This manual is for the installation and service of Tech West's Ultra Clean Lubricated Compressors.

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</table>
1. ULTRA CLEAN LUBRICATED COMPRESSOR LOCATION REQUIREMENTS

The Ultra Clean Lubricated Compressor location should be level, accessible and well ventilated.

If the Ultra Clean Lubricated Compressor will be located in a confined space, provide adequate ventilation.

Electrical

(1) Line voltage must be within the limits of Figure 1 below. (Install a “buck-boost transformer” if line voltage is not between these values.) Circuit breaker switches must be 20 - 30 amp depending on model and voltage necessary.

(2) Local code may require you to provide one quick disconnect (safety switch) for the compressor.

(3) See Figure 1 below for breaker size and line voltage.

CAUTION - Voltage must be 110/128 v or motor damage may occur.

CAUTION - Voltage must be 208/240 v or motor damage may occur.

---

Figure 1: Recommended Wire and Breaker Size

<table>
<thead>
<tr>
<th>Model</th>
<th>Voltage</th>
<th>Amperage</th>
<th>Wire Size (Gauge)</th>
<th>Recommended Breaker Size</th>
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<td>ACL6T2</td>
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<td>21.6</td>
<td>10</td>
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2. INSTALLATION STEPS

This dental Compressor should only be installed by qualified personnel. Should any questions arise during the installation, call Tech West Technical Support between the hours of 7:00 a.m. to 4:00 p.m. (Pacific Standard Time).

Place the compressor in a clean, dry, well ventilated area, on a solid, level surface. Consider sound level and insulate as needed. Be sure that adequate ventilation is available as the compressor is air cooled. Ambient temperature in the equipment room should be within the temperature range of 40 degrees Fahrenheit minimum to 100 degrees Fahrenheit maximum.

(a) Check the shipping carton for damage. This could detect damage to the unit which might otherwise be overlooked. Remove cardboard shipping carton.

(b) Remove the Lubricated Compressor from its shipping skid. Inspect the unit for damage. Lubricated Compressors are shipped bolted to a pallet. This pallet is intended for shipping only and should be discarded.

(c) Remove installation kit attached to pallet. It should contain the following:

(4) Isolation Feet
(1) Alternate Air Hookup Hose
(1) Bottle of Tech West Compressor Oil per Motor
(1) 5’ Flexible Air Hose

(d) Install isolation feet on tank legs.

(e) Remove shipping tape from spring-hinged oil filler cap(s).

(f) Install flexible hose to outlet on the compressor shut-off valve.

(g) Move compressor into place and level the motor platform.

(h) Install flexible hose to office air supply line.

(i) Install flexible hose to alternate fresh air supply.

(j) Wiring instructions:

1. Have all electrical connections made by qualified personnel only. All connections should be in accordance with local codes.

2. Use the chart on page 1 to help determine the proper line and breaker size for the unit that is being installed.
3. CONNECTIONS

Figure 2

Electrical Connection to disconnect and electrical panel 220 v (110 v / 220 v) on the single models only.

Dryer Purge Connection

Air Out Connection to building supply line.

Alternate Air Connection to fresh air supply.
ULTRA CLEAN LUBRICATED COMPRESSOR
INSTALLATION

4. START-UP STEPS

(a) Make sure the shut-off valve from the compressor tank is closed.

(b) Turn the breaker from the panel to the “ON” position.

(c) Turn power “ON” from the toggle switch on the compressor. Compressor should run quietly and vibration free. The storage tank should start to build pressure.

(d) The compressor will run until the pressure gauge reads 100 psi. The compressor then will automatically shut off and the dryer will purge with a quick blast of air.

(e) Using soapy water, check the compressor plumbing hook ups for leaks. Repair leaks if needed.

(f) Pressure test the entire plumbing system for leaks. Use the storage tank pressure gauge to monitor a pressure drop. After the plumbing system has been pressurized for 30 minutes, re-check the gauge for pressure drop. If there is a drop in pressure, find and repair all leaks in the office plumbing.

