

## Instructions For Completing Form

1. Model and serial number of the equipment involved must be supplied (one cabinet serial number per claim form).
2. Submit claims directly to True at [WarrantyClaims@Truemfg.com](mailto:WarrantyClaims@Truemfg.com).
3. A copy of the **Bill of Sale** is recommended and may be required to determine warranty status.
4. No separate invoice from the service provider is necessary for warranty payment when the claim is submitted using the Labor Claim Form.
5. Claim must be received within three (3) months of the repair date. Claims received for payment after this time frame will be denied.
6. All service calls to diagnose and complete the repair must be submitted together on the same Labor Claim Form.

## Warranty Service Guide

When submitting a bill for warranty work, please refer to the **USA Warranty Repair Guidelines by Model**. The hours submitted must be within the guidelines or authorization is required from True. The time spent on the job should be multiplied by the straight time labor rate to determine the charge. True reserves the right to pay no more than the average commercial hourly rates within the distributor territory or region of the country. To prevent delays in processing claims, a complete explanation of the diagnosis/failure and the repair are required. True understands that diagnostic and repair times may vary depending on the problem and model.

## Multiple Repairs During Same Service Call

To diagnose and repair or replace more than one item, use up to the highest allowable time for the single repair, then add ½ hour for each additional repair.

## Refrigerant Allowances

- No alternative blends are approved without written permission.
- New or reclaimed refrigerant meets ARI Standard 700.88 Lab test (for R134a/404a only).
- The recovery and reuse of refrigerant is covered by the \$30.00 reclaim charge (for R134a/404a only).
- Only the weigh-in charge for the unit will be reimbursed. Otherwise, an explanation will be required.

## Labor Allowances

True will pay for labor under warranty for initial diagnosis and single trip for repair only without prior approval for multiple repair trips. Should the repair time or trips necessary to perform repairs exceed the allowed amount, contact the Technical Service Department or the Warranty Department for approval prior to exceeding allowed repair time.

## Return of Parts

True reserves the right to request any part claimed under warranty to be returned.

## To see what is covered/not covered under warranty please refer to the Warranty Statement

**For warranty questions:** please call us at **855-878-9277** or e-mail [warrantyinquiries@truemfg.com](mailto:warrantyinquiries@truemfg.com).

**For technical questions:** please call us at **800-325-6152** or e-mail [service@truemfg.com](mailto:service@truemfg.com).

**Bill to:**

True Manufacturing Co. Inc.  
 2001 E Terra Lane  
 O'Fallon, MO 63366-4434

If this is your first time submitting a claim to True, please follow the link to our portal and start your new vendor registration: <https://878362.vendorinfo.com/login>  
 This will need to be completed before your claim can be processed.

<b>Service Company</b>					<b>End User</b>				
Company Name					Company Name				
Address					Address				
City, State, Zip					City, State, Zip				
Phone No.					Phone No.				

**Reported Complaint** \_\_\_\_\_

**Service Performed** (Symptoms and/or summary of diagnosis made is required. List hours and explanation for each repair made. Give exact location of any leaks.)  
 \_\_\_\_\_  
 \_\_\_\_\_

See [warranty repair guidelines by model](#) for time allowed. Any refrigeration repair should be in accordance with True's Good Refrigeration Practices. See warranty guidelines. Please contact True for approval if time is going to exceed hours allowed. All warranty claims must be received at True within three (3) months of completion of the work for payment.

Labor Charges			
Micron Level Achieved			
Labor Rate Per Hour \$	Labor Hours		\$
Total Travel Hours			\$
Type of Refrigerant Used	Ounces Used	× Price Per Ounce	\$
Nitrogen Usage Fee (Maximum \$12.00)			\$
Miscellaneous Material Fee (Maximum \$45.00 – Includes soldering supplies, vacuum pump, line tap/ access valves, etc.)			\$
Reclaim Fee (Maximum \$30.00 allowed – for 134a/404a only)			\$
Part Reimbursement*			
Include a copy of the compressor tag if credit is needed and a copy of the compressor invoice, part description and/or part number(s) used. (Please list separately below)			
Reimbursement requested amount (if purchased locally, please include copy of invoice)			\$
Include Parts Invoice Number (if applicable)			
Miscellaneous Parts (please explain)			\$
Tax applicable in AZ, DC, GA, HI, IL, KY & VT & tax on labor applicable only in CO, IL & NM.			% \$
*If non-OEM parts are used without prior approval this may affect future warranty claims.			<b>Grand Total \$</b>

**Customer Signature** \_\_\_\_\_ **Service Technician\*\* Signature** \_\_\_\_\_

**Date Signed** \_\_\_\_\_ **Date Signed** \_\_\_\_\_

Signatures required (or attach service agents original invoice with signatures.) \*\*Technician making refrigeration system repairs must be certified per EPA requirements.

