



APPLIED TEST SYSTEMS
THE MARK OF RELIABILITY

Furnaces

Standard & Custom



Precise, efficient, and reliable furnaces for testing, laboratory, and industrial processes made to your specifications.

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Laboratory and Industrial Furnaces from ATS

Since 1965, Applied Test Systems (ATS) has been working to create an unmatched line of precise and affordable materials testing equipment. A large part of this effort has been in the field of high-temperature testing and production. As a result of over 50 years of research, development, design, testing, and re-testing, ATS has created a complete line of furnaces and high-temperature accessory items that is unmatched in quality, versatility, and reliability.

The standard line of ATS furnaces has been designed for general laboratory use and also for testing to ASTM standards and other specifications. All ATS furnaces are constructed to customer requirements in a wide variety of diameters, lengths, sizes, and configurations, and are shipped complete with mounting brackets and accessory equipment. Heating elements are provided in various materials and configurations depending upon temperature requirements and the specific application. Furnaces have been designed for easy replacement of failed elements in the laboratory, saving you time and money.

Outstanding design features such as the use of low K-factor vacuum-cast ceramic fiber insulation and low watt-density heating elements providing significant advantages and benefits to the user, including reduced power consumption, faster heatup, longer element life, and lower shell temperatures.

Several different furnace designs are available, including tube, split tube, box, split box, high-temperature, low-profile, silicon carbide, molybdenum, and controlled-atmosphere. All are described separately in this bulletin along with furnace accessories, mounting arrangements, components, and retorts. This bulletin also demonstrates the custom design capabilities for which ATS has become known for worldwide. With over 50 years of design experience in custom testing equipment, ATS is sure to provide you with an ideal solution for all of your high-temperature testing and manufacturing needs.

In addition to furnaces, ATS manufactures a complete line of laboratory testing machines and accessories, including universal testing machines, creep/stress-rupture test frames, convection ovens/cryogenic cooling chambers, pressure testing systems, asphalt testing equipment, and sealant testers. As well as parts including grips, fixtures, load train components, extensometers, ultrasonic reference standards, and more. Choose ATS for all of your materials testing needs, the equipment delivered to your facility will meet all of your expectations.

Series 3110/3210

Tube & Split Tube Furnace

ATS Series 3110/3210 Tube and Split Tube Furnaces are by far our most popular line. This series has been carefully designed and refined, making it one of the most reliable and efficient laboratory furnaces available on the market today. Use these furnaces in conjunction with various materials testing machines, incorporated in gas processing systems, stand alone, and in many other applications.



Features

- Custom built-to-order to your specific requirements
- Low K-factor vacuum-cast ceramic fiber insulation
- Stainless steel shell and end flanges
- Replaceable heating elements
- Wide selection of available diameters, lengths, mounting arrangements, and accessory equipment
- Variety of configurations, including, isothermal, gradient, adiabatic, and others
- Available options and accessories include heat-equalizing liners, extensometer slots and mounting flats, thermocouples, end caps, viewports, gas ports, cast bronze or ceramic fiber heating elements, retorts, and more.

Product Specifications:

| For service to 1650°F (900°C) | For service to 2000°F (1100°C) | For service to 2200°F (1200°C) |
|----------------------------------|-----------------------------------|-----------------------------------|
| <i>I.D. x O.D. (in)</i> | <i>I.D. x O.D. (in)</i> | <i>I.D. x O.D.</i> |
| 0.75 x 6.0 | 0.75 x 8.0 | 0.75 x 10.0 |
| 1.00 x 6.0 | 1.00 x 8.0 | 1.00 x 10.0 |
| 1.25 x 6.0 | 1.25 x 8.0 | 1.25 x 10.0 |
| 1.62 x 8.0 | 1.62 x 10.0 | 1.62 x 12.0 |
| 2.00 x 8.0 | 2.00 x 10.0 | 2.00 x 12.0 |
| 2.38 x 8.0 | 2.38 x 10.0 | 2.38 x 12.0 |
| 3.00 x 8.0 | 3.00 x 10.0 | 3.00 x 12.0 |
| 3.75 x 10.0 | 3.75 x 12.0 | 3.75 x 14.0 |
| 5.00 x 12.0 | 5.00 x 14.0 | 5.00 x 16.0 |
| 5.50 x 12.0 | 5.50 x 14.0 | 5.50 x 16.0 |
| 6.00 x 12.0 | 6.00 x 14.0 | 6.00 x 16.0 |
| 7.00 x 12.0 | 7.00 x 14.0 | 7.00 x 16.0 |
| 8.25 x 16.0 | 8.25 x 18.0 | 8.25 x 20.0 |
| 12.0 x 20.0 | 12.0 x 22.0 | 12.0 x 24.0 |