   AIR LEAKS ARE THE MAIN CAUSE OF COMPRESSOR FAILURES.

(g) Complete and mail in the warranty card for the compressor within ten days of installation.

5. PERIODIC SERVICING

WEEKLY SERVICING

(a) Check the oil level. Refer to figure 2. Use only Tech West oil specially formulated for Tech West Compressors.

   DO NOT OVERFILL. Add oil only when the oil level remains below the center line of the oil-level sight glass after the compressor has been idle for at least 5 minutes.

(b) Empty condensate drain bucket under the dryer.

MONTHLY SERVICING

(a) Crack the drain petcock on the bottom of the storage tank to check for water and drain if needed.
(b) Check pump-up times.
(c) Check the moisture indicator to see that it is still “blue”. If it is pink it is time to service the air dryer.

YEARLY SERVICING

(a) Repeat all of the monthly servicing.
(b) Change oil (part # CO-100).
(c) Replace the dessicant air dryer (part # RDC-100).
(d) Replace the ultra clean coalescing filter. (part # CFEO-375). This keeps drying system efficient.
(e) Replace alternate air filter (part # TIF-100). Reduces oil consumption and lengthens compressor life and efficiency.
(f) Replace the moisture indicator on the compressor (part # MI-100).
**Figure 3: Checking and Changing the Oil**

- **Oil Filler Spout**
- **Oil Drain Plug**
- **Indicator Lens**
- **Alternate Drain Spout**
- **Keep full to here.**

**Instructions**

Add oil to compressor through oil filler spout. Do not overfill. Keep filled to level as shown below. Oil should be changed annually or when oil becomes discolored.

Check oil level with compressor off and compressor sitting level.

**Figure 4: Replace Oil Indicator Lens**

- **Part #OSG-100**

**Important!**

Drain oil from compressor head before removing lens.

**Note:**

Replace only if damaged or discolored.
HEAD COVER AND FAN ASSEMBLY

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<td>CF-115</td>
<td>115 V COOLING FAN</td>
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<td>CF-230</td>
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ULTRA CLEAN AIR COMPRESSOR STARTER ASSEMBLY

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### SINGLE COMPRESSOR CONFIGURATION

### DUAL AND TRIPLE COMPRESSOR CONFIGURATION

### GAUGE AND CUT-OFF ASSEMBLY

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## REAR VIEW ASSEMBLY AND PARTS LIST

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[Diagram showing the rear view of the assembly with parts numbered 1 to 7.]
FILTER ASSEMBLY

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## SINGLE ULTRA CLEAN LUBRICATED COMPRESSOR

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<td>CV-375D-100</td>
<td>3/8 CHECK VALVE</td>
<td>3</td>
</tr>
<tr>
<td>13</td>
<td>DSV-230</td>
<td>PURGE VALVE SOLENOID VALVE 230V</td>
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<tr>
<td>14</td>
<td>SBHA-18-375</td>
<td>STEEL BRAID HOSE ASSEMBLY</td>
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<tr>
<td>15</td>
<td>CCH-230</td>
<td>LUBRICATED COMPRESSOR HEAD 230V</td>
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<tr>
<td>16</td>
<td>RFV-100</td>
<td>RUBBER MOUNTING FEET</td>
<td>4</td>
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<td>17</td>
<td>PSC-3</td>
<td>PRESSURE SWITCH</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>POVA-100</td>
<td>SAFETY POP OFF VALVE</td>
<td>1</td>
</tr>
</tbody>
</table>
Figure 5: Compressor Wiring Diagram
Trouble Shooting Chart
Single Ultra Clean Lubricated Compressor

1. Does air compressor run?
   - YES
   - NO

   Does compressor run for a few seconds, "chugs", then stops?
   - YES
   - NO

   Check voltage supplied to the compressor.
   - YES
   - NO

   Does purge valve seal while running?
   - YES
   - NO

   Replace intake filter.
   - YES
   - NO

   Defective head, contact Tech West.
   - YES
   - NO

   Is there sufficient pressure build-up with head discharge line removed?
   - YES
   - NO

   Does air leak from unloader valve until unit cycles again?
   - YES
   - NO

   Examine the check valve and the purge valve for leaks.
   - YES
   - NO

   Contact Tech West.

