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Core Lab

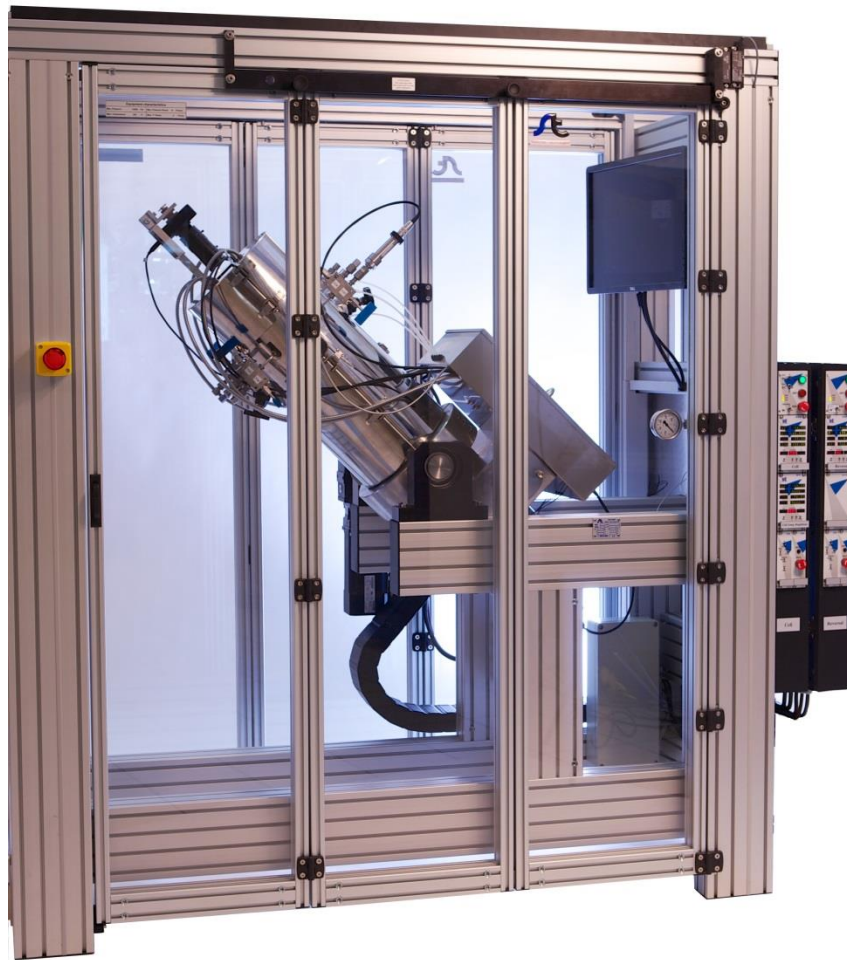


# PVT Cell 400 ml 1000 bar Full Visibility Datasheet

**Reservoir Fluid Analysis - PVT / PVT Studies**



## PVT 400/1000 Full Visibility



### General Features

Our Reservoir Fluid PVT Analysis System composed of one set of PVT instrument (PVT 400/1000 full visual 400cc) and some ancillary equipment, as gasmeter, HP pressure sample cylinders, viscometer, etc. is able to perform analysis of different GOR reservoir fluids as crude oil, volatile oil, gas condensate and gas under high pressure and temperature conditions.

This system can process the comprehensive evaluation for oil and gas reservoirs.

| Specifications                 |                                      |
|--------------------------------|--------------------------------------|
| Max. Working pressure          | 1000 bar                             |
| Max. Working Temperature       | Ambient to 200°C                     |
| PVT Cell Volume                | 400 ml                               |
| Visual volume                  | 400 ml                               |
| Accuracy on measurements:      |                                      |
| Pressure                       | 0.1 bar                              |
| Temperature                    | ±0.1°C                               |
| Liquid deposit                 | 0.005 ml                             |
| Bubble/dew point repeatability | ±0.35 bar                            |
| Resisting corrosive abilities  | CO <sub>2</sub> and H <sub>2</sub> S |



## PVT 400/1000 Full Visibility

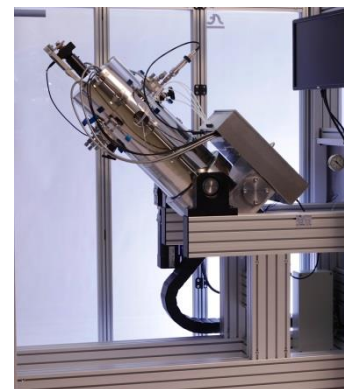
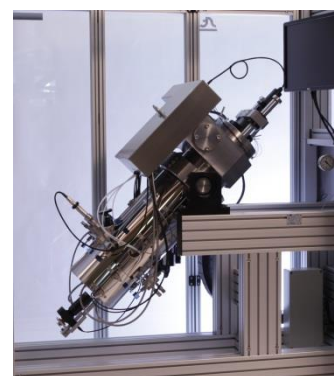
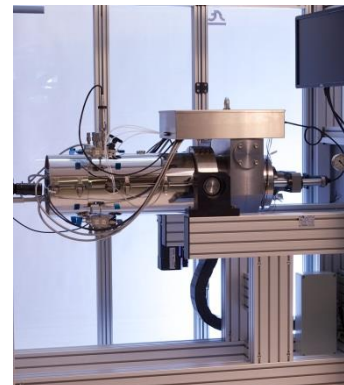
### Measurements

The PVT 400/1000 with accessories is designed to perform:

- A complete PVT study on oil and volatile oil GOR < 800 Sm<sup>3</sup>/m<sup>3</sup> conducted in 4 stages:
  - Constant Composition Expansion (i.e. CCE) at constant temperature,
  - - Differential vaporization at constant temperature,
  - - Separation tests (several stages at different temperatures)
  - - Viscosity measurement
- A complete PVT study on gas condensate with high GOR conducted in 2 stages:
  - - Constant mass depletion (i.e. CMD)
  - - Constant volume depletion (i.e. CVD),
- A recombination of separator oil or condensate and separator gas under reservoir conditions
- An analysis of viscosity, density, composition (accessories in option)
- Z factor determination
- Dew point determination by IR
- GOR

### Characteristics

- Constant temperature control system
- Embedded motorized piston displacement pump
- Stirring by magnetic coupling
- Automatic valves
- Control cabinet
- Calibrated pressure sensor and temperature sensor
- CCD digital video camera 6M pixels
- Data acquisition and processing system
- High pressure valves, pipes and filters
- Back pressure regulator CVD valves (option)
- Phase state processing software (option)
- Uninterruptible power supply (option)
- Cooling system for PVT cell -20°C (option)



### Example of synoptic