Series 3110/3210

- Other sizes supplied on request
- Length & zone construction made to order
- Heating elements and temperature range:
Nichrome: 1850°F (1000°C)
Kanthal A1: 2200°F (1200°C)
- NRTL and CE Listed
(in standard configurations, selected sizes only, with approved control system)

Series 3150/3160

Box & Split Box Furnace



ATS Series 3150/3160 Box and Split Box furnaces are the box style counterpart to our Series 3110/3210 tube and split tube series, these furnaces share a number of the same advanced design and construction features.

Features:

- Custom built-to-order to your specific requirements
- Low K-factor vacuum-cast ceramic fiber insulation
- Stainless steel shell
- Replacement elements are available
- All Series 3150/3160 Furnaces have a maximum temperature rating of 1200°C (2192°F)
- Standard replaceable ceramic hearth plate
- Wide selection of available widths, heights, and depths, mounting arrangements, and accessory equipment
- Available options and accessories include heat-equalizing liners, extensometer slots and mounting flats, thermocouples, end caps, viewports, gas ports, cast bronze or ceramic fiber heating elements, retorts, and more.

Product Specifications:

| STANDARD MODELS: SERIES 3150 BOX FURNACES | | | | |
|---|---------------------------------------|--------------------------|--------------|--|
| <i>Internal Size (in) (WxHxD)</i> | <i>External Size (in) (WxHxD)</i> | <i>Power (Watts)</i> | <i>Volts</i> | |
| 5.5 x 6.5 x 6 | 14.5 x 15.0 x 18.25 | 1770 | 115 | |
| 5.5 x 6.5 x 12 | 14.5 x 15.0 x 21.25 | 2460 | 230 | |
| 7.5 x 8.75 x 7 | 16.5 x 17.25 x 19.25 | 2040 | 115 | |
| 7.5 x 8.75 x 14 | 16.5 x 17.25 x 26.25 | 4080 | 230 | |
| 10 x 10 x 12 | 19.0 x 18.5 x 24.25 | 5100 | 230 | |
| 10 x 10 x 16 | 19.0 x 18.5 x 28.25 | 5700 | 230 | |
| 12 x 13.5 x 12 | 21.0 x 22.0 x 24.25 | 6000 | 230 | |
| 12 x 13.5 x 18 | 21.0 x 22.0 x 30.25 | 9000 | 230 | |

| STANDARD MODELS: SERIES 3160 BOX FURNACES | | | | |
|---|-----------------------|---------------------------------------|--------------------------|--------------|
| <i>Internal Size (in) (WxHxD)</i> | <i>Heat Zones</i> | <i>External Size (in) (WxHxD)</i> | <i>Power (Watts)</i> | <i>Volts</i> |
| 6 x 6 x 6 | 1 | 12.5 x 10.0 x 12.5 | 2360 | 115/230 |
| 6 x 12 x 6 | 3 | 12.5 x 16.0 x 12.5 | 4680 | 115/230 |
| 7.5 x 7 x 7.5 | 1 | 14.75 x 11.0 x 14.75 | 2720 | 115/230 |
| 7.5 x 15 x 7.5 | 3 | 14.75 x 19.0 x 14.75 | 5830 | 115/230 |
| 10 x 12 x 10 | 1 | 17.5 x 16.0 x 17.5 | 6600 | 230 |
| 10 x 18 x 10 | 3 | 17.5 x 22.0 x 17.5 | 9900 | 230 |
| 12 x 12 x 12 | 1 | 19.5 x 16.0 x 19.5 | 8000 | 230 |
| 12 x 24 x 12 | 3 | 19.5 x 28.0 x 19.5 | 16000 | 230 |

Series 3150 Front Load Box Furnace

For AMS 2750 Testing

ATS Series 3150 for AMS 2750 Box Furnace is a specially enhanced furnace using our time proven design of the standard 3150 box furnace with improved heating uniformity features. Tailored around those who are working with the AMS 2750 requirements, this furnace has a supplied port for the customer's thermocouples during the TUS. The port reduces damage to insulation, which is important in maintaining the furnace performance. There are 3 areas that cause failures during uniformity testing: burned out elements, wear to the door, and wear to the front face of the furnace. We have addressed these issues by supplying a long lasting hardboard insulation on the front, and an easily replaceable blanket fiber lined door. If the time ever comes that the elements need to be changed, it's as simple as unwiring the terminals and pulling them out.



