



TPSTM
Thermal Product Solutions

Aftermarket Services Catalogue

Aftermarket Products & Services



www.thermalproductsolutions.com



Start-up & Training

A TPS technician inspects the installation of your equipment and performs on-site adjustments prior to giving hands-on training to operator and maintenance personnel. Start-up and training services may be included with turn-key installation packages.



Instrument Calibration

TPS can provide complete calibration services for your equipment, to include:

- A2LA certifications
- ISO 17025 calibration certification



TPS MAX Program

The TPS MAX Program allows the customer to purchase future service and/or parts without the need to have a purchase order approved and released when parts or service of any kind is needed. These funds are then available to be used on any parts or service items at any time in the future, which will save you and your company valuable down-time. Enrollment also entitles the customer to the many other advantages listed below. Enrollment into the TPS MAX Program can be initiated with a minimum purchase of \$5,000.00. Any amount above \$5,000.00 will be accepted. Funds do not expire. No overtime charges will be billed for work or travel performed Monday through Friday.

- 10% Off Service Labor (Including: Training, Installation, Preventive Maintenance)
- 10% Off Travel Time
- 10% Off Calibration
- 10% Off Parts
- 10% Off Ground Shipping on Parts
- 10% Off Mileage



Preventive Maintenance

Preventive Maintenance (PM) is a service program in which wear and tear is anticipated. A PM program minimizes premature deterioration of equipment through corrective actions that ensure peak efficiency and performance. TPS technicians will customize a PM program for your equipment that involves a plan of systematic inspection, adjustment, lubrication, and replacement of components, as well as performance testing and analysis. Items that may be included in a PM Program:

- Recertification of temperature uniformity
- Cleaning and adjustment of burners to improve efficiency
- Replacement of parts, or recommendation of replacement of part



Temperature Uniformity

TPS can adjust your equipment for proper airflow balance and heat distribution, providing a tighter temperature tolerance. Consideration is given to air pressure (positive or negative) in your building, which can impact uniformity. In many cases, profile testing and associated adjustments can be completed in a single work day. On-site Profile Testing may include:

- Calibrated and non-calibrated testing
- Moving, parts, and static testing

Aftermarket Products & Services



www.thermalproductsolutions.com



GAMP Documentation

From the clients URS, TPS offers development and execution of the full range of GAMP documentation including FRS, HDS, SDS, FAT, SAT, and, IQ/OQ.



Relocation

Looking to move your equipment within your facility or to a new location? The experienced TPS aftermarket team is trained to handle your thermal processing equipment relocation from start to finish. This includes disconnection, tear down, transportation, installation, debugging and start-up. With TPS relocation services you can rest assured that your industrial oven, furnace, or test chamber is safely moved to its new location.



Online Parts Store

The TPS online parts store features an extensive inventory of replacement parts. Visit the parts store for your next order.

store.thermalproductsolutions.com



Installation Supervision

A TPS supervisor guides your installation technicians through the process, giving you confidence that your equipment is assembled and installed correctly.



Refurbished Equipment

TPS offers a full line of high quality refurbished equipment. As a standard, all equipment receives a thorough inspection of the electrical system, and as applicable, a rebuild of the humidity generator, and an upgrade of the refrigeration system to environmentally friendly refrigerants. Windows, door gaskets and other sealing components are thoroughly inspected and replaced as required. All necessary upgrades, replacements and re-finishing of the equipment are completed by TPS factory trained technicians. Refurbish quality is ensured by challenge to current factory testing and backed with the best refurbish warranty in the industry.



Rental Units

TPS has a selection of new and refurbished equipment available for rent. Renting equipment can be a cost effective alternative to buying a unit. Rental units are available for quick delivery and for a variety of time frames.

thermalproductsolutions.com/rentalunits

Installation Services



www.thermalproductsolutions.com

Precise installation and comprehensive training of your staff are key to ensuring that your equipment operates properly. Thermal Product Solutions, LLC (TPS) offers a variety of installation and training options to ensure your equipment has a long productive life. Whether you just need a qualified TPS supervisor to guide your installation personnel or a complete turn-key installation done by our experienced TPS team, TPS has an option that is right for you.

