

Operating Instructions

Type 24 Series Flux Cored Electrode Wire Stabilization Ovens

- Designed for flux cored wire and general purpose storage
- Type 24 provides adjustable shelving to accommodate different spool sizes
- Thermometer option available



Part No.	Description	Temperature Range*	Insulation	Chamber Size	Capacity	Weight	Dimensions
Type 24 Series Oven							
1205430	240/480V AC at 2500 watts	100° - 550°F (38° - 288°C) +/-25°F (14°C) adjustable thermostat control with indicator light	2" fiberglass	35" x 21" x 47"	up to twenty- four 12" or sixteen 16" spools or coils	450 lb (204 kg)	45" x 29" x 55" (114.3 x 73.7 x 139.7 cm)
1205431	240/480V AC at 2500 watts with installed thermometer						

* Operation on Direct Current (DC) will damage oven and void warranty. Average stabilized temperature at 70°F ambient temperature.

Product Description

! CAUTION

- To provide continued protection against risk of electrical shock, power cord must be connected to a properly grounded outlet.
- To avoid damage, never place oven in contact with welding current.
- Store in dry location. Unit not to be exposed to rain or moisture.

Prior to Use

1. Secure dryWIRE® oven base to the ground. (See Securing Oven to Ground in this manual.)
2. Run oven at 350°F (177°C) for two hours with the vent hole fully open and the oven doors slightly open. This will help purge the oven of any contaminants.
3. Contact the wire manufacturer regarding the appropriate temperatures for holding the spools of wire, specifically plastic spools.
4. If using plastic spools in the dryWIRE® oven, test a few spools in the oven at the manufacturer's recommended temperature. If warping or core distortion occurs, turn temperature down 10°F (5°C) and retest. If necessary, continue testing.

Amp Draw

Ovens operating on 240 AC voltage draw 10.4 amps. Those operating on 480 AC voltage draw 5.2 amps.

Wiring

dryWIRE® ovens are designed for AC single phase power only.

Note: dryWIRE® ovens are factory wired for 480 volts and can be rewired for 240 volts. Refer to wiring diagrams. For cord connection to the power supply, attach a 15-amp plug of corresponding voltage rating to the cord provided.

Grounding

dryWIRE® ovens are equipped with a green grounding screw in the junction box.

Accessory Note

A door mounted thermometer (part #1250300) is available for dryWIRE® ovens and can be easily installed in the field. Factory installation is available with original order (see chart on cover). This thermometer indicates internal temperature range of 100° to 700° F with an accuracy specification of +/-10°. Product accuracy testing is conducted using standards traceable to the N.I.S.T., USA.



Door mounted thermometer

Venting

For normal holding operation set easily adjusted vent on the door about ¼ of the way open.

Temperature Settings

The dryWIRE® oven temperature range is 100°F (38°C) to 550°F (288°C). The thermostat dial has a range from 100°F (38°C) to 550°F (288°C). Required oven temperature setting is obtained by rotation of dial to line up desired temperature with indicator light.

The indicator light illuminates only when voltage is being applied to the heating elements. Momentary rotation past desired temperature setting may be necessary to activate the indicator light in order to locate it for indexing purposes.

Thermostat is accurate to +/-25°F (14°C) at the sensing bulb, however, temperature may vary slightly at different areas in the oven chamber since this is a convection type oven.

Excess Heat: At maximum setting, the actual temperature in portions of the oven near the heating elements may reach approximately 660°F (349°C). Temperatures over 550°F (288°C) are not recommended. They may cause oven damage and/or unacceptably high exterior surface temperatures.

Guide to Storage

Once flux cored wire is removed from its initial packaging, the unused portion should be stored in a dryWIRE® oven not to exceed 300°F (150°C) for coils or wire baskets, 250°F (121°C) for fiberboard spools or 150°F (65°C) for plastic spools. Precise temperatures for wire storage and reconditioning should be obtained from the wire manufacturer's technical department.

Troubleshooting

! CAUTION

- **When replacing heating elements, always replace both elements. Pairing of one new element with an old element will cause rapid failure of old element.**

Oven Fails To Operate: No Heat

1. If the indicator light does not illuminate, check power supply.
2. Check indicator light for continuity. If defective, replace indicator light.
3. Check thermostat on front. If indicator light illuminates, power is being supplied through thermostat to dual heating elements. Turn knob from low to high setting and return. Definite "snap" should be heard at low temperature end and indicator light should turn off and on with each "snap" cycle. If "snap" is not heard and indicator light fails to operate, replace entire thermostat. (See Replacement Parts section in this manual.)
4. If thermostat operates satisfactorily, check continuity of heating elements at bottom of oven. (Access through removable lower panels.) Failure of one element will prevent oven operation on 240 volts. If operating on 120 volts, failure of one element will cause very slow heating. If defective, remove oven from power source and replace both elements.

