

# TIRA vib

## Vibration generator

TIRAvib 59335



➤ **Model TV 59335:**

Sine: 35000 N;  
Random: 35000 N;  
Shock: 70000 N;  
Displacement: 50.8mm

➤ **automatic load compensation**

➤ **air cooled**

### DESCRIPTION

The vibration generators TV 59335 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 270 kg. Several optional features, such as external load supports and horizontal oil film slip tables, make the vibration generator universal even to test objects of large dimensions in three axis.

The LS version of the generator enables Shock-testing of up to 51 mm displacement to be carried out.

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

Standard: **RIT Rigid Isolated Trunnion**

Option: **AIT Air Isolated Trunnion**

### POWER AMPLIFIER

#### FOR TIRAvib 59335

sine continuous rating	42000 VA
voltage	110 V
current	220 A
distortion	< 1 %
weight	350 kg
size (WxHxD)	600x2100x850mm

### PNEUMATIC RECENTERING

### STANDARD SUPPLY

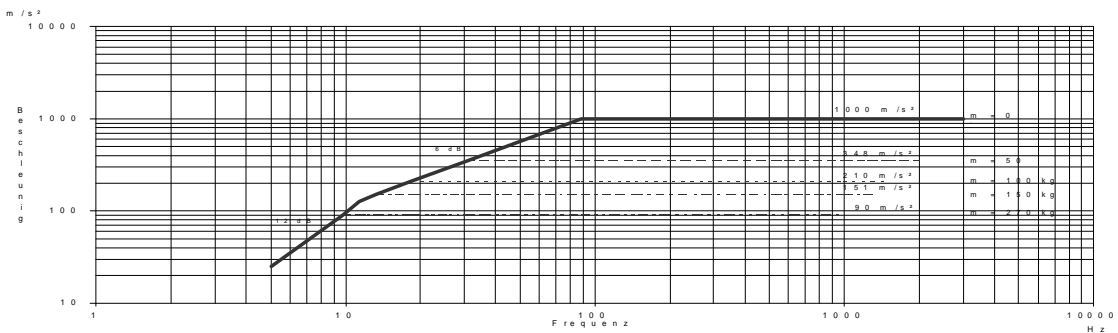
- Automatic Load compensation
- Air isolation-natural frequency  
RIT < 6 Hz  
AIT < 3.5 Hz
- Air filter
- Trunnion with high mobility (180°)
- Cooling blower

# Technical Specification

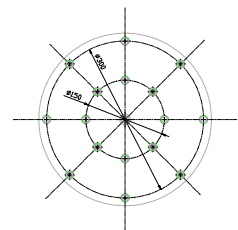
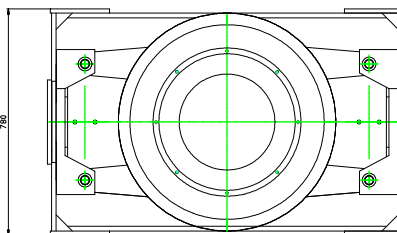
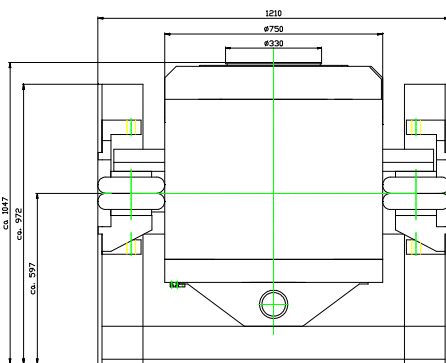
## TIRAvib 59335

Rated peak force [N]	Sine/Random/Shock	35000 / 35000 / 70000
Frequency range		DC-3000
Max. rated travel [mm]		50.8
Max. velocity [m/s]	Sine/Random/Shock	1.8 / 1.8 / 2.5
Max. acceleration [g]	Sine/Random/Shock	102 / 102 / 204
Rated current [A]		330
Nominal impedance [W]		0.135
Suspension stiffness [N/mm]		150
Effective moving mass [kg]		26.7
Max. test load [kg]		270
Main resonance frequency [Hz]		> 2500
Weight with trunnion [kg]		2800
Stray magnetic field [mT]	without/with degauss kit	< 20 / 0.5
Cooling [m <sup>3</sup> /h]		1110
Interlocks		Temperature Overtravel Airflow

## PERFORMANCE DIAGRAM TV 59327



## DIMENSIONS



## 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