be used below a permanent packer to isolate the well enabling the DST string to be removed for extended build-ups or long-term reservoir observation.

Metrol's PARAGON wireless gauges, in conjunction with the sleeve, provide 'real-time' tubing and annulus pressure monitoring both above and below the packer or packers.

The sleeve is a single shot tool and can be supplied as Run-Open (actuation to sleeve's closed position) or Run-Closed (actuation to sleeve's open position). The sleeve includes dual redundant control systems, as well as a back-up mechanical shifting profile.

## FEATURES & BENEFITS

### FEATURES

- > Tool operations recorded in memory for post job analysis
- > Options to run multiple sleeves in same string and operate independently
- > Dual redundant control system
- > Non-elastomeric primary seals
- > Built-in control system diagnostics including pressure verification

### BENEFITS

- > Wireless control
- > No control lines
- > No packer feed-throughs
- > No nitrogen
- > Activation and sleeve position confirmation provided at surface
- > H<sub>2</sub>S, CO<sub>2</sub> and acid compatible

## APPLICATIONS & OPTIONS

### OPTIONS

- > Long-term battery packs
  - > Back-up mechanical shifting
  - > 13 Cr materials
  - > Gas actuation
  - > Metal barrier seals
  - > Higher temperature available
  - > Low pressure nitrogen charged
- FLOW-SURE SS (well pressures below 1200psi)

### APPLICATIONS

- > Multi-zone testing
- > Extended build-up
- > Circulation valve
- > Alternate flow path
- > Back-up to well test valve

## SPECIFICATIONS

<b>Max. OD:</b>	5.5"[139.7mm]	<b>Temperature rating:</b>	347°F[175°C]
<b>Tool ID:</b>	2.25"[57mm]	<b>Length:</b>	14ft[4.3m]
<b>ID Flow Area:</b>	3.976sq.in	<b>Shifting Profile:</b>	B profile
<b>Port Flow Area:</b>	5.293sq.in	<b>Weight:</b>	750lbs[340kg]
<b>Differential Pressure:</b>	15,000psi	<b>Tensile Strength:</b>	251,000lbf
<b>Max. Annular Pressure:</b>	15,000psi	<b>Number of movements:</b>	1
<b>Max. Tubing Pressure:</b>	15,000psi	<b>Min. battery life:</b>	3 months
<b>Max. Opening Differential:</b>	5,000psi	<b>Connection:</b>	3 ½" 15.8# PH6
<b>Min. Hydrostatic required:</b>	1,200psi	<b>If zero Hydrostatic available:</b>	Gas accumulator actuation
<b>Material Standard:</b>	NACE MR 0175/ISO 15156		

