

RELIANCE® 1024 AND 1034 LABORATORY GLASSWARE DRYERS

APPLICATION

Reliance 1024 and 1034 Laboratory Glassware Dryers are used for drying large quantities of laboratory glassware, plasticware, and metal goods typically used in research and quality control laboratories.

DESCRIPTION

Reliance 1024 and 1034 dryers are heavy-duty, fully automatic glassware dryers utilizing forced hot air to efficiently dry loads.

Size (W x H x D):

Chamber load capacity:

- **1024:**
30 x 49 x 26" (762 x 1245 x 660 mm)
- **1034:**
42 x 49 x 26" (1067 x 1245 x 660 mm)

Exterior dimensions*:

- **1024:**
36 x 80 x 33" (914 x 2032 x 838 mm)
- **1034:**
48 x 80 x 33" (1219 x 2032 x 838 mm)

* If equipped with optional Manifold Drying System for Reliance® 470 or 570 Laboratory Glassware Washer Accessories, dryer height is 86" (2184 mm).

STANDARDS

Dryer meets the applicable requirements of the following standards:

- **Standard for Safety of Electrical Equipment for Laboratory Use; Part 1: General Requirements UL-3101-1 1993, and Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use; CAN/CSA C22.2 No. 1010.1-92.**



(Typical Only - Some Details May Vary)

FEATURES

Control panel is mounted on the upper front of the cabinet, above the door. Panel includes a START/STOP pushbutton, and an amber In-Use indicator light. The panel also includes an adjustable digital cycle timer and an adjustable temperature controller.

Drying system forces the circulation of heated air throughout the chamber. Drying time varies depending on the nature of the load. Drying system consists of:

- Finned-strip electric coils located beneath the bottom platform.

The Selections Checked Below Apply To This Equipment

MODEL

- 1024
 1034

VOLTAGE

- 208 V, 60 Hz, 3-Phase, 4-Wire
 480 V, 60 Hz, 3-Phase, 3-Wire

DOOR HINGE

- Left Hand
 Right Hand

OPTIONS

- Manifold Drying System

1024:

- for Reliance 300 Washer Accessories
 for Reliance 400 Washer Accessories
 for Reliance 470 Washer Accessories

1034:

- for Reliance 500 Washer Accessories
 for Reliance 570 Washer Accessories

ACCESSORIES

- Additional Interior Shelf

Item _____

Location(s) _____

- Double squirrel-cage type blower runs continuously as long as power is on. Air is drawn into the blower through a filter.
- **4" (102 mm) air vent** with damper to exhaust air. To conserve energy, some air is recirculated while the balance is exhausted to maintain a low relative humidity in the chamber.
- **Adjustable Temperature Controller**, mounted on the control panel, allows the operator to set the drying temperature from ambient to 200°F (93°C), or 175°F (79°C) if optional Manifold Drying System is supplied. Controller includes a digital temperature gauge for constant monitoring of chamber temperature.
- **Safety shutoff switch** cuts power to the blower and heater should chamber temperature rise above 245°F (118°C).
- **Adjustable Digital Cycle Timer**, mounted on the control panel, allows the operator to set the cycle time up to 99:59 hours. Once this set time is complete, the drying system automatically shuts off.

Perforated bottom platform and three full-width, stainless-steel perforated shelves are provided with the unit. All three shelves are height adjustable and removable.* Additional shelves are available as accessories.

* If optional Manifold Drying System is selected, middle shelf is positioned at a fixed loading height and cannot be removed.

OPTIONAL FEATURES

Manifold Drying System for Reliance® 300 Laboratory Glassware Washer (applies to the 1024 dryer) includes a connector that is located at the bottom of the chamber and automatically connects with the 300 washer spindle headers, directing hot air inside each piece of glassware. The system is powered by a separate 1-1/2 HP blower. Position of the loading shelf is located at the same height as the Reliance 300 washer loading shelf (29", 737 mm) to allow for direct transfer of the spindle accessories from the washer to the dryer using a transfer cart.

Manifold Drying System for Reliance® 400 Laboratory Glassware Washer (applies to the 1024 dryer) includes two connectors that are located at the bottom of the chamber and automatically connect with the 400 washer spindle headers, directing hot air inside each piece of glassware. The system is powered by a separate 1-1/2 HP blower. Position of the loading shelf is located at the same height as the Reliance 400 washer loading shelf (29-3/8", 746 mm) to allow for direct transfer of the spindle accessories from the washer to the dryer using a transfer cart.

Manifold Drying System for Reliance® 470 Laboratory Glassware Washer (applies to the 1024 dryer) includes two connectors that are located at the bottom of the chamber and automatically connect with the 470 washer spindle headers, directing hot air inside each piece of glassware. The system is powered by a separate 1-1/2 HP blower. Position of the

loading shelf is located at the same height as the Reliance 470 washer loading shelf (36-3/8", 924 mm) to allow for direct transfer of the spindle accessories from the washer to the dryer using a transfer cart.

