



SE=2X EXCITER SERIES

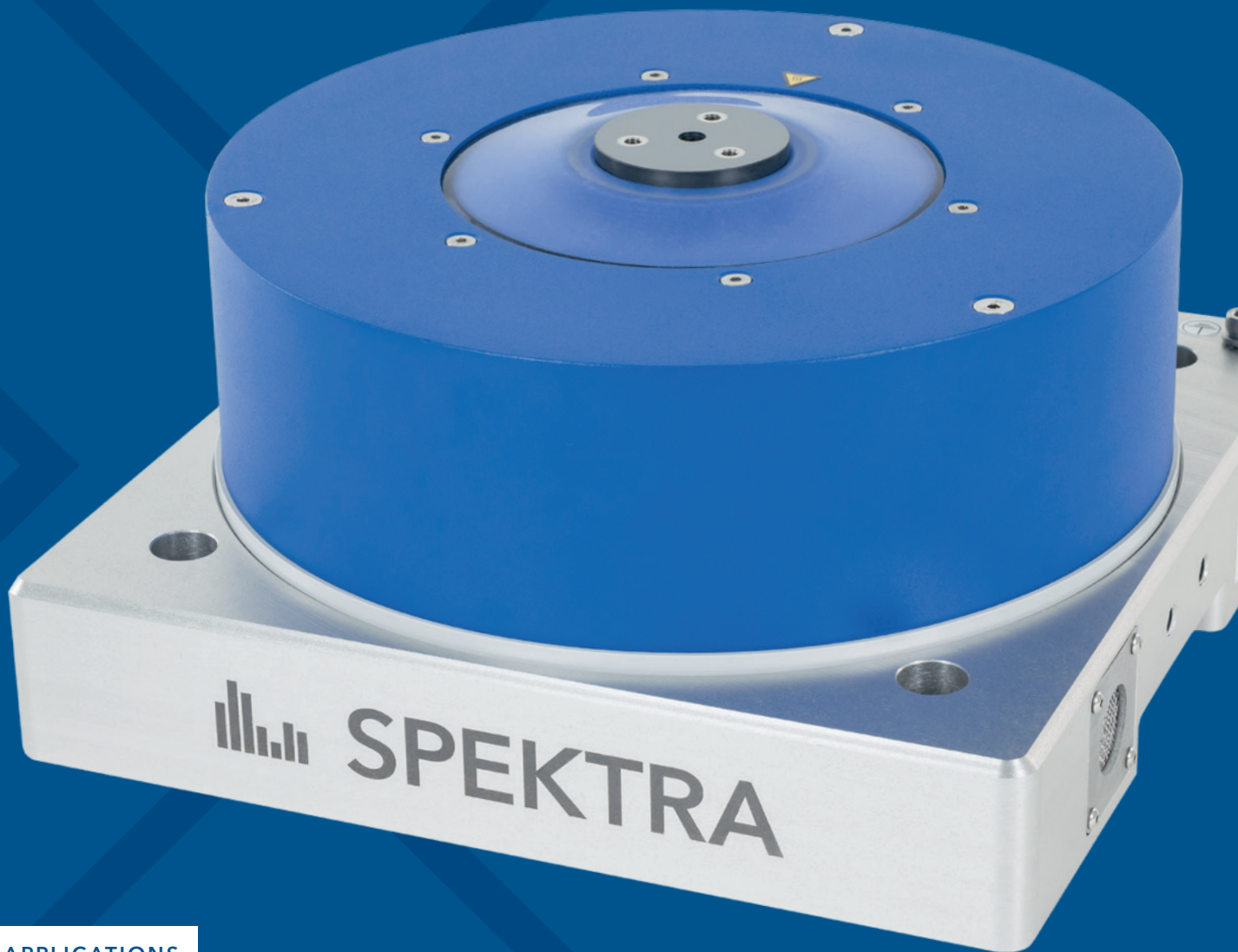
NEW



- ✓ High Payload
- ✓ Wide Frequency Range
- ✓ Climate Chamber qualified

Testing. Characterizing. Calibrating.

Vibration Exciters rethought.



APPLICATIONS

- Vibration tests in industry and research organisations
- Tests of small electronic, measuring or biomedical devices
- Modal applications of fatigue to resonance testing
- Calibration of vibration sensors and measuring devices
- for training/further education due to low susceptibility to operating errors

..... The versatile application possibilities were an important part of the development concept.

