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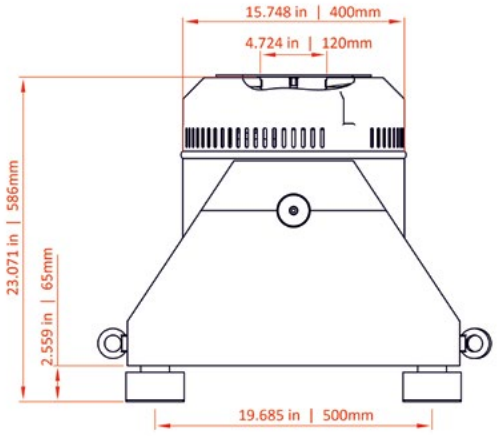
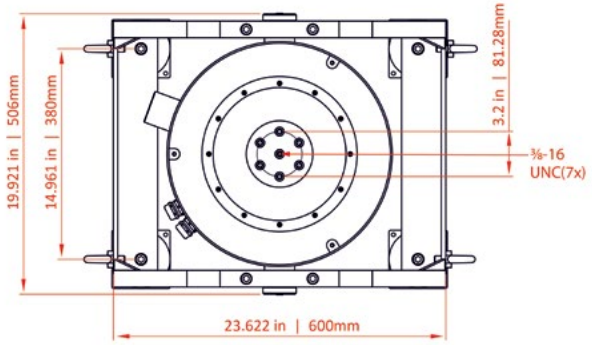
VR4600 Electrodynamic Shaker

The VR4600 is one of the largest of the current family of Vibration Research shakers. The large diameter armature adapts to many test requirements with a minimal amount of fixturing. High lateral and axial stiffness decrease problems associated with off-center loads. Unsupported horizontal operation is possible on many loads. The cooling blower is direct coupled to the shaker to give the maximum performance. An optional slip table is available for horizontal testing. Optional load supports allow testing loads with a high center of gravity. The suspension stiffness is adjustable. Electronic load compensation allows heavier loads.

VR4600 SYSTEM SPECIFICATIONS

SINE FORCE	606F-lb pk
RANDOM FORCE	449F-lb rms
SHOCK FORCE	1,191F-lb pk
FREQUENCY RANGE	2Hz to 4,500Hz
MAX ACCELERATION (Bare table)	95g pk Sine 73g pk Random 160g pk Shock
MAX VELOCITY	59ips Sine 59ips Random 98ips Shock
MAX DISPLACEMENT	1.77" pk-pk
POWER REQUIREMENTS	4,500VA @ 480V, 3Ø, 50/60Hz (standard) 4,500VA @ 208-250VAC, 3Ø, 50/60Hz (opt)
COOLING	Cooling blower
ARMATURE WEIGHT	6.2lbs
SUSPENSION STIFFNESS	Adjustable
DIMENSIONS	23.25"H x 20"W x 23.62"D
SHAKER WEIGHT	617.3lbs
STRAY MAGNETIC FIELD without degaussing with degaussing	 Measured 6" above table: <85 gauss Measured 6" above table: <14 gauss
FUNDAMENTAL RESONANCE	>3,700Hz (current)