**CVM | GDM | FLM | STA | STG | STR | T | TAC | TGN | THAC | TOAM | TS | TSD | TVM Series Cabinets**

**Upright Refrigerators and Freezers**

**Refrigeration – All refrigeration repairs should be performed in accordance with True’s Good Refrigeration Practices.**

- a. Diagnose and replace defective compressor ..... 4½ hrs.
- b. Diagnose and replace defective compressor for GDM-72F/T-72F ..... 5½ hrs.
- c. Diagnose and replace defective condensing unit ..... 4 hrs.
- d. Diagnose and replace defective condensing unit for GDM-72F/T-72F ..... 5 hrs.
- e. Diagnose and replace defective evaporator coil ..... 4½ hrs.
- f. Diagnose and replace defective evaporator coil with multiple condensing units ..... 6 hrs.
- g. Locate refrigeration leak (NOTE: The location of the refrigerant leak must be noted on the service invoice) ..... 4 hrs.
- h. Diagnose and reroute defective capillary tube and replace the condensing unit ..... 6 hrs.
- i. Diagnose and replace exterior re-routing of capillary tube and compressor/ condensing unit ..... 7 hrs.
- j. Diagnose and reroute defective capillary tube and replace the condensing unit for GDM-72F/T-72F ..... 6½ hrs.
- k. Diagnose and repair or replace defective refrigeration parts, other than list above which require opening the refrigeration system ..... 4 hrs.

**Electrical**

- a. Diagnose and replace temperature control, module, display ..... 2 hrs.
- b. Diagnose and replace probe(s) ..... 1½ hrs.
- c. Diagnose and replace evaporator coil heater ..... 4 hrs.
- d. Diagnose and replace termination/high limit switch ..... 3 hrs.
- e. Diagnose and replace drain line heater ..... 3½ hrs.
- f. Diagnose and replace perimeter heater ..... 4 hrs.
- g. Diagnose and replace mullion heater ..... 1½ hrs.
- h. Diagnose and replace time clock ..... 1½ hrs.
- i. Diagnose and replace, driver, LED module ..... 1½ hrs.
- j. Diagnose and replace condenser fan motor ..... 2 hrs.
- k. Diagnose and replace evaporator fan motor ..... 1½ hrs.
- l. Diagnose and replace compressor starting components ..... 2 hrs.

**Cabinet**

- a. Diagnose and replace door(s) ..... 1½ hrs.
- b. Diagnose and replace door torsion spring /cartridge/door hinges ..... 2 hrs.
- c. Diagnose and replace door cord/retractor (GDM / TSD Slide Door) ..... 1½ hrs.
- d. Diagnose and replace door cams on STA, STG, STM,STR ..... 1 hr.

True will pay for labor under warranty for initial diagnosis and single trip for repair only without prior approval for multiple repair trips. Should the repair time or trips necessary to perform repairs exceed the allowed amount, contact the Technical Service Department or the Warranty Department for approval prior to exceeding allowed repair time. True reserves the right to request any part claimed under warranty to be returned. For repairs not noted, please contact the Technical Service Department or the Warranty Department for approval.

**Customer responsibilities to include but not limited to:**

- a. To verify the product’s installation date to process warranty.
- b. To pay for normal operational maintenance, adjustments and cleaning.
- c. To pay for repairs caused by modifications made without True’s written approval.
- d. To pay for damage repairs resulting from electrical supply, customer’s use of non-OEM parts, water or drainage, flood, storm or other acts of God.
- e. To pay for premium labor rates, holidays, overtime, etc., unreasonable travel time, flat rate service call charges, mileage or miscellaneous tools and material charges not listed on payment schedule and additional labor charges resulting from inaccessibility of the cabinet.
- f. True’s warranty covers reasonable travel time, which is defined as 30 miles one way, anything more than this must be pre-approved. Please contact Warranty Department for prior approval before having any unit serviced by a company outside the normal warranty coverage area. Excessive travel will not be covered under warranty without pre-approval.

