


High Temperature Universal Ovens

**1050°F AND 1250°F
FRONT-TO-BACK
HORIZONTAL AIR FLOW
UNIVERSAL OVENS**

Front-to-back horizontal air flow accommodates virtually any oven loading without restricting air passage. Work can be shelf loaded or placed directly on the optional reinforced work space bottom. Four sizes from 8 to 36 cubic feet. Designed for annealing, sintering, hardening or any other application where a dependable source of heated air up to 1250°F is required.

STANDARD FEATURES

-  UL LISTED CONTROL PANEL
- Standard Universal Ovens from Grieve meet the requirements of National Fire Protection Association Standard 86, Industrial Risk Insurers, Factory Mutual and OSHA standards. For some applications, such as those involving flammable solvents or hazardous locations, the above organizations require additional safety devices.
- **Controls**
 - Digital, microprocessor based, thermocouple actuated, indicating temperature controller
 - Motor control push buttons
 - On-off heat switch
 - LED pilot lights
- **Safety Equipment**
 - Adjustable, thermocouple actuated, manual reset excess temperature controller
 - Separate heating element control contactors
 - Recirculating blower air flow safety switch
- **Construction**
 - Front-to-back horizontal air flow
 - 16 gauge 304 stainless steel interior
 - Aluminized steel exterior with enamel finish
 - Brushed stainless steel control panel face
 - Explosion venting latches
 - All welded construction
 - Insulated with 2" thick 1900°F insulating block, backed up with 10 lbs/cf density rockwool
 - Built-in baffles prevent radiant heat
 - High temperature inner and outer door gaskets with stainless steel spring insert
 - Two (2) stainless steel shelves
 - Channel shelf supports prevent shelves tipping
 - Adjustable fresh air intake and exhaust dampers
 - High pressure stainless steel recirculating blower
 - 1 year limited warranty
- **Every oven fully assembled and individually factory tested**



MODEL AA-1250
WITH OPTIONAL PROGRAMMABLE
TEMPERATURE CONTROLLER



MODEL AG-1250
WITH OPTIONAL 16" INTEGRAL OVEN LEGS

SPECIFICATIONS

CAUTION: OVENS PROCESSING COMBUSTIBLE MATERIAL ARE REQUIRED BY NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 86 TO HAVE A FIRE SUPPRESSION SYSTEM. IF FLAMMABLE SOLVENTS OR VAPORS ARE PRESENT IN AN OVEN, OSHA REQUIRES CONFORMANCE WITH NFPA 86 WHICH DEFINES OVENS FOR THESE APPLICATIONS AS CLASS A OVENS. A POWERED FORCED EXHAUSTER AND OTHER NON-STANDARD SAFETY EQUIPMENT MUST BE ADDED. SEE BULLETIN TC-940 AND CONSULT FACTORY.

Model	Work Space		Outside Dimensions* (WxDxH)	Max Temp	Blower		Insulation	Doors	KW	Operating Characteristics†			Approx Shipping Weight
	Dimensions (WxDxH)	Volume Cu Ft			CFM	HP				Control Accuracy	Oven Uniformity	Rise Time	
AA-1050	24" x 24" x 24"	8	51" x 60" x 45 1/2"	1050°F	600	1/2	10"	Single	12	±0.3%	±10°F	86 min	2275 lbs
AA-1250	24" x 24" x 24"	8	55" x 64" x 49 1/2"	1250°F	1000	3/4	12"	Single	18	±0.3%	±13°F	88 min	2705 lbs
AF-1050	24" x 36" x 24"	12	51" x 72" x 45 1/2"	1050°F	1000	3/4	10"	Single	12	±0.3%	±10°F	94 min	2580 lbs
AF-1250	24" x 36" x 24"	12	55" x 76" x 49 1/2"	1250°F	1200	1	12"	Single	18	±0.3%	±13°F	96 min	3085 lbs
AB-1050	36" x 36" x 36"	27	63" x 70" x 57 1/2"	1050°F	1000	3/4	10"	Double	18	±0.3%	±10°F	100 min	3265 lbs
AB-1250	36" x 36" x 36"	27	67" x 74" x 61 1/2"	1250°F	1200	1	12"	Double	24	±0.3%	±13°F	112 min	4030 lbs
AG-1050	36" x 48" x 36"	36	63" x 82" x 57 1/2"	1050°F	1200	1	10"	Double	24	±0.3%	±10°F	113 min	4095 lbs
AG-1250	36" x 48" x 36"	36	67" x 86" x 61 1/2"	1250°F	1400	1 1/2	12"	Double	30	±0.3%	±13°F	125 min	4535 lbs

*All Models—Control panel overhang 9" right side. Blower motor overhang 17" rear.

