

The SignalForce® GW-V400 shaker is an excellent choice for automotive squeak and rattle testing applications. The GW-V400 offers a 6.9 inch (174.5 mm) armature diameter with peak to peak displacement of up to 1 inch (25.4 mm).

Standard Features

- Peak sine force: up to 1647 lbf (7326 N)
- Random force rms: up to 1214 lbf (5400 N)
- Peak acceleration (sine): 120 g (1176.8 m/s²)
- Velocity peak: 59 in/sec. (1.5 m/sec)
- Peak to peak displacement: 1 in (25.4 mm)
- Exceptional axial and torsional stability
- Recommended max unsupported load 40kg*

Options

- Standard trunnion with isolation options
- Low frequency isolating trunnion
- Metric & Imperial table threads
- Vertical isolation
- Monobase
- Pneumatic load support ILS
- Degauss
- Wheels, rails and chamber floor supports
- Auto blower
- Quiet mode
- Thermal barriers
- Weatherproof enclosures for cooling blowers



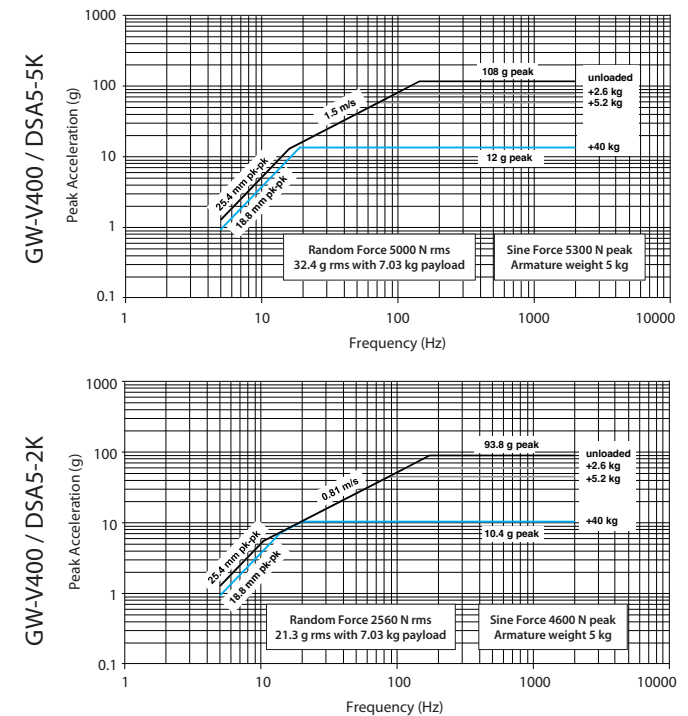
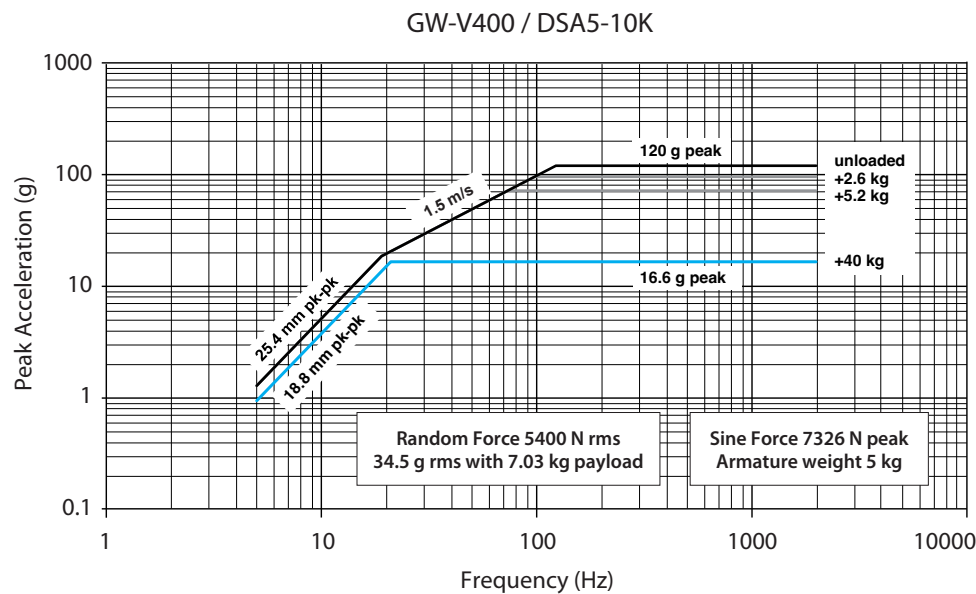
Typical Applications