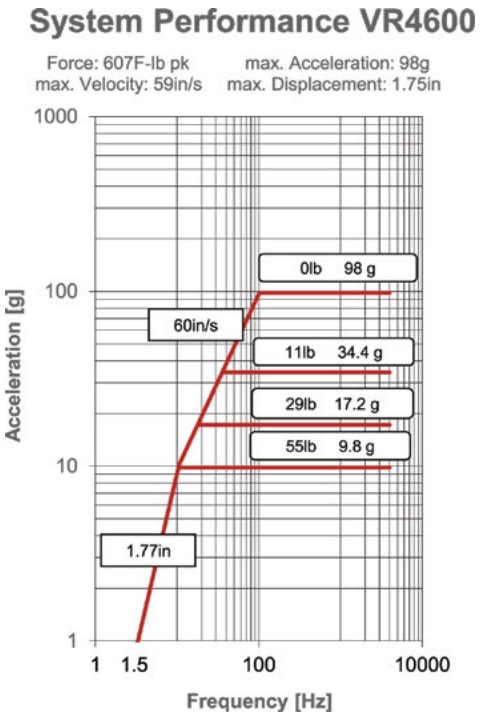


POWER AMPLIFIER

The power amplifier consists of a 19" cabinet with 31RU. The displaceable cabinet contains the measuring and control electronics, the voltage supply unit, the power amplifier modules, the field supply unit of the vibration exciter, the middle control unit, the connection for the air-cooling fan and the supply unit for the demagnetization unit, so that the complete vibration testing system can be fed from one power supply point. The amplifier is an air-cooled, single axis pulse width modulated amplifier, having a nominal output of 4,200VA. The amplifier offers exceptionally low output noise, extremely high bandwidth and excellent stability. Utilizing advanced hybrid digital and analog control architecture, the amplifier provides a host of powerful features. These include digital tuning, digital set-up, diagnostic tools, programmable protection for loads, and more. Quick-acting monitoring systems protect the amplifier reliably from any overloading.

AMPLIFIER PARAMETERS

Output voltage	105V RMS
Output current	40A RMS
Max. continuous dissipation	4,200VA RMS
Max voltage gain	10V RMS
Cooling	Fan, automatic
Input impedance	50,000ohms
Meters	Volts pk: 3-digit meter Amps rms: 3-digit meter
Interlock circuit	Overload, Temperature, Clipping & More
Dimensions	68.5"H x 23.6"W x 31.5"D
Weight	575lbs