VIBRATION EXCITERS

Innovative and versatile

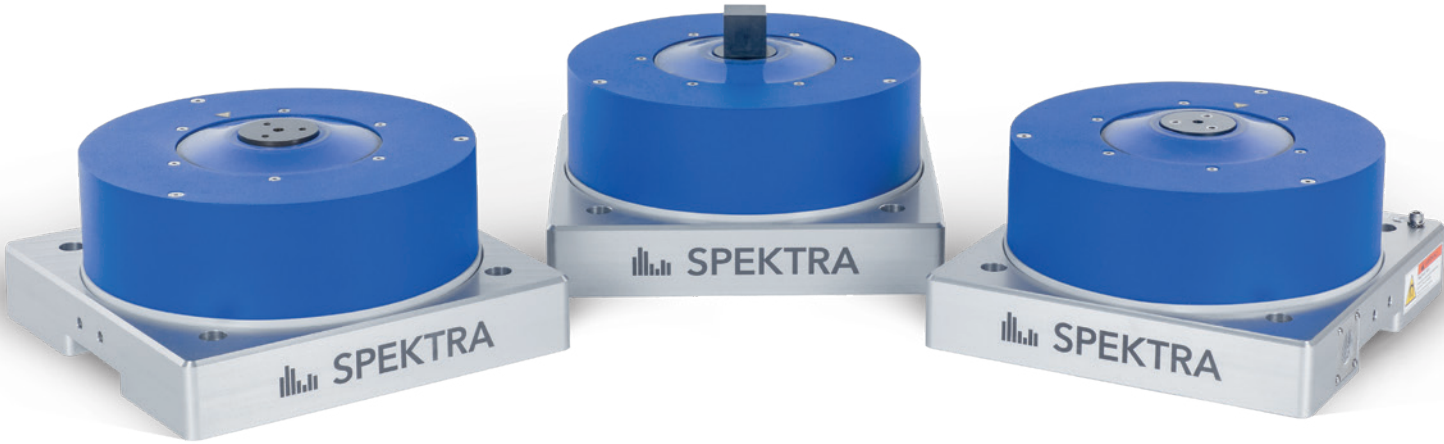
For over 15 years, SPEKTRA has been developing and distributing high-quality vibration exciters worldwide for testing, characterising and calibrating measuring devices and sensors. Therefore, new, sometimes unique technologies are successfully implemented. Discover the SE-2X series of vibration exciters, which are the result of consistent further development of their predecessor models. The combination of high maximum payloads with simultaneously low transverse motion, wide frequency and operating temperature ranges allow applications that were previously hardly conceivable.

The innovative spring guided system allows very precise excitation of even large masses with very low transverse motion.



HIGHLIGHTS

- **very wide frequency range** - DC ... 20 kHz (SE-20) resp. 50 kHz (SE-21, SE-29) ¹⁾
- **high maximum payload** - new application possibilities for larger sensors, geophones or for vibration testing of smaller devices up to 2 kg vertically or 1 kg horizontally
- **low transverse motion < 5%** - with a maximum displacement of 10 mm thanks to the innovative spring guided drive
- **extreme temperature range** - all SE-2X exciters (working range -20 °C...+80 °C) are also available as „T-Variation“ for the use in climate chambers (working rage -40 °C...+120 °C)
- **continuous operation at high amplitudes** - forced air cooling of coil and armature possible using an optional fan, as well as temperature monitoring using the built-in temperature sensor
- **easy workflow integration** - simple operation and easy implementation in laboratory environment, as no compressed air supply or zero position controller is required



	SE-20	SE-21	SE-29
Key Features	allrounder with the best price-performance-ratio	simple test specimen coupling for excitation of all axes	multifunctional for high masses in the upper frequency range
Frequency Range	DC ... 20 kHz ¹⁾²⁾	DC ... 50 kHz ¹⁾	DC ... 50 kHz ¹⁾
Acceleration	up to 600 m/s ²	up to 390 m/s ²	up to 450 m/s ²
Armature	aluminium, hard-coated	ceramic, cube-shaped, scratch-resistant	ceramic, polished, very scratch-resistant

DETAILS MATTER

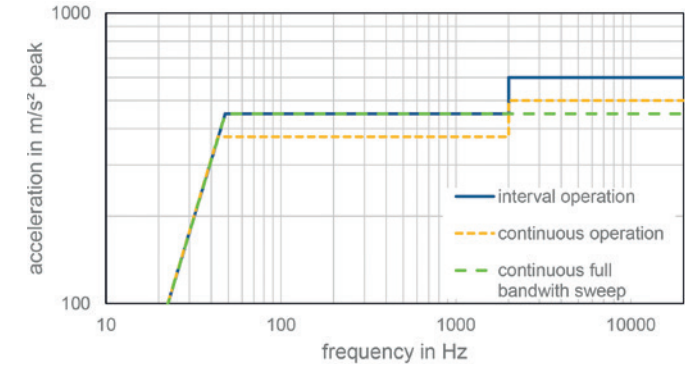
Powerful and stable

Thanks to new materials and a revised spring system, the shakers in the SE-2X series can cover a wide frequency range. With a maximum force of 96 N (up to twice as much with air cooling), even large masses of up to 2 kg (vertically) can be excited. As can be seen in diagram #2, the values of the transverse motion are typically < 5 % to the main axis and thus in wide frequency ranges far below the required limit values of ISO 16063-11/21. This predestines these vibration exciters for the characterisation or calibration of sensors.

