FLUKE®
Calibration

TST-40M-HC40
Test Station

TST-100M
High-Pressure Test Station

Instructions

Introduction

The Fluke TST-40M-HC40 Test Station and TST-100M High-Pressure Test Station (the Product) are accessories that connect Devices Under Test (DUTs) to pressure controllers for calibration.

- TST-40M-HC40 has a maximum working pressure of 44 MPa (6400 psi).
- TST-100M has a maximum working pressure of 110 MPa (16000 psi).

How to Contact Fluke Calibration

To contact Fluke Calibration, call one of the following telephone numbers:

- Technical Support USA: 1-877-355-3225
- Calibration/Repair USA: 1-877-355-3225
- Canada: 1-800-36-FLUKE (1-800-363-5853)
- Europe: +31-40-2675-200
- Japan: +81-3-6714-3114
- Singapore: +65-6799-5566
- China: +86-400-810-3435
- Brazil: +55-11-3759-7600
- Anywhere in the world: +1-425-446-6110

To see product information and download the latest manual supplements, visit Fluke Calibration's website at www.flukecal.com.
To register your product, visit http://flukecal.com/register-product.

PN 5007301
July 2018
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Fluke Corporation
P.O. Box 9090
Everett, WA 98206-9090
U.S.A.

Fluke Europe B.V.
P.O. Box 1186
5602 BD Eindhoven
The Netherlands

ООО «Флюк СИАЙЭС»
125167, г. Москва, Ленинградский
проспект дом 37,
корпус 9, подъезд 4, 1 этаж

Safety Information

A **Warning** identifies conditions and procedures that are dangerous to the user. A **Caution** identifies conditions and procedures that can cause damage to the Product or the equipment under test.

⚠Warning

To prevent personal injury:

- **Read all safety information before you use the Product.**
- **Wear eye protection.**
- **Use the Product only as specified, or the protection supplied by the Product can be compromised.**
- **Carefully read all instructions.**
- **Do not use the Product if it operates incorrectly.**
- **Do not use the Product if it is altered or damaged.**
- **Disable the Product if it is damaged.**
- **Do not attempt to operate the Product above its rated pressure.**
- **Use care when working with this Product. Do not drop the product or strike it with sharp objects.**
- **Do not disconnect tubing with the system pressurized.**

Symbols

The symbols shown in Table 1 are found in these instructions or on the Product.

Table 1. Symbols

Symbol	Definition
	WARNING, RISK OF DANGER.
	Consult user documentation.
	Certified by CSA Group to North American safety standards.
	Conforms to European Union directives.
	Conforms to relevant Australian Safety and EMC standards.
	This product complies with WEEE Directive marking requirements. The affixed label indicates that you must not discard this electrical/electronic product in domestic household waste. Product Category: With reference to the equipment types in the WEEE directive Annex I, this product is classed as category 9 “Monitoring and Control Instrumentation” product. Do not dispose of this product as unsorted municipal waste.

Box Contents

The Product ships with:

TST-40M-HC40:

- TST-40M-HC40 Test Station
- Hose Assembly, JIC #4 (AN4)
- Hose Adapter Fittings: 1/4 NPT; 1/4 BSP; 7/16-20 SAE
- PK-ADPTR-HC40 Adapter Set
- Instructions

TST-100M:

- TST-100M High-Pressure Test Station
- High-Pressure Hose Assembly, DH5 (Cone and thread connection compatible with Autoclave F250C and HiP HF4)
- Gland Nut (x2)
- Collar (x2)
- Instructions

