

# LW126HF.141-20

## High Frequency Vibration System

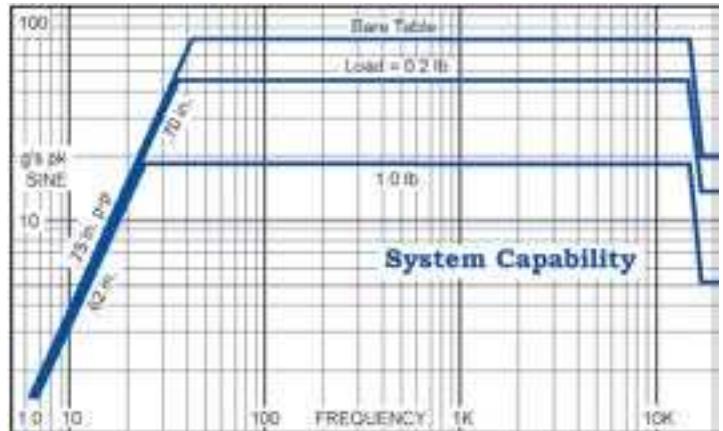


The LW126HF.141-25 is a high performance system which makes full use of the compact ET-126HF high frequency shaker performance. This system offers full performance up to 14,000 Hz with operation at up to 7 lbf to 20,000 Hz. This system is used for both general purpose testing and transducer calibration requirements. The larger mounting surface of the ET-126HF easily supports the calibration of larger vibration transducers and smaller high frequency assemblies and components for general purpose testing. The shaker can support relatively heavy loads and is perfectly matched to the amplifier, which makes this the most versatile system of its size..

### General Specifications

<b>Sine Force:</b>	20 lbs force pk
<b>Random Force:</b>	8 lbf rms random
<b>Shock Force:</b>	22 lbf pk shock
<b>Frequency Range:</b>	DC to 14,000 Hz (20,000 Hz @ 7 lbf)
<b>Max. Acceleration:</b>	57 g pk, bare table 36 g pk, 0.2 lb. load 15 g pk, 1 lb. load
<b>Max. Displacement:</b>	0.75 inch pk-pk, bare table
<b>Cooling:</b>	Amplifier: forced air Shaker: cooling vacuum
<b>Power Requirements:</b>	3000 VA @100-125*, 200-240V 1Ø, 50/60 Hz.

\*Consult factory for low line voltage operation.



### System Components\*

- ET-126HF-1 Electrodynamic Shaker
- PA-141 Linear Power Amplifier
- CB-152-126 Cooling Vacuum and Hose Assembly
- Interconnect Cables and Hoses

### System Options\*

- VL-144 Dual Channel Sine, Random and Shock Controller
- VL-145 Single Channel Digital Controller
- SC-121 Sine Servo Controller
- SG-135 Manual Sine Controller
- Rack Cabinet

\*See individual components for more detailed specifications and options.



# ET-126/ET-126HF Electrodynamic Shaker



- 25 pounds pk sine force
- .75 inch stroke
- 2.125 inch diameter table
- Payloads up to 3 lbs.
- Low stray magnetic field
- Frequency range<sup>2</sup> DC-10 KHz.  
DC-14 KHz(HF)
- Trunnion mounting base
- Body and Trunnion Through hole

The Labworks ET-126 Electrodynamic Shaker is a rugged, full featured, small permanent magnet shaker. It is ideally suited for the production screening of small components or for larger transducer calibration systems. The shaker features a 2.125 inch diameter table with multiple attachment points, and an extraordinary 0.75 inch stroke. The ET-126 has a linearly compliant armature suspension that is particularly well suited to modal testing with a current Source amplifier. The shaker body and trunnion through-hole allow operation with modal stingers as well as tension wire set ups. The HF version of the ET-126 offer full performance up to 14,000 Hz with operation up to 20,000 Hz at up to 7 lbf..

## General Specifications<sup>1</sup>

### Performance

Sine force	
Natural cooling	13 lbf pk
With blower	25 lbf pk
Random force	
Natural cooling	8 lbf rms
With blower	17.5 lbf rms
Shock force	53 lbf pk
Max displacement	
Continuous pk-pk	0.75 in
Between stops	0.75 in
Maximum velocity	120 ips pk (100 ips pk / -HF)

### Physical

Armature weight	0.20 lb (0.35 lb / -HF)
Suspension stiffness	15 lb/in
Dimensions	6.5" H x 4.8" W x 4.25" D
Shaker weight	11 lbs