Select one of the installation options below and be rest assured that your equipment is assembled and installed correctly.

Installation Supervision

During installation, a TPS supervisor guides your installation personnel through the process, giving you confidence that your equipment is assembled and installed correctly.

Start-up & Training

A TPS technician inspects the installation of your equipment, performs on-site adjustments, and reviews the safety programs and features prior to giving hands-on training to operator and maintenance personnel. Start-up and training services may be included with any level of installation packages.

Preventative Maintenance



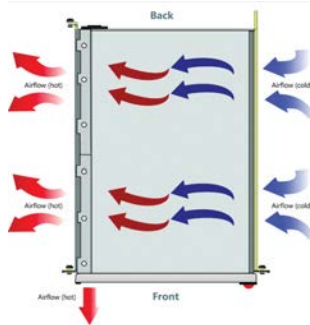
www.thermalproductsolutions.com

Preventative Maintenance (PM) is a service program in which wear, tear, and change are anticipated, and continuous corrective actions are taken to ensure peak efficiency and performance. PM will help to minimize premature deterioration of your equipment. Your environmental chamber or thermal processing oven is a complex piece of machinery and needs to be cared for with TLC to maximize performance and prevent downtime. One of the most proactive measures that you can take for your equipment is to schedule a Preventative Maintenance check.

The experienced TPS technicians have put together a PM program specifically for your equipment. This program includes systematic inspections, adjustments, lubrication, and replacement of components, as well as performance testing and analysis. TPS will check all installed safety options to ensure proper functionality. A proper and timely inspection can keep your equipment running for many years. TPS technicians are also able to perform PM checks on other brands of equipment, just ask our service personnel for details.

Some of the items covered in the TPS PM Inspection are:

- Mechanical
- HEPA Filter
- Electrical
- Instrumentation
- Operational
- Refrigeration System



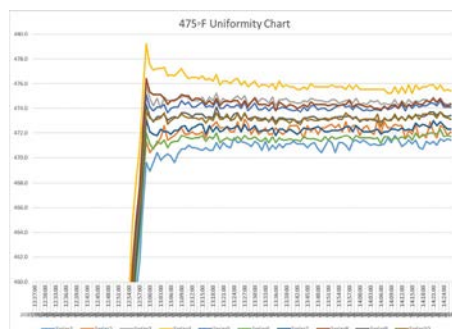
TPS recommends that once a year you have a preventative maintenance (PM) completed along with exhaust airflow measurements on Class A ovens. Exhausting airflow is crucial as Class A ovens are specifically designed for the volatiles that are being used in your oven. MSA monitors should also be done yearly at a minimum.



HEPA filters are long lead items. They are often sized specifically for our units. Maintaining proper stock levels are important to your operation. Why choose TPS?

- Original Equipment Manufacturer HEPA Filters
- Proper Installation

Having spare parts on hand as well as HEPA filters can reduce down time and lost product.



Uniformity - TPS can adjust your equipment for proper airflow balance and heat distribution, providing a tighter temperature tolerance. Consideration is given to air pressure (+ or -) in your building, which can impact uniformity. Out of tolerance conditions and adjustments needed will bring variation to the time needed to complete the work.

