

# Open Frame Gas/Diesel Engine Driven Rotary Screw Compressor

# Installation Guide

**Notice:** Air compressors should only be installed trained installation personnel call 800-531-9656 to find a local trained air compressor service technician.

**Warning:** Read all installation steps, compressor package operation manual, notices and warnings prior to beginning compressor package installation. Failure to do so can result in personal injury or damage to compressor package.

**Warning:** Always wear proper protective eye wear, hearing protection, and other mandated safety clothing and devices when installing compressor packages

**Notice:** Compressor package should not be mounted to a moving piece of equipment that will be moving while the compressor package is in operation. The compressor package should not be mounted to a piece of equipment that adds additional vibration to the compressor package. The compressor package is only designed to handle its own organic vibration during operation. Failure to follow either one of these guidelines may result in pre-mature failure of compressor package, components and/or personal injury.

**ATTENTION:** All incoming electrical power connections are to be made on the main motor contactor(s) DO NOT attach incoming power wires to package pressure switch. This will result in electrical component damage not covered under warranty.

**NOTICE:** To ensure full compressor tank warranty all tank mounted compressor packages must be mounted on factory supplied vibration isolation pads.

**Warning:** Before beginning steps 6-17 verify power supply is off to compressor disconnect, and compressor package

**Notice:** All compressor air receivers should be inspected by a certified pressure vessel technician at least once per year, to check for leaks, weak points in the metal or any other deformity of the air receiver. If at any time a receiver appears out of conformance with ASME/CRN certification or a deformity is believed to have developed no matter how minor it may appear the tank should be locked out of service immediately



**Quality Air Compressor at a Great Price.**

2626 Skyway Drive  
Grand Prairie, TX, 75052  
417-206-6353  
800-531-9656



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**Notice:** Compressed Air Systems compressors can operate at pressures from 0-250psi depending on the compressor package design and build specifications. Always verify that the system the compressor is installed into can handle the maximum operational pressure the compressor. NEVER install a compressor in a system that can not handle the compressors maximum operating pressure.

**Notice:** Compressed air is extremely dangerous when not properly used or installed. Always make sure a trained compressed air professional has looked over the air system prior to use. Improper installation or use of compressed air can cause bodily injury or death. NEVER pressurize an object that was not designed to be pressurized. Pressurizing objects not properly engineered for the maximum operating pressure of the compressor system can cause bodily injury or death.

## Step 1

Verify compressor package install site can handle weight load of compressor package

**Note:** this should have been done prior to the sale of the compressor package

**Notice:** Installing compressors on a steel floor, wood floor or other structure not mounted to the ground may require additional mounting apparatus to handle weight and vibration

## Step 2

Make sure compressor installation area is clear of debris and has adequate space around were the compressor will sit for service (minimum of 24in.) and ventilation (must be able to get clean fresh air through oil/air cooler during operation, without recirculating cooler hot air discharge) If site is excessively dusty or dirty due to grinding, sanding, or due to the nature of the selected application site a new site should be sought out.

**A.** On some packages a remote air/oil cooler assembly is applicable to ensure proper fresh air intake to the compressor package cooler. It is critical to the operation of the compressor package that the drive engine and compressor air/oil cooler receive clean fresh air to maintain proper operating temperatures.

**B.** It is critical that the compressor package be installed level to ensure proper operation of the package.

## Step 3

On single cylinder engines with the fuel tank on the OEM engine verify tank is clean and free of debris. On engines with auxiliary or fuel tanks not part of the OEM engine make sure tank is installed properly and fuel line is clean and free of debris.

**A.** On applications requiring an auxiliary fuel tank if more than 5ft of fuel line is ran between the drive engine and compressor package an auxiliary fuel pump will be needed to ensure adequate fuel supply is delivered to the drive engine.

**B.** On auxiliary fuel pumps make sure the pump is installed in the proper direction. Failure to install the fuel pump properly will result in the driven engine running lean or no running at all.

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## Step 4

Uncrate compressor package (verify package is intact and not missing parts)

## Step 5

Remove compressor shipping pallet

**Warning:** Only use forklift or approved lifting device to remove compressor from shipping pallet

## Step 6

Set compressor into place on vibration isolation pads, in mounting location

## Step 7

Drill holes in floor, substructure through vibration pads and mounting location on compressor package.

## Step 8

Tighten compressor package mounting bolts or anchors. Bolts should be firm no distortion should be seen in the mounting vibration pad. If distortion is seen losing mounting hardware.

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## Step 9

Connect airline to compressor package air discharge. (Note: It is recommended to use a flexible line between the compressor package and the system piping to avoid damage due to compressor vibration)

## Step 10

In an open and ventilated area pour fuel into driven engines fuel tank. (It is recommended for initial start to use premium octane 91 or higher on gas engines and premium diesel on diesel engines for initial start).

## Step 11

Verify compressor tank discharge ball valve is open to system

## Step 12

Verify tank and system pressure is less than 10PSI

## Step 13

On engine equipped with a choke function make sure choke is in proper starting setting

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## Step 14

Turn engine key to start to being engine ignition

## Step 15

Replace choke function to run position on engines equipped with choke function

On days with ambient temperatures below 42F steps 13-15 may need to be repeated 3-4 times

## Step 16

Once engine is running and operational check for proper air flow around compressor package.