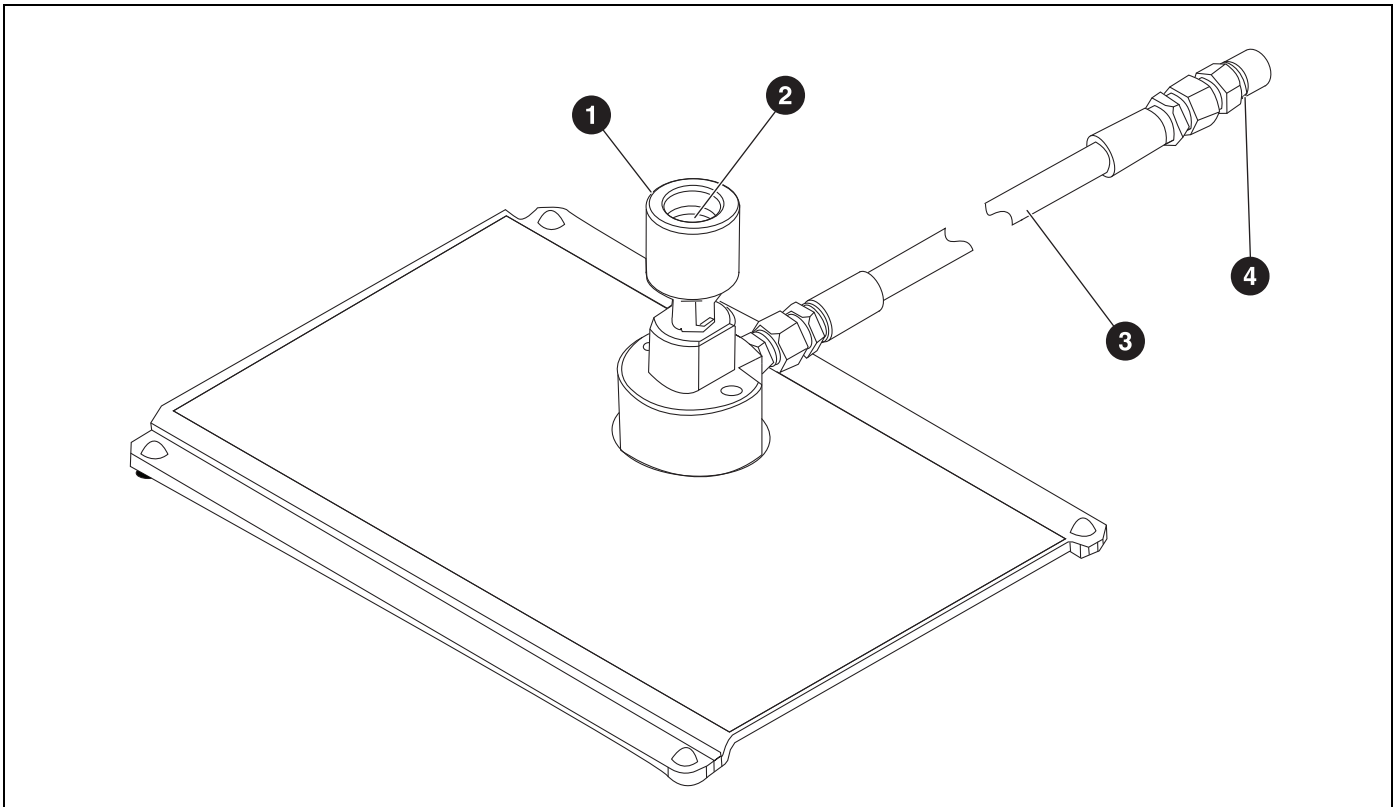
TST-40M-HC40

Note

JIC #4 and AN4 are not identical, but the parts in these products are interchangeable.

The components of the Product are shown in Table 2.

