

E-Force Test Stand

The E-Force Test Stand is designed for force testing for various applications. The E-Force provides accurate and repeatable results for tension, compression and break tests. A key feature is a Shimpo exclusive: a precision made servo gear head and ball screw for precise movement control. All programming of return speed, test speed, distance/deflection set points, cycles, force setpoints, can be performed using the included software or through the front control panel keypad (Push and Pull to break tests are controlled through software only). The large and easy to read back lit digital display indicates tests, all programmed setpoints, program setup status, force loads and overload alarm warnings. The E-Force can be equipped with various gripping and compression fixtures and accessories.

The large sample area and 3.38" (86 mm) throat depth provides for unique and large parts to be tested on its metric and English threaded - adjustable base plate. A precise and consistent 0.02 to 15.7 in/min (0.06 to 400 mm/min) cross head speed provides for ultra slow creep tests and constant load testing. The E-Force Test Stand features a USB output, which sends data communications to almost any PC or laptop computer. The E-Force's menu operation provides prompts that guide the user through all the programming, setup and tests and permits users to perform standard tests, plus Pull or Push to break, Pull or Push to specified load and cycling. The included software provides force vs displacement and force vs time to be displayed and the results collected in tabular and graphical format. This information can then be exported and further analyzed in nearly all spreadsheet programs.



FGS-200 Shown with Included Force Gauge

Features

- User friendly controls and software allows hands off operation, reduces errors and speeds up tests
- A high speed auto reverse for a quick return to "home" saves time in multi parts testing
- The wide speed range means only one stand required for a majority of testing needs
- Easy install force gauge bracket allows for multiple test ranges (0.5 - 200 lbs, 0.2 - 100Kg, 2 - 1000N) to be quickly used on one stand
- Intuitive and easy to use front panel controls reduces operator training time



Modes of Operation

1. Manual – push button up and down control
2. Jog – press and release for positioning of parts and force gauge
3. Single – allows one cycle operation (up/down)
4. Continuous – Ideal for fatigue or repetitive testing
5. Programmable: -PC controlled and Test Stand controlled; -Save and recall test parameters; -Top Load Testing; -Tensile Break; -Compression Break Pre-Loaded Test Software

Included Software
for Use on PC's



E-Force Test Stand Specifications

| | | |
|-----------------------------------|---|--|
| Capacity | 200 lbs (100 kgf) | |
| Reduction Ratio | 1:20 | |
| Precision Ball Screw Pitch | 0.16" (4 mm) / 1 Rotation | |
| Stroke | 15.7 inch (400 mm) | |
| Travel Speed | 0.02 inch/min (0.6 mm/min) - 15.7 inch/min (400 mm/min) | |
| Drive System | Servo Motor (Trapezoidal thread) | |
| Speed Setting | Selectable Speed Knobs (Speed A and Speed B) | |
| Display | 5 digit LED | |
| Cycle (max) | 1 - 9,999 times | |
| Analog Signal Output | 5 mV/ mm max +/- 2 V (400 mm) | |
| Emergency Switch | Push/Twist and release emergency stop button | |
| Operating Modes | MANU | MANUAL - Operates to selectable force limits |
| | JOG | JOG - Operates while direction key is pressed |
| | SING | SINGLE - Operates one cycle between upper and lower force limits |
| | CONT | CONTINUOUS - Cycles test between upper and lower force limits |
| | PROG | PROGRAM - Specific Program Tests (each can store 5 programs on each type) TOP: Top Load test with threshold option STD: Standard test with preload option BREAK: Break point test with force drop detection |
| Communication Feature | USB 1.1 communication from Test stand to PC | |
| Force Gauge Compatibility | FGV-X, FGV-200HX and FGV-XY models | |
| Communication Software | Windows® based program, virtual front panel compatible with Windows® XP/2000 | |
| Alarm | Overload protection for test stand motor (stops motor when overload condition occurs) | |
| Work Space | 7.87 inch (200 mm) x 11.02 inch (280 mm) | |
| Operating Temperature | 32 - 113°F (0 - 45°C) (Non-condensing) | |
| Power Supply | 120 V AC/ 60 hz | |
| Product Weight | 50 lbs (23 kg) | |
| Included Accessories | All applicable cables, software | |

Ordering Details

| | |
|------------------|---|
| FGS-200PV | 200 lb (90.7 kg) capacity motorized vertical test stand with software for PC control & data logging |
|------------------|---|

Accessories

| | |
|-------------------------|---|
| FGS-FGS200PV-CBL | Interface cable for E-Force test stand |
| FGS-ANALOG | Analog output cable for force test stands |

*For available force grips and adapters visit our website at www.shimpointst.com

DISTRIBUTED BY:



A Nidec Group Company

SHIMPO - All for dreams

NIDEC-SHIMPO AMERICA CORPORATION • Phone: (800) 237-7079 • Fax: (630) 924-0342 • www.shimpointst.com