- Sensor testing and calibration
- Small to medium sized component testing
- Automotive squeak and rattle testing
- Quality control production testing

* (Increasing load reduces max. displacement unless the ILS option is selected)

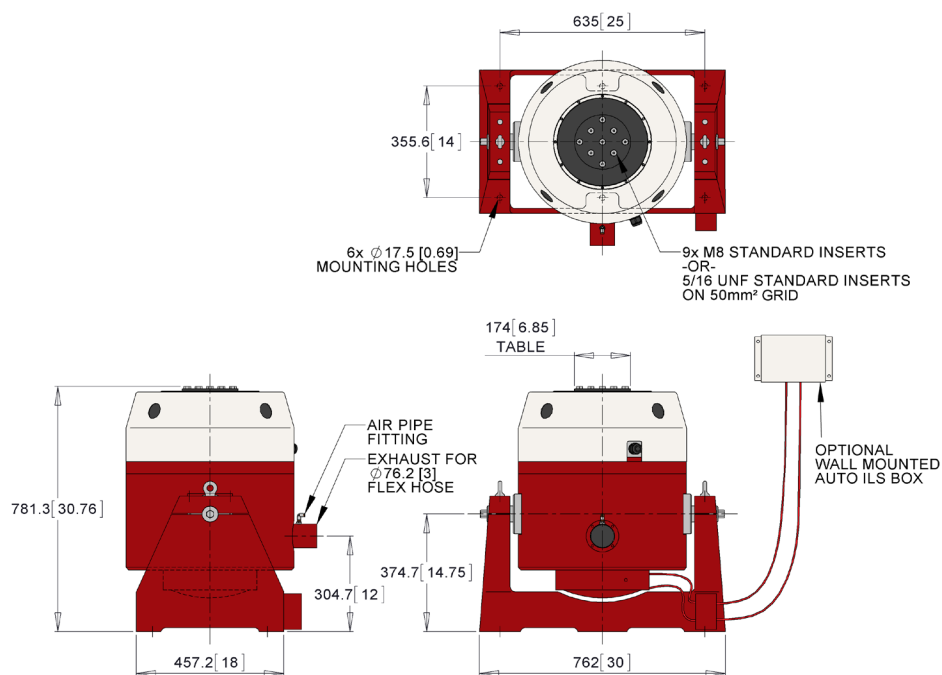
	Maximum Sine Force (pk)		Maximum Random Force ¹ (rms)		Maximum Shock Force ²		Maximum Acceleration (Sine)		Maximum Velocity		Displacement Peak to Peak		Armature Diameter		Armature Mass		Insert Threads		Armature Resonance +/- 5%	Frequency Range (Hz)		Static Load Support – Axial Stiffness		Static Payload Support ³		Electrical Power Consumed ⁴	Shaker Body Mass ⁵		Stray Magnetic Field ⁶	
	lbf	N	lbf	N	lbf	N	g	m/s ²	ips	m/s	in	mm	in	mm	lbs	kg	UNF	Metric	Hz	Min.	Max.	lbf/in	kgf/mm	lbs	kg	kVA	lbs	kg	Gauss	mT
GW-V400/DSA5-2K	1034	4600	575	2560	2192	9752	93.8	919.8	32	0.81	1.0	25.4	6.9	174.5	11	5	5/16-24	M8	2800	DC	3000	672	12	350	160	6.8	1257	570	<40	<4
GW-V400/DSA5-5K	1191	5300	1124	5000	2526	11236	108	1059.1	59	1.50	1.0	25.4	6.9	174.5	11	5	5/16-24	M8	2800	DC	3000	672	12	350	160	12.6	1257	570	<40	<4
GW-V400/DSA5-10K	1647	7326	1214	5400	3491	15531	120	1176.8	59	1.50	1.0	25.4	6.9	174.5	11	5	5/16-24	M8	2800	DC	3000	672	12	350	160	13	1257	570	<40	<4

Sine Performance Envelopes Bare table = ■ 88.2 lbs (40 kg) mass = ■

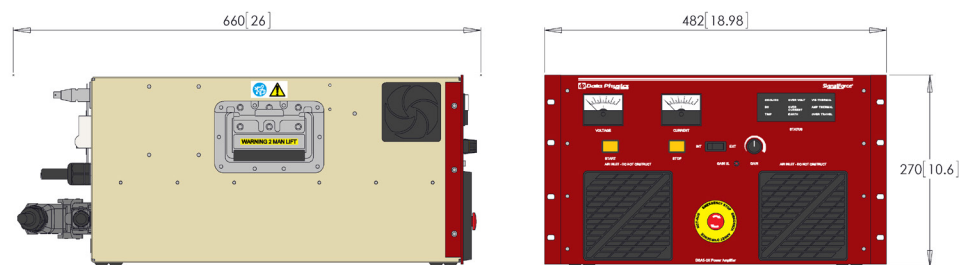


Performance Notes Drawing measures are in millimeters [inches]. 1. Random force based on flat spectrum 20 Hz – 2 KHz @ 3 sigma with a non-resonant payload equal to or greater than twice the moving system mass. 2. For a 6 ms half sine shock pulse. 3. Capacity with load support option. 4. System utility including cooling blower. 5. Includes vertical isolation option. 6. Stray field @ 25mm above the table, with degauss option.