**No Consequential Damages**

True is not responsible for economic loss; or special, indirect, or consequential damages, including, without limitation, of losses or damages arising from food or product spoilage claims as a result of refrigeration failure.

T-GC | TBB | TBR | TD | TDD | TDR | TFP | TMC | TPP | TRCB | TSSU | TUC | TWT Series Cabinets

Reach-In Refrigerators and Freezers

Refrigeration – All refrigeration repairs should be performed in accordance with True’s Good Refrigeration Practices.

- a. Diagnose and replace defective compressor ..... 4½ hrs.
- b. Diagnose and replace defective condensing unit ..... 4 hrs.
- c. Diagnose and replace defective evaporator coil by removing cabinet top ..... 5½ hrs.
- d. Locate refrigeration leak (NOTE: the location of leak must be noted on the service invoice) ..... 4 hrs.
- e. Locate refrigeration leak and repair with top removal for TMC/TPP/TRCB ..... 5 hrs.
- f. Diagnose and replace defective capillary tube ..... 4½ hrs.
- g. Diagnose and repair or replace defective refrigeration parts, other than list above which require opening the refrigeration system ..... 4 hrs.

Electrical

- a. Diagnose and replace temperature control, module, display ..... 2 hrs.
- b. Diagnose and replace probe(s) ..... 1½ hrs.
- c. Diagnose and replace termination/high limit switch ..... 3 hrs.
- d. Diagnose and replace drain line heater ..... 3 hrs.
- e. Diagnose and replace perimeter heater ..... 4 hrs.
- f. Diagnose and replace time clock ..... 1½ hrs.
- g. Diagnose and replace, driver, lamp holder, LED module ..... 1½ hrs.
- h. Diagnose and replace condenser fan motor ..... 2 hrs.
- i. Diagnose and replace evaporator motor ..... 1½ hrs.
- j. Diagnose and replace evaporator fan motor in a drawer unit ..... 2 hrs.
- k. Diagnose and replace compressor starting components ..... 2 hrs.

Cabinet

- a. Diagnose and replace door(s) ..... 1 hr.
- b. Diagnose and replace door cartridge/door hinges ..... 2 hrs.
- c. Diagnose and replace countertop, under 93” ..... 2 hrs.
- d. Diagnose and replace countertop, 93” and larger with 2 technicians ..... 2½ hrs.
- e. General cabinet repair ..... 1½ hrs.

Multiple Repairs will be paid at the highest rate for the part changed, plus 1 hour for each additional component changed. Note the drier is not considered an additional component.

True will pay for labor under warranty for initial diagnosis and single trip for repair only without prior approval for multiple repair trips. Should the repair time or trips necessary to perform repairs exceed the allowed amount, contact the Technical Service Department or the Warranty Department for approval prior to exceeding allowed repair time. True reserves the right to request any part claimed under warranty to be returned. For repairs not noted, please contact the Technical Service Department or the Warranty Department for approval.

Customer responsibilities to include but not limited to:

- a. To verify the product’s installation date to process warranty.
- b. To pay for normal operational maintenance, adjustments and cleaning.
- c. To pay for repairs caused by modifications made without True’s written approval.
- d. To pay for damage repairs resulting from electrical supply, customer’s use of non-OEM parts, water or drainage, flood, storm or other acts of God.
- e. To pay for premium labor rates, holidays, overtime, etc., unreasonable travel time, flat rate service call charges, mileage or miscellaneous tools and material charges not listed on payment schedule and additional labor charges resulting from inaccessibility of the cabinet.
- f. True’s warranty covers reasonable travel time which is defined as 30 miles one way, anything more than this must be pre-approved. Please contact Warranty Department for prior approval before having any unit serviced by a company outside the normal warranty coverage area. Excessive travel will not be covered under warranty without pre-approval.

No Consequential Damages

True is not responsible for economic loss; or special, indirect, or consequential damages, including, without limitation, of losses or damages arising from food or product spoilage claims as a result of refrigeration failure.