Features:

- Standard construction features include a durable stainless steel shell and ceramic fiber insulation
- Replacement elements are available
- All Series 3150 Box Furnaces have a maximum temperature rating of 1200°C (2192°F)
- Standard replaceable ceramic hearth plate

Product Specifications:

| | |
|------------------------|---|
| Internal Size Options: | 12" W x 13½" H x 12" D (other sizes available) |
| Inside Class 2 Area | 8" W x 8" H x 8" D (other sizes available) |
| External Size Options: | 21" W x 22" H x 22¾" D (other sizes available) |
| Mounting | Leg levelers for benchtop use |
| Elements | Kanthal A1 |
| Power | 230V 1PH, 5000 Watts, 21.7 AMP (may vary based on size) |

Exclusive Features:



Blanket filled door for a positive seal that allows for easy customer replacement.



Ceramic tube port for thermocouples during temperature survey. When not in use, an insulating plug is supplied.



Wall mounted elements for easy access with no insulation removal required for replacement.

Series 3410/3420

Silicon Carbide Tube & Split Tube Furnace

ATS Series 3410 and 3420 Silicon Carbide Tube and Split Tube

Furnaces are a line of steady heat-up, high-efficiency furnaces for operating temperatures up to 2800°F (1540°C). As opposed to the rapid heat-up rates offered by the ATS Series 3300 high-temperature models (see page 11), this series has been designed for a more slow and steady heatup, useful for operations involving many types of materials.



Features:

- Custom built-to-order to your specific requirements
- Low K-factor vacuum-cast ceramic fiber insulation
- Stainless steel shell and end flanges
- Replaceable long-lasting Silicon carbide (SiC) "rammed rod" type heating elements
- Wide selection of available diameters, lengths, mounting arrangements, and accessory equipment
- Available options and accessories include thermocouples, end caps, viewports, and retorts

Product Specifications:

| I.D. x O.D. (in) | H.L. (in) | O.L. (in) | Power (Watts) | I.D. x O.D. (in) | H.L. (in) | O.L. (in) | Power (Watts) |
|------------------|-----------|-----------|---------------|------------------|-----------|-----------|---------------|
| 2.0 x 16.0 | 5 | 19 | 1200 | 4.0 x 18.0 | 5 | 19 | 2300 |
| | 6 | 20 | 1350 | | 6 | 20 | 2750 |
| | 7 | 21 | 1500 | | 7 | 21 | 3000 |
| | 8 | 22 | 1700 | | 8 | 22 | 3300 |
| | 9 | 23 | 1800 | | 9 | 23 | 3600 |
| | 10 | 24 | 2100 | | 10 | 24 | 3900 |
| | 12 | 26 | 2800 | | 12 | 26 | 4500 |
| | 14 | 28 | 2800 | | 14 | 28 | 5533 |
| | 18 | 32 | 3600 | | 18 | 32 | 5750 |
| | 24 | 38 | 5200 | | 24 | 38 | 7800 |
| | 30 | 44 | 6420 | | 30 | 44 | 9000 |
| | 36 | 50 | 7200 | | 36 | 50 | 10000 |
| 3.0 x 18.0 | 5 | 19 | 1800 | 6.0 x 20.0 | 9 | 23 | 6750 |
| | 6 | 20 | 2100 | | 12 | 26 | 7200 |
| | 7 | 21 | 2300 | | 18 | 32 | 10000 |
| | 8 | 22 | 2550 | | 24 | 38 | 11000 |
| | 9 | 23 | 2800 | | 30 | 44 | 12000 |
| | 10 | 24 | 3050 | | 36 | 50 | 13000 |
| | 12 | 26 | 3200 | | | | |
| | 14 | 28 | 3450 | | | | |
| | 18 | 32 | 4200 | | | | |
| | 24 | 38 | 6000 | | | | |
| | 30 | 44 | 7000 | | | | |
| | 36 | 50 | 8200 | | | | |

Series 3450

Silicon Carbide Box Furnace

ATS Series 3450 Silicon Carbide Box Furnaces are the box style counterpart to our Series 3410/3420 Furnaces. Capable of operating temperatures up to 2800°F (1540°C), this Series has been designed for slow and steady heatup rates with minimal temperature losses.



