

Thermal Shock testing unit package (kit)

(pricing as of 01/01/19, plus tax and shipping) - **\$14,995.00**

This unit is a kerosene burning steam generator designed specifically for automotive thermal shock (steam jet) testing. It is sold in a combination testing package only and contains the following list of separate components:

- a) Model 100-V2 w/ wand assembly (2013 redesign – Testing Innovations)
- b) Dynamic Head Fixture (for calibrating)
- c) Testing Fixture (holds test sample and TS wand in place for testing)
- d) Cutting Fixture/Guide (for test sample scribing/cutting)
- e) Temperature Meter/TC/Target Panel
- f) Instructional Flash Drive
- g) Laminated Placard – system test parameters
- h) Calibration
- i) The thermal shock unit and kit comes ready to ship, secured to a heavy pallet in a triple corrugated box approximately 67"x37"x61" and weighs approximately 600 lbs.

The pictures shown here are all current components of the new TS machine (**Model 100-V2, DHF-1, TF-1, BTM-1, CG-1, Wand Foot Assembly**).



New Thermal Shock Unit - Model 100-V2

These items are sold as a complete package only.



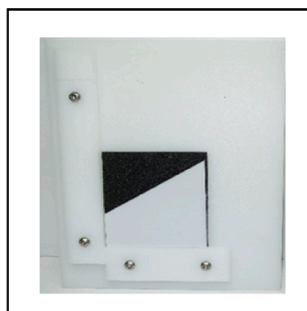
Dynamic Head Fixture - DHF-1



Testing Fixture - TF-1



Blast Temperature Monitor - BTM-1



Cutting Guide - CG-1



Wand Foot Assembly

Thermal Shock mobile/outdoor workstation

(pricing as of 01/01/19, plus tax and shipping) - \$2,495.00

This workstation has a bi-level top with under shelves and is made of anticorrosive stainless steel that provides the following necessities:

- a) This stainless steel workstation is on casters and is designed to be mobile
- b) It can be used indoors or outdoors
- c) It has 2 lower shelves for sample management or accessory storage
- d) Thermal shock wand clamping fixture (wand purchased with thermal shock unit)
- e) Polycarbonate safety shield
- f) Dynamic Head Pressure calibration zone with gauge stand (gauge purchased with thermal shock unit)
- g) Test sample cutting scribing preparation area (guide purchased with thermal shock unit)
- h) Sample testing fixture station (testing fixture purchased with thermal shock unit)
- i) TS wand discharge tube (a place to hold the steam blasting wand between tests)



Note: TS wand, DHP gauge, testing fixture and cutting guide are sold with the "Thermal Shock testing unit".

Thermal Shock indoor workstation

(pricing as of 01/01/19, plus tax and shipping) - \$6,495.00

This workstation has an upper hood, a lower sink and areas to calibrate, cut/scribe, holding the sample during test, a discharge tube for holding the wand between sample testing and includes the following:

- a) This stainless steel workstation is not designed to be mobile
- b) It is designed to be used indoors
- c) It has a stainless steel upper hood and a stainless steel lower sink
- d) Sample testing fixture station (uses the Testing Fixture purchased with thermal shock unit)
- e) Thermal shock wand clamping fixture (wand purchased with thermal shock unit)
- f) Polycarbonate sliding safety shield for the DHP calibration compartment
- g) Polycarbonate sliding safety shield for the testing compartment
- h) DHP calibration zone with gauge stand (gauge purchased with thermal shock unit)
- i) Test sample cutting, scribing, preparation area (guide purchased with thermal shock unit)
- j) TS wand discharge tube (a place to hold the steam blasting wand between tests)
- k) Hood is designed to evacuate humidity
- l) Hood can be configured for evacuation of fumes and humidity (optional, at extra cost)
- m) Needs tube axial fan of approximately 800 cfm (explosion proof, approximately 12")
- n) Stand comes with adjustable feet
- o) Needs to be hooked up to standard drain or position over floor drain
- p) Testing Innovations makes no statement regarding the local codes that may prohibit or interfere with the operation of fume extraction and water drainage "as manufactured" (please consult with the proper authorities that govern your location)

Standard humidity hood



Optional combination hood configuration



Note: TS wand, DHP gauge, testing fixture and cutting guide are sold with the "Thermal Shock testing unit".

Thermal Shock water bath station

(pricing as of 01/01/19, plus tax and shipping) - \$1,995.00

This workstation has 2 shelves and is made of anticorrosive stainless steel that provides all of the necessities to perform any of the OEM thermal shock (steam blast) testing:

- a) Stainless steel workstation - 30" x 48" x 34" (W x L x H)
- b) 29 gallon (110 liters) insulated immersion bath with cover
- c) Temperature controller/heater with 1% accuracy
- d) Air bubbler (required by specification)
- e) Smart Plug with remote (compatible with Alexa, Google Home, and Smart Phones)
- f) Stainless steel bars, clips and spacers for hanging test samples
- g) In tank bar supports for easy lift out and placement of test samples
- h) Rack stands for loading test samples on bar hangers
- i) Clips and racks for test sample immersion management (kit)
- j) Can use thermal shock cutting guide here (purchased with thermal shock machine) for Ford and FCA
- k) Ships mostly assembled