**TCGG | TDM | TGM Series Cabinets**

**Reach-In Refrigerators**

**Refrigeration – All refrigeration repairs should be performed in accordance with True’s Good Refrigeration Practices.**

- a. Diagnose and replace defective compressor (including starting components) ..... 4½ hrs.
- b. Diagnose and replace defective condensing unit..... 4 hrs.
- c. Diagnose and replace defective evaporator, change drier ..... 5 hrs.
- d. Locate refrigeration leak, change drier **(NOTE: the location of leak must be noted on the service invoice)** ..... 4 hrs.
- e. Diagnose and reroute defective capillary tube ..... 5 hrs.
- f. Diagnose and repair or replace defective refrigeration parts, other than listed above, which require opening the refrigeration system..... 4 hrs.

**Electrical**

- a. Diagnose and replace temperature control ..... 2½ hrs.
- b. Diagnose and replace probe(s) ..... 1½ hrs.
- c. Diagnose and replace time clock..... 1½ hrs.
- d. Diagnose and replace, lamp holder, LED module ..... 1½ hrs.
- e. Diagnose and replace condenser fan motor ..... 2 hrs.
- f. Diagnose and replace evaporator fan motor ..... 2 hrs.
- g. Diagnose and replace the front glass motor on a TDM & TGM..... 2 hrs.
- h. Diagnose and replace compressor starting components ..... 2 hrs.

**Cabinet**

- a. Diagnose and replace door(s)..... 1 hr.
- b. Diagnose and replace main glass..... Call\*
- c. Diagnose and replace v-rollers..... 1 hr.
- d. Diagnose and replace v-track ..... 2 hrs.
- e. Diagnose and replace the door cord..... 1 hr.
- f. Diagnose and replace the air deflector on TD & TGM ..... 1 hr.
- g. General cabinet repair ..... 1½ hrs.

Multiple Repairs will be paid at the highest rate for the part changed, plus 1 hour for each additional component changed. Note the drier is not considered an additional component.

True will pay for labor under warranty for initial diagnosis and single trip for repair only without prior approval for multiple repair trips. Should the repair time or trips necessary to perform repairs exceed the allowed amount, contact the Technical Service Department or the Warranty Department for approval prior to exceeding allowed repair time. True reserves the right to request any part claimed under warranty to be returned. For repairs not noted, please contact the Technical Service Department or the Warranty Department for approval.

**Customer responsibilities to include but not limited to:**

- a. To verify the product’s installation date for warranty process.
- b. To pay for normal operational maintenance, adjustments and cleaning.
- c. To pay for repairs caused by modifications made without True’s written approval.
- d. To pay for damage repairs resulting from electrical supply, customer’s use of non-OEM parts, water or drainage, flood, storm or other acts of God.
- e. To pay for premium labor rates, holidays, overtime, etc., unreasonable travel time, flat rate service call charges, mileage or miscellaneous tools and material charges not listed on payment schedule and additional labor charges resulting from inaccessibility of the cabinet.
- f. True’s warranty covers reasonable travel time which is defined as 30 miles one way, anything more than this must be pre-approved. Please contact Warranty Department for prior approval before having any unit serviced by a company outside the normal warranty coverage area. Excessive travel will not be covered under warranty without pre-approval.

**No Consequential Damages**

True is not responsible for economic loss; or special, indirect, or consequential damages, including, without limitation, of losses or damages arising from food or product spoilage claims as a result of refrigeration failure.

**STA | STG | STM | STR | T | Heated Series Cabinets**

**Upright Equipment**

**Electrical**

- a. Diagnose and replace temperature control module, display..... 2 hrs.
- b. Diagnose and replace probe(s) ..... 1½ hrs.
- c. Diagnose and replace condenser fan motor..... 1½ hrs.
- d. Diagnose and replace termination/high limit switch ..... 2 hrs.
- e. Diagnose and replace heating element..... 2 hrs.
- f. Diagnose and replace, driver, lamp holder ..... 2 hrs.

**Cabinet**

- a. Diagnose and replace door(s)..... 1 hr.
- b. Diagnose and replace door torsion spring/cartridge ..... 2 hrs.
- c. Diagnose and replace the door cams on STA/STG/STR..... 1 hr.
- d. Diagnose and replace door torsion spring /cartridge/door hinges..... 2 hrs.
- e. General cabinet repairs ..... 1½ hrs.

Multiple Repairs will be paid at the highest rate for the part changed, plus 1 hour for each additional component changed. Note the drier is not considered an additional component.

