



ROHNER PAINT BOOTH WITH MAU CONTROL | OWNERS MANUAL



ROHNER FINISHING SYSTEMS

WWW.ROHNER-USA.COM

PO BOX 822049

2650 NE ANDRESEN RD, SUITE 102

VANCOUVER, WA, 98682

PHONE: (360) 885-7641

FAX: (360) 896-5748

SERVICE@ROHNER-USA.COM

PART@ROHNER-USA.COM

CONTACT US FOR YOUR PARTS AND SERVICE NEEDS

Document Number: 24.1.0

Rev Date: 6/28/2024

TABLE OF CONTENTS

TABLE OF CONTENTS	2
INTRODUCTION	3
EQUIPMENT DESCRIPTION: KNOW YOUR EQUIPMENT’S INTENDED USE AND FUNCTION:.....	3
PURPOSE AND INTENDED USE:.....	3
GENERAL OPERATION	4
MAIN SCREEN	4
SYSTEM STATUS.....	5
LIGHT LENSES AND DOOR SWITCHES.....	5
SETUP.....	6
SPRAY MODE ONLY.....	6
SPRAY AND CURE MODE.....	6
AUTO SUMMER SWITCH.....	7
AIR CONTROL.....	8
PROCESS ALARMS.....	9
CONFIGURE.....	10
OPERATING AND CONTROL MODES.....	11
OFF MODE	11
SPRAY MODE	11
PURGE MODE.....	11
CURE MODE	11
COOL DOWN MODE.....	11
OPTIONAL ADD-ONS.....	12
DESTRAT	12
STARTUP CHECK LIST	13
UTILITIES VERIFICATION:	13
RECOMMENDED MAINTENANCE.....	14
FILTERS.....	14
MAU.....	18
MISCELLANEOUS BOOTH COMPONENTS	18
LIMITED WARRANTY.....	19

INTRODUCTION

EQUIPMENT DESCRIPTION: KNOW YOUR EQUIPMENT'S INTENDED USE AND FUNCTION:

Rohner Equipment is designed to provide years of safe trouble-free service when installed, maintained, and used properly.

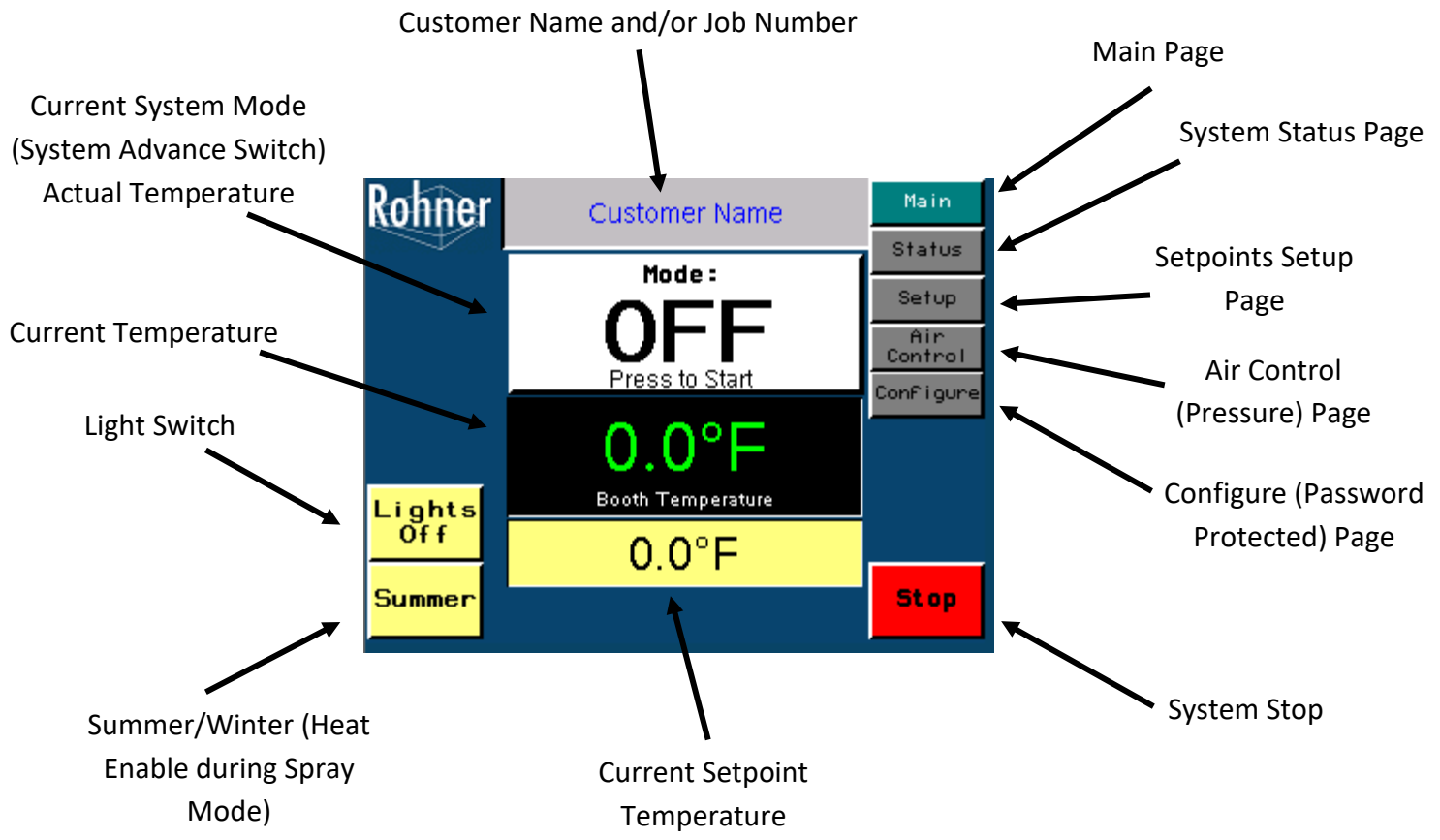
PURPOSE AND INTENDED USE:

Equipment Series: ICD, IDD, ISD, MCD

The Rohner MAU Liquid Paint control panel is designed to be used for liquid paint applications utilizing an MAU for heated air and for the recapture of over sprayed paint. In some applications an 80/20 Cure or 50% reduced airflow Cure is designed for the paint booth. CFM requirements vary by application. Please refer to OSHA, NFPA & the local building codes to verify the correct requirements for your specific application. Rohner equipment adheres to industry standard design parameters to construct the enclosure. It is the customer's responsibility to determine the suitability of the Rohner equipment for the customer's intended processes.

GENERAL OPERATION

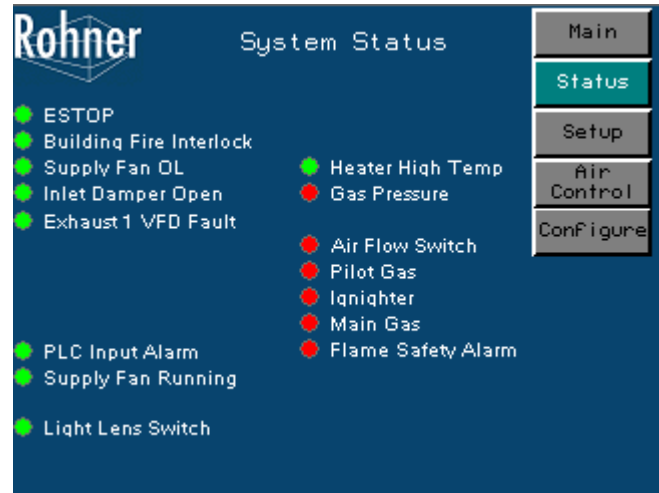
MAIN SCREEN



SYSTEM STATUS

The System Status Page provides real time feedback on various monitored components, statuses, and processes. This allows for quick diagnostics in the event of a fault.

