

Shear-wave vibrator EIViS III S8

Elektrodynamisch-Vibrator System



Shear-wave vibrator

Easy handling also in rough terrain.



Wheelbarrow technique

Very easy access of vibrator points using a wheelbarrow.
The box above the source contains the 12 V or 24 V DC power supply. The control system is attached to the source.



Signal generator

Programmable signal generator with high-quality 16 Bit AD converter in order to generate the analog sweep signal as well as the trigger signal for the recording unit. A +/- switch allows to invert the sweep direction with respect to wave-field separation. Sweep duration and frequency range are variable and can be individually set by means of an E-prom.



Vibration attenuation

Shock absorbers attenuate the vibrations between source and wheelbarrow with power supply unit. The shock absorbers are controlled by a pressure gauge and can be individually inflated by an air pump.



Signal controle

Trigger signal output voltage: 0.1 Vpp

Sweep signal output voltage: 20 Vpp



Power Supply

Vibrator: lead-acid battery, 2x 12 V/ 90 Ah

Control unit,
source ventilation: 12 V/ 17 Ah



Coupling surface

The ground plate shows a waver structure and, hence, optimizes the ground coupling.



Transportation

The shear-wave source and wheelbarrow can be disassembled for transportation in a ZARGES-Rollbox K412.



Application area

- Reflection seismic surveys
- VSP surveys
- Building ground investigations
- Shear wave studies

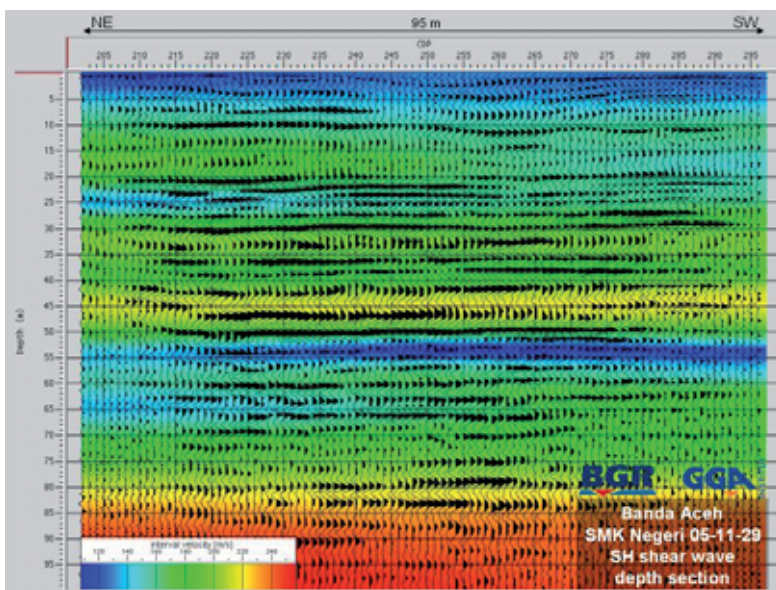
Particularities

- Easy handling due to the wheelbarrow system
- Highly reproducible signals
- Integrated switch amplifier
- No ground damage
- Very low maintenance cost
- Very low noise emission

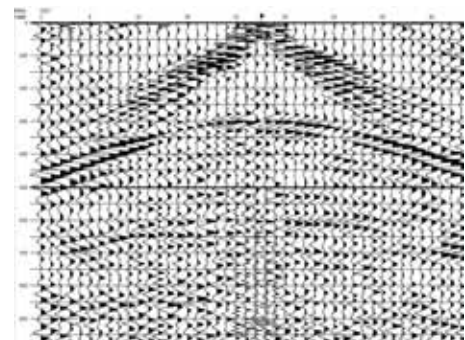
Technical data

- Drive system: cascaded linear motor
- Power supply: 12 V or 24 V DC
- Peak force: about 450 N
- Frequency range: 15 – 320 Hz
- Source weight: about 35 kg
- Total weight: about 130 kg
- Signal penetration depth: about 100 m (zero-offset VSP: about 200 m)

Example of a seismic reflection line recorded at Banda Aceh, Indonesia.



Single shot record



* Patent publication G 01V 1/155 DPMA, Patent DE 103 27 757 A 1, patent rights are hold by the GGA-Institute, Hannover.