Features:

- Custom built-to-order to your specific requirements
- Low K-factor vacuum-cast ceramic fiber insulation
- Stainless steel shell
- Double-pivot door hinge
- Replaceable long-lasting Silicon carbide (SiC) "rammed rod" type heating elements
- Wide selection of available widths, heights, and depths, mounting arrangements, and accessory equipment
- Available options and accessories include thermocouples, viewports, gas ports, and more.

Product Specifications:

| <i>Internal Size (in) (WxHxD)</i> | <i>External Size (in) (WxHxD)</i> | <i>Power (Watts)</i> |
|---------------------------------------|---------------------------------------|--------------------------|
| 4 x 4 x 6 | 18 x 14.875 x 19.875 | 1500 |
| 4 x 4 x 12 | 18 x 14.875 x 25.875 | 2100 |
| 6 x 6 x 7 | 20 x 16.875 x 20.875 | 2700 |
| 6 x 6 x 14 | 18 x 18.5 x 23.375 | 4400 |
| 8 x 8 x 9 | 22 x 18.875 x 21.875 | 4200 |
| 8 x 8 x 18 | 22 x 22.375 x 27.625 | 6800 |
| 10 x 10 x 11 | 24 x 24.375 x 20.625 | 7800 |
| 10 x 10 x 22 | 24 x 21.25 x 36.625 | 12400 |
| 10 x 10 x 22 | 24 x 24.375 x 31.625 | 11840 |
| 12 x 12 x 13 | 26 x 23.875 x 26.875 | 9600 |
| 12 x 12 x 18 | 26 x 26.375 x 27.625 | 12000 |
| 12 x 12 x 26 | 26 x 26.375 x 35.625 | 16500 |

Series 3310/3320

High-Temperature Tube & Split Tube Furnace

ATS Series 3310/3320 Tube and Split Tube Furnaces are also available for your higher temperature testing needs up to 3272°F (1800°C). The series 3310 and 3320 come with Molybdenum Disilicide (MoSi₂) heating elements that offer fast heat up rates and easy replacement.



Features:

- Custom built-to-order to your specific requirements
- Replaceable Molybdenum Disilicide (MoSi₂) heating elements
- Stainless steel shell and end flanges
- Low K-factor vacuum-cast ceramic fiber insulation
- Wide selection of available diameters, lengths, mounting arrangements, and accessory equipment
- Available options and accessories include extensometer slots and mounting flats, thermocouples, end caps and port plugs, viewports, and more.

Product Specifications:

| For Service to 2800°F (1540°C) | | | | | For Service to 3000°F (1650°C) and 3100°F (1700°C) | | | | |
|--------------------------------|------------------|------------------|----------------------|--------------|--|------------------|------------------|----------------------|--------------|
| <i>I.D. x O.D.</i> | <i>H.L. (in)</i> | <i>O.L. (in)</i> | <i>Power (Watts)</i> | <i>Volts</i> | <i>I.D. x O.D.</i> | <i>H.L. (in)</i> | <i>O.L. (in)</i> | <i>Power (Watts)</i> | <i>Volts</i> |
| 2.0" x 12.0" | 4.0 | 14.0" | 1080 | 24 | 2.0" x 14.0" | 4 | 14 | 1620 | 36 |
| | 6.0" | 16.0" | 1520 | 34 | | 6 | 16 | 2280 | 50 |
| | 8.0" | 18.0" | 1960 | 43 | | 8 | 18 | 2940 | 65 |
| | 10.0" | 20.0" | 2400 | 53 | | 10 | 20 | 3600 | 80 |
| | 11.0" | 21.0" | 2624 | 58 | | 11 | 21 | 3936 | 87 |
| 4.0" x 14.0" | 4.0" | 14.0" | 1620 | 36 | 4.0" x 16.0" | 4 | 14 | 2160 | 48 |
| | 6.0" | 16.0" | 2280 | 50 | | 6 | 16 | 3040 | 67 |
| | 8.0 | 18.0" | 2940 | 65 | | 8 | 18 | 3920 | 87 |
| | 10.0" | 20.0" | 3600 | 80 | | 10 | 20 | 4800 | 106 |
| | 11.0" | 21.0" | 3936 | 87 | | 11 | 21 | 5248 | 116 |

Series 3330

High-Temperature Furnace

ATS Series 3330 High-Temperature Furnaces offer an ideal low-profile solution to restricted testing space due to specimen size or other factors. These furnaces feature highly compact construction while maintaining efficient temperature capabilities up to 3000°F (1650°C). Due to a small internal working volume, rapid heat-up and cool-down rates are attainable for testing of ceramics, metal alloys, composites, and other materials using either flat or round specimens.