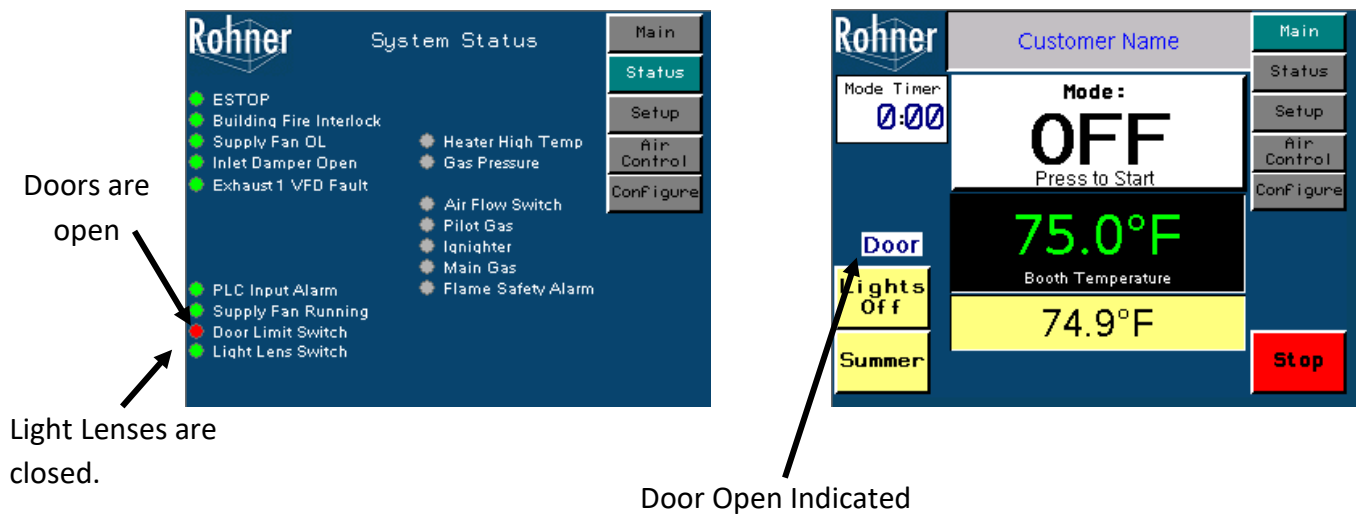
- No current process active.
- No fault present, process running as expected.
- Fault state, process is not as expected



LIGHT LENSES AND DOOR SWITCHES

Note: All Cure/Bake cycle system must have Door Switches installed and operational to meet safety guidelines.

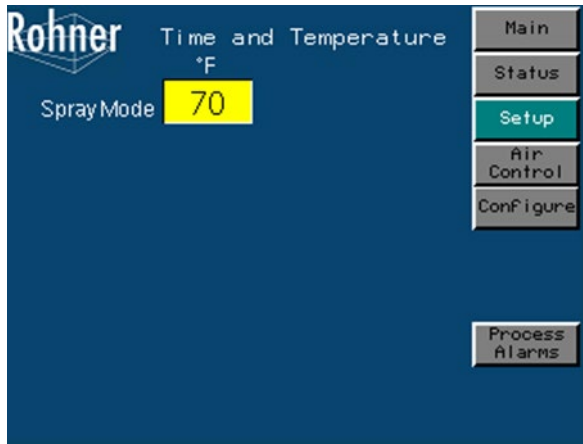
- Intrinsically safe electrical system or air over electric door switches report to the PLC when a door is open.
- For Class 1 Div 2 lights, the micro switches in the light lens panels report when the panel door is open.
- An open door will prevent the system from entering the Cure mode and will immediately transition the system from Cure to Cool Down. The system Cure cycle will have to be completely restarted.
- An open door or open lens switch will disable the spray air solenoid. A timer can be set during commissioning to delay the air solenoid being shut off.



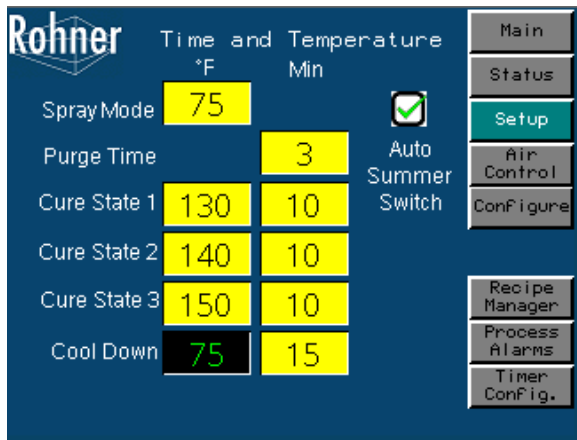
SETUP

The setup page is where operators will make selections for temperature and time selections for spray mode and cure mode (if purchased).

SPRAY MODE ONLY



SPRAY AND CURE MODE



If the liquid paint booth is purchased with a Cure Mode option, the additional selections will be available from the setup screen.

Spray Mode: The temperature is selectable by operators within a preset range.