GW-V400



DSA5-2K Amplifier

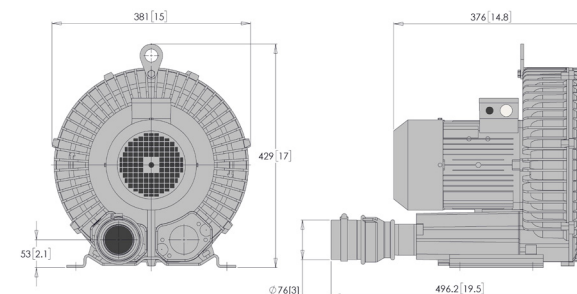


Cooling Blower

Side Channel Vacuum Blower

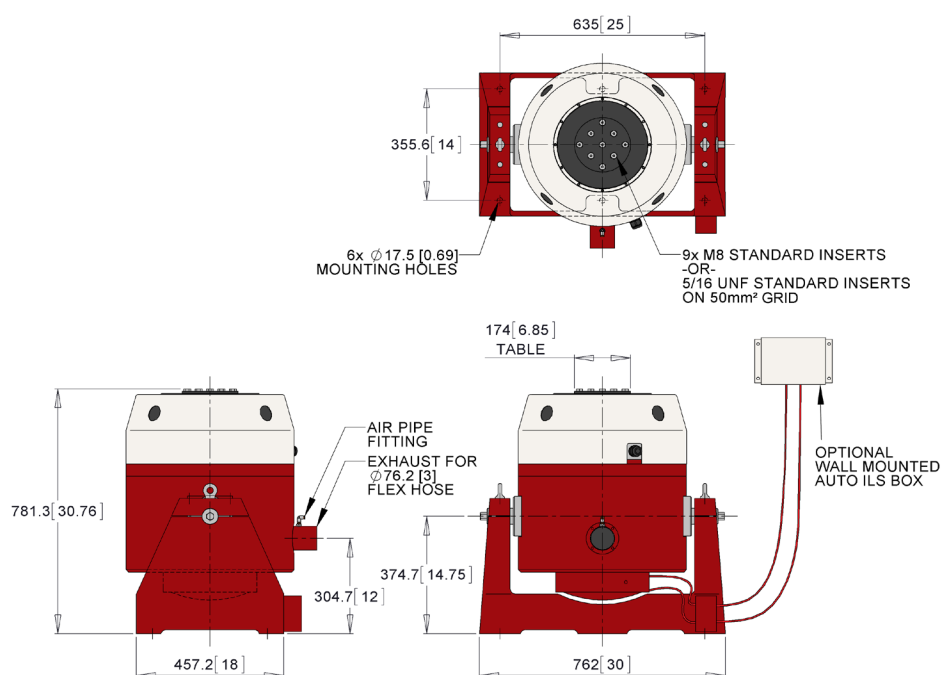
Supplied hose length is 10 ft (3 m).

Height	17"	(429 mm)
Width	15"	(381 mm)
Depth	19.5"	(496 mm)

