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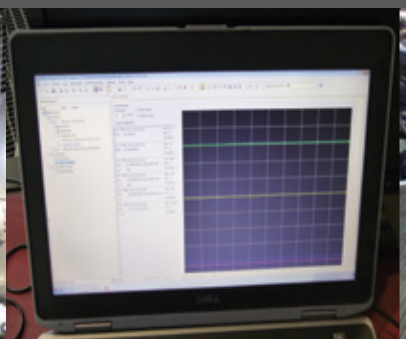
# Advanced Roof Support Cylinder Testing

**Berendsen Fluid Power Newcastle specialises in expertly testing rebuilt roof support cylinders under simulated working parameters that closely match conditions in the field.**

Can you afford not to have your cylinders tested by our Convergence Testing Rig?



The testing of Roof Support Cylinders after repair is typically accomplished by restraining the leg within a frame and pressurising the leg to a predetermined test pressure. The flaw in this static method of testing is that it does not provide a true simulation of the forces that the cylinder is exposed to under normal working conditions.

Identifying the industry need to closely simulate the actual working duty of Roof Support Cylinders in a test environment and thereby provide a greater degree of quality assurance for mining customers, Berendsen has designed and developed a test rig with Convergence Testing capabilities.

## Our Convergence Test Rig Advantages

- ✓ Ability to test repaired roof support cylinders under simulated working parameters
- ✓ Cyclic testing to prove design improvements prior to introducing these modifications into the mine
- ✓ Cyclic testing to determine effects of increasing yield pressures
- ✓ Cyclic testing to assist in making accurate predictions of remaining life of a longwall

## Our Convergence Test Rig

The test rig Berendsen Newcastle has developed is capable of applying an external force to a pressurised cylinder under test. The magnitude of the applied force can be varied to induce Yield Pressure or greater pressures within the Leg under test. This force can be cycled, by way of an intelligent PLC control system, with critical parameters continuously logged to provide a record of test conditions.

Berendsen can provide full metallurgical analysis of components post testing to illustrate the mechanical effects of the test program. We provide advanced reporting with intelligent data and information which allow customers to make informed decisions on financial and operational performance.

## Our Workshop

At Berendsen Fluid Power in Newcastle, our workshop is fully equipped with comprehensive facilities including:

- Overhead lifting capacity up to 10 tonne
- Honing of barrels up to 12,000mm and bores up to 500mm
- Nut tensioning up to 90,000 Nm
- Exhaustive range of manual and CNC machines for turning, milling, boring and drilling operations
- Extensive testing facilities compatible with mineral oils and solcenic fluids

We understand how important it is to have reliable powered roof supports that you can count on for the safety and success of your mining operations. It is our goal to keep your project moving forward, minimise downtime and improve your cost savings. Our clients have come to rely on us for our specialised repair equipment and most importantly our stringent quality assurance process.

If you are looking for a customised hydraulic solution to suit the needs of your business, contact Berendsen Fluid Power today on 1800 814 411.

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