Purge Time: Preset to 3 minutes minimum. Can be increased if desired by operators for their process flow.

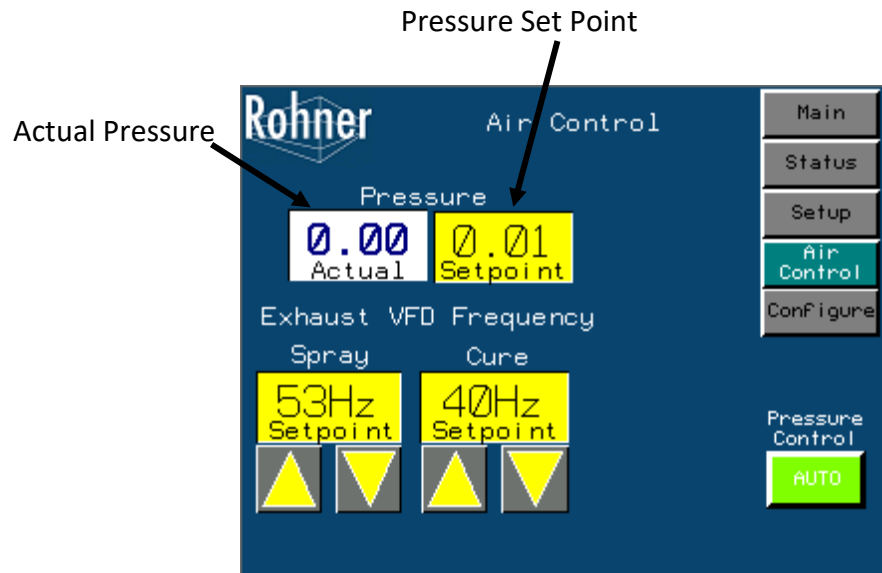
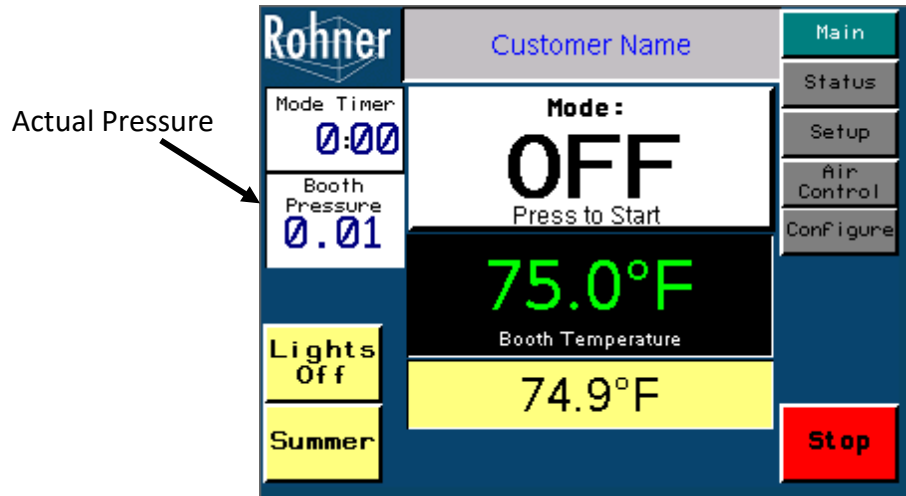
Cure States: 3 adjustable cure states are available. Temperatures and recipe times are adjustable. When one recipe is completed, it will move to the next recipe. If only one recipe is desired, set time times to 0 minutes for the other two recipes.

Cool Down: The temperature matches the spray mode temperature during cool down. If the summer/winter selection is selected for heat, the cool down mode will enable burners. Once the time selected has elapsed the cool down mode will exit to off mode. Alternatively, the time can be set to 0 if cool down is not desired.

NOTE: Yellow boxes indicate a setting that is designed to be selected and manipulated by the user. White, black and gray display boxes are not for the user to input system settings.

