

# Electromagnetic shaker system

## F10

### SPECIFICATIONS

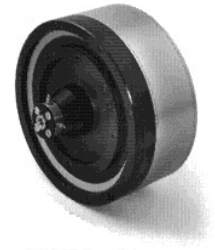
<b>Usable frequency range</b>	5 - 2,000 Hz
<b>Blocked force output<sup>1</sup></b>	see graph
<b>Maximum continuous current</b>	4.0 amp rms
<b>Nominal electrical impedance</b>	8.5 $\Omega$ at 100 Hz
<b>DC electrical resistance</b>	5 $\Omega$
<b>Resonance frequency, blocked</b>	25 Hz
<b>Connector<sup>2</sup></b>	Bendix SP00A-8-3
<b>Cable</b>	R4M-8B-8B-J9B-10
<b>Temperature range</b>	0° to +80°C
<b>Weight:</b>	
<b>Parts rigidly attached to structure</b>	8 lb
<b>Suspended weight</b>	20 lb
<b>Total weight</b>	28 lb

**Notes:** <sup>1</sup> Blocked force output refers to the force output against a mass of infinite mechanical impedance.

<sup>2</sup> Refers to connector at end of cable.

**Accessories supplied:** All input cables; air feed/coupler; gasket

**Accessories available:** Power amplifiers; Z820WA impedance head; dummy plug, F7 vibration generator/impedance head

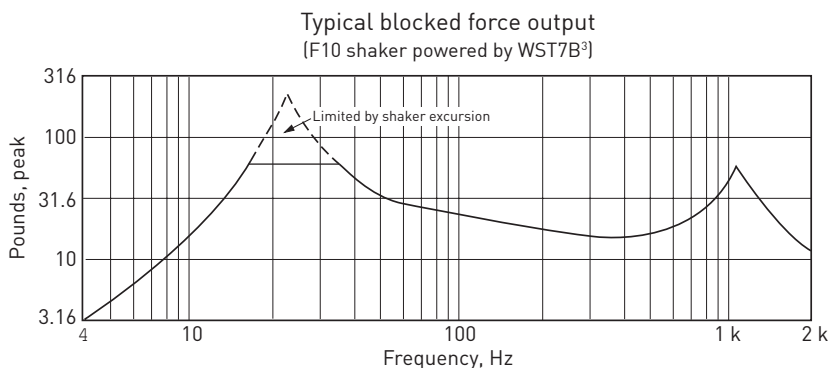


### Key features

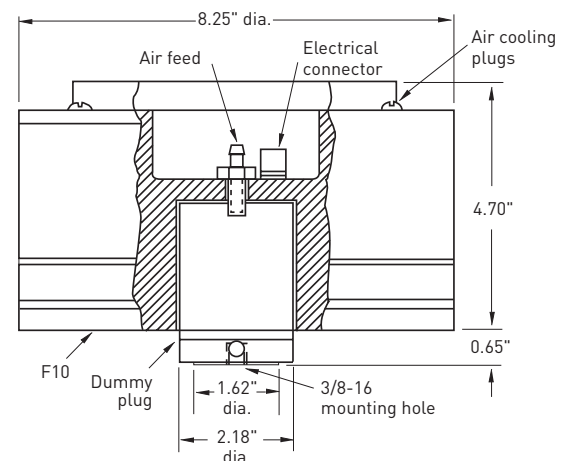
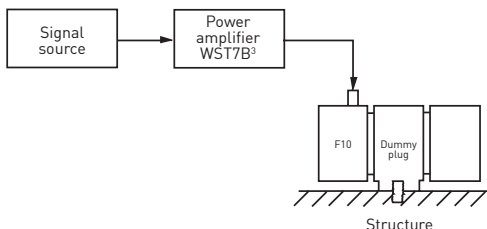
The F10 vibration generator is a reaction-type shaker generating very large dynamic forces for structural excitation in vibration research and testing. The reaction principle of operation and compact configuration allow this generator to be stud mounted in any position, directly to structures, without external support or critical shaft alignment problems.

The F10 is designed for operation over a wide range of audio frequencies. The relatively light coil and bobbin are rigidly attached to the structure under test, while the heavy cylindrical magnets are suspended by two rubber diaphragms. The dynamic weight added to the test structure is relatively low, since the rubber suspended weight does not affect axial or rotational inertia of the vibration generator's coil and bobbin above the 25 Hz resonance frequency of the system.

The F10 can be supplied with a sensing transducer containing an accelerometer and a force gauge (model Z820WA impedance head), a piezoelectric vibration generator/impedance head combination (model F7), or a solid core with a 3/8-16" tapped mounting hole (model F4/F10 dummy plug).



### Recommended system diagram



Model F10 with dummy plug

Note: Due to continuous process improvement, specifications are subject to change without notice. This document is cleared for public release.