

Vibration Test System TV 51144-IN



DESCRIPTION

TIRA is manufacturing a range of Inertialshakers from 125 N (30 lbf) to 650 N (150 lbf). The Inertialshakers (IN) are inertial mass devices which may be attached to large structures at any angle through 360 degrees.

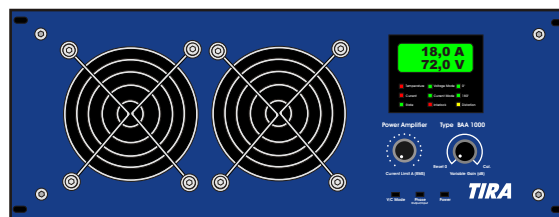
The design of the Inertialshakers is distinguished by a high transverse vibration strength and a high axial stiffness. These permanent magnet shakers are completely enclosed and provide their own inertial support through the use of stiff spider suspension units at each end of the shaker.

A maintenance-free fan guarantees the cooling of the shaker. The cooling air is sucked in via a filter system.

The TIRA Inertialshakers (IN) have found applications in industries, aerospace and aircraft industries, civil engineering and shipbuilding and represent a very cost-effective method of inducing vibration in large structures which are difficult to access.

AMPLIFIER BAA 1000

KVA ratings	1200 VA
Frequency range	2 Hz - 20 kHz
Voltage, max.	72 V
Current, max.	18 A
Load resistance	4 Ohm
Input voltage	< 5 V
Distortion	< 0.1 %
Signal to noise ratio	> 90 dB
Weight	45 kg (99.2 lb)
Size (WxHxD)	483 x 190 x 600 mm (19 x 7.5 x 23.6 in)



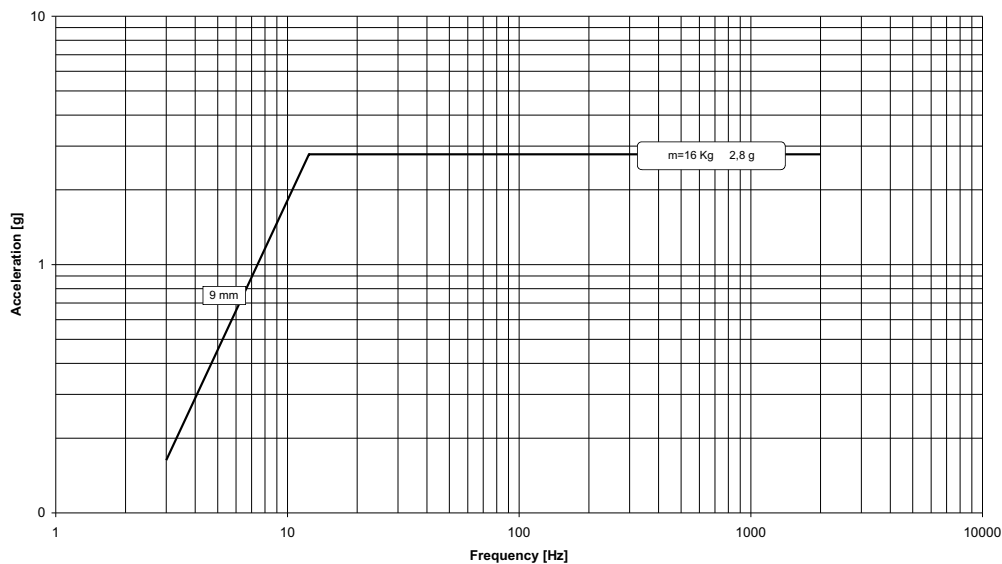
TECHNICAL SPECIFICATION VIBRATION GENERATOR S 51144-IN

Rated peak force (N lbf)	Sine/Random	440/311	100/70
Frequency range (Hz)		DC-2000	DC-2000
Max. rated travel (mm inch)	Pk-Pk	9	0.4
Max. velocity (m/sec inch/sec)	Sine/Random	1.5/1.5	59/59
Max. acceleration (g)	Sine/Random	2.8/2	2.8/2
Max. power consumption at 230 V (kVA)		1.22	1.22
Suspension stiffness (N/mm lbf/inch)		56	319.8
Effective moving mass (kg lb)		0.63	1.4
Weight (kg lb)		16	35.3
Coupling Thread (ø/mm)		M12	M12
Cooling (m ³ /h ft ³ /min)		80	47

PERFORMANCE DIAGRAM

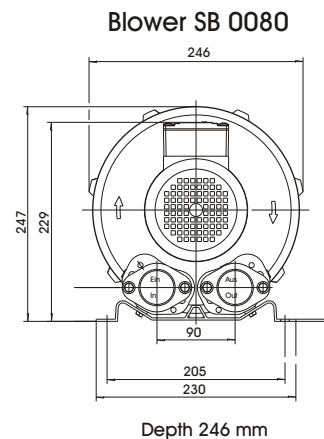
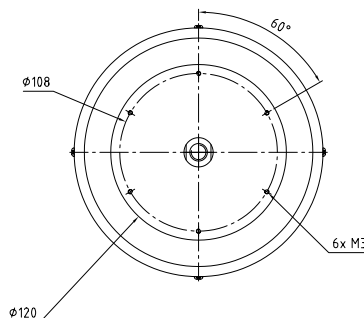
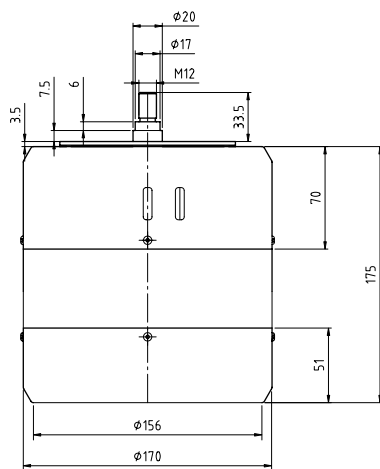
System Performance TV 51144-IN

Force: 440 N max. Acceleration: 2.8 g max. Velocity: 1.5 m/s max. Displacement: 9 mm



DIMENSIONS (mm)

S 51144-IN (Example drawing)



Subject to modifications