



Model H75kS Materials Testing Machine

The Tinius Olsen H75kS is designed to test a huge range of materials, including, but not limited to: rigid and reinforced plastics, composites, geotextiles, sheet metal, welded specimens, adhesives, medical products and components etc., in tension, compression, flexure, shear, tear and peel.

With advanced and quality engineering, Tinius Olsen has produced a machine that is highly accurate, performing complex tests, yet remains extremely easy to operate. Powerful as a stand-alone unit, the machine has capabilities that are enhanced by direct connection of a printer to produce a high resolution graph and comprehensive test report.

Like the lower force S series testers, the H75kS incorporates a robust control panel, with a backlit LCD, that can be tilted and positioned for optimum visibility. Test parameters are set-up on this control panel, along with crosshead positioning, return and test start parameters.

Once the test is underway, a real time graph is displayed on the controller. The resultant graph and fundamental test results can be sent directly to a printer and any unreported results may be measured and calculated from this graph.

Alternatively, the H75kS can be connected via RS232 to a pc running Tinius Olsen's Windows based software. In this manner, the most complex tests are made simple, and access to comprehensive data analysis, including statistical process control, is available.

The H75kS is designed for users all over the world – an optional language module can be plugged into the control panel and all data on the backlit LCD will be shown in the selected language. Language options include: English, French, German, Portugese, Italian, Spanish and Polish.

Fig 1. Model H75kS shown with model HW14 wedge grips.



Fig2. Dumbbell specimens of sheet steel being tested on an H75kS.



Fig 3. Console of H75kS machine in numerical display mode. Connection to a pc and/or printer is made through the console.

Technical Specifications

| Model | | H75kS |
|---------------------------|------------------|---|
| Capacity | lbf | 16,500 |
| | kN | 75 |
| | kg | 7,500 |
| Clearance between columns | in | 16 |
| | mm | 405 |
| Load Cells | | Rapid change, low profile Z type, load cells with digital encoding for automatic recognition and scaling available - 75kN, 50kN, 25kN, 10kN, 5kN, 2.5kN, 1kN, 500N, 250N, 100N, 50N, 25N, 10N, 5N |
| Maximum Crosshead Travel | in | 35.5 |
| | mm | 930 |
| Testing Speed Range | in/min mm/min | 0.001 to 20 up to 11,000lbf, 0.001 to 10 up to 16,500 0.001 to 500 up to 50kN, 0.001 to 250 up to 75kN |
| Jog Speed | in/min | 0.001 to 20 |
| | mm/min | 0.001 to 500 |
| Return Speed | in/min | 0.001 to 30 |
| | mm/min | 0.001 to 750 |
| Dimensions HxWxD | in | 63x28x20 bench mounted, 91x28x20 floor standing |
| | mm | 1657x720x502 bench, 2318x720x502 floor |
| Weight | lb | 528 bench mounted, 583 floor standing |
| | kg | 240 bench mounted, 265 floor standing |

Key Features

- Easy to read backlit LCD display
- Graphic or numerical display mode
- Alpha numeric data entry
- Speed range 500,000:1
- Robust load frame with tilt and swivel control panel
- Test report of results with mean, median and standard deviation directly from machine onto printer
- Comprehensive range of Windows test software
- Dedicated keys for rapid sequence testing

Specifications:

Load measurement accuracy: $\pm 0.5\%$ of applied load from 2% to 100% capacity. Extended range down to 1% capacity with accuracy of $\pm 1\%$ of indicated load.

Position measurement accuracy: $\pm 0.01\%$ of reading or 0.001mm, whichever is greater

Speed accuracy: $\pm 0.05\%$ of set speed

Operating temperature range: 0 to 38 °C (32 to 100 °F)

Storage temperature range: -10 to 45 °C (14 to 115 °F)

Humidity range: 10% to 90% non-condensing, wet bulb method

Power: Power must be free of spikes and surges exceeding 10% of the nominal voltage.

Notes:

1. Load weighing system meets or exceeds the requirements of the following standards: ASTM E4, EN 10002-2, BS 1610, DIN 51221, ISO 7500-1. Tinius Olsen recommends that systems are verified at installation in accordance with ASTM E4 and ISO 7500-1.
2. Strain measurement system meets or exceeds the requirements of the following standards: ASTM E83, EN 10002-4, BS 3846 and ISO 9513.
3. These models conform to all relevant European CE Health and Safety Directives EN 50081-1, 580081-1, 73/23/EEC, EN 61010-1
4. Specifications are subject to change without notice

Specifications subject to change without notice

Contact Your Local Representative:



1065 Easton Road, Horsham, PA 19044 USA
(215) 675-7100 Fax (215) 441-0899

www.TiniusOlsen.com
info@TiniusOlsen.com

6 Perrywood Business Park, Honeycock Lane,
Salfords, Redhill, Surrey RH1 5DZ England
+44 (0) 1737 765001 Fax +44 (0) 1737 764768