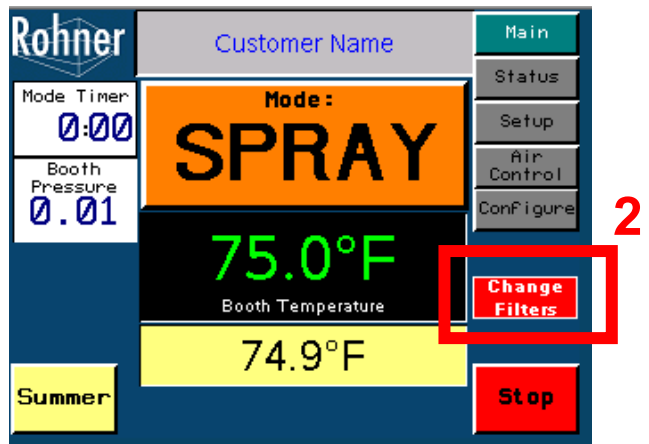
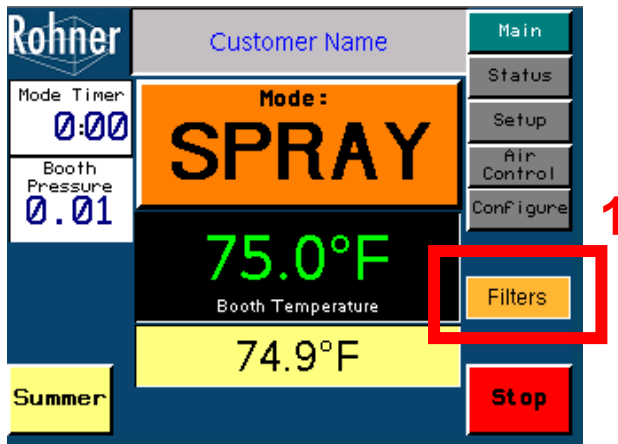
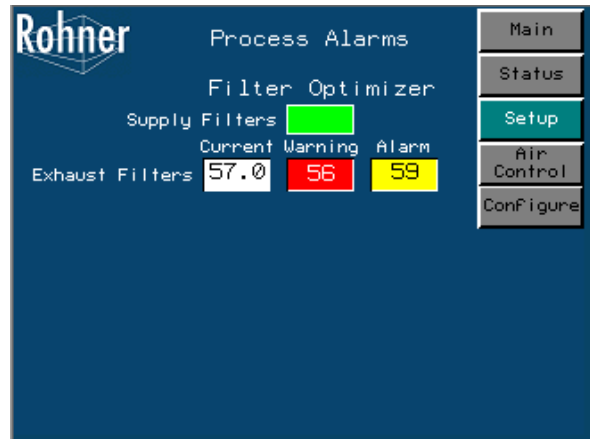
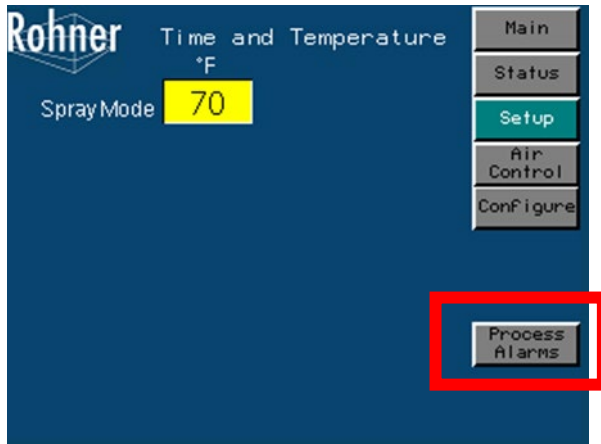
AIR CONTROL

System pressure is displayed on the main page and is used to control the speed of the Exhaust VFD to achieve the set point pressure. Booth pressure is measured and displayed in units of inches of water column. Booth pressure can be adjusted from the “Air Control” page.



PROCESS ALARMS

The process alarms page can be accessed by going to the “System Status” page and selecting “Process Alarms” from the left-hand page selection. This



