

**RSS 'CYGNUS' SERIES
CHOKE CONTROL CONSOLES
10,000 to 15,000PSI
Hydraulic – Pneumatic Single and
Dual Choke Control**



'Cygnus' Series Drilling Choke and Well Control Consoles

Choke Control is used when the pressures and fracture pressure gradients are very close with little room for error. With conventional drilling operations the possibility of a kick occurring while not circulating or losing returns while circulating can lead to costly non-productive time resulting in the inability to reach targets. Conventionally these events are addressed by adjusting the hydrostatic pressure through decreasing or increasing the mud weight. This requires both time and expense and the response may not be quick enough to produce the desired results.

Choke Control Systems offered by RSSUS are built to provide accurate pressure and well control, especially in the case of a kick through loss of pressure. The systems offered are manually operated and are compliant with API 16C regulations.

Choke Control Panel

- Piston isolators, separates the corrosive mud in the manifold with the instrument fluid for sensors or gauges, prolong the life span of components.
- 4:1 de-boosters, reduces the pressure to the console by 4:1 ratio - Manifold Multipliers, 3 or 4 outlets from piston isolators for additional 3rd party signal take off.
- Pump stroke counter, 1- 4 pump SPM rates shown as well as total strokes.
- Liquid seal monitoring, shows the De-gasser pressure & the dip tube pressure

The choke control console can also be built as 2 separate sections 1st section would comprise of the display components & the controls 2nd section would be the hydraulic power pack.

The above option for separating the sections is the ideal option if the driller's shack is short of space or over complicated. Allowing the rig to mount the hydraulic power pack in a suitable location away from the elements and where space is available.

See below the spec for a typical Dual Choke Control System

Choke Control Panel:

- Stainless Steel or Mild Steel Powder Coated Panel with lid, lifting eyes & side panels.
- Dual hydraulic shear seal control valves for opening & closing the chokes.
- Air Over Hydraulic pump producing 4.4 l/min at 500 PSI & 1.9 l/min at 3000 PSI
- Emergency Hand pump for low and high pressure producing 0.05 l/min at 1000 PSI & 0.009 l/min at 5000 PSI
- Bladder Accumulator once charged to 3000 PSI holds enough volume to fully open or close both Chokes.
- 8/10 Gallon Oil reservoir with returns filter, sight glass & drain.
- Rotary valve for adjusting the opening and closing speeds.
- 6" Casing 1 pressure gauge, 0-10,000 PSI
- 6" Casing 2 pressure gauge, 0-10,000 PSI
- 6" Drill Standpipe pressure gauge, 0-7,500 PSI
- 4" Choke 1 position gauge, open – close
- 4" Choke 2 position gauge, open – close
- 2" rig air pressure gauge, 0-160 PSI
- 2" Hydraulic Accumulator pressure gauge, 0-4,000 PSI
- Pressure Reducing regulator, 3000 PSI to 300 or 1500 PSI
- Pressure relief valve, set at 3,650 PSI
- Pressure Relief valve, set at either 340 PSI or 1,750 PSI