Oven Operates: Overheats

1. Check thermostat operation as in Step 3 (Oven Fails to Operate: No Heat) and Step 2 (Oven Operates: Temperature Setting Off).

Oven Operates: Temperature Setting "OFF"

1. Check thermostat operation as in Step 3 (Oven Fails to Operate: No Heat).
2. If thermostat continues to operate satisfactorily, recalibrate per "Checking Thermostat Calibration" section below.

Checking Thermostat Calibration

Each thermostat is adjusted at the factory and calibrated on precision instruments to control temperatures accurately. Adjustment or re-calibration is not needed unless the thermostat has been mishandled in transit or changed or abused while in service.

To check calibration:

1. Use a good grade mercury thermometer to check temperature. For griddle control, use a disc type thermocouple. Put a couple drops of oil on griddle surface plate and place thermocouple disc flat into the oil.
2. Turn the dial of the thermostat to 300° mark.
3. Allow enough time for temperature to stabilize or until several temperature readings are identical.

Recommended Spare Parts

For users of large dryWIRE® oven quantities or users not in North America:

For normal daily operation, the following spare parts and quantities are recommended to have inventoried.

Item No.	Spare Part Description	Part No.	Recommended Quantity per 10 Ovens
1	Heating Element Kit	1257090	1
2	Thermostat Kit	1257080	1
3	Door Latch	7550280	1
4	Gasket Kit	1257154	1



Securing Oven to Ground

! CAUTION

- Due to the large capacity and overall size of the dryWIRE® oven, the oven must be secured to the ground in order to prevent forward tipping. Oven may become unstable when oven door is in an open position. Failure to properly secure the oven base to the ground can result in harm.

Securing Oven: Method 1

- Making sure that there will be a minimum of 4-³/₄ inches (12.1 cm) from the back of the oven to the nearest wall or obstacle (see Figure 1), sink two ackermanns into the floor a minimum of 43 inches (109.2 cm) apart.
Note: Make sure the hold-downs will reach the oven.
- Using the openings found on the outside of both feet, attach the hold-downs (found with original packaging) to each of the ackermanns.

Securing Oven: Method 2

- Making sure that there will be a minimum of 4-³/₄ inches (12.1 cm) from the back of the oven to the nearest wall or obstacle (see Figure 2), sink two ackermanns into the floor a minimum of 35-¹/₈ inches (89.2 cm) apart. **Note:** Make sure the hold-downs will reach the oven.
- Using the slots found on the back of both feet, slide the oven back making sure the ackermann bolt is in the slot. Use a washer and bolt to secure the oven to the floor.

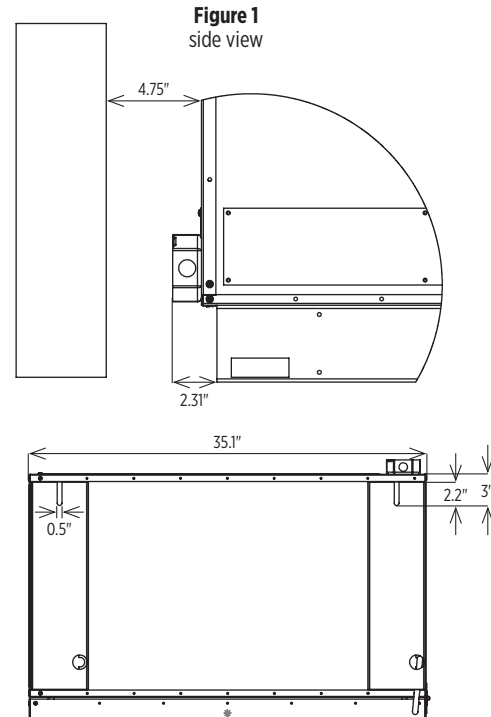


Figure 2
bottom view, back section

Shelving Adjustment and Spool Placement

! CAUTION

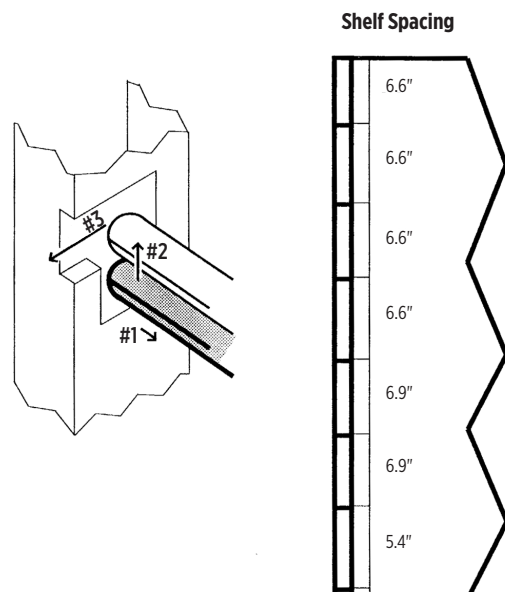
- Packaging materials are susceptible to damage from high temperature. Contact wire manufacturer for temperature recommendations.