Parts Store Ordering Guide



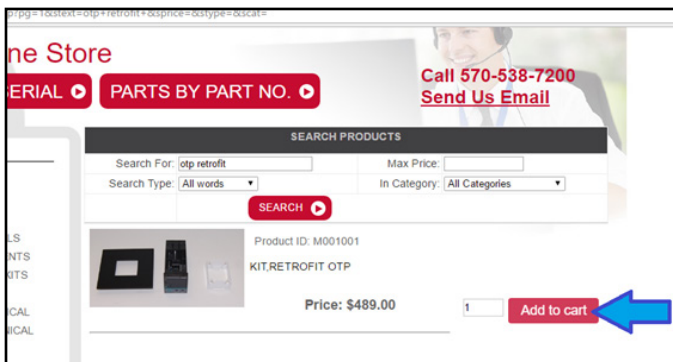
www.thermalproductsolutions.com

Searching By Part Number or Description



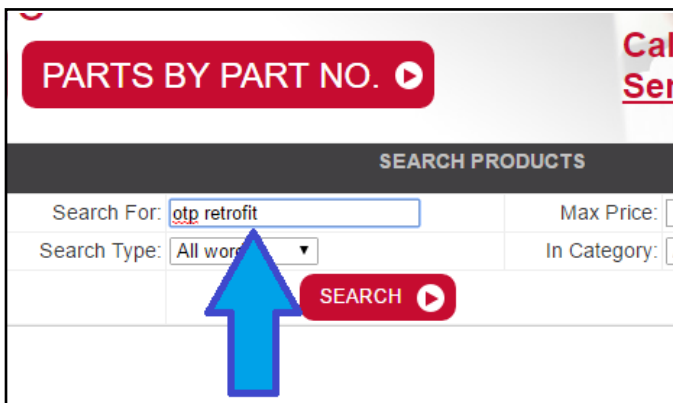
- 1) Visit <https://store.thermalproductsolutions.com/>
- 2) Click on parts by part number
- 3) Enter part number and click search
- 4) Add quantity needed and click add to cart

Searching By Unit Serial/Order Number



- 1) Visit <https://store.thermalproductsolutions.com/>
- 2) Click on parts by serial
- 3) Enter serial/order number and click search
*Some older serial numbers may not be available
- 4) Add quantity needed and click add to cart

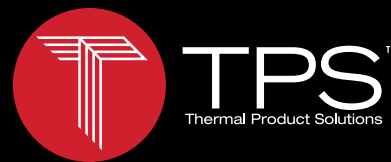
Searching By Category



- 1) Visit <https://store.thermalproductsolutions.com/>
- 2) Click on a category image
- 3) Narrow search results by putting keywords in the “search for” box and clicking search
- 4) Add quantity needed and click add to cart

Questions? Email: partswd@thermalproductsolutions.com Call: 570-538-7200 (click Option 3)

Equipment Calibrations



www.thermalproductsolutions.com

TPS NIST Calibration Services

Thermal Product Solutions LLC (TPS) rounds out our total service packages with the ability to provide complete Calibration Services that include NIST Calibration Certificates.

ISO17025 Accreditation from A2LA

TPS is accredited with the American Association of Laboratory Accreditation for having demonstrated a technical competence for a defined scope and the operation of a laboratory quality management system. TPS's testing and calibration laboratory is accredited in accordance with the recognized international standard ISO/IEC 17025 General Requirements for the competence of testing and calibration laboratories and also meets the requirements of ANSI/NCSLI Z540-1-1994 and any additional program requirements in the field of calibration. The accreditation provides customers of TPS with the confidence that the equipment calibrations they receive from TPS are accurate, audited, and maintained in a manner consistent with ISO standards.



Why choose an accredited calibration over a NIST traceable calibration?

Being NIST traceable simply means that the equipment being used to calibrate customer's equipment is traceable to NIST standards, but an A2LA accreditation means a bit more. A2LA is an accreditation body that accredits outside laboratories to numerous standards, specifically ISO 17020, 17043, 17065, and 17025. Thermal Product Solutions is accredited by A2LA to ISO 17025 standards which means not only is TPS equipment NIST traceable, but also the methods we use comply with ISO 17025 standards. Thus, an A2LA accreditation is always NIST traceable, but NIST traceable calibrations are not always A2LA certified calibrations. Customers can also rest assured that by having an A2LA accredited calibration they are receiving a product that has a fully implemented quality system that reviews every detail of every service performed.

A2LA Scope of Accreditation

A2LA Accreditation demonstrates an organization's competence to manage and perform the activities defined by its A2LA Scope of Accreditation (A2LA Certificate 3782.01). These activities include:

- **Generate:** 0-11V, 0-500Ω, 0-22mA, -200 to 250°C RTD (100Ω, Pt 385)
- **Sourcing Thermocouples:** Type T (-200 to 400°C), Type J (-100 to 800°C), and Type K (-100 to 1372°C)
- **Measure:** 10-95% Relative Humidity, -80 to 710°C
- Scope Can Be Expanded to Meet Customer Needs

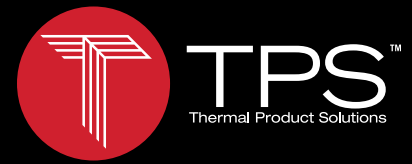
ISO Standards

ISO/IEC 17025 is the primary ISO standard used by testing and calibration laboratories to develop their management systems for quality, administrative operations, and technical operations. Laboratory customers, regulatory authorities, and accreditation bodies also rely on the standard to confirm or recognize a laboratory's competence in the accredited areas. It includes both management and technical specifications.