Features:

- Replacable Molybdenum Disilicide (MoSi₂) heating elements
- Stainless steel shell and element covers
- Low K-factor vacuum-cast ceramic fiber insulation
- Standard: One or Two Heating Zones
- Custom Zone Arrangements Available
- Available options and accessories include high-temperature extensometers, extensometer slots, thermocouples, viewports, water-cooled specimen grips, and testing fixtures

Product Specifications:

| | |
|----------------|--|
| Internal Size | 2 in. diameter x 2 1/2 in. length (other sizes available) |
| External Size | 20 in. W x 9 5/8 in. D x 8 5/8 in. H (7 1/2 in. between grips) (other sizes available) |
| Mounting | Custom to work with any testing frame |
| Elements | Molybdenum Disilicide |
| Standard Power | 2200 Watts |
| Voltage | 208 or 230 |

Series 3350

High-Temperature Box Furnace

ATS Series 3350 High-Temperature Box Furnaces are ATS's line of high-efficiency, rapid heat-up/cool-down laboratory chambers designed for operating temperatures up to 3272°F (1800°C). These furnaces feature a superior design and construction, with several layers and grades of insulation materials, enabling them to maintain uniform temperatures with minimal heat losses.



Features

- Custom built-to-order to your specific requirements
- Low K-factor vacuum-cast ceramic fiber insulation
- Stainless steel shell and durable interior
- Full opening front door/Double-pivot door hinge
- Replacable Molybdenum Disilicide (MoSi2) heating elements
- Wide selection of available widths, heights, and depths, mounting arrangements, and accessory equipment
- Available options and accessories include thermocouples, viewports, gas ports, and more.

| 2800°F (1540°C) and 3000°F (1650°C) | | | |
|-------------------------------------|-------------------------------|------------------|-------|
| Internal Size (in) (WxHxD) | External Size (in) (WxHxD) | Power (Watts) | Volts |
| 4 x 4 x 6 | 16 x 16.5 x 17 | 1620 | 36 |
| 4 x 4 x 12 | 16 x 16.5 x 23 | 3240 | 72 |
| 6 x 6 x 7 | 18 x 18.5 x 19 | 3040 | 67 |
| 6 x 6 x 14 | 18 x 18.5 x 25 | 5320 | 118 |
| 8 x 8 x 9 | 20 x 20.5 x 21 | 4900 | 108 |
| 8 x 8 x 18 | 20 x 20.5 x 28 | 8820 | 196 |
| 10 x 10 x 11 | 22 x 22.5 x 22 | 7200 | 160 |
| 10 x 10 x 22 | 22 x 22.5 x 32 | 13200 | 147 |
| 12 x 12 x 13 | 24 x 24.5 x 24 | 9184 | 204 |
| 12 x 12 x 24 | 24 x 24.5 x 36 | 15744 | 174 |

| 3100°F (1700°C) | | | |
|-------------------------------|-------------------------------|------------------|-------|
| Internal Size (in) (WxHxD) | External Size (in) (WxHxD) | Power (Watts) | Volts |
| 4 x 4 x 6 | 15.5 x 19.5 x 16.5 | 1620 | 36 |
| 4 x 4 x 12 | 15.5 x 19.5 x 22.5 | 3240 | 72 |
| 6 x 6 x 7 | 17.5 x 21.5 x 18.5 | 3040 | 67 |
| 6 x 6 x 14 | 17.5 x 21.5 x 24.5 | 5320 | 118 |
| 8 x 8 x 9 | 19.5 x 23.5 x 20.5 | 4900 | 108 |
| 8 x 8 x 18 | 19.5 x 23.5 x 28.5 | 8820 | 196 |
| 10 x 10 x 11 | 21.5 x 25.5 x 22.5 | 7200 | 160 |
| 10 x 10 x 22 | 21.5 x 25.5 x 32.5 | 13200 | 147 |
| 12 x 12 x 13 | 23.5 x 26.5 x 24.5 | 9184 | 204 |
| 12 x 12 x 24 | 23.5 x 26.5 x 36.5 | 15744 | 174 |

Series 3350 High-Temperature Controlled Atmosphere Box Furnace

ATS has designed and built a custom version of our standard Series 3350 High Temperature Box Furnace. Unique to this unit is its ability to hold an atmosphere – whether argon or nitrogen. The system is designed to purge the furnace of air and backfill with argon, which is delivered from a customer supplied argon tank. This design provides the customer an affordable way to operate the furnace without oxygen present, allowing them to avoid buying an additional vacuum furnace.