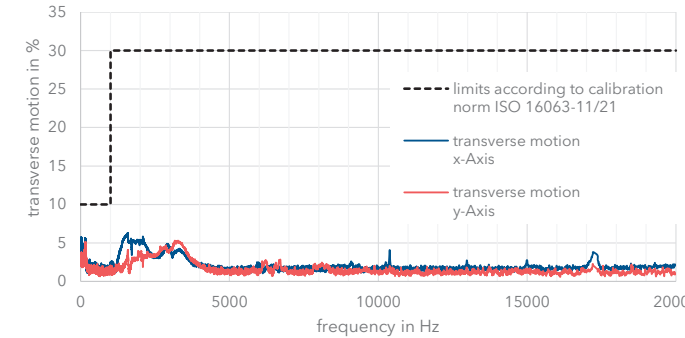
Technical datasheets for download:
www.spektra-dresden.com/se2x-exciter

¹⁾ from 3 Hz with optional internal reference sensor
²⁾ recommended until 10 kHz for calibration of vibration sensors
³⁾ with amplifier SPEKTRA PA 500 DM

1 Performance diagram of SE-20 ³⁾



2 Typical transverse motion of SE-29



FEATURES

Reliable and resilient

As a user of the SE-2X series, you can count on a reliable and durable vibration exciter thanks to its high-quality components. Optional add-ons, such as an internal reference acceleration sensor or a trunnion make the SE-2X exciters extremely versatile. Of course, SPEKTRA also offers you the appropriate power amplifiers and special accessories such as adapters and cables. Look forward to simple, user-friendly operation. The absence of a compressed air unit supports smooth integration into your laboratory environment.

All SE-2X exciters are suitable for the usage under extreme climate conditions as "T-Variation".

ACCESSORIES

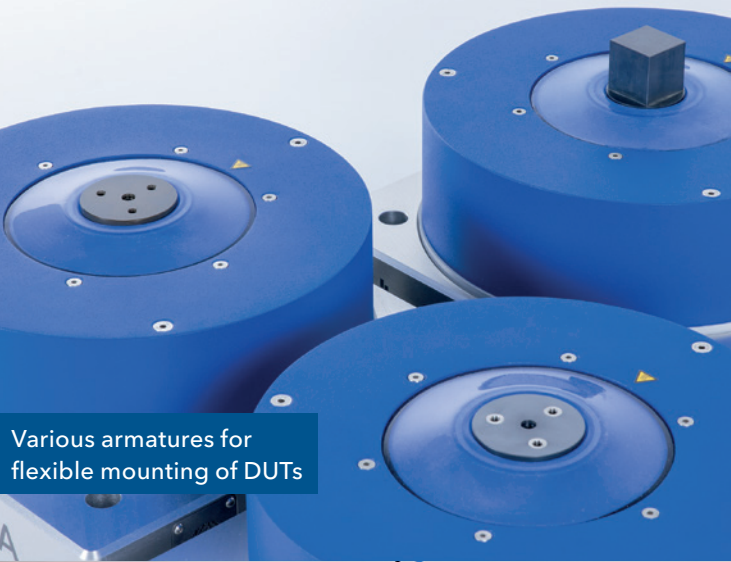
- internal IEPÉ reference accelerometers for calibration and test applications
- suitable power amplifiers
- trunnion for any angle between 0°...90° and exact stops
- adapter-sets for mounting various sensors
- adapter for proximity sensors
- accessory set for active shaker cooling
- readout set for internal temperature sensor



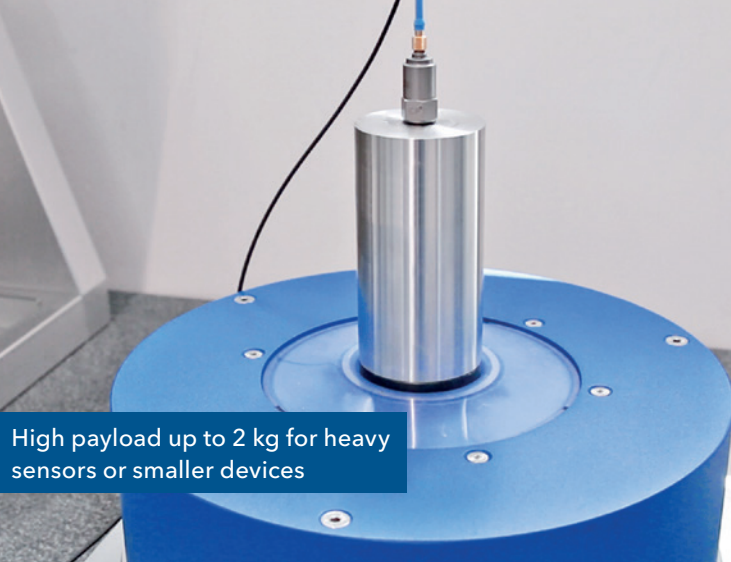
Numerous accessories like the trunnion allow various applications



Usage of the SE-21T in a temperature chamber



Various armatures for flexible mounting of DUTs



High payload up to 2 kg for heavy sensors or smaller devices



Get your counselation, now - without obligation

Our experts support you in selecting the appropriate technology and its implementation in your individual test environment.

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