True will pay for labor under warranty for initial diagnosis and single trip for repair only without prior approval for multiple repair trips. Should the repair time or trips necessary to perform repairs exceed the allowed amount, contact the Technical Service Department or the Warranty Department for approval prior to exceeding allowed repair time. True reserves the right to request any part claimed under warranty to be returned. For repairs not noted, please contact the Technical Service Department or the Warranty Department for approval.

**Customer responsibilities to include but not limited to:**

- a. To verify the product’s installation date to process warranty.
- b. To pay for normal operational maintenance, adjustments and cleaning.
- c. To pay for repairs caused by modifications made without True’s written approval.
- d. To pay for damage repairs resulting from electrical supply, customer’s use of non-OEM parts, water or drainage, flood, storm or other acts of God.
- e. To pay for premium labor rates, holidays, overtime, etc., unreasonable travel time, flat rate service call charges, mileage or miscellaneous tools and material charges not listed on payment schedule and additional labor charges resulting from inaccessibility of the cabinet.
- f. True’s warranty covers reasonable travel time which is defined as 30 miles one way, anything more than this must be pre-approved. Please contact Warranty Department for prior approval before having any unit serviced by a company outside the normal warranty coverage area. Excessive travel will not be covered under warranty without pre-approval.

**No Consequential Damages**

True is not responsible for economic loss; or special, indirect, or consequential damages, including, without limitation, of losses or damages arising from food or product spoilage claims as a result of refrigeration failure.

**TRM | Retail Merchandisers**

**Refrigeration – All refrigeration repairs should be performed in accordance with True’s Good Refrigeration Practices.**

- a. Diagnose & replace defective compressor..... 5.5 hrs.
- b. Diagnose & replace defective evaporator coil ..... 6 hrs.
- c. Diagnose & replace TXV ..... 6 hrs.
- d. Locate refrigerant leak & repair (Must note location of leak on invoice ..... 5 hrs.
- e. Diagnose & repair or replace defective refrigeration parts other than the parts listed above that require opening the refrigeration system..... 5 hrs.

**NOTE: Call for approval in advance of repair in a low clearance situation for extra labor considerations in which the refrigeration deck must be dropped to allow component repair.**

**Electrical**

- f. Diagnose & replace temperature control, module, display ..... 3 hrs.
- g. Diagnose & replace probes ..... 2 hrs.
- h. Diagnose & replace evaporator coil heater ..... 4.5 hrs.
- i. Diagnose & replace high limit..... 3 hrs.
- j. Diagnose & replace Condenser fan motor ..... 2.5 hrs.
- k. Diagnose & replace Evaporator fan motor ..... 3 hrs.
- l. Diagnose & replace Drain tube heater..... 4 hrs.
- m. Diagnose & replace perimeter heater top, bottom, left or right side ..... 2 hrs.
- n. Diagnose & replace mullion heater ..... 2 hrs.
- o. Diagnose & replace LED driver ..... 2 hrs.
- p. Diagnose & replace LED Module ..... 1.5 hrs.
- q. Diagnose & replace compressor inverter..... 3 hrs.

**Cabinet**

- a. Diagnose & replace door ..... 1.5 hrs.
- b. Diagnose & replace door hardware ..... 1.5 hrs.
- c. General Cabinet Repairs ..... 1.5 hrs.

Multiple Repairs will be paid at the highest rate for the part changed, plus 1 hour for each additional component changed. Note the drier is not considered an additional component.

True will pay for labor under warranty for initial diagnosis and single trip for repair only without prior approval for multiple repair trips. Should the repair time or trips necessary to perform repairs exceed the allowed amount, contact the Technical Service Department or the Warranty Department for approval prior to exceeding allowed repair time. True reserves the right to request any part claimed under warranty to be returned. For repairs not noted, please contact the Technical Service Department or the Warranty Department for approval.

**Customer responsibilities to include but not limited to:**

- a. To verify the product’s installation date for warranty process.
- b. To pay for normal operational maintenance, adjustments and cleaning.
- c. To pay for repairs caused by modifications made without True’s written approval.
- d. To pay for damage repairs resulting from electrical supply, customer’s use of non-OEM parts, water or drainage, flood, storm or other acts of God.
- e. To pay for premium labor rates, holidays, overtime, etc., unreasonable travel time, flat rate service call charges, mileage or miscellaneous tools and material charges not listed on payment schedule and additional labor charges resulting from inaccessibility of the cabinet.
- f. True’s warranty covers reasonable travel time which is defined as 30 miles one way, anything more than this must be pre-approved. Please contact Warranty Department for prior approval before having any unit serviced by a company outside the normal warranty coverage area. Excessive travel will not be covered under warranty without pre-approval.