Capable of reaching temperatures up to 1700°C, this custom Series 3350 High Temperature Box Furnace is constructed from heavy gauge stainless steel with leveler mounts. A modified shell with water cooled seals was designed to contain the inert atmosphere, and a water manifold with valves provided independent control at each section of the furnace that require water cooling.



Features:

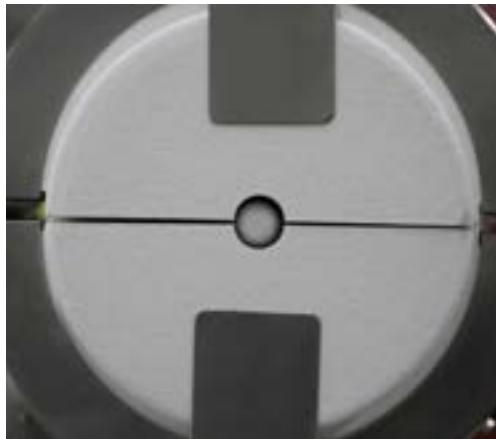
- Molybdenum Disilicide elements
- Single end door with hardened vacuum cast insulation
- Flow switch provides automatic power down due to flow loss
- 2-Type B thermocouple with insulator, connector, and 2-Sealing gland for power connections
- Low range relief valve, 2 psi
- Roughing Pump: 3.2 dfm with mist eliminator, valve, and gauge
- 2-Gas Ports: 1/4 in. dia., inlet and outlet
- Optional load train ports for use on tensile testing machines

Product Specifications:

| | |
|---------------------|---|
| Internal Dimensions | 10 in. W x 10 in. H x 11 in. D (other sizes available) |
| External Dimensions | 21.5 in. W x 25.5 in. H x 22.5 in. D (other sizes available) |
| Power Requirements | 7200 Watts - Unit must run on 160 VAC @ 45 amps and requires a current limiting device for control. |

Furnace Accessories

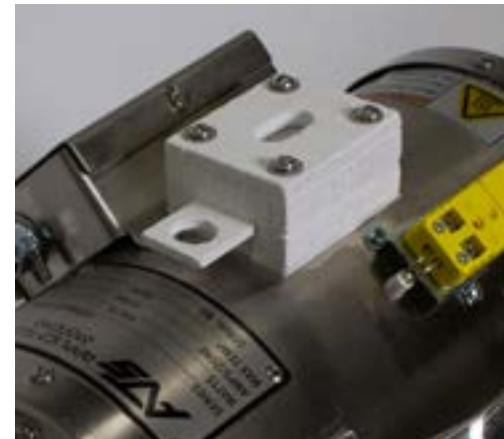
- Thermocouple Assemblies (see page 14)
 - Single Bracket
 - Duplex Bracket
 - Spring-Loaded
 - Sealed
- Removable End Caps
 - Port plugs
- Ports
 - Viewports
 - Gas Inlet and Outlet ports
 - Explosion ports
 - Purging ports
 - Cooling and Vent ports
 - Load Train ports
- Extensometer Ports and Slots
- Zone Dividers
- Element Protection Shields
- Perforated Heat Shields
- Sealed Terminal Covers
- Heat Equalizing Blocks
- Sealed Retort Assemblies
- Special Door Hinges
 - Removable
 - Offset
 - Double-pivot
- Various Mounting Arrangements (see pages 15 and 16)
- Temperature Controllers (see page 18)



Endcaps



Temperature Sensor



Quartz Viewports



Port Plug



Zone Dividers



Heat Equalizing AMPCO® Block

Furnace Accessories

Thermocouple Assemblies

Furnaces from ATS can be equipped with a number of different thermocouple types in a variety of mounting configurations. Thermocouple connectors feature standard ANSI color coding and are available in types J, K, B, R, S, and Platinel-II. Common mounting configurations include single connector with mounting bracket, duplex connector with mounting bracket, spring-loaded for constant contact with a reactor or other vessel, and sealed for use in controlled-atmosphere furnaces, retorts, etc.

