



# VE464

VIBRATOR ELECTRONICS

# VE464

## High-productivity vibroseis operations

For decades the VE416, followed by the VE432, have been the most advanced vibrator digital control systems in the industry; well known for the precision of their generated signals and the diversity of vibroseis techniques they have managed.

The VE464, successor of this tradition of advanced vibrator electronics, benefits from the latest developments in integration, radio transmission and servocontrol.

With these major improvements, the VE464 delivers and controls signals with higher accuracy and speed, allowing its users to implement vibroseis seismic easier than ever, aiming for ever increasing productivity and flexibility.

VE464 - DSD



VE464 - DPG



# FEATURES & BENEFITS

## Advanced vibroseis techniques

The VE464 is a powerful vibrator digital control systems, using a fully auto-adaptive servomechanism. It enables the use of advanced vibroseis techniques such as:

- pseudo-random sweeps
- multiple simultaneous sources in flip-flop or slip-modes<sup>(1)</sup>
- coded sweeps
- cascaded<sup>(2)</sup> sweeps
- custom sweeps (personalized & confidential)

The VE464 has reached an even higher level of flexibility, offering dedicated sweeps, by programming a different sweep per vibrator in a given fleet.

(1) *i.e.: slip-sweep invented by P.D.O*

(2) *Exxon patent*

## Stakeless operations

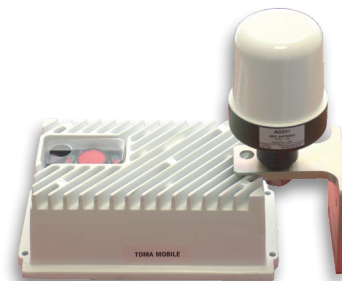
Each vibrator can be guided by its Sercel acquisition systems from one pre-planned VP to the next one by using the GPS guidance option of the VE464.



## Improved communication

One of the major advancement of the VE464 is the use of TDMA Radio (Time Division Multiple Access) instead of the standard VHF transmissions (still an option of the VE464). TDMA Radio, due to its full duplex protocol, increases the capacities of the system allowing:

- no interference when using more than 2 fleets in navigation mode,
- the use of an increased number of fleets (100 fleets max.)



## Enhanced real-time quality control

A complete QC data base is generated for real-time or post-processing analysis including phase, distortion and fundamental ground force.

In addition, the digital control identifies the ground viscosity and stiffness, which regularly provides information on the ground absorption model and can be used to enhance seismic data.

Other QC measurements can be sent to the acquisition system in real time or stored on a local hard disk for further analysis and treatment requested by some particular acquisition methods (i.e. HFVS<sup>(3)</sup>).

(3) *Mobil patent*





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