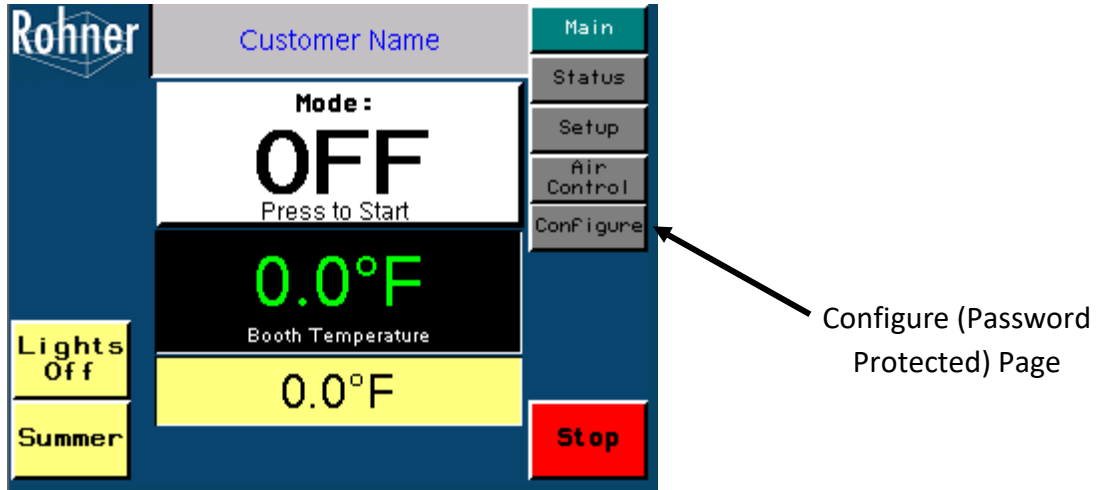
The Exhaust VFD speed is used to monitor the condition of the exhaust wall filters and both a warning and alarm. The set points for the warning and alarm can be set on the “Process Alarms” page.

When the Exhaust VFD is running faster than the warning/alarm set points for more than 30 minutes the following states are triggered.

1. Warning stage displays an orange “Check Filters” statement on the “Main” page. This is a passive alarm and will not fault the system.
2. Alarm state displays a red “Change Filters” statement on the “Main” page. This is an active alarm that disables spray air after 30 minutes.

CONFIGURE

The "Configure" page is password protected and only intended to be adjusted by a Rohner technician during commissioning.



OPERATING AND CONTROL MODES

OFF MODE



System is off waiting for a command to proceed to Spray Mode. Touching the "Off" button transitions the system to the next process.

SPRAY MODE



Once the inlet air damper is open and the supply fan is running. The PLC will open the spray air solenoid under normal conditions.

PURGE MODE



Spray air is shut off and the system starts a countdown timer that is set to a minimum of 3 or to the Purge time entered from the recipe.

CURE MODE



Up to three cure stages through the recipe page are maintained. During cure mode the lights are off.

COOL DOWN MODE



Return the system to the spray mode temperature set point (if summer/winter switch is selected) until the Cool Down timer is complete.

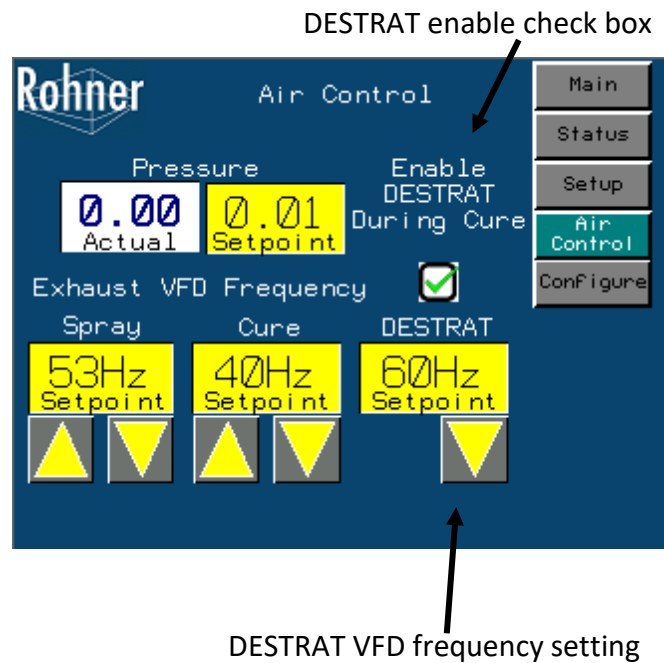
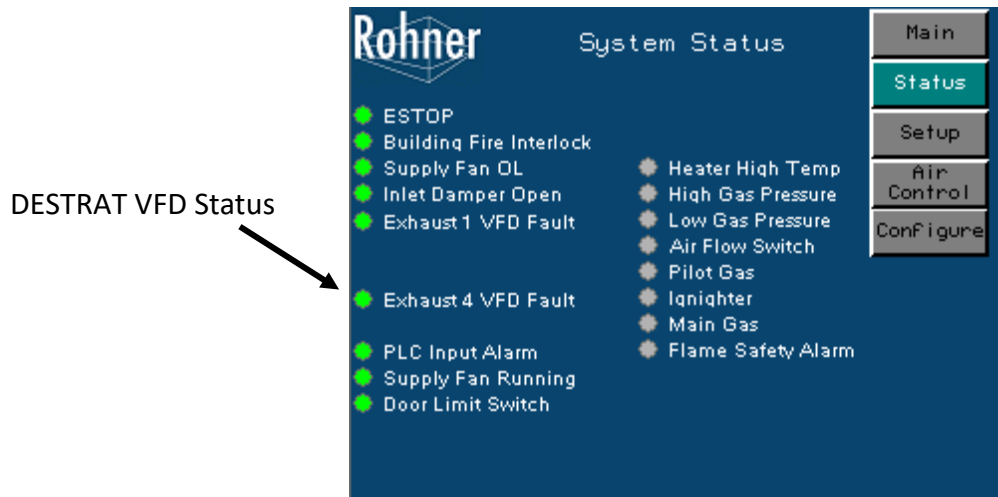
OPTIONAL ADD-ONS