Manifold Drying System for Reliance® 500 Laboratory Glassware Washer (applies to the 1034 dryer) includes three connectors that are located at the bottom of the chamber and automatically connect with the 500 washer spindle headers, directing hot air inside each piece of glassware. The system is powered by a separate 1-1/2 HP blower. Position of the loading shelf is located at the same height as the Reliance 500 washer loading shelf (29-3/8", 746 mm) to allow for direct transfer of the spindle accessories from the washer to the dryer using a transfer cart.

Manifold Drying System for Reliance® 570 Laboratory Glassware Washer (applies to the 1034 dryer) includes three connectors that are located at the bottom of the chamber and automatically connect with the 570 washer spindle headers, directing hot air inside each piece of glassware. The system is powered by a separate 1-1/2 HP blower. Position of the loading shelf is located at the same height as the Reliance 570 washer loading shelf (36-3/8", 924 mm) to allow for direct transfer of the spindle accessories from the washer to the dryer using a transfer cart.

CONSTRUCTION

Dryer is fabricated to conform with seismic building code requirements. Cabinet, door, and drying chamber are constructed of #304 stainless steel (No. 4 finish), argon-welded and polished. Bottom platform and three shelves are constructed of #304 perforated stainless steel (No. 4 finish). Welded stainless-steel construction makes the drying chamber corrosion-resistant and easy-to-clean. Double wall construction ensures quiet operation.

Door(s) and drying chamber are insulated with 1" (25 mm) thick fiberglass to minimize heat loss to the work area.

Cabinet door(s) are hinged either left or right, according to customer specifications. Door closes against a heat-resistant gasket.

Recirculation blower is powered by a 1/2-HP motor and is rated at 890 scfm (25.2 m³/min). Air is exhausted at 80 scfm (2.3 m³/min).

Blower, motor and electrical components are easily accessible through the top of the dryer. Control panel is accessed from the front of the unit.

MOUNTING ARRANGEMENT

Dryer is designed as a fully cabinet-enclosed unit for freestanding or recessed installation. A barrier wall flange kit is provided to seal opening between dryer and wall if unit is recessed. Kit includes two #304 stainless-steel side flanges, and one stainless-steel top flange.

ACCESSORY

Additional Interior Shelf is perforated stainless steel for the inside of the drying chamber.

PREVENTIVE MAINTENANCE

A global network of skilled service specialists can provide periodic inspections and adjustments to help ensure low-cost peak performance. STERIS representatives can provide information regarding annual maintenance programs.

ENGINEERING DATA

Shipping Weight:

- **1024:** 800 lbs (363 kg)
- **1034:** 950 lbs (431 kg)

Shipping Dimensions (W x H x D):

- **1024:** 52 x 91 x 42" (1321 x 2311 x 1067 mm)
- **1034:** 62 x 91 x 42" (1575 x 2311 x 1067 mm)

NOTE: Add 6" (152 mm) to height if manifold drying system for Reliance 470 or 570 is supplied.

Operating Weight:

- **1024:** 650 lbs (295 kg)
- **1034:** 800 lbs (363 kg)

Heat Loss*:

- **1024:** 6500 BTU/hr (6858 kJ/h)
- **1034:** 8350 BTU/hr (8810 kJ/h)

* At 70°F (20°C).

NOTES

1. Customer must ensure washer stands on a noncombustible floor.
2. Disconnect switches (with OFF position lockout only, not provided by STERIS) should be installed in electric supply lines near the equipment.
3. If equipped with optional Manifold Drying System for Reliance 470 or 570 Washer Accessories, dryer height is 86" (2184 mm) and wall opening is 96" (2438 mm)

UTILITY REQUIREMENTS

IMPORTANT: Refer to equipment drawings 122-991-019EN (1024 units) and 122-991-020EN (1034 units) for details.

Vent (V)

- **1024:** 4" (102 mm) diameter; 125 scfm.
- **1034:** 4" (102 mm) diameter; 80 scfm

Electricity (E)

- **1024:** 208 V, 60 Hz, 3-Ph, 4-wire, 16 Amps (21 Amps for manifolded) - or - 480 V, 60 Hz, 3-Ph, 3-wire, 12 Amps (15 Amps for manifolded).
- **1034:** 208 V, 60 Hz, 3-Ph, 4-wire, 22 Amps (27 Amps for manifolded) - or - 480 V, 60 Hz, 3-Ph, 3-wire, 11.5 Amps (14 Amps for manifolded).

For Further Information, contact:



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