

# Waukee AutoLube User Manual



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## **WARNING**

Thank you for purchasing equipment from Waukee Engineering a member of United Process Controls. We want your new equipment to operate safely. Anyone who uses this equipment should read this publication (and any other relevant publications) before installing or operating the equipment.

To minimize the risk of potential safety problems, you should follow all applicable local and national codes that regulate the installation and operation of your equipment. These codes vary from area to area and usually change with time. It is your responsibility to determine which codes should be followed, and to verify that the equipment, installation, and operation is in compliance with the latest version of these codes.

At a minimum, you should follow all applicable sections of the National Fire Code, National Electrical Code, and codes of the National Electrical Manufacture's Association (NEMA). There may be local regulatory or government offices that can also help determine which codes and standards are necessary for safe installation and operation.

Equipment damage or serious injury to personnel can result from failure to follow all applicable codes and standards. We do not guarantee the products described in this publication are suitable for your particular application, nor do we assume any responsibility for you product design, installation, or operation.

If you have any questions concerning the installation or operation of this equipment, or if you need additional information, please call us at 414-462-8200



**WARNING:** Read this manual thoroughly before using Autolube.

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# INTRODUCTION

## The Purpose of this Manual

Thank You for Purchasing a Waukee Automatic Lubricator. This Manual shows you how to install and maintain Waukee's Automatic Lubricator. This manual contains important information and should be read and understood by all individuals who install, use or service this equipment.

## Supplemental Manuals

The Waukee Compressor/Mixor Manual #3254 manual contains technical information as well as precautions regarding use of Waukee's Automatic Lubricator with a Waukee Compressor.

## Technical Support

We strive to make our manuals the best in the industry. We rely on your feedback to let us know if we are reaching our goal. If you cannot find the solution to your particular application, or, if for any reason you need technical assistance, please call us at:

**414-462-8200**

Our technical support group will work with you to answer your questions. They are available Monday through Friday from 8:00 A.M. to 4:30 P.M. Central Standard Time. We also encourage you to visit our web site where you can find technical and non-technical information about our products and company.

<http://www.waukeemeters.com>  
<http://www.group-upc.com>

If you have a comment, question or suggestion about any of our products, services, or manuals, please e-mail or contact us by phone.

## Conventions Used



When you see the "exclamation point" icon in the left-hand margin, the paragraph to its immediate right will be a warning. This information could prevent injury, loss of property, or even death in extreme cases. Any warning in this manual should be regarded as critical information that should be read in its entirety. The word **WARNING** or **CAUTION** in boldface will mark the beginning of the text.

# DESCRIPTION

The Waukee Automatic Lubricator controls the amount of lubricating oil supplied to the compressor. The Automatic Lubricator is comprised of an electronic timer, an oil reservoir, and a solenoid valve. The unit is designed to automatically lubricate Waukee compressors that require lubrication. This unit insures that the compressor is properly lubricated to provide maximum life for the compressor vanes.

