



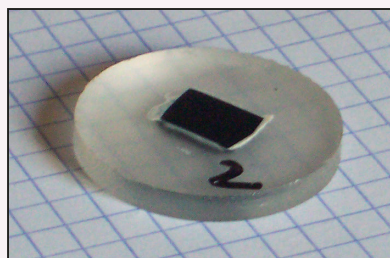
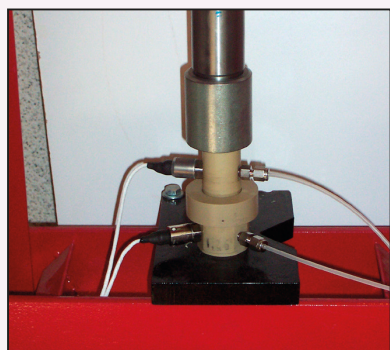
# DarcyPress™

Measurements on small rock samples



DarcyPress allows measurements of gas permeability under confining pressure on small rock samples (5-10 mm), with permeabilities ranging from 0.1 nanoDarcy ( $10^{-22} \text{ m}^2$ ) to 10 Darcy. DarcyPress is ideal for measurements on shales.

*Description and results published in SCA proceeding SCA2010-32.*

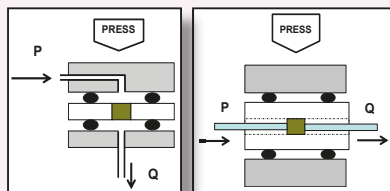


## Domains of application

- > Dry and clean samples. Size usually 5-10 mm .
- > Lower gas permeability Kg at atmospheric pressure (10 hr measurements): 0.1 nanoDarcy ( $10^{-22} \text{ m}^2$ ).
- > Confining pressure: 50 to 500 bar; gas pore pressure: 0.1 to 10 barg.

## Principle

- > Sample embedded in viscous resin remaining outside pores.
- > Sample placed in core holder under vertical confining pressure.
- > High permeability measured using standard pulse decay method.
- > Low permeability determined with a steady-state method with gas flow rate measured at outlet with correction for temperature and atmospheric pressure variations.
- > For stratified rocks, permeability parallel to strata can be measured after coating sample.



## Data acquisition and interpretation

- > DarcyPress apparatus includes case with pressure vessels and electronics, cell for flow measurement, and software.
- > Data acquisition and interpretation done with software Cydar.
- > Automatic and customized reporting.

## Duration of measurements

- > Measurements with 5 mm samples with DarcyPress are 100 times faster than standard measurements on 5 cm plugs (equilibrium time proportional to length of sample squared).



31, av. Gabriel Péri  
92500 Rueil-Malmaison  
France  
[www.cydarex.fr](http://www.cydarex.fr)  
[contact@cydarex.fr](mailto:contact@cydarex.fr)