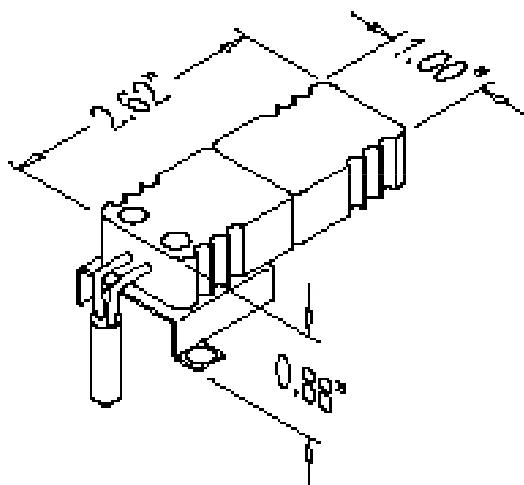


Fig. 3: Single Bracket

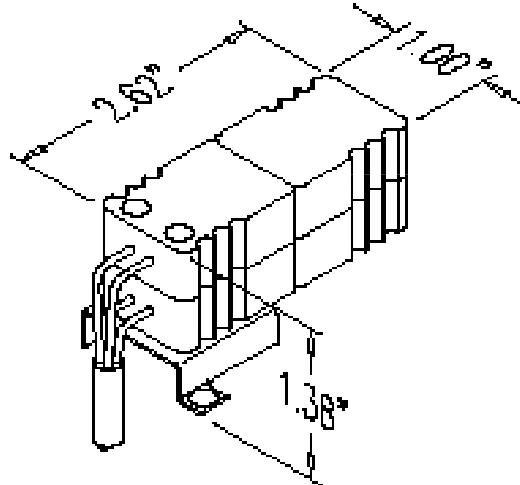


Fig. 4: Duplex Bracket

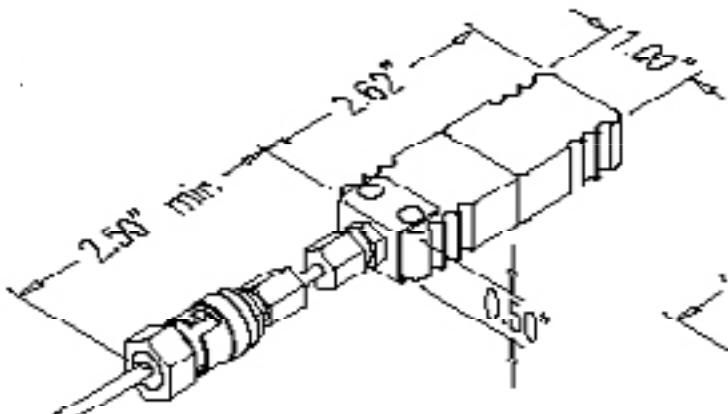


Fig. 5: Spring-Loaded

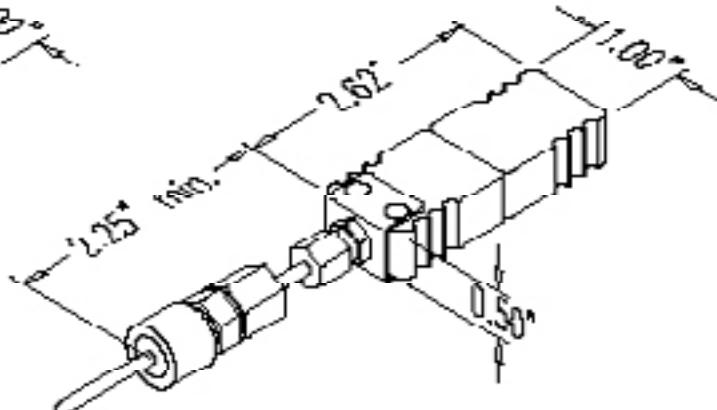


Fig. 6: Sealed

Furnace Mounting

ATS furnaces may be used in a laboratory or mounted onto a materials testing machine for various testing applications. We offer a variety of mounting options to meet your laboratory needs.

- **Standard Support Brackets**

- Vertical Use
- Horizontal Use with Leg Levelers

- **Laboratory Support Plates**

- **Tube Furnace Mounting Brackets**

- Designed to fit furnace bars

- **Laboratory Baseplates**

- Includes Leg Levelers
- Designed with furnace bar
- Optional Port

- **Vertical Support Stands**

- Designed with furnace bar
- Frame Clamps

- **UTM Baseplate Mounting Assembly (see page 15)**

- **Vertical Support Columns (see page 15)**

- Single Pivot Mounting Assembly
- Double Pivot Mounting Assembly
- Dual Double Pivot Mounting Assembly

- **Structural Frames (see page 15)**

- Single Pivot Mounting Assembly
- Double Pivot Mounting Assembly
- Dual Double Pivot Mounting Assembly



