

TIRAvib

Vibration generator

- Model TV 51075: 75 N, 7.6 kgf
- Model TV 52110: 100 N, 10.2 kgf
- Model TV 52120: 200 N, 20.4 kgf

TIRAvib 51075
TIRAvib 52110
TIRAvib 52120

DESCRIPTION

The TIRA vibration generators TV 51075, TV 52110 and TV 52120 are designed as both stationary and portable wide band exciter sources to reproduce environmental conditions.

TIRA vibration generators are designed for continuous operation. They are fitted with a light weight rugged magnesium armature and a tested and proven suspension system which provides excellent lateral and rotational restraint as well as axial stiffness.

Several optional features make the generators available in shaker and modal shaker variations.

Due to special low distortion and high displacement (25 mm) the TV shakers have an excellent ability to calibrate the transducers.

TIRA also offer Customer specific fixtures for test applications to complete the system.

TIRA's fully equipped package, including Digital Vibration Controller enables, the user to test under all national and international standards such as DIN, ISO, ASTM, BS, MIL, IEC, etc...



POWER AMPLIFIER

FOR TIRAvib 51075/52110

sinus continuous rating 120 VA
voltage 22 V
current 5.5 A
distortion < 0.1 %
weight 8 kg
size (WxHxD) 483x90x450mm

FOR TIRAvib 52120

sinus continuous rating 500 VA
voltage 45 V
current 11.2 A
distortion < 0.1 %
weight 25 kg
size (WxHxD) 483x90x450mm

MODAL SHAKER



SUSPENSION SYSTEM



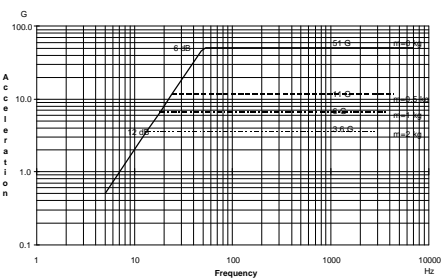
Technical Specification

		TIRAvib 51075	TIRAvib 52110	TIRAvib 52120
Rated peak force [N (kgf)]	Sine/Random	75 (7.6) / 40 (4.1)	100 (10.2) / 50 (5.1)	200 (20.4) / 100 (100.2)
Frequency range [Hz]		2 - 8000	2 - 7000	2 - 7000
Max. rated travel [mm]		10	15 (25 *)	15 (25 *)
Max. velocity [m/s]	Sine/Random	1.5 / 1.5	1.5 / 1.5	1.5 / 1.5
Max acceleration [g]	Sine/Random	51 / 27	51 / 25	102 / 51
Rated current [A]		5.5	5.5	11.2
Nominal impedance [W]		4	4	4
Suspension stiffness [N/mm]		6.5	5	5
Effective moving mass [g]		150	200	200
Main resonance frequency [Hz]		> 7200	> 6000	> 6000
Weight with trunnion [kg]		18	30	30
Cooling [m³/h]		-	-	90

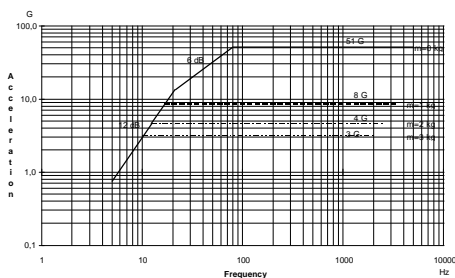
* On request

PERFORMANCE DIAGRAM

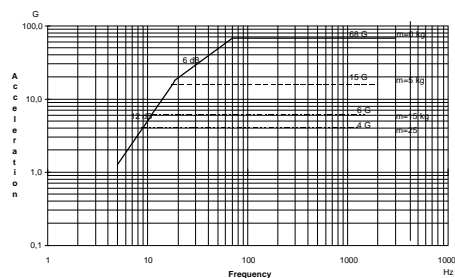
TV 51075



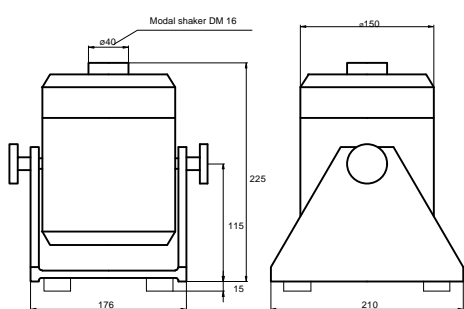
TV 52110



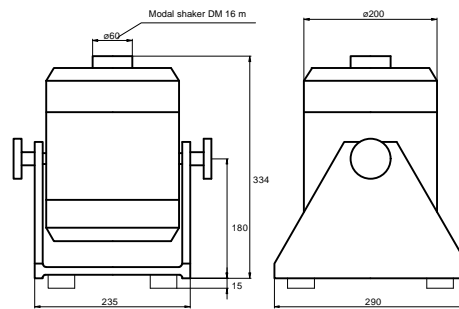
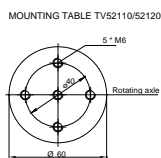
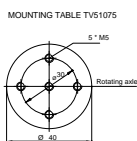
TV 52120



DIMENSIONS



TV 51075



TV 52110/52120

MANUFACTURER



- ◆ MEASURING
- ◆ TESTING
- ◆ BALANCING
- ◆ CNC

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PRODUCT RANGE

- Shaker 9 N - 245 kN
- Servohydraulic up to 1000 kN
- Longstroke systems up to 600 mm
- Amplifier, digital / analog
- Modal shaker
- Vibrations control system
- Sine, Random, Shock, Mixed mode
- Oil film slip table for horizontal test
- Climate and temperature system
- Headexpander and special construction