†Accuracy as percent of controller span. Uniformity at 100°F below maximum temperature. Rise Time in minutes to 100°F below maximum temperature. Tests run with empty oven and minimum exhaust. Performance will vary with load and application. See Bulletin TC-920 for additional details.

STANDARD EQUIPMENT

- 208 volts, 3-phase, 60 Hz
- 230 volts, 3-phase, 60 Hz
- 460 volts, 3-phase, 60 Hz
- Other electrical characteristics available

Each features completely wired, side access UL listed control panel enclosing terminals for incoming power, temperature controllers, push buttons and pilot lights. Motor starter and heating element contactors electrically interlocked to shut off heaters if power to blower is interrupted and to permit operation of blower without heat for cooling. Exhaust outlet 4" diameter.

Incoloy sheathed tubular heating elements on all models. The 1250°F models have a heat chamber high limit controller.

Two (2) reinforced 100 lbs uniformly distributed load capacity 304 stainless steel expanded metal shelves. Trilite Green enamel painted aluminized steel exterior. Insulated with 2" of 1900°F insulating block backed up with 1250°F industrial rockwool.

Door seal utilizing inner and outer door gaskets. The inner gasket seals directly against the door plug; the outer gasket seals directly against the front face of the oven. This design greatly reduces the amount of heat transferred through the throat area and helps keep the front face of the oven cool.

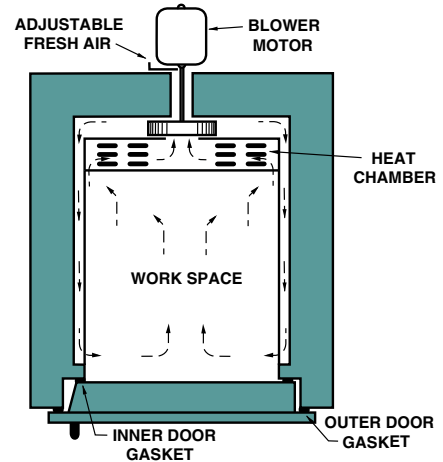
● AA and AF Series

Provides 8 cubic feet and 12 cubic feet of work space respectively. The AF Series is 12" deeper than the AA Series to handle more or longer parts. Temperature ranges to 1050°F and 1250°F. Accommodates seven (7) shelves on 3" centers.

● AB and AG Series

Our larger universal ovens with work space of 27 cubic feet and 36 cubic feet respectively. The AG Series is 12" deeper than the AB Series to accommodate longer parts and bigger batches. Temperature ranges to 1050°F and 1250°F. Accommodates five (5) shelves on 6" centers.

Circulation Diagram (Top View)



With virtually any method of work load placement, the front-to-back horizontal air flow pattern completely surrounds work with heated air and permits free air passage throughout the work space for uniform processing.

ADDITIONAL EQUIPMENT AVAILABLE*

- **Additional Shelves**, 100 lbs distributed load per shelf, 400 lbs maximum oven load, specify oven model when ordering.
- **Programmable Temperature Controller**, microprocessor based digital indicating, thermocouple actuated, in lieu of standard controllerPTC3
- **Recording Thermometer**, thermocouple actuated, 24-hour, 10" diameter circular chart used in conjunction with standard controller (side mounted)RT
- **Programmable Recording Temperature Controller**, microprocessor based, thermocouple actuated, digital display, 24-hour, 10" diameter circular chart, in lieu of standard controller (side mounted)PRTC3

- **Digital Timing Temperature Controller**, microprocessor based, digital indicating, incorporates 99 hour 59 minute timer, starts timing when temperature reaches set point and shuts down oven at end of set timeDTS3
- **Digital Shut Down Timer**, with continuous "hold" featureSDT
- **Digital Batch Timer**, for uniformly timing batch operations. Continuous alarm with door interlock; alarms at end of preset time period until door is opened or timer resetBT
- **Automatic Door Switch**, turns off blower and heat when door is opened. Restores blower and heat when door is closedADS

- **Integral Oven Legs**, with 1/8" steel plate shelf. 24" high on AA & AF series, 16" high on AB & AG series. Specify oven model when orderingISTND
- **Removable Oven Stand**, with 1/8" steel plate shelf. 24" high on AA & AF series, 16" high on AB & AG series. Specify oven model when orderingRSTND
- **500 lbs Capacity Stainless Steel Subway Grating**, oven work space bottom. Reduces work space height by 1". Specify oven model when orderingSUB
- **Roof Mounted Stainless Steel Exhausters** with exhauster air flow safety switch†

Capacity	HP	Outlet Diameter	Height
130 CFM	1/3	4"	20"
325 CFM	1/3	6"	23"

†Ovens may require additional heat input. *See Bulletin TC-960 for modifications and other optional equipment.



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