ABOUT A2LA

A2LA is the largest U.S.-based, multi-discipline accreditation body with over 35 years of experience providing internationally recognized accreditation services and quality training. A2LA's world-class accreditation services encompass testing and calibration laboratories, medical testing laboratories, inspection bodies, proficiency testing providers, reference material producers and product certification bodies. Organizations are accredited to international standards and field-specific requirements developed with government and industry collaboration. A2LA also offers a wide variety of both public and private on-site training programs to complement the various accreditation programs.

Rental & Refurbished Equipment



www.thermalproductsolutions.com

The Rental & Refurbish Department at Thermal Product Solutions, LLC (TPS) offers a full line of equipment from all of our product lines to meet your rental and purchasing needs. Each refurbished unit is serviced by factory trained TPS Technicians with years of experience in the building and repairing of TPS equipment. We take a great deal of pride in the quality of our equipment and your satisfaction. Visit our website thermalproductsolutions.com/products/equipment.aspx to view our current inventory of equipment.

Rental Units

TPS has a selection of new and refurbished equipment available for rent. Renting equipment can be a cost effective alternative to buying a unit. Rental units are available for quick delivery and for a variety of time frames.

Refurbished Equipment

TPS offers a full line of high quality refurbished equipment. As a standard, all equipment receives a thorough inspection of the electrical system, and as applicable, a rebuild of the humidity generator, and an upgrade of the refrigeration system to environmentally friendly refrigerants. Windows, door gaskets and other sealing components are thoroughly inspected and replaced as required. All necessary upgrades, replacements and re-finishing of the equipment are completed by TPS factory trained technicians.

Unprecedented One-Year Warranty

Refurbish quality is ensured by testing to the original factory specifications and is backed with the best refurbish warranty in the industry. All refurbished equipment comes with an unprecedented one-year onsite warranty that covers both parts and labor (for standard TPS models). TPS is the only one in the industry to stand behind their refurbished equipment with such an extensive warranty. You can buy one of our refurbished units with the confidence that you are getting the same warranty as we offer on our new equipment. This is just another example of our commitment to be your one source for all of your thermal processing needs.



BlueM Touchscreen Upgrades Available



www.thermalproductsolutions.com

BlueM Ovens With Watlow F4 and Watlow PM Single Set Point Controllers Can Upgrade to F4T Touchscreen Controllers.



Blue M DC, DCC and DCI ovens that use either Watlow F4 or Watlow PM EZ-Zone single set point controllers can **NOW** upgrade to the Watlow F4T controller.

⑤	Data Logging and Graphic Trend Charts
A =	None
B =	Graphical trend chart
J =	Data logging
K =	Data logging with encrypted files
L =	Data logging with graphical trend chart
M =	Data logging with encrypted files and graphical trend chart

Please contact partswd@thermalproductsolutions.com for your formal quote today.
 Must include model and serial number of chamber, billing address, and which data logging option (see above), if any.
 Some Exclusions Apply

CEO Controller Upgrades



www.thermalproductsolutions.com

Watlow 96 and 965 controllers are now obsolete. Lunaire/CEO Chambers can be upgraded to new Watlow EZ Zone controllers.

Kit includes:

- Both temp (not programmable) and humidity controls
- New electrical prints for installation
- Controller manual for the EZ Zone
- **Programmed for immediate use**

There is a 2-3 week lead time to have kit completed.



TJR Controller Upgrade to new Watlow F4

Any TJR with either Partlow 1462 or Watlow 942 can be upgraded to a new Watlow F4 Controller.

Kit includes:

- Electrical prints for wiring
- Controller manual
- **Programmed for immediate use**

Some units may require additional relays or resistors and those would be included for the same price. There is a 1-2 week lead time to have kit completed.



Please contact partswd@thermalproductsolutions.com for your formal quote today. Must include model and serial number of chamber and company billing address.