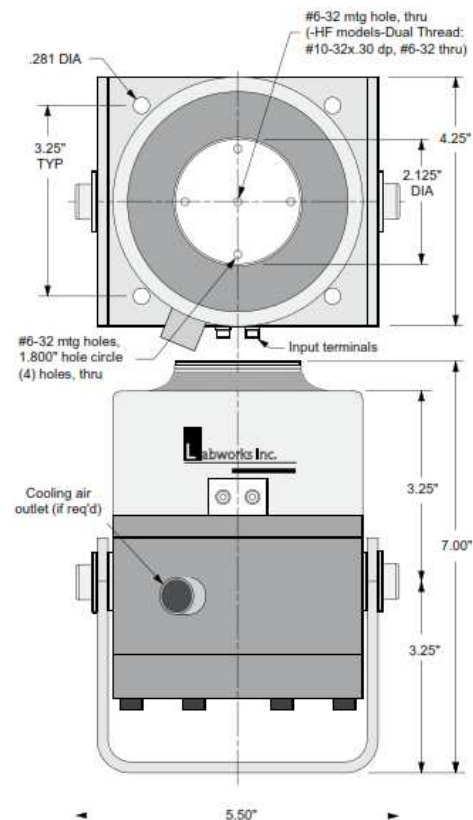
### Options

- Vibration isolation mounts.
- Modal stingers and mounts.
- CB-152 Cooling Vacuum (required for operation above 13 lbf).

<sup>1</sup> Please see systems ratings for additional specifications

<sup>2</sup> Load dependent.

Specifications subject to change.



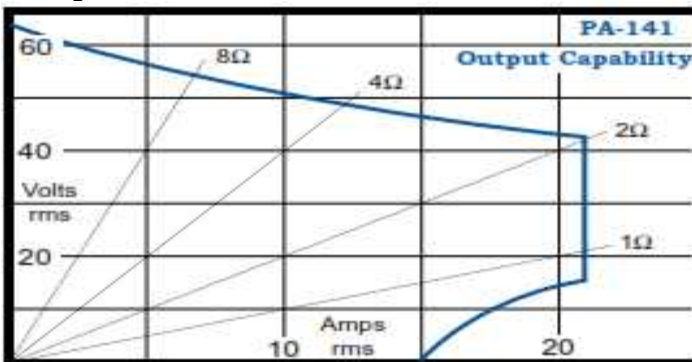
# PA-141 Linear Power Amplifier



- Output: 50V, 1000 VA
- Direct coupled linear output
- Voltage and current source mode
- External interlock circuitry
- Optional shaker field supplies



The Labworks PA-141 Linear Power Amplifier has two operational modes. The amplifier can be used as either a wide-band, highly damped voltage source, or as a high impedance current source. Optional, internal DC field power supplies can be supplied for use with Labworks ET-140 and ET-127 Shakers. These options provide the convenience of a single chassis, as well as fully integrated power-up and cooling interlocks.



## General Specifications\*

<b>Output voltage</b>	50 V rms
<b>Output current</b>	20 A rms
<b>Max. cont. dissipation</b>	900 W
<b>Frequency response</b>	
DC input: DC to 10 KHz	-6 dB
AC input: 1.0 to 10 KHz	-6 dB
<b>Max. voltage gain</b>	36 dB
<b>Cooling</b>	2-speed fan, automatic
<b>Input impedance</b>	10 kΩ
Volts, pk	19 segment ± 5 %
Amps, rms	19 segment ± 5 %
<b>Interlock circuit</b>	
External, user	F.O. switch or TTL
Shaker, internal, optional	cooling
<b>Optional field power</b>	1000 W max
<b>Input power</b>	2000 VA (3000 w/field)
Voltage	208 or 230 Vac, 1∅
Frequency	48 to 62 Hz
<b>Dimensions</b>	7" H x 19" W x 17" D
<b>Weight</b>	48 lbs

\*Specifications subject to change. Call factory for latest specifications.

# CB-152

Delux, Long Life, Quiet,  
Cooling Vacuum



Std: LW140-110	Opt: ET-139
LW139-75	ET-126
LW126-25	ET-132
LW160-60	ET-160
LW161-25	ET-161

## General Specifications

<b>Blower Type:</b>	Suction (vacuum turbine)
<b>Flow @ Pressure:</b>	35 cfm @ 30" H <sub>2</sub> O
<b>Motor:</b>	250 W, Brushless
<b>Power:</b>	115/230 Vac, 50 or 60 Hz (Specify)
<b>Intake:</b>	.75" and .63" dia.
<b>Noise Level:</b>	< 71 dB @ 1 M
<b>Hose Length:</b>	7.5', flexible vacuum
<b>Blower Weight:</b>	30 lbs.
<b>Minimum Blower Life:</b>	> 25,000 Hrs
<b>Dimensions:</b>	11H x 9.5W x 11L in.