

Hydraulic Pressure / Volume Controller (HPVC Series)



HIGHLIGHTS

- 70, 140, or 210 MPa pressure capacity with better than 0.005 MPa resolution
- 280 or 560 cc stroke capacity with better than 0.01 cc resolution
- Closed-loop digital servo control of pressure or flow with “bumpless” transfer
- Can be used as a volume change measurement device for triaxial and permeability testing
- Includes a 19-liter fluid reservoir with pressure/vacuum/ vent port for easy filling and draining triaxial cell and intensifier
- Metal cabinet mounted on casters to house the servo-controlled intensifier, fluid reservoir, and pressure panel
- Dual piston model available for continuous, non-pulsating flow

DESCRIPTION

GCTS Hydraulic Pressure / Volume Controllers are ideal for controlling the confining or pore water pressure in triaxial tests, head pressure in permeability tests, or fluid flow or pressure in hydro-fracture tests. These intensifiers can also be used to measure flow in permeability tests and volume change in triaxial tests while applying the prescribed pressures. Combined with GCTS’ SCON digital servo controller and triaxial software, the HPVC Series allows for the performance of full control of the stress/strain path.

The HPVC Series of pressure intensifiers include a 19-liter reservoir, reservoir level and fluid flow indicators, and analogue pressure gauge. They also include a Venturi vacuum pump and regulator to assist in filling the reservoir. All these components are housed within a metal cabinet with casters.

GCTS also offers a dual piston intensifier model for tests where continuous flow is required, and pressure spikes cannot be tolerated. These models include two intensifiers and two servo valves together with the necessary check valves, plumbing, and special control software for automatic operation.