**No Consequential Damages**

True is not responsible for economic loss; or special, indirect, or consequential damages, including, without limitation, of losses or damages arising from food or product spoilage claims as a result of refrigeration failure.

For U.S. and Canada customers only.

## Contact Information

Email: [compressortags@truemfg.com](mailto:compressortags@truemfg.com)

U.S. Phone: [855.878.9277](tel:855.878.9277)

Canadian Phone: [800.860.8783](tel:800.860.8783)

For customers outside the U.S. and Canada, please visit our International Support page at [truemfg.com](http://truemfg.com).

## No Charge Warranty Compressor Replacement

- Call in the failure of the compressor to the Service Department at [855.372.1368](tel:855.372.1368). Please have the unit serial number ready.
- Take a picture of the defective compressor tag and submit it to True via one of the following methods:
  - Email: [compressortags@truemfg.com](mailto:compressortags@truemfg.com)
  - Online submission form found on [truemfg.com](http://truemfg.com)
- The picture must be clear and readable and include the whole tag. All numbers will need to be read to verify that the correct compressor was still installed in the unit. In your submission, include the unit's serial number, and the ship-to address (if requesting shipment of another compressor). Once the tag is verified, the compressor will be sent out at no charge.

## Parts Depot Warranty Compressor Replacement

- If a picture of the compressor tag is not obtainable, then the compressor can be purchased from any of our Parts Depots in your area. Once the compressor has been changed out, the tag can be returned to the Depot, and credit will be issued once the tag is verified by the Depot. To find the nearest Parts Depot in your area, please call [855.878.9277](tel:855.878.9277) in the US and [800.860.8783](tel:800.860.8783) in Canada. Ask for the Warranty Department.

## True Warranty Compressor Purchase

- If you have an account with True, then a compressor can be ordered and shipped out. You will be billed for the compressor. Once the compressor has been changed out, the tag can be returned to True within 30 days of the compressor change out for credit after tag verification. Return the tag by email to [compressortags@truemfg.com](mailto:compressortags@truemfg.com).

## Local Compressor Purchase

- If a non-OEM compressor is purchased locally for a warranty unit, please send in a priced copy of the invoice from the compressor purchase along with the tag. Once the tag is verified, then True will reimburse the compressor purchase up to the amount that the compressor could have been purchased from True.
- Fill out the Warranty Compressor Reimbursement Form below and include it with your invoice.

## Notes

- Failure resulting from non-OEM compressor installations are not covered under warranty.
- Claims must be received within three months of the repair date.
- If the technician calls in the failure and is told that the unit is under warranty, this does not mean that the compressor will automatically be no charge or credited. The end user must have abided by True's Warranty terms included with the unit, and all tags must be verified for proof that True's compressor was still installed in the unit. Please note that a start component failure would not be covered under compressor only warranty, the compressor itself must fail.

For reimbursement a copy or picture of the tag from the defective compressor must be submitted to: [compressortags@truemfg.com](mailto:compressortags@truemfg.com).

Company Name \_\_\_\_\_ Phone Number \_\_\_\_\_

Service Company E-mail \_\_\_\_\_

Unit Model Number \_\_\_\_\_

Unit Serial Number \_\_\_\_\_ New Compressor Serial Number \_\_\_\_\_

Is Condenser Dirty?  NO  YES (if yes please send picture) Percent Dirty (%) \_\_\_\_\_

### What is the compressor failure?

**Locked Rotor**

Actual Amp draw \_\_\_\_\_

Static Voltage (voltage to unit without compressor running) \_\_\_\_\_

Start Up Voltage (voltage at compressor when it's trying to start) \_\_\_\_\_

Was compressor tested without original components?  NO  YES

If yes, please explain: \_\_\_\_\_

**Bad Valves**

High/ Low Pressures (with compressor running) \_\_\_\_\_

Voltage (while compressor is running) \_\_\_\_\_

Amperage \_\_\_\_\_

**Shorted/Grounded-Open Winding**

Static Voltage (voltage to unit without compressor running) \_\_\_\_\_

Startup voltage of new compressor \_\_\_\_\_

What testing was done to determine this? \_\_\_\_\_

**Bad Bearing-Noisy/Internal Mechanical**

Voltage while compressor is running \_\_\_\_\_

Amperage while compressor is running \_\_\_\_\_

What testing was done to determine this? \_\_\_\_\_

**Miscellaneous**

Please explain and supply all testing data done to determine this failure. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



221725

The Industry's Most Trusted Refrigeration Solution Since 1945.