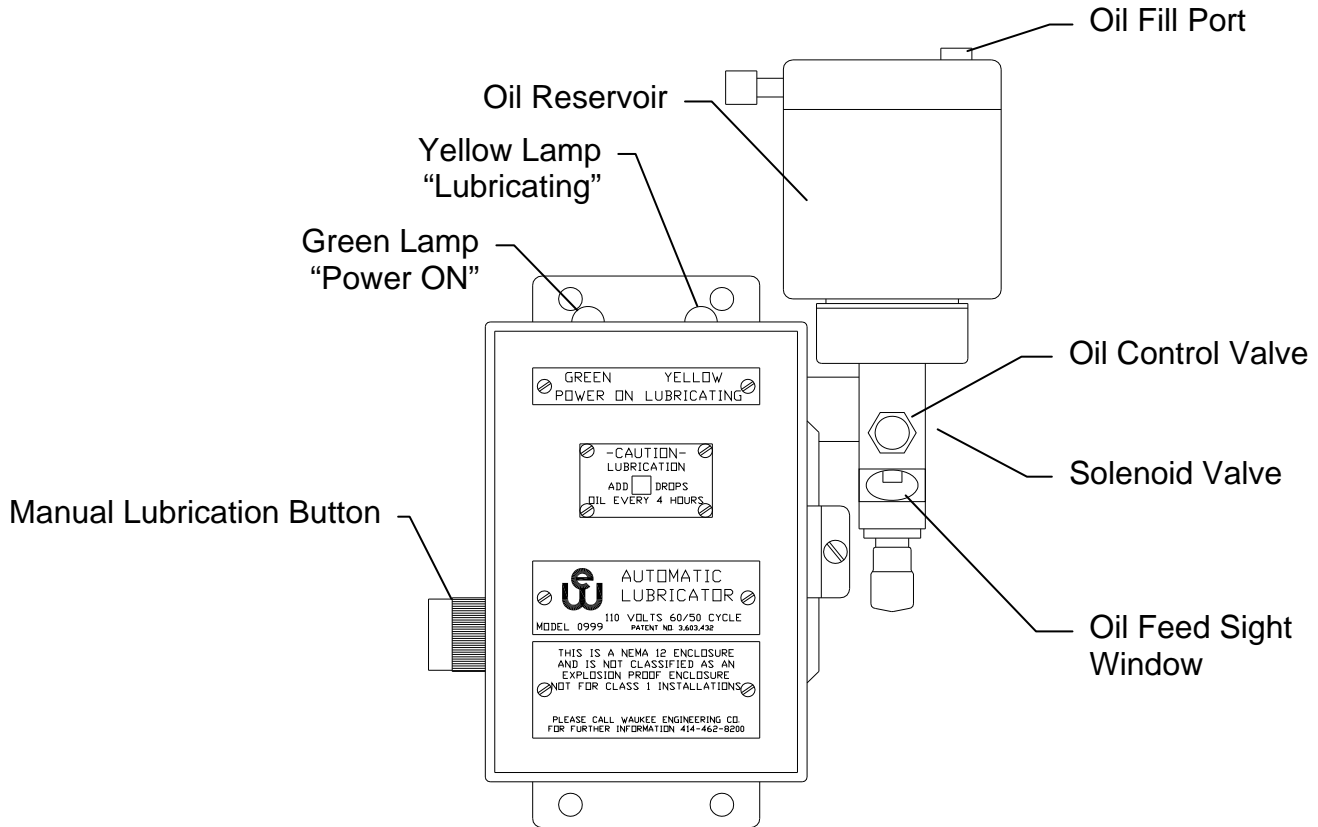


Figure 1

# SPECIFICATIONS

Voltage: 115VAC, 50/60 Hz

Power Consumption: 0.2 amps

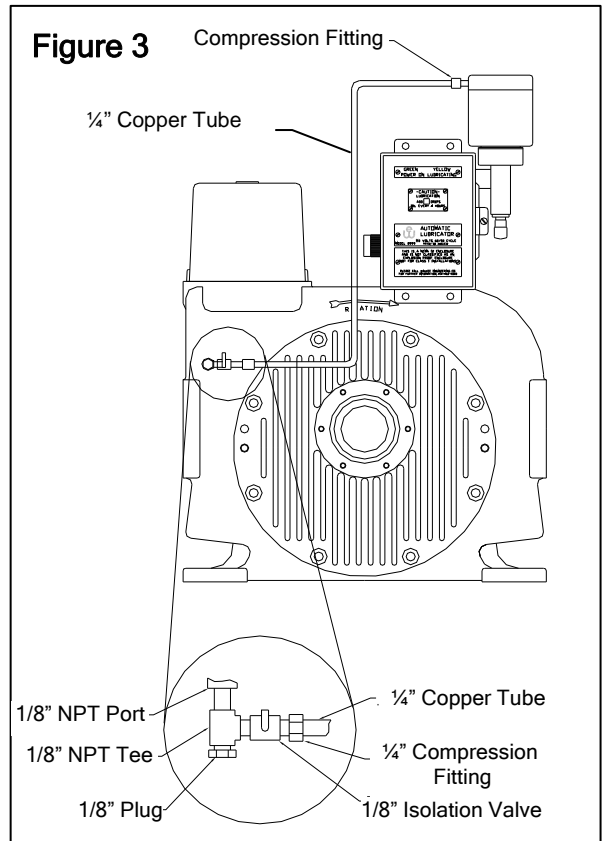
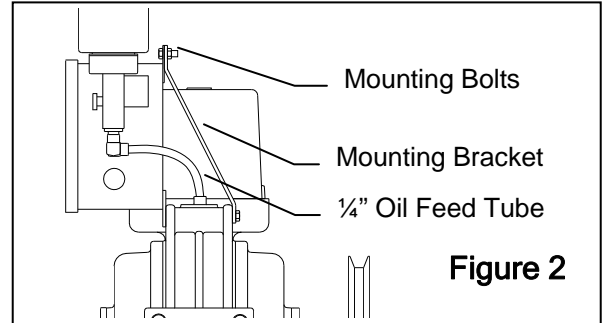
# INSTALLATION

## Mounting

If the Automatic Lubricator was purchased with a compressor it will already be mounted, otherwise mounting will be required if the unit was purchased separately. The Automatic Lubricator can be mounted onto the side of the compressor with the include mounting bracket as shown in Figure 2 or anywhere within 2-3ft. of the compressor. The Automatic Lubricator is a gravity feed type oiler, which requires the oiler to be mounted higher than the compressor in order to function properly.

## Plumbing

The Automatic Lubricator requires only two plumbing connections, unless your oiler was preinstalled by Waukee. The first connection is the oil feed tube (Refer to Figure 2) Connect a 1/4" copper tube from the solenoid valve to the 1/8"NPT port located on top of the compressor. The oil feed tubing should be kept as short and vertical as possible to provide the best performance. The second connection is the pressurized feedback (Refer to Figure 3) Connect a 1/4" copper tube from the top of the oiler to the 1/8"NPT port located on the side of the compressor.



## Wiring Guidelines

Your company may have guidelines for wiring installation. If so, you should check those before you begin the installation. Here are some general things to consider:

- Use the shortest wiring route whenever possible.
- Route the wiring through an approved cable housing to minimize the risk of accidental damage. Check local and national codes to choose the correct method for your application.



**CAUTION:** To reduce the risk of electrical shock and also to prevent damage to the Automatic Lubricator. It is advised to turn off the supply power to the Automatic Lubricator before connecting or disconnecting any wires.

## Wiring

The unit should be wired such that power is supplied to it only when the compressor is running. It is very important that power to the Automatic Lubricator is “OFF” when the compressor is not running. The recommended method for wiring the unit is to connect power through the normally open contacts of the motor starter of the compressor’s drive motor. See Figure 4 for wiring.



**WARNING:** If power is supplied to the unit while the compressor is off, excessive oil may build up in the compressor causing damage to the compressor and/or any components located downstream of the compressor.



**WARNING:** The Unit is designed for use with 115VAC Single phase, 50/60Hz power ONLY!! Connection of any other power type may damage the unit and may subject personnel to shock or injury.

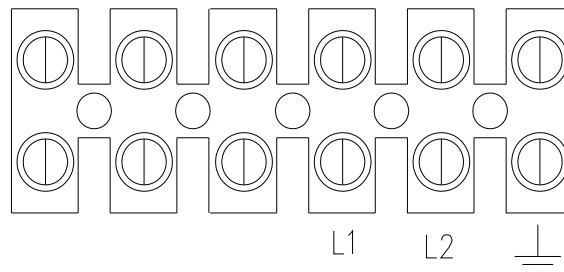


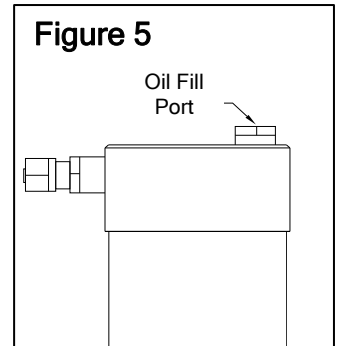
Figure 4



# OPERATION

## Filling the Oil Reservoir

Before opening the oil fill port, turn off the isolation valve on the feedback line. (See Figure 3) Remove the Oil fill plug (See Figure 5) and fill the oil reservoir with Waukee Compressor Oil. Part No's COIL-1 (pint), COIL-2 (quart) or COIL-3 (gallon). Once reservoir is full replace the oil fill plug and open the isolation valve.



**WARNING:** Lack of or improper lubricating oil may cause damage to the compressor. Use Waukee Compressor Oil ONLY!!



**CAUTION:** Before removing oil fill plug turn isolation valve “OFF”. Failure to turn isolation valve “OFF” will result in compressed gas leaking from the oiler and may cause a hazardous situation. Gas leaking from oiler may be flammable.



**WARNING:** Make sure isolation valve is open after filling oil reservoir with oil and replacing the oil fill plug. If isolation valve is left closed oiler will not be able to drop oil and cause premature failure of the vanes.

## Starting the Compressor

Every time the compressor is started, the Green “Power On” light on the Automatic Lubricator should be “ON” and remain on until the compressor is stopped. Also the Amber “Lubricating” light will illuminate for 4 seconds. During this 4 second time, oil should be seen dropping in the sight glass. The Automatic Lubricator is a ON-OFF cycle timer, it will start with a 4sec “ON” time and after the “ON” cycle completes it will remain “OFF” for a period of 1Hr. and will continue to cycle until power is removed.

## Adjusting the Oil Flow Rate

The solenoid valve is factory set to provide the proper number of oil drops during the “ON” period of 4 seconds. To verify or adjust the oil flow rate, depress and hold the “Manual Lubrication Button” located on the left side of the Automatic Lubricator and adjust the Oil Control Valve to obtain the proper number of oil drops within a 15 second time interval. The number of drops required during the 15 second interval is displayed on the nameplate attached to the front of the Automatic Lubricator’s enclosure. If the nameplate is unreadable or the Automatic Lubricator will be used on a different compressor than what it was ordered for, then refer to Table 1 on the following page to determine the proper amount of drops for your compressor.

**TABLE 1 - OIL RATE CHART IN DROPS OF OIL PER 15 SECOND PERIOD**

Flow Output of Compressor	Number of Drops Required over a 15 second period		
	Output Pressure 1psig (6.9kPa)	Output Pressure 2psig (13.8kPa)	Output Pressure 3psig (20.7kPa)
200CFH (5.6M3H)	3	4	5
400CFH (11.3M3H)	3	4	5
600CFH (17.0M3H)	3	4	5
750CFH (21.2M3H)	4	5	6
1000CFH (28.3M3H)	4	5	6
1250CFH (35.4M3H)	4	5	6
1500CFH (42.5M3H)	4	5	6
2000CFH (56.6M3H)	6	9	10
3000CFH (84.9M3H)	6	9	10
4000CFH (113.3M3H)	6	9	10
5000CFH (141.6M3H)	7	10	12
6000CFH (169.9M3H)	7	10	12
7000CFH (198.2M3H)	7	10	12
8000CFH (226.5M3H)	7	10	12

## PARTS LIST

**TABLE 2 - PARTS LIST**

Description	Part Number
Amber Indicator Lamp	1-2140
Green Indicator Lamp	1-2139
Timer Board	1-2268
Solenoid Valve Assembly	1-3119
Manual Lubrication Button	1-3120
Support Bracket for A, B, and C Compressors	3-867
Support Bracket for D, H, J, and E Compressors	3-868
Support Bracket for F, G, and N Compressors	2-572
Support Bracket for R, S, U, and W Compressors	2-571
Compressor Oil, pint	COIL-1
Compressor Oil, quart	COIL-2
Compressor Oil, gallon	COIL-3

## EXPRESS WARRANTY ON WAUKEE EQUIPMENT.

WAUKEE warrants its products for a period of one (1) year from date of shipment from WAUKEE to the original purchaser to be free from defects in material and workmanship under normal recommended use, service, inspection and maintenance. Normal recommended use, service inspection and maintenance mean:

1. Not to be used in excess of nor below the rated capacity, pressures and temperature ranges specified in the applicable quotation, purchase order, acknowledgment, marketing literature, nameplate(s), specification sheet or the Installation, Operation, Inspection and Maintenance Manual (THE MANUAL);
2. Using only clean liquids or gases (only liquids in liquid Flo-Meters and only gases in gas Flo-Meters); air and fuel gases used in mixing equipment to be clean and free of solids all as further explained in THE MANUAL; and
3. Installation, operation, inspection and maintenance in compliance with THE MANUAL; and
4. The WAUKEE products being used only in:
  - a. Ambient environments lower than 132° Fahrenheit (54° Celsius) unless specifically designed and so labeled by WAUKEE for higher temperatures; and
  - b. Non-corrosive environments; and
  - c. Completely protected from moisture, rain, snow or other outside environments; and
  - d. Not to be used below 32° Fahrenheit (0° Celsius) unless special precautions are taken for low temperature conditions as shown in THE MANUAL.
5. Being used only for applications permitted by THE MANUAL or other WAUKEE literature or special applications approved in a separate written authorization by WAUKEE.

### WARRANTY EXCEPTIONS

This Warranty does not apply to damage caused by any or all of the following circumstances or conditions:

1. Freight damage;
2. Parts, accessories, materials or components not obtained from nor approved in writing by WAUKEE;
3. Any consequential or incidental damages including but not limited to loss of use, loss of profits, loss of sales, increased costs, arising from the use of any product,

system or other goods or services manufactured, sold or provided by WAUKEE;

4. Misapplication, misuse and failure to follow THE MANUAL or other literature, instructions or bulletins (including drawings) published or distributed prior to THE MANUAL.

The exclusive remedy under this Warranty or any other express warranty is the repair or replacement without charge for labor and materials of any WAUKEE parts found upon examination by WAUKEE to have been defective. Since certain WAUKEE equipment is heavy, bulky and not deliverable by U.S. mail or other parcel service, WAUKEE equipment may be returned only upon written consent of WAUKEE and then only to the location designated by WAUKEE. Generally such consent will be given only upon the condition that the customer assume and prepay all carrier charges and responsibility for damage in transit.

Purchasers of WAUKEE products, equipment, goods or services waive subrogation on all items covered under their own or any other insurance.

### DISCLAIMER

THIS WARRANTY IS EXCLUSIVE. WAUKEE EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES WHETHER EXPRESS OR IMPLIED INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY PURPOSE.

No person, including any dealer, seller or other representative of WAUKEE is authorized to make, on behalf of WAUKEE, any representations beyond those contained in WAUKEE literature and documents or to assume for WAUKEE any obligations or duties not contained in this Warranty and Warranty Policy.

WAUKEE reserves the right to make design and other changes, modifications or improvements to its products, services, literature or systems, without any obligation, to furnish or install same on any previously sold or delivered products or systems.

## LIMITATION OF LIABILITY

It is expressly agreed that the liability of WAUKEE is limited and WAUKEE does not function as an insurer. The purchaser and/or user agree that WAUKEE is not liable for loss, harm or damage due directly or indirectly to any occurrence or consequences therefrom. If WAUKEE should be found liable to anyone on any theory (except any express warranty where the remedy is set forth in Section 2 of this Warranty and Warranty Policy) for loss, harm or damage, the liability of WAUKEE shall be limited to the lesser of the actual loss, harm or damage or the purchase price of the involved WAUKEE equipment or service when sold (or when service performed) by WAUKEE to its customer. This liability is exclusive and regardless of cause or origin resulting directly or indirectly to any person or property from:

1. The performance or nonperformance of any obligations set forth in this Warranty and Warranty Policy;
2. Any agreement including specifications between WAUKEE and the customer;
3. Negligence, active, passive or otherwise of WAUKEE or any of its agents or employees;
4. Breach of any judicially imposed warranty or covenant of workmanship, durability or performance; and
5. Misrepresentation (under the Restatement, common law or otherwise) and/or strict liability involvement.
6. Liability for fraud-in-the-inducement.

## INFORMATION NECESSARY TO OBTAIN TECHNICAL ASSISTANCE.

For WAUKEE to appropriately respond to a request for assistance or evaluation of customer or user operating difficulty. Please provide at a minimum the following information:

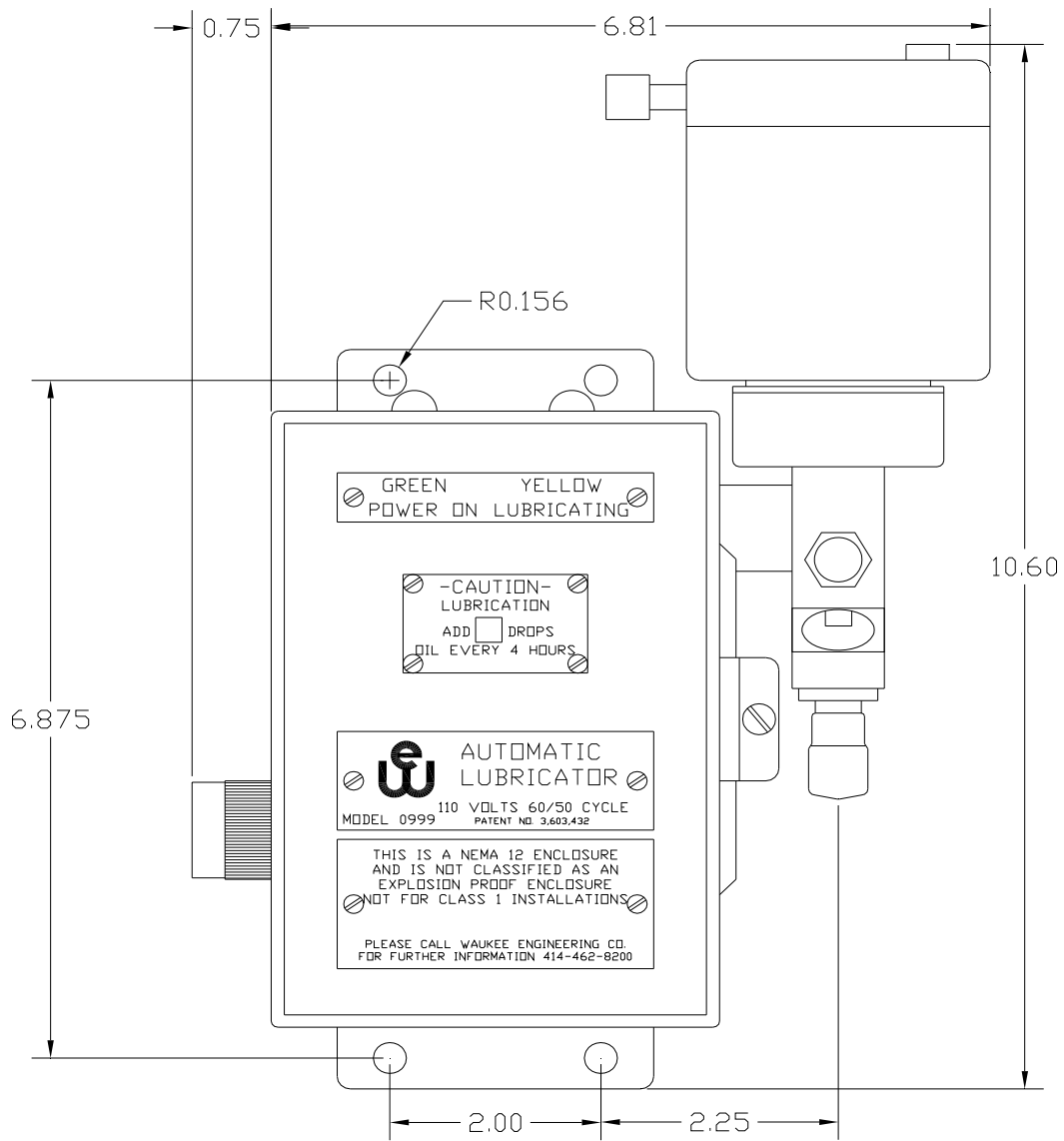
1. Serial number and type or model of meter, compressor or other equipment and all other data shown on the nameplate and on the specific component which appears to be involved in the difficulty;

2. The date and from whom you purchased your WAUKEE equipment and your purchase order number.
3. State your difficulty, being sure to mention at least the following:
4. Application.
5. Input pressure where Flo-Meters or compressors are involved.
6. Condition of filters, strainers or screens, upstream or downstream of the WAUKEE equipment.
7. Gas or liquid temperatures and other ambient conditions at the time of the difficulty.
8. Type of lubrication being used (if any) - give specifics.
9. Any other relevant pressures including gauge readings both upstream and downstream of the WAUKEE equipment.
10. All electrical information available.
11. Performance activity.
12. Any other pertinent information. If a sketch would help explain the difficulty, please include one.

## WARRANTY FIELD SERVICE

If warranty Field Service at the request of the purchaser or user is rendered and the difficulty is found not to be with WAUKEE's product, the purchaser shall pay the time and expense (at the prevailing rate at the time of the service) of WAUKEE's field representative(s). Charges for service, labor and other expenses that have been incurred by the purchaser, its customer or agent without written approval of WAUKEE will not be accepted. The OEM or other reseller is responsible for transmitting installation and operating instructions, THE MANUAL or other service literature supplied by WAUKEE with the equip

# APPENDIX "A" - DRAWINGS



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Reach us at [www.group-upc.com](http://www.group-upc.com)

United Process Controls brings together leading brands to the heat treating industry including Waukee Engineering, Furnace Control, Marathon Monitors and Process-Electronic.

We provide prime control solutions through our worldwide sales and services network with easy-to-access local support.

**WAUKEE ENGINEERING COMPANY, INC.**

**A member of United Process Controls**

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