2. Does compressor pressure rise from 80 to 100 psi in less than 1 minute with no air being used?
   - YES
   - NO

   Does compressor cycle with no air being used?
   - YES
   - NO

   NO

3. Is the moisture indicator pink?
   - YES
   - NO

   Is there excessive oil usage?
   - YES
   - NO

   Does unloader valve system function properly?
   - YES
   - NO

   Does compressor run too hot or too frequent?
   - YES
   - NO

   Does air leak from unloader valve until unit cycles again?
   - YES
   - NO

   Examine the check valve and the purge valve for leaks.
   - YES
   - NO

   Contact Tech West.

   1. Level head.
   - YES
   - NO

   Is head level?
   - YES
   - NO

   Contact Tech West.

   1. Locate and repair leaks.
   2. Ventilate if room is above 100 deg. F.
   3. Contact compressor may be undersized.

NOTE: Close shut off valve. Pump up tank to 100 psi. If pressure is maintained for 15-20 min., leak is in office lines.

Replace intake filter.

Contact Tech West.

Contact Tech West.
Compressor does not run or runs for only a few seconds.

- **Yes**: Is room temperature above 40°F?
  - **Yes**: Increase room temp.
  - **No**: Does head run with discharge line disconnected?
    - **Yes**: Blockage in air line. Locate & repair.
    - **No**: Replace defective capacitors.

- **No**: Is there sufficient voltage at motor terminals when motor tries to start?
  - **Yes**: Does motor run after tapping capacitor/relay box or does start capacitor feel hot?
    - **Yes**: Tape relay box. If starts, relay is bad. Check for continuity across 2 & 5. Replace if none.
    - **No**: Is there continuity across terminal 2 & 5 or potential relay?
      - **Yes**: Replace defective potential relay.
      - **No**: Replace defective capacitors.

- **NOTE**: Voltage should be + or - 10% of rating.

- **Yes**: Replace defective thermal protector.
  - **No**: Is there continuity across the thermal protector?
    - **Yes**: Contact Tech West. (Head may be frozen.)
    - **No**: Is there resistance rise across the capacitors?
      - **Yes**: Short capacitor leads. Check resistance rise. If no resistance rise, replace.
      - **No**: Is there resistance rise across power lines?
        - **Yes**: Check for 1. Broken or loose wire.
          2. Defective pressure switch.
          3. Defective ON/OFF switch.
          4. Excessive voltage drop across power lines.
        - **No**: Is there sufficient voltage at disconnect box?
          - **Yes**: Install Tech West transformer.
          - **No**: Replace defective capacitors. Replace defective thermal protector. Contact Tech West. (Head may be frozen.)
Trouble Shooting Chart
Dual Ultra Clean Lubricated Compressor