# Good Refrigeration Practices

Good refrigeration practices will always start with good detective work to find out what caused the failure to eliminate the possibility of a repeat failure. Below is a step-by-step set of procedures True recommends following when repairing a refrigeration system.

- Before opening the refrigeration system remember that the POE oil is very hygroscopic and absorbs moisture very quickly. DO NOT leave the system open to the atmosphere for more than 15 minutes. Any vacuum that exists before any repair should be broken with nitrogen to avoid moisture being pulled into the system.
- When accessing the system do not remove process tube ends. Use temporary bolt-on access valves for diagnosing and repair.
- When repair is complete valves need to be removed.
- For manifold gauges, use the shortest hose possible. True recommends a maximum length of 12".
- Do not introduce anything into the refrigeration system other than a flushing agent, nitrogen, refrigerant, or oil.
- To reduce moisture contamination when changing a component keep the refrigeration system closed with plugs or caps.
- Recover the refrigerant from the system. Note, R-290 can be vented in a well-ventilated area with no source of ignition.
- Remove the faulty refrigeration component and filter drier by cutting out with a tubing cutter.
- Observe the filter drier and components removed for signs of oil breakdown and foreign objects, such as desiccant from drier, metal pieces from valves, etc.
- Test the oil from the refrigeration system for contamination using the proper test kit for that type of oil.
- When replacing a compressor make sure to also remove all the old oil from the system.
- If the oil shows signs of contamination. Flush the system.
- While purging nitrogen through the system drill a hole (approximately 1/8") (3.18 mm) in the bottom of the accumulator (IF EQUIPPED) to avoid leaving contaminated oil in the system. After blowing the hole out with nitrogen, make sure to braze the hole closed.
- Always replace the drier with the exact OEM size.
- When brazing an R-290 system, always purge nitrogen through the system before brazing.
- Place a nitrogen charge in the system to check for any leaks.
- Release the nitrogen down to 2 PSI.
- Change vacuum pump oil regularly to ensure the deepest vacuum pump capability.
- Start pulling a vacuum as soon as possible to help remove moisture.
- Pull down to 500 microns using a micron gauge.
- See if the system will hold this micron with the gauges closed and the pump switched off to test for leaks of moisture.
- Once the system is evacuated, weigh in the listed refrigerant charge located on the serial tag inside the cabinet. R-290 can be added as a liquid or vapor. Refrigerant 134a/404A charge as a liquid only. Refrigerant should be charged through the high side.
- Test run unit and check for proper operation.
- Remove access valves.

**ANY NITROGEN ADDED TO THE SYSTEM SHOULD NOT EXCEED 200 PSI (13.8 BAR).**

Please call True Technical Service with any questions regarding the above practices.

**1.855.372.1368**  
service@truemfg.com

**World Headquarters:** O'Fallon, Missouri, USA • **Service Department:** Hours of Operation  
7:00-6:00 CST Monday – Friday, 8:00 – 12:00 Saturdays

#### North America – Canada and Caribbean

Warranty Phone +1 855-878-9277  
Warranty Fax +1 636-980-8510  
Warranty Email warrantyinquiries@truemfg.com  
Technical Phone +1 855-372-1368  
Technical Email service@truemfg.com  
7:00 am–6:00 pm CST Monday–Friday,  
8:00 am–12:00 pm Saturday

#### Mexico

Phone +52 555-804-6343/44  
service-mexicocity@truemfg.com  
9:00 am–5:30 pm M–F

#### Latin America

Phone: +52 555-804-6343/44  
servicelatam@truemfg.com  
9:00 am–5:30 pm M–F

#### UK, Ireland, Middle East, Africa & India

Phone: +44 (0) 800-783-2049  
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