Note: The tolerance on the shelving rods are tight for safety reasons.

The dryWIRE® oven has adjustable shelving to accommodate different diameter wire packaging. Ovens are provided with rods to build three shelves. If additional shelving is required, refer to Replacement Parts section.

Spools should be placed on the two center rods for each shelf so that the wire is stored in the middle of the oven. For optimal heating of the oven interior, spools should be spaced evenly throughout. Make sure to leave some space between each spool for air circulation to remove excess moisture.

- Grasp rod and slide against one side of oven interior.
- Lift the other side up to the top of the shelving bracket notch.
- Roll rod forward out of notch or pull forward until clear of notch opening.
- Rods can be arranged in a variety of ways. Additional shelving kits can be added. See Replacement Parts section in this manual.

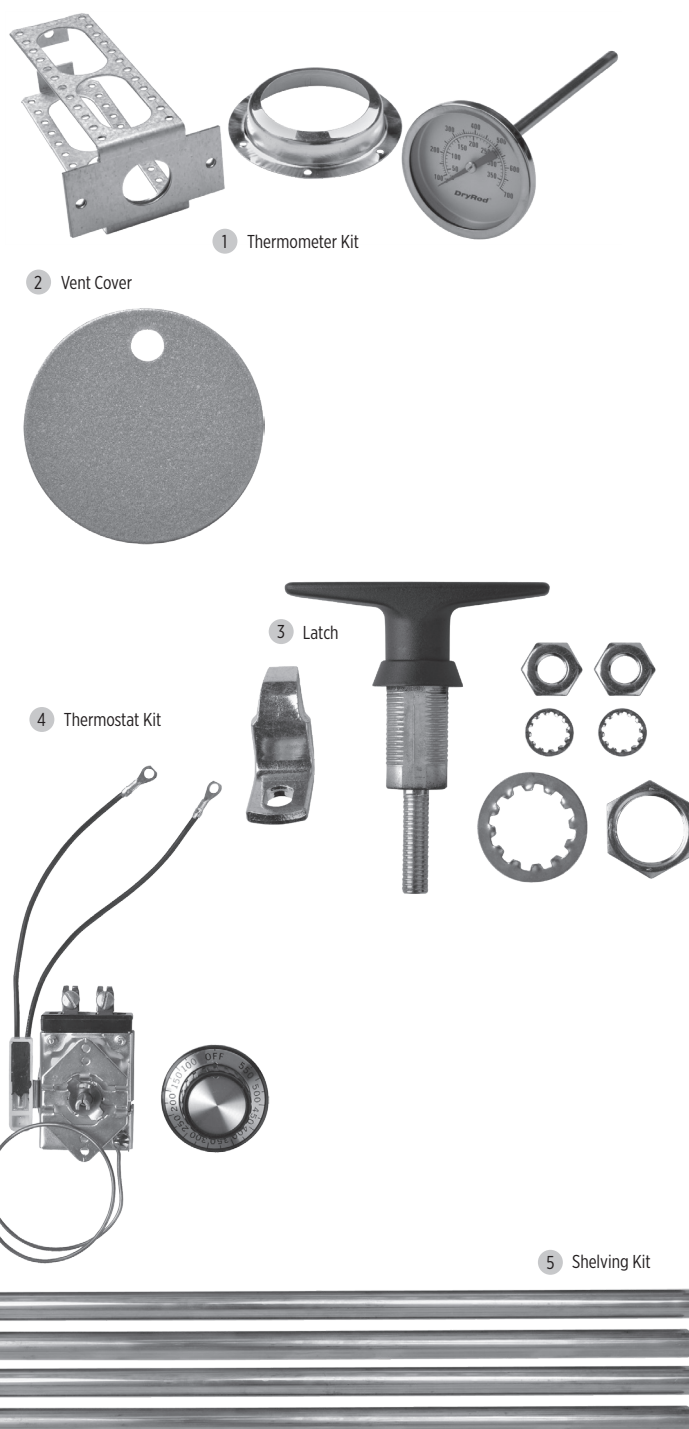


Replacement Parts

Ordering Information

To order spare or replacement parts, visit our website: www.dryrod.com. When ordering, please confirm that you are ordering parts for the correct oven.