Table 2. TST-40M-HC40 Features and Components

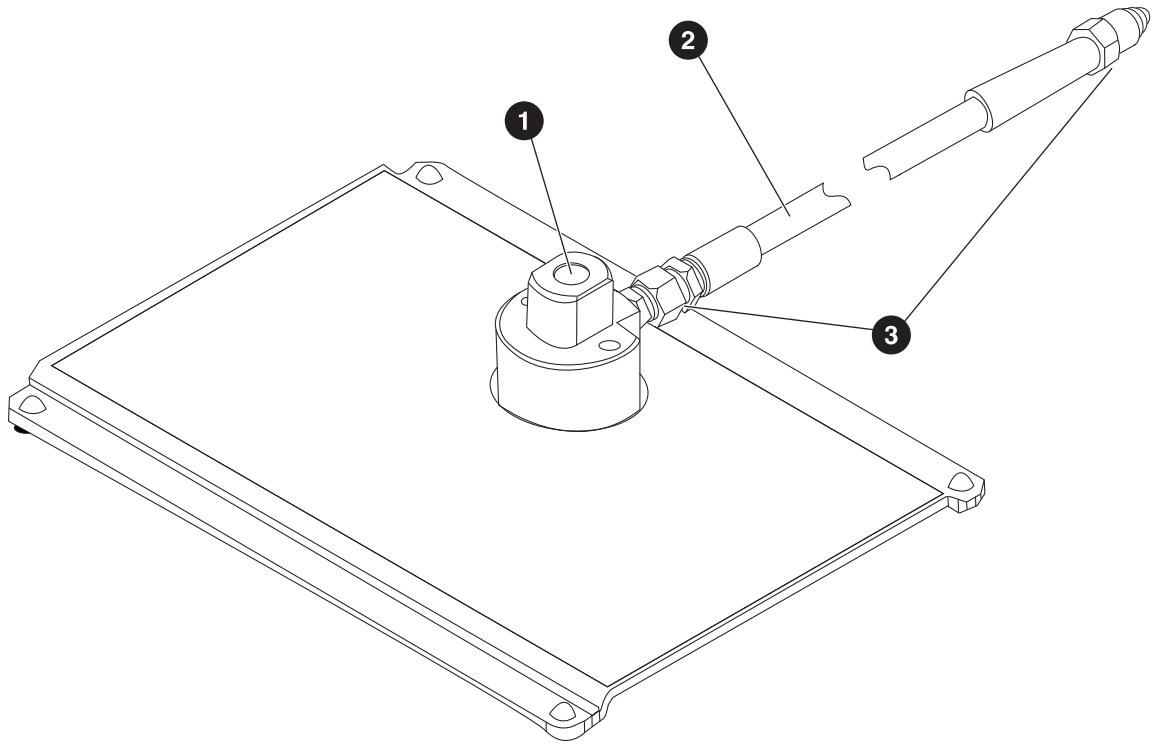


Number	Item/Function
1	Collar
2	Test Port Seal
3	Hose Assembly
4	Hose Adapter Fitting 1/4 NPT; 1/4 BSP; or 7/16-20 SAE

TST-100M

The components of the Product are shown in Table 3.

Table 3. TST-100M Features and Components



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Number	Item/Function
1	DUT Port
2	Hose
3	Gland Nut and Collar

Set Up

This section explains how to set up the Product.

TST-40M-HC40

To set up the TST-40M-HC40:

1. Install one of the included hose adapter fittings to the TEST port on the rear of the pressure controller. If using NPT, wrap PTFE tape on the NPT threads. If using BSP or SAE, make sure that the seal is on the BSP or SAE side of the adapter.
2. Connect one end of the hose to the adapter fitting installed in step 1. Tighten with a wrench. A backup wrench should be used to keep the adapter in place.
3. Connect the other end of the hose to the fitting on the Product. Tighten with a wrench. A backup wrench should be used to keep the adapter in place.

TST-100M

To set up the TST-100M:

1. Connect one end of the hose to the TEST port on the rear of the pressure controller. Torque to 15 N · m (11 lbf · ft).
2. Connect the other end of the hose to the fitting on the Product.

Operation

This section explains Product operation.

TST-40M-HC40

1. Select the appropriate adapter from the adapter set to match the thread on the DUT.
2. Screw the adapter onto the DUT so that the bottom face of the DUT seals on the O-ring inside the adapter. Hand-tight is sufficient.

⚠Warning

To prevent incorrect sealing which creates an unsafe condition, do not use thread-sealing tape or any other sealing method on the DUT or the adapters.)

3. To mount the DUT/adapter assembly to the test station, turn the adapter collar counter-clockwise until the adapter seals on the O-ring in the mounting post. Hand-tight is sufficient.
4. To adjust the position of the DUT, hold the adapter, and turn the collar clockwise 1/4-turn.
5. Position the DUT to face to the desired direction, and turn the collar counter-clockwise to re-seal.

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The DUT mounts directly to the top port on the Product using a DH500 connection. This connection is compatible with Autoclave F250C and HiP HF4.

1. To adjust the position of the DUT, unscrew the gland nut counter-clockwise 1/4-turn.
2. Position the DUT to face the desired direction, and tighten the gland nut clockwise to re-seal.

Specifications

Operating Temperature .....-20 °C to +50 °C
Storage Temperature .....-20 °C to +70 °C
Operating Humidity.....5 % to 95 % relative humidity, non-condensing
Wetted Materials
TEST-40M-HC40.....Stainless Steel, Nitrile, Nylon
TEST-100M .....Stainless Steel, Acetal

TST-40M-HC40
Pressure Range .....44 MPa (6400 psi)
Weight .....1170 g (2.6 lbs)
Dimensions.....270 mm x 205 mm x 110 mm (10.6 in x 8.1 in x 4.3 in)
TST-100M
Pressure Range .....110 MPa (16000 psi)
Weight .....900 g (2.0 lbs)
Dimensions .....70 mm x 205 mm x 60 mm (10.6 in x 8.1 in x 2.4 in)
Safety
General.....IEC 61010-1; Pollution Degree 2

LIMITED WARRANTY AND LIMITATION OF LIABILITY

This Fluke product will be free from defects in material and workmanship for one year from the date of purchase. This warranty does not cover fuses, disposable batteries, or damage from accident, neglect, misuse, alteration, contamination, or abnormal conditions of operation or handling. Resellers are not authorized to extend any other warranty on Fluke's behalf. To obtain service during the warranty period, contact your nearest Fluke authorized service center to obtain return authorization information, then send the product to that Service Center with a description of the problem.

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