

**geotomographie**

manufacturer of seismic borehole equipment



## 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.

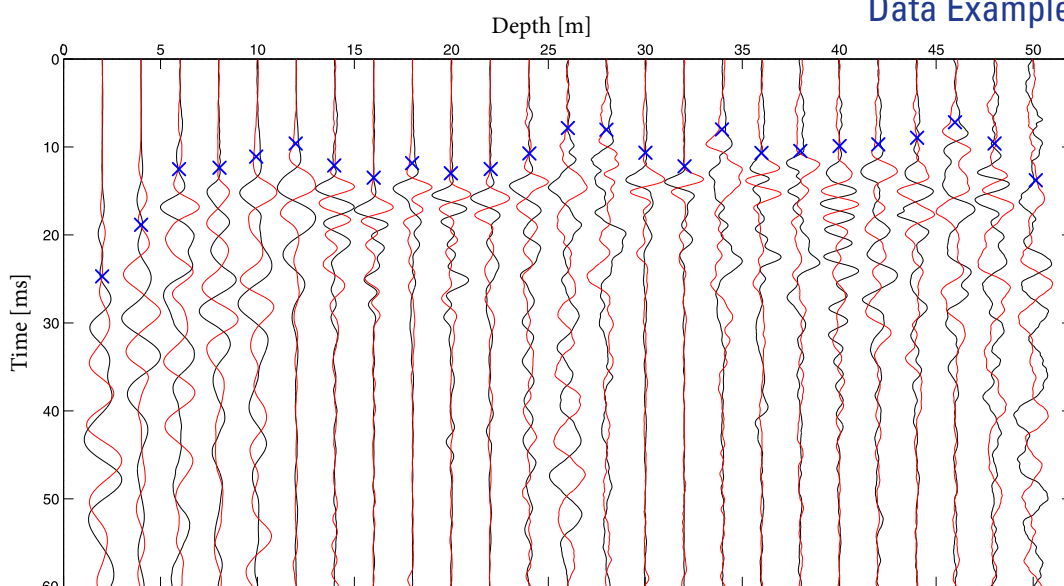


S-wave source BIS-SV on drum and switch box.

### 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

### Data Example



Borehole distance: 6 m, unconsolidated sediments

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