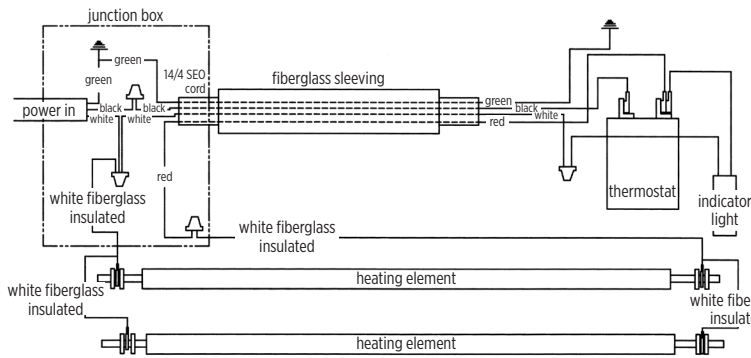
Item No.	Description	Qty	Part No.
1	Thermometer Kit		1250300
	Door Mounted Thermometer	1	
	Mounting Bracket	1	
	Cover	1	
2	Vent Cover	1	2605700
3	Latch	1	7550280
4	Thermostat Kit		1257080
	Thermostat	1	
	Thermostat Knob	1	
5	Shelving Kit <i>(makes one shelf)</i>		1257100
	Shelving Tubes	1	
	Gasket Kit		1257154
	Gasket (per foot)	14	
	Horizontal Gasket Holding Strip	2	
	Vertical Gasket Holding Strip	2	
	Conduit Kit		1257150
	Conduit Box	1	
	Conduit Box Cover	1	
	Heating Element Kit		1257090
	Element	1	
	Thermostat Cover	1	5110110
	Shelf Bracket	8	2751910
	Heating Element Guard	1	2751580



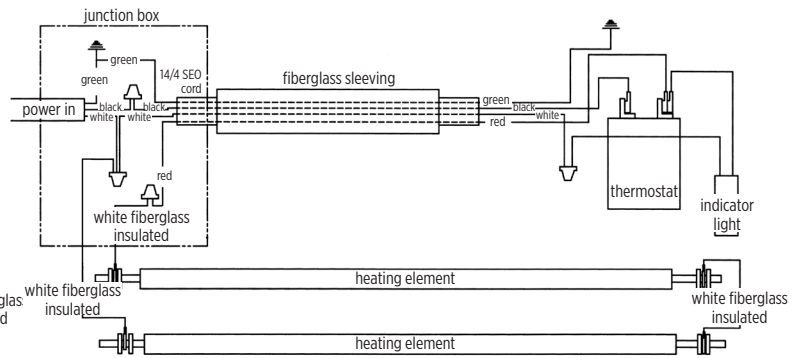
Wiring

CAUTION

- All wiring should be done by a licensed electrician in accordance with state codes, local codes, and National Electrical Code (NEC) or International Electric Commission (IEC) standards.
- Improper installation or use may result in serious injury.
- Always remove oven from power source before troubleshooting or repairing.



Wiring Diagram for
Type 24 Series 240V



Wiring Diagram for
Type 24 Series 480V

Guide to Electrode & Flux Stabilization

Eliminate expensive rework and protect welding profits!

This guide explains proper storage and oven holding temperatures:

- Recondition/rebake procedures for electrode coatings exposed to moisture are included.
- Remove electrodes from cardboard containers before placing in ovens.
- Electrode coatings should not be exposed to the re-baking temperature without first being reconditioned at a lower temperature. Failure to do so may result in breakdown of electrode coatings. After re-baking, lower temperature to holding level until reissued.

Download your guide at www.dryrod.com/guide.

Warranty

Phoenix Ovens International LLC warrants its products against defects in material and workmanship. The company will, at its discretion, repair or replace any properly installed Phoenix International manufactured product which fails under normal operating conditions within one year from date of receipt. Contact the factory for return authorization before returning the product to Phoenix International freight prepaid. If our inspection confirms that the product is defective under terms of this warranty, it will be repaired/replaced and returned freight prepaid.

This warranty applies only to products sold by Phoenix International, Inc. and specifically excludes installation or de-installation labor, transportation or equipment of another manufacturer used in conjunction with Phoenix International products. No other warranty, expressed or implied, exists beyond this warranty declaration.

Phoenix constantly strives to improve its products and therefore reserves the right to change design, materials and specifications without notice.