



Hartford Compressors, Inc.  
179 South Street  
West Hartford, CT 06110 USA  
Phone: 860-249-8671 ♦ Fax: 860-548-1705  
E-mail: webmaster@hartfordcompressors.com

## MSC START-UP AND WARRANTY VALIDATION REPORT

**\*\* Compressor Warranty is invalidated if this form is not completed and signed by an HCI Authorized Start-Up Technician within (5) working days of start-up \*\***

START UP DATE: \_\_\_\_\_

AUTHORIZED START UP SERVICE TECHNICIAN: \_\_\_\_\_

AUTHORIZED START UP SERVICE COMPANY: \_\_\_\_\_

Contact Phone #: \_\_\_\_\_ Email: \_\_\_\_\_

### New Compressor Information

Model # \_\_\_\_\_

Serial # \_\_\_\_\_

### Package Information

Manufacturer: \_\_\_\_\_

Model # \_\_\_\_\_

### Equipment Location

Job Name \_\_\_\_\_

Address: \_\_\_\_\_

### Original Compressor

Model # \_\_\_\_\_

Serial # \_\_\_\_\_

Start-up Date: \_\_\_\_\_

RGB # \_\_\_\_\_

### Operating Conditions (At Steady State)

Refrigerant Used: \_\_\_\_\_

Discharge Superheat: \_\_\_\_\_ °F \_\_\_\_\_ °C

Suction Pressure: \_\_\_\_\_ psig \_\_\_\_\_ bars

Discharge Pressure: \_\_\_\_\_ psig \_\_\_\_\_ bars

Suction Temperature: \_\_\_\_\_ °F \_\_\_\_\_ °C

Discharge Temperature: \_\_\_\_\_ °F \_\_\_\_\_ °C

Oil used: Brand \_\_\_\_\_ Type: \_\_\_\_\_

### **\*\*\*\*\* Oil Level \*\*\*\*\***

The sight glass on the side of the compressor is used to determine the oil level in which the compressor can safely operate. It is extremely important the compressor is **never** started with the oil level over the sight glass. If the level is above the glass prior to start-up, sufficient oil must be drained until the level is at the center of the sight glass.

### Vapor Injection (Economizer if used)

V.I. Port Pressure: \_\_\_\_\_ psig

V.I. Port Temperature: \_\_\_\_\_ °F

Liquid Injection Used:  Yes  No

Type of Vapor Injection Used:  Heat Exchanger / DX Subcooler

Flash Tank

None

### Electrical Conditions At Compressor Terminals

<u>Measured Volts</u>	<u>Measured Amps</u>	<u>Starting Type</u>
L1 - L2: _____ V	L1: _____ A      L7: _____ A	<input type="checkbox"/> X Line
L2 - L3: _____ V	L2: _____ A      L8: _____ A	<input type="checkbox"/> 2-Step
L1 - L3: _____ V	L3: _____ A      L9: _____ A	

### Pre-Startup Checks

Number of hours Sump Heaters on? \_\_\_\_\_ Hours      **Note: (24 hours minimum prior to start-up)**  
Compressor motor phasing check **Must** be performed using an appropriate meter.

Phasing Correct:     YES     NO

Continuity Check from Starter to Motor: T1 & T7 \_\_\_\_\_ T2 & T8 \_\_\_\_\_ T3 & T9 \_\_\_\_\_

Manual Operating Sequence Check of Control Circuit:     Correct     Incorrect

Actual Line Voltages (Before Start-up): L1-L2 \_\_\_\_\_ V    L2-L3 \_\_\_\_\_ V    L1-L3 \_\_\_\_\_ V

Actual Control Voltage: \_\_\_\_\_ V

**IMPORTANT:** If line voltage is 3% greater or less than UNIT nameplate volts, we suggest that the incoming voltage be adjusted. If the line voltage is 10% greater or less than the COMPRESSOR nameplate volts, **DO NOT START THE UNIT** until it has been adjusted to an acceptable level.