Tube Furnace
Mounting Brackets



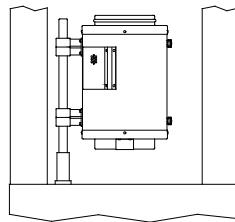
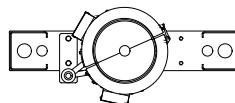
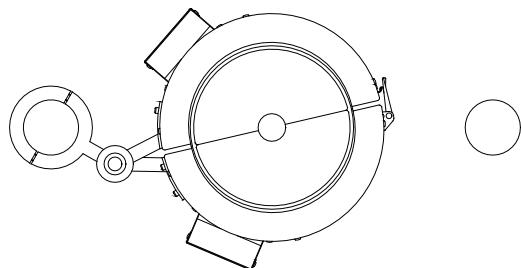
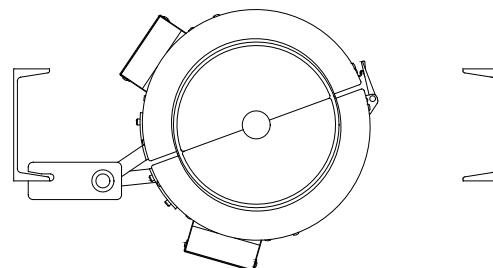
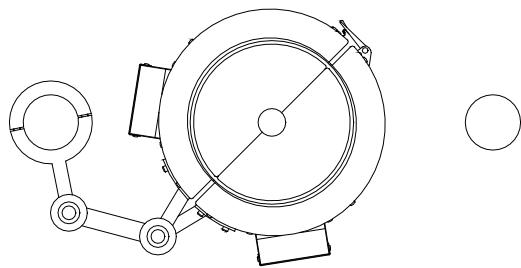
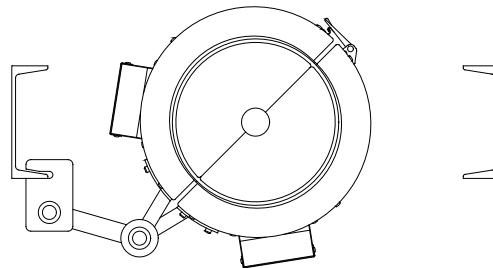
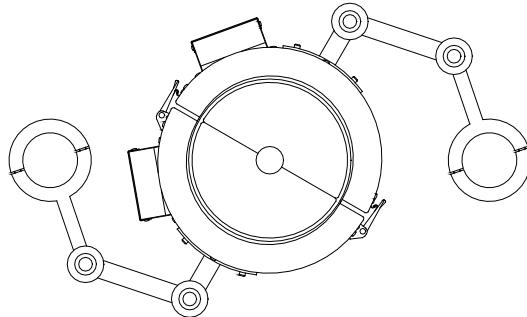
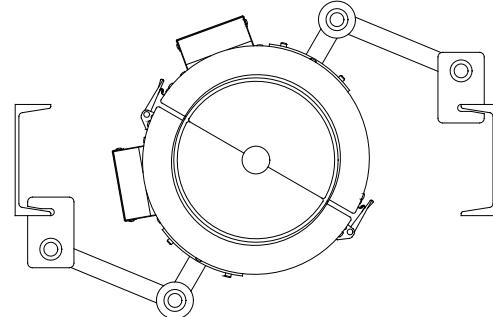
Support Brackets



Laboratory Baseplate



Vertical Support Stand

UTM Baseplate Mounting Assembly**Vertical Support Columns****Single Pivot Mounting Assembly****Single Pivot Mounting Assembly****Double Pivot Mounting Assembly****Double Pivot Mounting Assembly****Dual Double Pivot Mounting Assembly****Dual Double Pivot Mounting Assembly**

Custom Furnace Examples



Temperature Control Systems

A furnace can only be as precise as its control system. ATS prioritizes providing complete, accurate temperature control systems using only the highest-quality components. ATS control systems have been selected for their accuracy, versatility, and reliability. Custom control systems are also available using any major-brand temperature controller, including Watlow, Eurotherm, and others upon request.



Other ATS Products

- Asphalt/Bitumen Testing Equipment
- Biomedical Testing Machines
- Calibration Test Blocks
- Creep/Stress Rupture Testing
- Environmental Chambers
- Heating Elements
- Lab Furnaces
- Ovens
- Pressure Testing Systems
- Sealant Testing
- Testing Accessories
- Universal Testing Machines



Asphalt/Bitumen Testing Line



Sealant Testing Line



Universal Testing Machines

Creep/Stress Rupture Tester