

## Low frequency EM seismic monitoring vibrator MI – LMV7000

The Magnetic Innovations fully electromechanical operated seismic vibrator (P-wave) is extremely suitable for applications requiring the generation of precise low frequent seismic signals due to its excellent low distortion signal generation behavior. The robust design enables reliable field operation under harsh conditions.

### Features

- Electromagnetic actuation and leaf springs for highly controllable and repeatable ground force
- Very low lower-frequency limit (2Hz) for very broad-band data
- 7 kN continuous force in a frequency range of 2 Hz to 200 Hz (open- or closed loop operation)
- Full continuous operation (24/7), air cooling of actuators
- Open source motion control software for optimal flexibility in signal generation and acquisition
- Compact system
- Low energy dissipation due to DC gravity compensation

### Signal generation specifications

Frequency limit	2 - 200 Hz
Distortion	<2%, 5°
Peak force	7kN

### Mechanical

Reaction mass weight	1000kg
Active stroke	±42mm
Baseplate diameter	Ø800mm
Baseplate area	4950cm <sup>2</sup>

### Transport

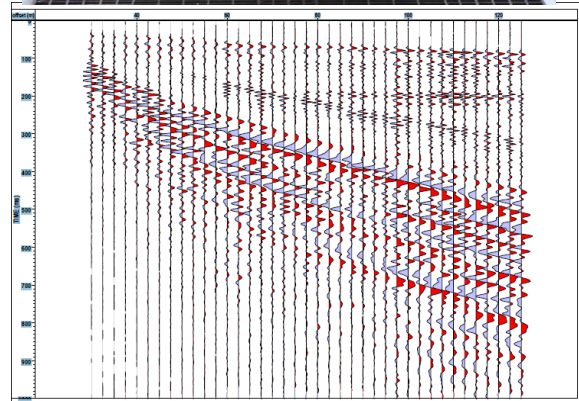
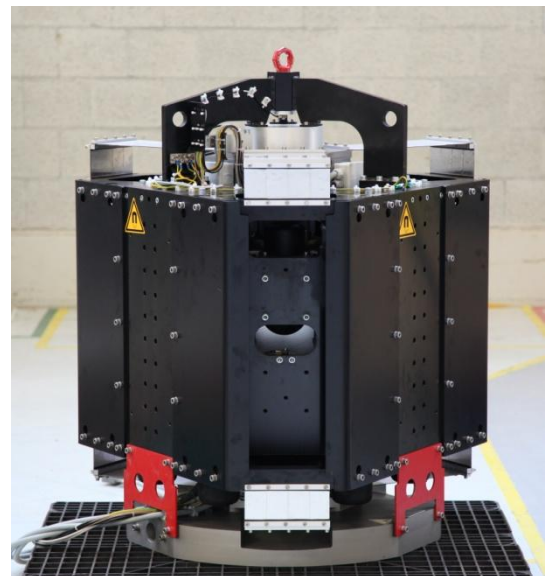
Vibrator size (L*W*H)	950*1060*1310
Electronics (L*W*H)	600*600*1500
Total mass	1200kg

### Methods

Time-lapse seismic  
 Continuous seismic  
 Vertical seismic profiles

### Purposes

Shallow gas storage (incl. CO<sub>2</sub>)  
 Shallow oil production  
 Mining monitoring (salt production)



The system consists of the vibrator, a data acquisition with control rack and a connector house which is used to decouple the vibrator from the rack. Safety fence is provided to comply with the CE-regulations.

Technology developed in close cooperation with:

