



BIS-SV | S-Wave Source

The borehole source BIS-SV generates vertically polarized shear waves (SV) in dry or water filled boreholes. The BIS-SV source can be used with the impulse generators IPG800 or IPG5000. The coupling to the borehole wall is ensured by a pneumatic clamping system (inflatable bladder). The source is designed for seismic crosshole applications. No special alignment of the source is required in the borehole. A switch box is provided to select one of the two SV shot directions „UP“ and „Down“ which improves the practicability of the S-wave source. In combination with the P-wave sparker source (SBS42) and the SH-wave source (BIS-SH) P-, SH- and SV-waves can be measured and used for a comprehensive characterization of soil mechanical parameters. SV velocities together with SH velocities can be used to evaluate the soil stress history. Together with P-waves, a joint inversion can be done to analyse the anisotropic properties of soils.



Technical Details

Generated wave types: SV
Signal frequencies: Up to 500 Hz
 (depending on geology and borehole distance)
Operational depth: Up to 100 m
Source length: 1015 mm
Source weight: 6 kg
Cable weight per metre: 377 g
Borehole diameter: 75-100 mm
 (or larger if spacers are used)
Clamping system: Inflatable bladder
Depth indicator: Cable marking every 2 m
Connector: To impulse generator IPG800 or IPG5000
Storage: On drum
Switch box: Switch between two vertical shot directions

S-wave source BIS-SV on drum and switch box.

Data Example