### Motor Check

**IMPORTANT:** This motor check must be performed before the compressor is started.

**CAUTION:** Do not Meg the motor while it is under a vacuum.

1. Wet / Dry Moisture indicator     DRY     CAUTION     WET

2. Winding to ground test. Read terminals T1 and T7 to ground with a 500 volt megohm meter.

(Not more than 1000V) T1 \_\_\_\_\_ MΩ

**Note:** The minimum reading is 5 MΩ. If the actual value is below the minimum, do not operate the motor, leave the heaters on for an additional 24 hours and then meg the motor and record the value. If the value is now above the minimum value, the motor can now be started. If the actual MΩ reading is still below the minimum value, contact HCI for further assistance.

3. Final MΩ readings before starting the compressor:    T1 \_\_\_\_\_ MΩ

### Please fill out this section if this compressor is replacing a burnout

Extent of burnout?     No Contamination     Slight Contamination     Extensive Contamination

Acid test kit results on oil from old compressor:     Satisfactory     Caution     Unsatisfactory

Filter / Driers changed:     YES     NO    If "NO" please explain \_\_\_\_\_

Did you install a burnout filter on the replacement compressor?     YES     NO

**\*NOTE\*** : HCI requires a burnout filter / drier be installed at Start-Up on the replacement compressor in the event of a slightly or extensively contaminated burnout. This is to ensure removal of all contaminants from the system.

**Oil Analysis Program**

HCI recommends an oil sample be taken three times per year for annual operation and twice per year on seasonal operation (such as air conditioning). These samples are sent to a testing lab for analysis of wear metal concentration, contaminants, moisture, acid and viscosity. More significant than the actual values obtained in any given oil test, are the changes noted as the hours of service on the oil increase. HCI Oil Analysis P/N 053498A1

**Oil sample information**

Name of lab testing oil samples: \_\_\_\_\_

If Oil Kare, what is the kit # (from sample processing form): \_\_\_\_\_

Date sample mailed: \_\_\_\_\_

Number of hours since new compressor installed: \_\_\_\_\_

**Start-up Service Technician's Declaration**

The start-up service technician hereby declares that he/she has instructed the Owner's / Contractor's representative on the operation of the compressor, as well as instructing him/her on any future follow-up that may be required. (See the Owner's / Contractor's acceptance statement below) The start-up service technician acknowledges the replacement compressor is operating satisfactorily.

\_\_\_\_\_  
Signature of Service Technician

\_\_\_\_\_  
Company Name

**Owner's / Contractor's Acceptance**

The Owner / Contractor hereby agrees that the start-up meets with his/her approval and agrees to have the required maintenance performed on the compressor. Included in this maintenance is the taking of oil samples for analysis. These oil samples are to be taken (4) weeks after start-up and then every 3 to 4 months thereafter. The Owner / Contractor agrees to verify that the oil samples are sent to a testing lab for analysis per warranty requirements and a copy of these analysis is sent to HCI application engineering for review.

\_\_\_\_\_  
Signature of Owner / Contractor

\_\_\_\_\_  
Company Name

**ATTENTION**

**THIS REPORT MUST BE COMPLETELY FILLED OUT AND SIGNED WHERE INDICATED. THE ORIGINAL REPORT MUST BE MAILED OR FAXED TO HCI WITHIN (5) WORKING DAYS OF THE START-UP TO VALIDATE THE WARRANTY.**

**PLEASE MAIL TO: HARTFORD COMPRESSORS INC.  
ATTN: APPLICATION ENGINEERING  
179 SOUTH STREET  
WEST HARTFORD, CT 06110 USA**

**OR FAX TO: #860-548-1705, ATTENTION: APPLICATION ENGINEERING**

<p><b>FOR OFFICE USE ONLY</b></p> <p>HCI: REVIEWED BY: _____</p> <p>DATE: _____</p>
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