




**FRONT-TO-BACK  
HORIZONTAL AIR FLOW  
UNIVERSAL OVENS**

# 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 baking, drying, preheating or any other application where a dependable source of heated air up to 850°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
  - 304 stainless steel interior
  - Aluminized steel exterior with enamel finish
  - Brushed stainless steel control panel face
  - Explosion venting latches
  - All welded construction
  - 10 lbs/cf density industrial rockwool insulation
  - Built-in baffles prevent radiant heat
  - Silicone rubber door gasket on 550°F Models only
  - High temperature door gasket with stainless steel spring insert on 700°F and 850°F Models
  - Two (2) nickel plated wire shelves
  - Channel shelf supports prevent shelves tipping
  - Adjustable fresh air intake and exhaust dampers
  - High pressure recirculating blower
  - 1 year limited warranty
- **Every oven fully assembled and individually factory tested**



**MODEL AA-850**  
WITH OPTIONAL 24" INTEGRAL OVEN LEGS AND TIMER



**MODEL AG-700**  
WITH OPTIONAL PROGRAMMABLE CONTROLLER

# 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-550	24" x 24" x 24"	8	40" x 50" x 36 1/2"	550°F	400	1/3	6"	Single	5	±0.3%	±5°F	35 min	965 lbs
AA-700	24" x 24" x 24"	8	44" x 56" x 40 1/2"	700°F	400	1/3	8"	Single	7	±0.3%	±6°F	45 min	1140 lbs
AA-850	24" x 24" x 24"	8	44" x 56" x 40 1/2"	850°F	400	1/3	8"	Single	9	±0.3%	±8°F	60 min	1170 lbs
AF-550	24" x 36" x 24"	12	40" x 62" x 36 1/2"	550°F	400	1/3	6"	Single	5	±0.3%	±5°F	51 min	1155 lbs
AF-700	24" x 36" x 24"	12	44" x 68" x 40 1/2"	700°F	400	1/3	8"	Single	7	±0.3%	±6°F	66 min	1335 lbs
AF-850	24" x 36" x 24"	12	44" x 68" x 40 1/2"	850°F	400	1/3	8"	Single	9	±0.3%	±8°F	88 min	1365 lbs
AB-550	36" x 36" x 36"	27	52" x 62" x 48 1/2"	550°F	600	1/2	6"	Single	7	±0.3%	±5°F	61 min	1490 lbs
AB-700	36" x 36" x 36"	27	56" x 66" x 52 1/2"	700°F	600	1/2	8"	Single	9	±0.3%	±6°F	70 min	1850 lbs
AB-850	36" x 36" x 36"	27	56" x 66" x 52 1/2"	850°F	600	1/2	8"	Single	12	±0.3%	±8°F	83 min	1880 lbs
AG-550	36" x 48" x 36"	36	52" x 74" x 48 1/2"	550°F	600	1/2	6"	Single	9	±0.3%	±5°F	82 min	1865 lbs
AG-700	36" x 48" x 36"	36	56" x 78" x 52 1/2"	700°F	600	1/2	8"	Single	12	±0.3%	±6°F	93 min	2230 lbs
AG-850	36" x 48" x 36"	36	56" x 78" x 52 1/2"	850°F	600	1/2	8"	Single	18	±0.3%	±8°F	110 min	2260 lbs

\*All Models—Control panel overhang 9" right side. Blower motor overhang 10" rear.

†Accuracy as percent of controller span. Uniformity at 50°F below maximum temperature. Rise Time in minutes to 50°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. Incoloy sheathed tubular heating elements. Exhaust outlet 4" diameter.

Two (2) reinforced 100 lbs uniformly distributed load capacity, nickel plated wire shelves. 304 stainless steel interior with carbon steel blower and plated hardware. Trilite Green enamel painted aluminized steel exterior.

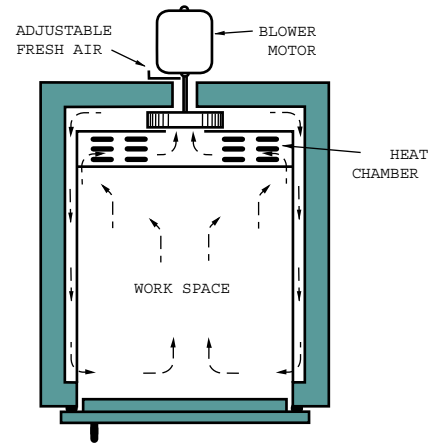
### ● AA and AF Series

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 550°F, 700°F, and 850°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 550°F, 700°F, and 850°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\*

- **Programmable Temperature Controller**, microprocessor based, digital indicating, thermocouple actuated, in lieu of standard controller . . . . . **PTC3**
- **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 time . . . . . **DTS3**

- **Additional Shelves**, 100 lbs distributed load per shelf, 400 lbs maximum oven load, specify oven model when ordering.
- **Shut Down Timer**, with continuous "hold" feature; 1, 5, 10 or 30 hour range . . . . . **SDT**
- **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 reset; 1, 5, 10 or 30 hour range . . . . . **BT**
- **24" Integral Oven Legs**, with 1/8" steel plate shelf. Specify oven model when ordering . . . . . **ISTND**
- **24" Removable Oven Stand**, with 1/8" steel plate shelf. Specify oven model when ordering . . . . . **RSTND**
- **304 Stainless Steel Components**, including blower wheel, hardware and two stainless steel expanded metal shelves, specify oven model when ordering.

- **Automatic Door Switch**, turns off blower and heat when door is opened. Restores blower and heat when door is closed . . **ADS**
- **500 lbs Capacity Carbon Steel Subway Grating**, oven work space bottom. Reduces work space height by 1". Specify oven model when ordering . . . . . **SUB**
- **Double Doors**, in lieu of single door. AB & AG Series only . . . . . **DD**
- **Roof Mounted Stainless Steel Exhausters** with exhauster air flow safety switch†

Capacity	HP	Outlet Diameter	Height
80 CFM‡	1/8	4"	16"
130 CFM	1/3	4"	20"
325 CFM	1/3	6"	23"

†Ovens may require additional heat input.  
‡550°F Models only

\*See Bulletin TC-960 for modifications and other optional equipment.



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