DESTRAT

Destratification fans are setup and controlled as Exhaust Fan 4 in the System “Status” page.

On the “Air Control” page DESTRAT speed control is manually configured with a frequency set point.

A shut off switch on the Air Control is available to disable the DESTRAT fan during Cure mode.



STARTUP CHECK LIST

UTILITIES VERIFICATION:

Proper electrical, gas, and compressed air service should be verified by startup personnel prior to turning equipment on for the first time. Refer to electrical drawings, equipment submittals, and equipment name plates to verify the input voltage, phase, and amp draw and consult with the installing electrician to verify proper supply. Natural gas or propane requirements should also be verified for correct CFH (cubic feet per hour) and supply pressure. Equipment submittals and equipment name plates show acceptable supply pressure range. Compressed air supply should be regulated to meet the CFM (cubic feet per minute) and pressure range requirements. Requirements for equipment not provided by Rohner may not be listed on the submittal drawings. Please refer to equipment provider and verify requirements.



CAUTION!

Incorrect voltage, pressure, or capacity may damage the equipment and may result in equipment malfunction causing severe personal injury. Natural gas and propane are not equivalent substitutes and may cause equipment to malfunction with risk of explosion.

- Prior to energizing equipment verify all field installed utilities, pipe, conduit, and support structures do not interfere with moving parts.

Please refer to the Startup & Commissioning checklist for additional startup information.

RECOMMENDED MAINTENANCE

The following is a minimum recommended maintenance guide. Depending upon use and Customer specific processes additional maintenance may be required at increased intervals to keep equipment running at peak performance.

Maintenance and regular equipment inspections are critical to proper equipment operation. Any damaged, worn or defective components must be replaced immediately to ensure proper equipment function. Dangerous conditions may result from improperly maintained equipment and may result in personal injury, risk of fire, or explosion. Only replace equipment components with factory original equipment.

Replacement parts can be purchased from Rohner online at: <https://shop.rohner-usa.com/> or contacting the Rohner Parts team directly at PARTS@ROHNER-USA.COM



FOR MAINTENANCE AND
SPARE PART

FILTERS

To ensure proper function of the paint spray booth filters require periodic replacement depending on equipment usage. Refer to your approval drawings for the filters used for your equipment.