OPTIONS

Accelerometers

Degauss kit to reduce stray magnetic field

Head Expanders

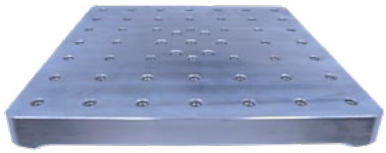
Metric Inserts

Rack Cabinet

Slip Table

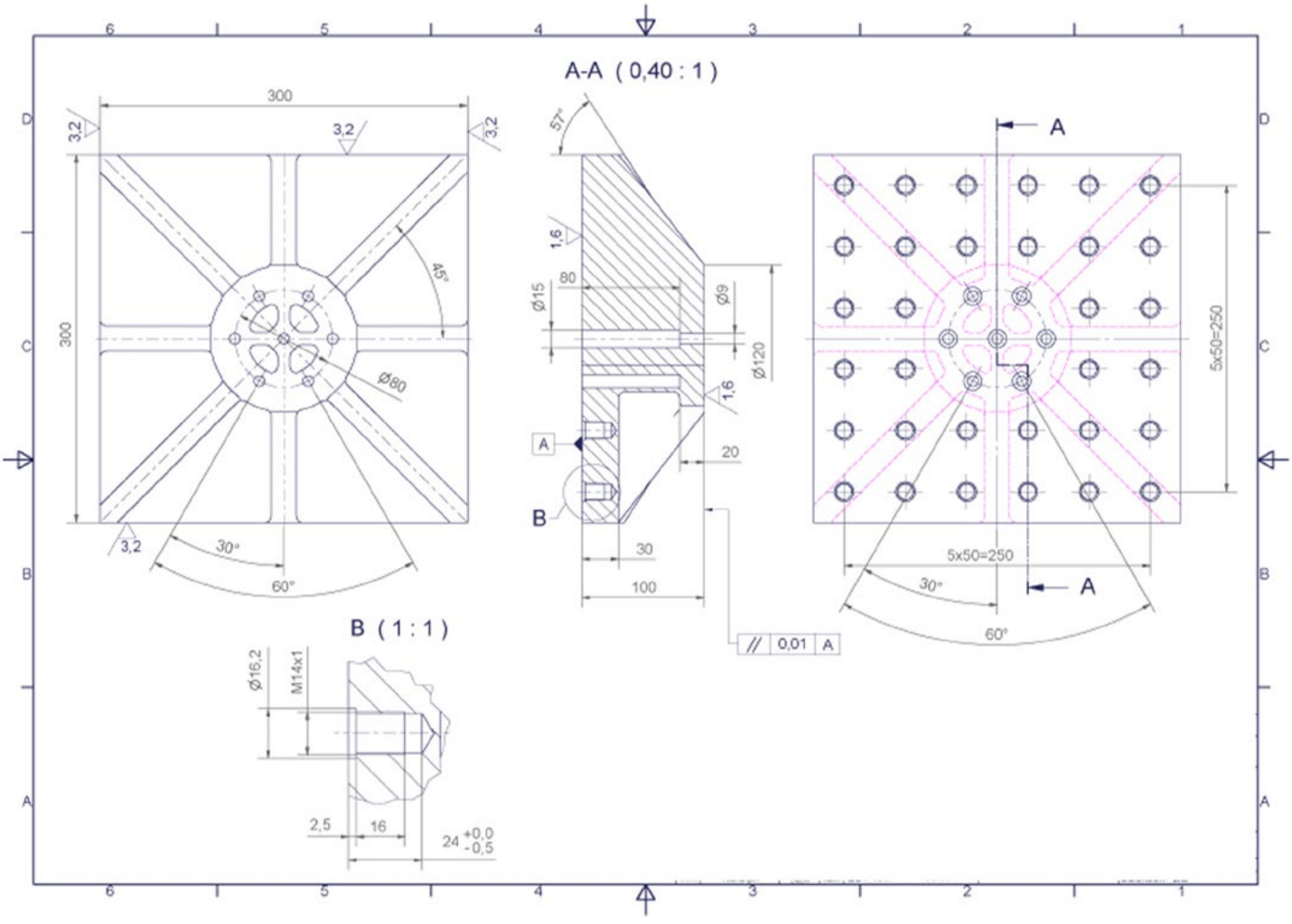
Vibration Controllers

HEAD EXPANDERS Square



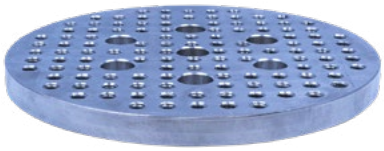
SIZE (MM)	ARMATURE Ø IN MM	HEIGHT (MM)	MASS (LB)
300x300	120	100	16.1
	180	105	17.7
400x400	180	100	30.8
	230	100	31.97
500x500	180	125	49.6
	230	150	60.6
	340	180	74.9
600x600	180	180	79.4
	230	180	87.1
	340	180	104.7
	440	180	108

SIZE (MM)	ARMATURE Ø IN MM	HEIGHT (MM)	MASS (LB)
800x800	340	250	196.2
	440	250	198.4
	640	120	145.5
1000x1000	440	230	284.4
	590	285	341.7
	640	175	297.6
1200x1200	440	295	429.9
	590	340	562.2
	840	345	568.8
1500x1500	440	380	630.5
	590	340	760.6
	840	380	848.78



HEAD EXPANDERS

Round



SIZE (MM)	ARMATURE Ø IN MM	HEIGHT (MM)	MASS (LB)
250	120	80	8.1
	180	80	9.5
300	180	80	12.3
	230	80	14.8
400	180	120	23.8
	230	120	26.5
500	180	150	45.2
	230	150	48.5
	340	150	53.8
600	180	210	63.9
	230	190	68.3
	340	181	78.3

SIZE (MM)	ARMATURE Ø IN MM	HEIGHT (MM)	MASS (LB)
800	340	210	112.4
	440	200	136.7
	640	130	103.6
1000	440	340	269
	590	305	275.6
	640	185	200.6
1200	440	335	379.2
	590	350	405.7
	840	280	372.6
1500	590	286	621.7
	840	275	617.3