

# SLOW RATE PUMPING UNIT (SRPU)

## DESCRIPTION

Sanjel Energy Services' Slow Rate Pumping Unit (SRPU) is purpose-built for remedial operations. The unit combines low rate pumping capabilities with the ability to transport and operate specialized tubing rotation equipment for abrasive jetting and well control operations. Designed for its low pumping rate ability, the SRPU allows for continuous pumping of cement until the cement thickening time or maximum treatment pressure is achieved. At these low placement rates, cement can be injected into the formation without fracturing, and the entire slurry thickening time is used to form resistance. The Slow Rate Pumping Unit improves first attempt remedial operation success, lowers slurry volumes, reduces time on location and increases cost savings.

## APPLICATIONS

- Low rate cement squeezes for all remedial operations
- Squeezing perforations for abandonment of zone
- Production casing failures
- Surface casing vent flow and gas migration intervention
- Open hole abandonment plugs
- All remedial cementing operations

## EQUIPMENT

- Positive displacement triplex pump
- 2 x 3 pre-charge / fluid transfer pump
- Flexible hose for reduced rig up and ease of operation
- In-tank water heater for controlled displacement fluid temperature
- 25 m of 38.1 mm treating iron
- Tubing rotator and work spool
- Pressure relief valve for safety

## INSTRUMENTATION AND CONTROL SYSTEMS

- Real time Field Data Acquisition System (FDAS)
- Independent Martin Decker pressure gauge and chart recorder for back-up

## MARK IV AUTOMATED CONTROL TECHNOLOGY

- Pumping Rates: 1 – 70 L/min
- Pumping Pressures: 0 – 21 MPa

