

geotomographie

manufacturer of seismic borehole equipment



BIS-SH-DS | S-Wave Source

The borehole source BIS-SH-DS generates horizontally polarized shear waves (SH) and compressional waves (P). The seismic signals are highly repeatable. The source works in dry or water filled boreholes and can be used in vertical or horizontal boreholes. Energy released by the IPG800 discharges through a system of coupled coils. They generate a mechanical impact to the borehole wall that releases seismic waves. The borehole source is coupled to the borehole wall by a pneumatic clamping system (inflatable bladder). The orientation of the source is controlled from surface by a torsionally stiff hose.

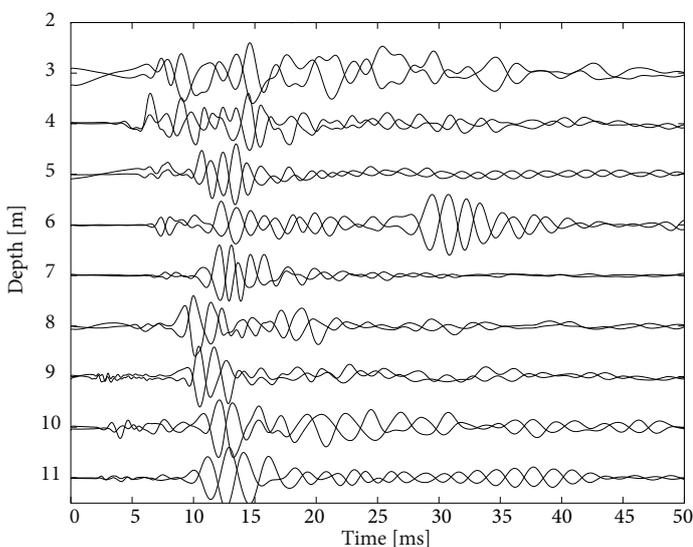


S-wave source BIS-SH-DS on drum with clamping mechanism (inflatable bladder) and connector to the impulse generator IPG800.

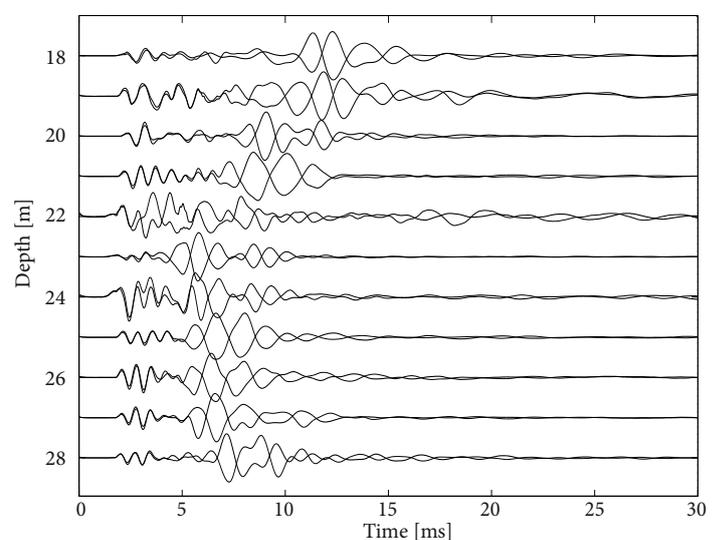
Technical Details

- Generated wave types:** SH/P
- Signal frequencies:** Up to 4 kHz
(depending on geology and borehole distance)
- Operational depth:** Up to 70 m
- Source length:** 880 mm
- Source diameter:** 65 mm
- Source weight:** 8.5 kg
- Cable weight per metre:** 665 g
- Borehole diameter:** 75-100 mm
(or larger if spacers are used)
- Clamping system:** Inflatable bladder
- Orientation:** Torsionally stiff hose
- Depth indicator:** Cable marking every 2 m
- Connector:** To impulse generator IPG800
- Storage:** On drum

Data Examples



Unconsolidated sediments
Borehole distance: 3 m



Hard rock
Borehole distance: 5 m