DOES AIR COMPRESSOR RUN?
- YES
  - Does compressor run for a few seconds, "chugs", then stops?
    - YES
      - Check voltage supplied to the compressor.
    - NO
      - NO
      - Are there leaks in compressor or in office piping system?
        - YES
          - Replace intake filter.
        - NO
          - YES
            - Replace intake filter.
            - NO
              - NO
              - Is there a blockage in the air lines?
                - YES
                  - Locate and repair.
                - NO
                  - NO
                  - Does air leak from unloader valve until unit cycles again?
                    - YES
                      - Examine the check valve and the purge valve for leaks.
                    - NO
                      - NO
                      - Does air compressor cycle with no air being used?
                        - YES
                          - YES
                            - Does purge valve seat while running?
                              - YES
                                - ARE THERE LEAKS IN COMPRESSOR OR IN OFFICE PIPING SYSTEM?
                                  - YES
                                    - Replace intake filter.
                                  - NO
                                    - NO
                                    - Is intake filter clogged?
                                      - YES
                                        - Replace intake filter.
                                      - NO
                                        - NO
                                        - Is there a blockage in the air lines?
                                          - YES
                                            - Locate and repair.
                                          - NO
                                            - NO
                                            - Does compressor run for a few seconds, "chugs", then stops?
                                              - YES
                                                - Check voltage supplied to the compressor.
                                              - NO
                                                - NO
                                                - Does compressor pressure rise from 80 to 100 psi in less than 1 minute with no air being used?
                                                  - YES
                                                    - YES
                                                      - Is there sufficient pressure build-up with head discharge line removed?
                                                        - YES
                                                          - Locate and repair.
                                                        - NO
                                                          - NO
                                                          - Is there a blockage in the air lines?
                                                            - YES
                                                              - Locate and repair.
                                                            - NO
                                                              - NO
                                                              - Are there leaks in compressor or in office piping system?
                                                                - YES
                                                                  - Replace intake filter.
                                                                - NO
                                                                  - NO
                                                                  - Is intake filter clogged?
                                                                    - YES
                                                                      - Replace intake filter.
                                                                    - NO
                                                                      - NO
                                                                      - Is there a blockage in the air lines?
                                                                        - YES
                                                                          - Locate and repair.
                                                                        - NO
                                                                          - NO
                                                                          - Does compressor run for a few seconds, "chugs", then stops?
                                                                            - YES
                                                                              - Check voltage supplied to the compressor.
                                                                            - NO
                                                                              - NO
                                                                              - Does compressor pressure rise from 80 to 100 psi in less than 1 minute with no air being used?
                                                                                - YES
                                                                                  - YES
                                                                                    - Is there sufficient pressure build-up with head discharge line removed?
                                                                                          - YES
                                                                                             - Locate and repair.
                                                                                          - NO
                                                                                             - NO
                                                                                             - Is there a blockage in the air lines?
                                                                                               - YES
                                                                                                 - Locate and repair.
                                                                                               - NO
                                                                                                 - NO
                                                                                                 - Are there leaks in compressor or in office piping system?
                                                                                                   - YES
                                                                                                     - Replace intake filter.
                                                                                                   - NO
                                                                                                     - NO
                                                                                                     - Is intake filter clogged?
                                                                                                       - YES
                                                                                                         - Replace intake filter.
                                                                                                         - NO
                                                                                                         - NO
                                                                                                         - Is there a blockage in the air lines?
                                                                                                           - YES
                                                                                                               - Locate and repair.
                                                                                                           - NO
                                                                                                           - NO
                                                                                                           - Does compressor run for a few seconds, "chugs", then stops?
                                                                                                             - YES
                                                                                                               - Check voltage supplied to the compressor.
                                                                                                             - NO
                                                                                                               - NO
                                                                                                               - Does compressor pressure rise from 80 to 100 psi in less than 1 minute with no air being used?
                                                                                                                 - YES
                                                                                                                   - YES
                                                                                                                     - Is there sufficient pressure build-up with head discharge line removed?
                                                                                                                                       - YES
                                                                                                                                         - Locate and repair.
                                                                                                                                       - NO
                                                                                                                                         - NO
                                                                                                                                         - Is there a blockage in the air lines?
                                                                                                                                             - YES
                                                                                                                                                - Locate and repair.
                                                                                                                                             - NO
                                                                                                                                                - NO
                                                                                                                                                - Are there leaks in compressor or in office piping system?
                                                                                                                                                  - YES
                                                                                                                                                    - Replace intake filter.
                                                                                                                                                    - NO
                                                                                                                                                    - NO
                                                                                                                                                    - Is intake filter clogged?
                                                                                                                                                       - YES
                                                                                                                                                         - Replace intake filter.
                                                                                                                                                         - NO
                                                                                                                                                         - NO
                                                                                                                                                         - Is there a blockage in the air lines?
                                                                                                                                                           - YES
                                                                                                                                                               - Locate and repair.
                                                                                                                                                               - NO
                                                                                                                                                               - NO
                                                                                                                                                                - Does compressor run too hot or too frequent?
                                                                                                                                                               - YES
                                                                                                                                                                  - YES
                                                                                                                                                                     - Is there a blockage in the air lines?
                                                                                                                                                                         - YES
                                                                                                                                                                             - Locate and repair.
                                                                                                                                                                         - NO
                                                                                                                                                                             - NO
                                                                                                                                                                             - Are there leaks in compressor or in office piping system?
                                                                                                                                                                                - YES
                                                                                                                                                                                    - Replace intake filter.
                                                                                                                                                                                    - NO
                                                                                                                                                                                    - NO
                                                                                                                                                                                    - Is intake filter clogged?
                                                                                                                                                                                       - YES
                                                                                                                                                                                                - Replace intake filter.
                                                                                                                                                                                                - NO
                                                                                                                                                                                                - NO
                                                                                                                                                                                                - Is there a blockage in the air lines?
                                                                                                                                                                                                   - YES
                                                                                                                                                                                                  - Locate and repair.
                                                                                                                                                                                                  - NO
                                                                                                                                                                                                  - NO
                                                                                                                                                                                                  - Does compressor run too hot or too frequent?
                                                                                                                                                                                                     - YES
                                                                                                                                                                                                                        - YES
                                                                                                                                                                                                                            - Is there a blockage in the air lines?
                                                                                                                                                                                                                                  - YES
                                                                                                                                                                                                                                         - Locate and repair.
                                                                                                                                                                                                                                         - NO
                                                                                                                                                                                                                                         - NO
                                                                                                                                                                                                                                         - Are there leaks in compressor or in office piping system?
                                                                                                                                                                                                                                             - YES
                                                                                                                                                                                                                                                - Replace intake filter.
                                                                                                                                                                                                                                                - NO
                                                                                                                                                                                                                                                - NO
                                                                                                                                                                                                                                                - Is intake filter clogged?
                                                                                                                                                                                                                                                   - YES
                                                                                                                                                                                                                                                      - Replace intake filter.
                                                                                                                                                                                                                                                      - NO
                                                                                                                                                                                                                                                      - NO
                                                                                                                                                                                                                                                      - Is there a blockage in the air lines?
                                                                                                                                                                                                                                                            - YES
                                                                                                                                                                                                                                                                - Locate and repair.
COMPRESSOR DOES NOT RUN OR RUNS FOR ONLY A FEW SECONDS

