

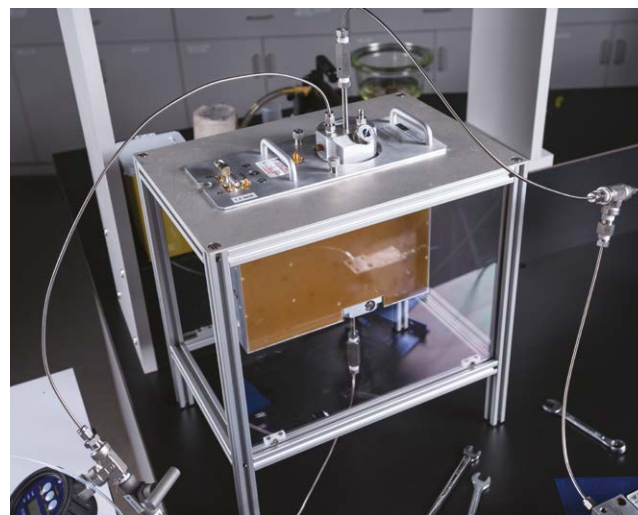
P5 and P10 Cells for Overburden Studies

Make Overburden Studies Routine



Nuclear Magnetic Resonance (NMR) is a valuable tool for both routine core analysis and SCAL. Most measurements are made at ambient temperature and pressure, but it is becoming increasingly important to carry out measurements at as close to reservoir conditions as possible. To do this, an NMR-compatible core holder is needed, but existing designs have severe limitations on either sample handling or NMR performance.

The **P5 and P10 Overburden Cells** remove these limitations and allow users to carry out NMR measurements at reservoir conditions. Designed and built with a focus on usability and performance, the cells allow users to pressurise samples with up to 10,000 psi of confining pressure (for 1" cores) or 5,000 psi (for 1.5" cores). The **P5 and P10 Overburden Cells**, unique to the GeoSpec range of NMR rock core analysers, use state-of-the-art materials to allow the NMR coil to be closer to the sample while maintaining the performance of the **GeoSpec**.



P5 Cell in its benchtop stand

The cells take full advantage of the industry leading performance of the **GeoSpec** range of instruments, as the only pressure vessels specifically designed with **Q-Sense** technology. **Q-Sense** delivers short echo spacings and high signal-to-noise ratios, leading to improved measurement of fluids in smaller pores, maximising the cells' ability to perform measurements on tight rocks from unconventional reservoirs.

Unique features of the P5 and P10 Cells:

- Can be held at pressure outside the instrument
- Allow quick loading/unloading of samples through the twist-lock lid
- Low background signals for effective measurements on low volume samples such as shales
- Multiple levels of safety protection
- NMR coil embedded in the cell - allowing faster and more accurate measurements.



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P5 and P10 Cells for Overburden Studies



No longer does one sample monopolise the NMR instrument for days or weeks. The **P5 and P10 Cells** allow the sample to be pressurised both inside and outside the instrument. Pressurised samples can be inserted and removed from the instrument without depressurising, eliminating pressure cycling issues. The cells are designed with pressure fittings at the top and bottom, allowing users to perform pressure flow studies.

The safety of the user is our highest priority. The **P5 and P10 Cells** utilize a secondary containment system providing unprecedented protection in a pressurised environment. Each cell is CE certified and tested to ensure the highest quality and safety standards are met.

Specification	P10 - 1" diameter cores		P5-1.5" diameter cores	
	Diameter	Length	Diameter	Length
Rock Plug size	1.0"	Up to 2"	1.5"	Up to 2"
Maximum Working Pressure	10,000 psi		5,000 psi	
Maximum Working temperature	100° C		100° C	
Safety features	Main pressure component tested to three times rated pressure; Secondary containment; Integrated burst disc and pressure gauge; Drop (shock) protector; CE certified			

Overburden System includes:

- P5 or P10 Cell
- Bench stand
- NMR isolation fittings
- Flow pressure fittings
- O-ring replacement kit

Note: System does NOT include pressurisation or flow apparatus.

The **P5 and P10 Cells** are designed to work with 2 MHz and 12 MHz systems in the **GeoSpec** range of products



For more information visit: nmr.oxinst.com/geospec

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