EXHAUST FIBERGLASS BLANKET FILTER



Rohner Part #: COFL-EFBAFGS-48-300-02-K300

EXHAUST POLY BLANKET FILTER

Rohner Part #: COFL-DPBAPOS-48-90-01-K90



EXHAUST UPGRADED POLY BLANKET FILTER

Rohner Part #: COFL-EFBAPOU-48-90-01-K90



EXHAUST POLY FILTER

Rohner Part #: COFL-SFPWPOS-20-20-01-I



EXHAUST FIBERGLASS FILTER



ROHNER PART #: COFL-EFPAFGS-20-20-02-K100

EXHAUST UPGRADED POLY FILTER



Rohner Part #: COFL-EFPAPOU-20-20-01-I

EXHAUST NESHAP FILTER



Rohner Part #: COFL-NEPWPOU-20-20-02-K20

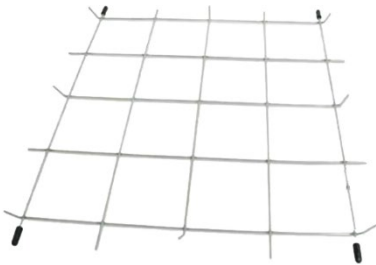
EXHAUST NESHAP FINAL FILTER

Rohner Part #: COFL-NEPKDMS-20-20-12-I



FILTER SNAP-IN GRID

Rohner Part #: AYFG-FG-19-19-135-I



MAU PRE-FILTER

Rohner Part #: SEVERAL OPTIONS AVAILABLE

Makeup air unit pre-filters are available in a variety of sizes. Common sizes are typically 20"x25"x2", 20"x20"x2", and 16"x25"x2".



MAU

If this optional equipment was purchased, refer to that manufacturer's documentation.

MISCELLANEOUS BOOTH COMPONENTS

Refer to individual manufacturer's documentation.

LIMITED WARRANTY

Rohner Mechanical, Inc. ("Seller"), warrants to the original end user that the new components (the "Products") manufactured by Seller for each piece of equipment manufactured by Seller and purchased by Buyer from Seller or Seller's authorized distributors and when installed, operated, and maintained in accordance with Seller's installation, operation and service manual, shall be free of defects in materials and workmanship for the lesser of (a) one (1) year following the shipment of the equipment from Seller or (b) 2500 hours of operation (the "Warranty Period"). This limited warranty cannot be transferred.

During the Warranty Period, if a Product is determined by Seller to be defective, Seller will, at Buyer's sole option, either (1) repair or replace a defective Product (which decision will be at Seller's sole option) or (2) provide Buyer with a credit equal to 70% of the purchase price of new replacement Product (less shipping and handling) purchased by Buyer from Seller to replace a defective Product.

Seller will determine if a Product is defective and will issue a written acceptance or denial of each claim. Products must be returned to Seller for Seller to process any claim made under this limited warranty. Pre-authorization must be obtained before sending any Product to Seller. Products returned to Seller without prior authorization may be refused by Seller. Seller will provide such authorization, if granted, to Buyer in writing. To obtain pre-authorization, Buyer must contact Seller at Service@rohner-usa.com or Warranty Request, PO Box 822049, Vancouver, WA 98682.

Seller may replace a defective Product with a new or reconditioned component. All replacement Products will be warranted for a period of 90 days or the remainder of the Warranty Period, whichever is greater.

Seller is not responsible for labor charges, installation, or other incidental or consequential costs. This limited warranty does not cover the cost of labor to service or repair a defective Product. Buyer is responsible for all labor, shipping and handling costs associated with the return of any defective Product. Buyer must prepay all return shipping and handling costs.

Immediately upon Buyer's discovery of a potential warranty claim against Seller, Buyer shall notify Seller in writing and discontinue use of the suspect Product. Buyer may not attempt to repair the suspect Product without the prior written consent of Seller.

This limited warranty does not apply to: (1) damage resulting from normal wear and tear; (2) damage caused by accident, abuse, or misuse; (3) acts of God; (4) unauthorized modification or alteration; (5) improper installation, maintenance, repair, or operation; (6) failure to follow Seller's installation instructions, operator guides, or service manuals; (7) use with equipment other than as specified in Seller's manual or use of components or parts not approved by Seller; or (8) continued operation of equipment after discovery of a defective Product.

Seller offers no warranty for components manufactured or supplied by third parties and used as a component of equipment manufactured by Seller except to the extent that Seller is entitled to pass through a warranty of the original equipment manufacturer of those goods, Seller will pass through such warranties to Buyer.

No person is authorized to make any other warranties or to assume any other liability on Seller's behalf.

THIS LIMITED WARRANTY AND THE REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, REMEDIES, AND CONDITIONS, WHETHER WRITTEN OR ORAL, EXPRESS OR IMPLIED. SELLER EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT. ANY IMPLIED WARRANTY NONETHELESS IMPOSED BY STATE CONSUMER LAW IS LIMITED TO ONE YEAR FROM THE ORIGINAL DATE OF PURCHASE. Seller will not be responsible for loss, damage or injury to persons or property, or for consequential damages, resulting from the possession or use of the Products or equipment. (V18.4)