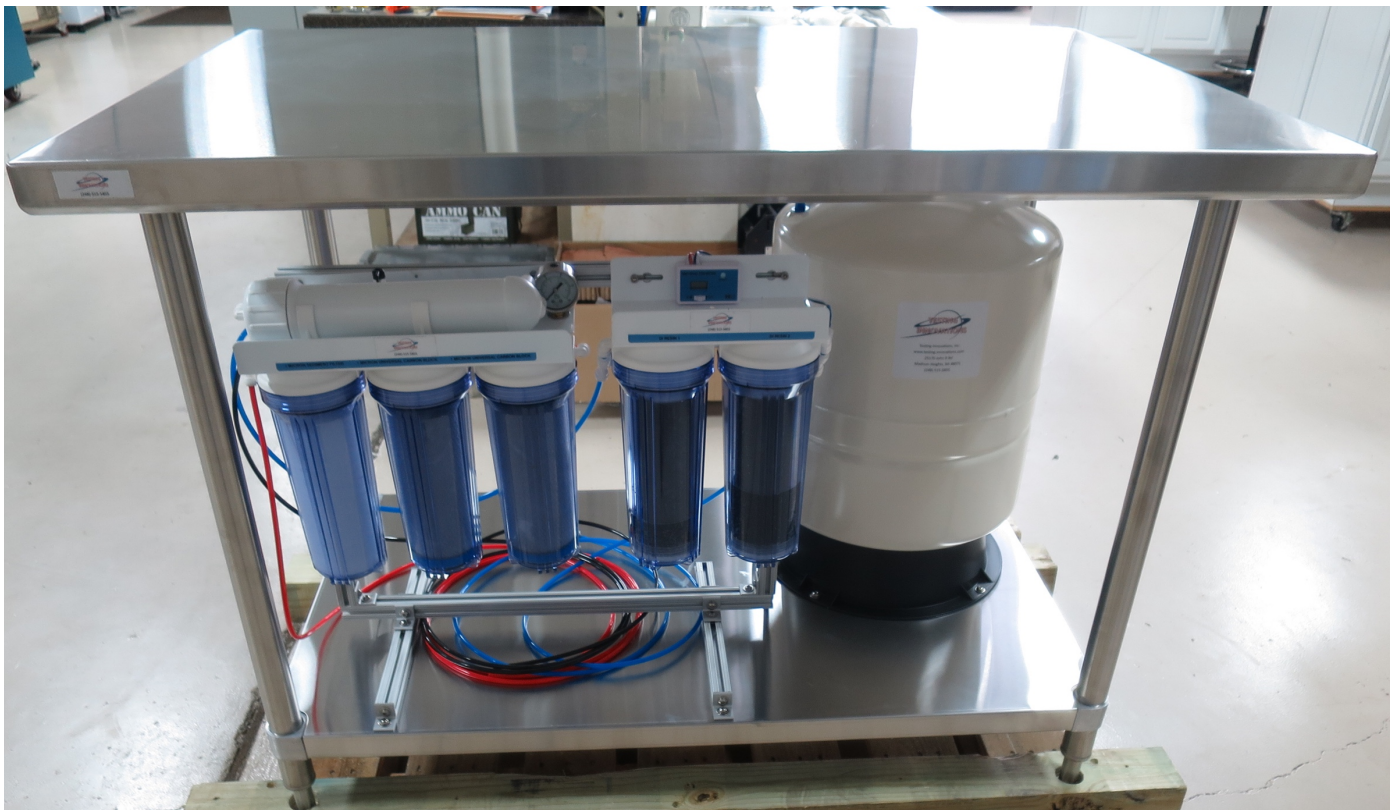


RO system - (includes 2 - 2,000 gallon supply kits)

(pricing as of 01/01/19, plus tax and shipping) - \$1,995.00

This RO system is used for creating DI water for the water bath (this unit has a lot of extra capacity to supply other lab equipment as well) and provides the following necessities:

- a) 6 stage filtration
 - stages 1-3: sediment, carbon, carbon black
 - stages 4-6: membrane, DI-1, DI-2
- b) Automatic storage tank refilling
- c) 14 gallon storage tank
- d) TDS meter included (monitor water quality before and after final DI polish)
- e) Color changing DI resin indicating when to change
- f) 100 gallons per day capacity**
- g) Shipped with "ready to use" supplies (2,000 gallon kit)
- h) Includes additional extended usage maintenance kit (2,000 gallon kit)
- i) Shouldn't need any additional supplies for 3 - 5 years
- j) Full package can be mounted on lower shelf of water bath station
- k) When using this RO station only for the water bath station, the media and filtration devices **will last approximately 2 years** with an average once per month water change in the water bath



Water bath and RO station (combined)

(pricing as of 01/01/19, plus tax and shipping) - \$3,745.00

This combined workstation has 2 shelves and is made of anticorrosive stainless steel that provides all of the necessities to perform any of the OEM thermal shock (steam blast) testing including water treatment:

- a) All of the items described on the “**Thermal Shock water bath station**” product sheet
- b) All of the items described on the “**RO system**” product sheet





Thermal Shock Equipment Training

(pricing as of 01/01/19) 1 technician - \$1,200.00
(pricing as of 01/01/19) 2 or more technicians (each) - \$995.00

We offer individualized training at our facility, so that test technicians may completely understand what is required by the test specifications, how to run the equipment, perform the calibration and execute thermal shock testing.

- a) Training at Testing Facility, 25170 John R Rd, Madison Heights, MI 48071
- b) 4 hours (1/2 day)

During the training session we will cover the following:

- This time can be tailored to the needs of the individuals
- Complete test specification review
- Test variation protocol examination
- Warm up and machine operation
- Calibration using the Dynamic Head Fixture
- Technician will actually perform testing
- Review of workstation and equipment options
- Training video

We recommend purchasing a training session at the same time of the thermal shock equipment purchase, so that the training session can be scheduled and performed on your exact unit before it is shipped to you.