Crosshole Shear Wave Hammer

The crossshole shearwave hammer system is a seismic source used to generate vertically polarized shear waves inside a borehole. Shear wave velocities are used to determine dynamic elastic moduli of undisturbed rock strata and soils, and are used for a range of civil engineering applications.
A hydraulic hand pump on the surface allows locking plates to be extended, clamping the hammer system to the borehole walls. This locks the source body in situ allowing the hammer to strike the fixed anvil, and thus generate shear waves. A trigger switch positioned on the hammer is used for triggering the seismograph.

Crosshole Hammer WD7501 Spec.

Diameter:	75mm
Diameter with packer:	87.5mm
Diameter with locking plate fully extended:	102mm
Diameter with packer and Locking plate fully extended	114.5mm
Striker length:	1300mm
Stationary body length between impact points:	315mm
Striker travel distance:	385mm
Active weight (striker):	5.1Kg
Total hammer weight:	15.3Kg
Maximum Hydraulic pressure:	1000psi (70 bar)
Locking plate surface area:	11200 mm^2
Hydraulic hose length:	50m (extendable)
Wire rope length:	100m
Wire breaking strain:	580Kgf
Trigger cable length:	100m