YES

Is room temperature above 40°F?

NO

Increase room temp.

NO

Does head run with discharge line disconnected?

YES

Blockage in air line. Locate & repair

NO

Is there sufficient voltage at disconnect box?

NOTE: Voltage should be + or - 10% of rating.

YES

Replace defective capacitors

NO

Replace defective thermal protector

NO

Is there continuity across terminal 2 & 5 or potential relay?

YES

Is there continuity across the thermal protector?

YES

Contact Tech West. Head may be frozen.

NO

CHECK FOR:
1. Broken or loose wire.
2. Defective pressure switch.
3. Defective ON/OFF switch.
4. Excessive voltage drop across power lines.

Is there sufficient voltage at motor terminals when motor tries to start?

YES

Does motor run after tapping capacitor/relay box or does start capacitor feel hot?

YES

Does motor run after tapping capacitor/relay box, or does start capacitor feel hot?

NOTE:
1. Tape relay box. If starts, relay is bad.
2. Check for continuity across 2 & 5. Replace if none.

NO

Is there continuity across terminal 2 & 5 or potential relay?

YES

Is there resistance rise across the capacitors?

YES

Short capacitor leads. Check resistance rise. If no resistance rise, replace.

NO

Is there continuity across the thermal protector?

YES

NOTE:
1. Tape relay box. If starts, relay is bad.
2. Check for continuity across 2 & 5. Replace if none.

NO

Is there sufficient voltage at motor terminals when motor tries to start?

NO

Install Tech West transformer

NOTE:
Voltage should be + or - 10% of rating.

Contact Tech West. Head may be frozen.
Trouble Shooting Chart
Triple Ultra Clean Lubricated Compressor

Does Air Compressor Run?

YES: Does compressor run for a few seconds, "chugs", then stops?

YES: Check voltage supplied to the compressor.

NO: Does compressor pressurize from 80 to 100 psi in less than 1 minute with no air being used?

YES: Does compressor cycle with no air being used?

NO: Does the moisture indicator pink?

YES: Is there excessive oil usage?

NO: Is there a blockage in the air lines?

YES: Inspect check valves (L) for build up that can dog and restrict airflow.

NO: Is there a blockage in the air lines?

YES: Is head level?

NO: Contact Tech West.

YES: Examine the check valve and the purge valve for leaks.

YES: Locate and repair.

NO: Does air leak from unloader valve until unit cycles again?

YES: Run unit in manual purge mode for one week. If indicator still wet, replace desiccant.

NO: Note: Close shut off valve. Pump up tank to 100 psi. If pressure is maintained for 15-20 min., leak is in office lines.

YES: Does compressor run too hot or too frequent?

NO: Contact Tech West.

YES: 1. Locate and repair leaks.
2. Ventilate if room is above 100 deg. F.
3. Contact compressor may be undersized.

NO: Does unloader valve system function properly?

YES: Does compressor run too hot or too frequent?

NO: Level head?

YES: Contact Tech West.

NO: Does unloader valve & pressure switch close on pump-up, & open on purge cycle.

YES: Does compressor run too hot or too frequent?

NO: Run unit in manual purge mode for one week. If indicator still wet, replace desiccant.

YES: Examine the check valve and the purge valve for leaks.

YES: Locate and repair.

NO: Does air leak from unloader valve until unit cycles again?

YES: Run unit in manual purge mode for one week. If indicator still wet, replace desiccant.

NO: Note: Close shut off valve. Pump up tank to 100 psi. If pressure is maintained for 15-20 min., leak is in office lines.

YES: Does compressor cycle with no air being used?

NO: Does compressor run for a few seconds, "chugs", then stops?

NO: Does compressor pressurize from 80 to 100 psi in less than 1 minute with no air being used?

YES: Does the moisture indicator pink?

NO: Is there excessive oil usage?

YES: Is there a blockage in the air lines?

NO: Is head level?

YES: Contact Tech West.

NO: Does unloader valve system function properly?

YES: Does compressor run too hot or too frequent?

NO: Level head?

YES: Contact Tech West.

NO: Does unloader valve & pressure switch close on pump-up, & open on purge cycle.

YES: Does compressor run too hot or too frequent?

NO: Run unit in manual purge mode for one week. If indicator still wet, replace desiccant.

YES: Examine the check valve and the purge valve for leaks.

YES: Locate and repair.

NO: Does air leak from unloader valve until unit cycles again?

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NO: Note: Close shut off valve. Pump up tank to 100 psi. If pressure is maintained for 15-20 min., leak is in office lines.

YES: Does compressor cycle with no air being used?

NO: Does compressor run for a few seconds, "chugs", then stops?

NO: Does compressor pressurize from 80 to 100 psi in less than 1 minute with no air being used?

YES: Does the moisture indicator pink?

NO: Is there excessive oil usage?

YES: Is there a blockage in the air lines?

NO: Is head level?

YES: Contact Tech West.

NO: Does unloader valve system function properly?

YES: Does compressor run too hot or too frequent?

NO: Level head?

YES: Contact Tech West.

NO: Does unloader valve & pressure switch close on pump-up, & open on purge cycle.

YES: Does compressor run too hot or too frequent?