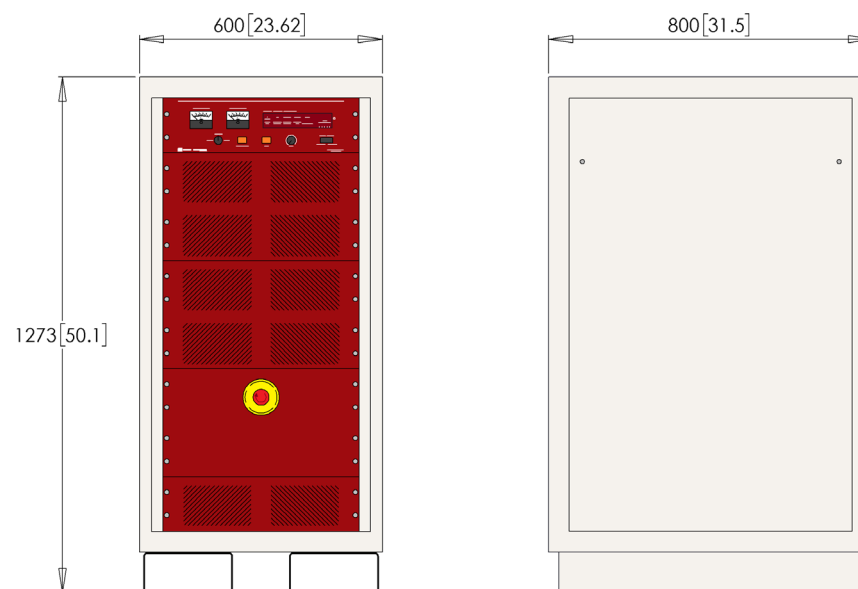


NOTE: Cooling blower height, width & depth subject to a tolerance of +/-80mm.

GW-V400



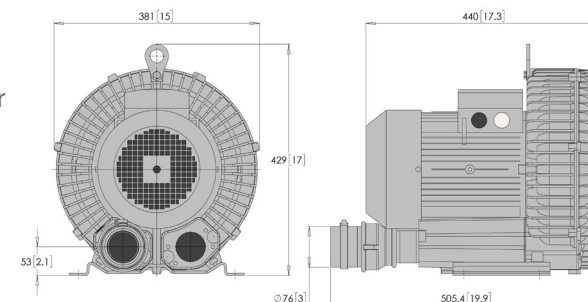
DSA5-5K and DSA5-10K Amplifiers



Cooling Blower

Side Channel Vacuum Blower
Supplied hose length is 10 ft (3 m).

Height	17"	(429 mm)
Width	15"	(381 mm)
Depth	20"	(505.4 mm)



NOTE: Cooling blower height, width & depth subject to a tolerance of +/-80mm.

Environmental Characteristics*

Ambient Working Temperature Range

Shaker	32°F to 77°F (0°C to 25°C) #
Amplifier (full power)	104°F (40°C), de-rated at 2% per degree C up to 113°F (45°C) max
Humidity	Max 95% (non-condensing)

Acoustic Noise @ 1m

Shaker	Up to 105 dB (A) @1m ##
Amplifier	DSA5-2K: 72 dB (A) @1 m ### DSA5-5K, DSA5-10K: Max 65dB (A) @1m (up to 60% output) Max 78dB (A) @1m (above 60% output)
Blower	DSA5-2K: 72 dB (A) @1m ### DSA5-5K, DSA5-10K: 73 db (A) @1m ###

Facility Requirements

Power supply range	DSA5-2K, DSA5-5K, DSA5-10K: 380V to 415V 50Hz 3 Phase 380V to 480V 60Hz 3 Phase
Shaker to amplifier cable	10 ft (3 m) fixed to shaker
Shaker to cooling blower	10 ft (3 m) hose

Amplifier Characteristics*

Rated Power	DSA5-2K: 2 kVA DSA5-5K: 5 kVA DSA5-10K: 10 kVA
Switching Frequency	100 kHz nominal
Input Sensitivity	DSA5-2K: 1.414 Vrms for full output DSA5-5K, DSA5-10K: 2.3 Vrms for full output
Input Impedance	10 K ohm
Voltage Output	82 V rms
Current for Full Output	DSA5-2K: 28 Arms DSA5-5K: 60 Arms DSA5-10K: 120 Arms
Frequency Range Full Power	5 Hz - 5 kHz
Signal to Noise Ratio	> -75 dB at full output
Distortion at rated output	DSA5-2K: <1.0% approx. at 1KHz DSA5-5K, DSA5-10K: < 0.4% 5Hz - 1kHz < 1% 1kHz -5kHz
Cooling	DSA5-2K: 200 CFM (0.094m3/s) DSA5-5K, DSA5-10K: additional 120 CFM (0.056m3/s) per power module

* Data is common except where noted.
Performance de-rating will apply above 77°F (25°C)
Maximum value at full performance without payload.
Noise reduction enclosure available for cooling blower

Amplifier Dimensions

DSA5-2K	
Height	10.6" (270 mm)
Width	19.0" (482 mm)
Depth	26.0" (660 mm)
Weight	132 lbs (60 kg)
DSA5-5K, DSA5-10K	
Height	50.1" (1273 mm)
Width	23.62" (600 mm)
Depth	31.5" (800 mm)
Weight	DSA5-5K: 617 lbs (280 kg) DSA5-10K: 639 lbs (290 kg)

Shaker Dimensions

(on trunnion / less exhaust)

Height	30.8" (781mm)
Width	30" (762mm)
Diameter	20.5" (521mm)

(May vary with mounting options)

Shaker Mass

Including Trunnion
1485 lbs (675 kg)