

- Model TV 50303: 2000 N, 204 kgf
- Model TV 50350: 2700 N, 275 kgf
- automatic load compensation

TIRAvib

Vibration generator

TIRAvib 50303
TIRAvib 50350



DESCRIPTION

The vibration generators, TV 50303 and TV 50350, reproduce environmental conditions over a very wide frequency band.

The vibration generator operates in sine, random and shock mode under controlled conditions. Several features make the vibration generators an ideal testing instrument for use in the field of quality assurance and R&D in laboratories.

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.

A unique pneumatic load support system guarantees a full nominal displacement with a maximum permitted vertical load of 35 kg. Several optional features, such as external load supports and horizontal oil film slip tables, make the TV 50303/50350 vibration generator universal even to test objects of large dimensions in three axis.

The digital power amplifiers are provided with protection interlocks which guarantee the rated performance of the complete system.

Digital Vibration Control systems offer the user sophisticated, powerful DSP hardware with a full range of sine, random, shock and mixed mode software complete with a graphical display unit.

TIRA's fully equipped package enables customers to test under all national and international standards such as DIN, ASTM, BS, MIL, IEC, etc...

POWER AMPLIFIER

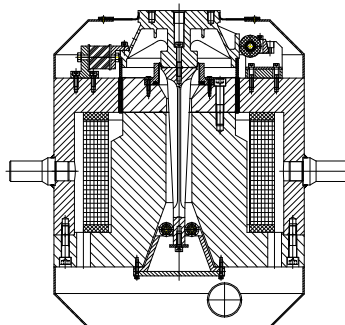
FOR TIRAvib 50303

sine continuous rating 2000 VA
voltage 110 V
current 18 A
distortion < 1 %
weight 70 kg
size (WxHxD) 520x600x300mm

FOR TIRAvib 50350

sine continuous rating 6000 VA
voltage 110 V
current 55 A
distortion < 1 %
weight 100 kg
size (WxHxD) 600x1600x800mm

PNEUMATIC RECENTERING



STANDARD SUPPLY

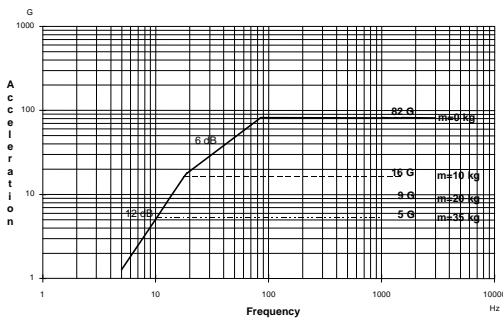
- Automatic Load compensation - pneumatic compressed air requirement 0.6 Mpa
- Air isolation-natural frequency < 6 Hz
- Air filter
- Trunnion with high mobility (180°)
- Cooling blower

Technical Specification

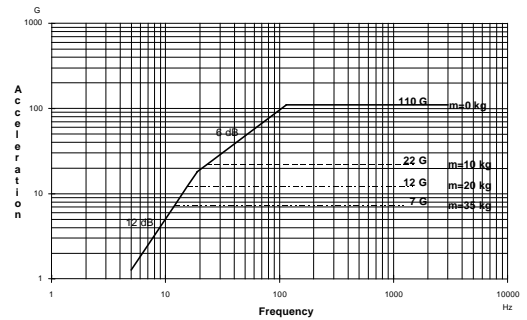
		TIRAvib 50303	TIRAvib 50350
Rated peak force [N]	Sine/Random/Shock	2000 / 1000 / 1000	2700 / 2000 / 4000
Frequency range [Hz]		2 - 4000	2 - 4000
Max. rated travel [mm]		25.4 *	25.4 *
Max. velocity [m/s]	Sine/Random/Shock	1.5 / 1.5 / 2.0	1.5 / 1.5 / 2.5
Max. acceleration [g]	Sine/Random/Shock	81 / 40 / 81	110 / 81 / 162
Rated current [A]		18	36
Nominal impedance [W]		4	2
Suspension stiffness [N/mm]		22	22
Effective moving mass [kg]		2.5	2.5
Max. test load [kg]		35	35
Main resonance frequency [Hz]		> 3700	> 3700
Weight with trunnion [kg]		270	270
Stray magnetic field [mT] (150 mm above table)	without/with degauss kit	< 8.5 / < 0.5	< 8.5 / < 0.5
Cooling [m³/h]		220	340
Interlocks		Temperature Overtravel Airflow	Temperature Overtravel Airflow

* Increased displacements available on request

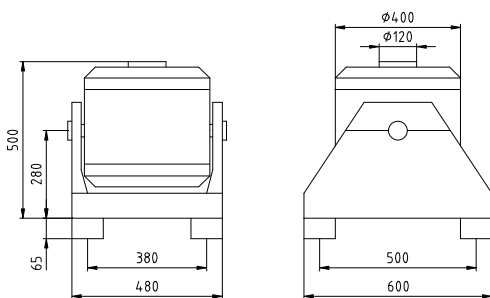
PERFORMANCE DIAGRAM TV 50303



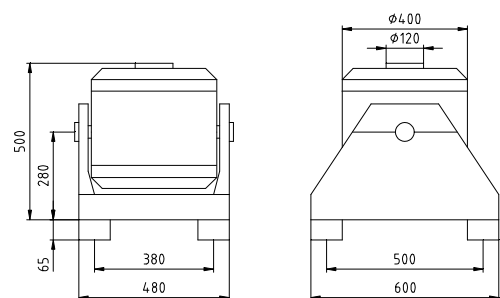
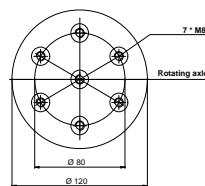
PERFORMANCE DIAGRAM TV 50350



DIMENSIONS



TV 50303



TV 50350

MANUFACTURER



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

Eisfelder Straße 23-25
D-96528 Schalkau
Telefon +49 36766 / 280-0
Telefax +49 36766 / 280-99
e-mail: ST@tira-gmbh.de
www: www.tira-gmbh.de



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