Some Exclusions Apply



TPS[™]
Thermal Product Solutions

**SAVE MORE.
WAIT LESS.**

**MAX
PROGRAM**

YOUR EQUIPMENT'S EMERGENCY FUND

The TPS MAX Program gives you priority service, exclusive savings, and the flexibility to keep your operations running.

**10%
OFF**

ELIGIBLE ITEMS:

- **Parts**
- **Service Labor**
Including: Training, Installation, Preventive Maintenance
- **Calibration**
- **Ground Shipping**
- **Travel**

MAX PROGRAM BENEFITS

- ✓ **PRIORITY SERVICE**
Next Available Appointment status gets you back in operation faster.
- ✓ **NO OVERTIME CHARGES**
Zero overtime fees for labor or travel Monday through Friday.
- ✓ **PREDICTABLE BUDGETING**
Prepay for service and parts to reduce surprises and control maintenance costs.
- ✓ **TOTAL COST REDUCTION**
Immediate 10% discount on parts, service labor, calibration, ground shipping, and travel.
- ✓ **FUNDS NEVER EXPIRE**
Your investment is there when you need it.
- ✓ **NO ANNUAL FEE**
No additional fees to participate.

**GET STARTED
TODAY**

INITIAL ENROLLMENT

\$5,000+

Minimum to join

MAINTAIN ACTIVE STATUS

\$2,500

Minimum balance required

ADD FUNDS ANYTIME

\$1,000

Minimum purchase order



KEEP YOUR EQUIPMENT RUNNING.
Call (570) 538-7200
or visit thermalproductsolutions.com



**JOIN THE
TPS MAX
PROGRAM
TODAY!**

HOW THE **TPS MAX** PROGRAM WORKS



FUND YOUR ACCOUNT

Request a quote from our service department, issue a PO and fund the MAX account.



REQUEST SERVICE OR PARTS

Call our Aftermarket team for service, parts, calibration, training, or support.



USE YOUR MAX BALANCE

Charges for eligible services and parts are applied against your prepaid account.



ENJOY SAVINGS & PRIORITY

Receive 10% off eligible items, no overtime charges (Mon-Fri), and priority scheduling.

FREQUENTLY ASKED QUESTIONS

Q: Can I use a credit card to fund my MAX account?

A: Yes. A 3.5% processing fee applies to all credit card transactions.

Q: Can I use funds at multiple locations or on multiple pieces of equipment?

A: Yes. Funds can be allocated across locations and equipment for parts and service. New equipment cannot be purchased through the Max Program.

Q: Is there an annual fee?

A: No, there is no annual fee.

Q: What happens if my balance runs out?

A: You can add funds at any time with a minimum \$1,000 PO to maintain a balance of \$2,500 for continued MAX benefits. If you opt to let the funds run out, you will be billed at the current standard service rates.

Q: How soon after joining are the funds available?

A: The funds are available immediately after a Purchase Order is paid or credit card information is processed.



YOUR UPTIME IS OUR PRIORITY.

The TPS MAX Program is designed to save you money, reduce downtime, and give you peace of mind when you need it most.



READY TO ENROLL?

Contact our Aftermarket Department to learn more or sign up today.

(800) 538-2473

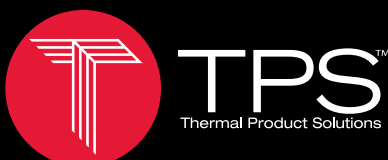
(570) 538-7200

thermalproductsolutions.com

» Blue M » Gruenberg » Lindberg/MPH

» Lunaire » Tenney » Wisconsin Oven

www.thermalproductsolutions.com



2821 Old Route 15 | New Columbia, PA 17887-0150 | USA | P: (570) 538-7200 | F: (570) 538-7380



TPSTM
Thermal Product Solutions

»» Blue M »» Gruenberg »» Lindberg/MPH
»» Lunaire »» Tenney »» Wisconsin Oven

Address: 2821 Old Route 15 | New Columbia, PA 17856 | USA
USA Phone: (570) 538-7200 | Toll Free (800) 586-2473
info@thermalproductsolutions.com
www.thermalproductsolutions.com