NO: Run unit in manual purge mode for one week. If indicator still wet, replace desiccant.

YES: Examine the check valve and the purge valve for leaks.

YES: Locate and repair.

NO: Does air leak from unloader valve until unit cycles again?

YES: Run unit in manual purge mode for one week. If indicator still wet, replace desiccant.

NO: Note: Close shut off valve. Pump up tank to 100 psi. If pressure is maintained for 15-20 min., leak is in office lines.

YES: Does compressor cycle with no air being used?

NO: Does compressor run for a few seconds, "chugs", then stops?

NO: Does compressor pressurize from 80 to 100 psi in less than 1 minute with no air being used?

YES: Does the moisture indicator pink?

NO: Is there excessive oil usage?

YES: Is there a blockage in the air lines?

NO: Is head level?

YES: Contact Tech West.

NO: Does unloader valve system function properly?

YES: Does compressor run too hot or too frequent?

NO: Level head?

YES: Contact Tech West.

NO: Does unloader valve & pressure switch close on pump-up, & open on purge cycle.

YES: Does compressor run too hot or too frequent?

NO: Run unit in manual purge mode for one week. If indicator still wet, replace desiccant.

YES: Examine the check valve and the purge valve for leaks.

YES: Locate and repair.

NO: Does air leak from unloader valve until unit cycles again?
COMPRressor does not run or runs for only a few seconds

- Is there sufficient voltage at motor terminals when motor tries to start?
  - Yes
    - Does motor run after tapping capacitor/relay box or does start capacitor feel hot?
      - Yes
        - Replace defective potential relay
      - No
        - Is there continuity across terminal 2 & 5 or potential relay?
          - Yes
            - Short capacitor leads. Check resistance rise. If no resistance rise, replace.
          - No
            - Replace defective capacitors
  - No
    - Is there resistance rise across the capacitors?
      - Yes
        - Replace defective thermal protector
      - No
        - Is there continuity across the thermal protector?
          - Yes
            - Contact Tech West. Head may be frozen
          - No
            - Replace defective thermal protector

CHECK FOR:
1. Broken or loose wire.
2. Defective pressure switch.
3. Defective ON/OFF switch.
4. Excessive voltage drop across power lines.

Is room temperature above 40°F (Fahr.)?

Increase room temp.

- Yes
  - Does head run with discharge line disconnected?
    - Yes
      - Replace defective pressure switch
    - No
      - Blockage in air line. Locate & repair
    - No
      - Install Tech West transformer
      - NOTE: Voltage should be + or – 10% of rating.

- No
  - Is there sufficient voltage at disconnect box?
    - Yes
      - Replace defective capacitors
    - No
      - Replace defective potential relay

Is there sufficient voltage at motor terminals when motor tries to start?

Is there sufficient voltage at motor terminals when motor tries to start?

Does motor run after tapping capacitor/relay box or does start capacitor feel hot?

Is there continuity across terminal 2 & 5 or potential relay?

NOTE:
1. Tape relay box. If starts, relay is bad.
2. Check for continuity across 2 & 5. Replace if none.

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1. Tape relay box. If starts, relay is bad.
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NOTE:
1. Tape relay box. If starts, relay is bad.
2. Check for continuity across 2 & 5. Replace if none.

NOTE:
1. Tape relay box. If starts, relay is bad.
2. Check for continuity across 2 & 5. Replace if none.
### VACUUM AND AIR LINE SIZING CHART

<table>
<thead>
<tr>
<th>NUMBER OF OPERATORIES</th>
<th>VACUUM LINE PIPE DIAMETER</th>
<th>AIR LINE PIPE DIAMETER</th>
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<tbody>
<tr>
<td></td>
<td>PVC sch 40</td>
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</tr>
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<td>3/4”</td>
</tr>
<tr>
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</tr>
<tr>
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</tr>
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<td>4</td>
<td>1 1/4”</td>
<td>1 1/4”</td>
</tr>
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</tr>
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**Maintenance & Service / Notes**

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