## Step 17

Close ball valve on compressor storage tank discharge.

## Step 18

Allow compressor package to reach maximum operating pressure

Engine will being to throttle down 10-15psi before maximum operating pressure

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Once compressor package has reached maximum operating pressure and is running unloaded and in idle

**NOTE:** Idle on rotary screw compressor packages is typically 300-500rpm less than maximum running speed

## Step 21

Open tank discharge ball valve to pressurize air system

## Step 22

**Warning:** When releasing air from compressor safety relief valve or tank drain DO NOT look at valve or drain.

Using either compressor tank safety relief valve or tank discharge drain, release air pressure until compressor package re-loads and begins compressing air again. You will also hear the drive engine speed up when the package re-loads and begins compressing again

**Note:** In most cases pressurizing the air piping system releases enough air from the system to cause package to re-load and begin compressing again

## Step 23

Perform function test on compressor package operating system. Using STEP 22, allow the compressor package to build up to maximum operating pressure and unload. Once unloaded release air from the system to cause the compressor package to re-load and compress air. Repeat this process a minimum of 6 times.

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Check compressor temperature gauge for current operating temperature. (Note on installation sheet)

## Step 25

Check all compressor air and oil lines for leaks, tighten fittings as needed.

## Step 26

Make sure compressor installation sheet is properly & completely filled out to be sent in for warranty registration.

## Step 27

Go over general operation and maintenance instructions of compressor package with owner and other personal that work around the compressor package. Verify if a maintenance agreement has already been set up or if one needs to be established.

## Step 28

Once steps 1-35 have been completed, turn compressor package off. Allow air end sump pressure to bleed off. (Complete sump depressurization takes approximately .5-1.5 minutes)

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Once sump pressure has bleed off, pull sump safety relief valve to verify sump pressure is released.

### Step 30

Remove air end oil fill cap slowly (If hissing or air is coming out around oil cap, tighten back down and verify sump pressure has been relived). Verify proper oil level in compressor package, add oil as needed.

### Step 31

Turn compressor back on, wipe down surfaces and make sure installation sheet is complete. Compressor is now ready for full operation.

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INDUSTRIAL GOLD

# WARRANTY

C E R T I F I C A T E O F L I M I T E D W A R R A N T Y

## Rotary Screw Compressors

All component parts on this compressor installed by the manufacturer are warranted to be free of defects, workmanship and material for a period of one year. Transportation charges are the responsibility of the purchaser. This warranty extends to the original purchaser of the compressor only.

There are NO express warranties except other than those contained in this limited warranty statement

Covered in the one year period of the warranty are defective parts due to defects in the original part only.

The compressor warranty is void in the cases of abuse, lack of proper service, in correct application, in correct installation, and neglect

Standard compressor warranty covers defective parts and labor for the one year period.

Industrial Electric stationary compressors may be repaired on site as long as the compressor is not located further than 50 miles from the service center. The purchaser is responsible for any additional travel expense past 50 miles from the service center.

Gas/Diesel engine driven compressors must be repaired at the closest service center to the compressor. The purchaser is responsible for any travel expense if they do not wish to bring the compressor to the service center.

**ALL "SPECIALTY COMPRESSOR" WARRANTY SERVICE MUST BE PERFORMED AT THE CLOSEST SERVICE CENTER TO THE COMPRESSOR**

Specialty compressor-any compressor package with options other than those that apply to the standard model number in the catalog

The compressor "airend" is covered by a 2 year warranty to be free from defects from manufacturing. This does not cover abuse, neglect, improper service, misapplication, or improper installation. An oil sample must be submitted with any airend warranty claim for verification. The purchaser must use only Compressed Air Systems synthetic rotary screw oil in the compressor for the duration of the warranty.

### **Airend- the rotors and bearings of the compressor**

**BEFORE WARRANTY SERVICE IS PERFORMED CONTACT MANUFACTURER TECH SUPPORT FOR FASTEST SOLUTION**

Warranty labor for the first year is only covered for work performed Monday-Friday 8am-5pm excluding all major US holidays

### **Optional 5 year "airend" warranty**

To be applicable for this option the purchaser must purchase a Full year Rotary Screw compressor service kit at the same time as the compressor and a subsequent kit every year afterwards for a total of 5 kits during the compressor warranty period. The purchaser must use only Compressed Air Systems synthetic rotary screw oil in the compressor for the duration of the warranty.

The warranty covers the "airend" of the compressor for a period of 5 years parts replacement only, from any defect due to manufacturing. The warranty does not cover wear and tear, abuse, neglect, improper service, misapplication, or improper application.

**BEFORE WARRANTY SERVICE IS PERFORMED CONTACT MANUFACTURER TECH SUPPORT FOR FASTEST SOLUTION.**

**Gas-Diesel Engine Driven Rotary Screw Installation sheet**

Date of Installation \_\_\_\_\_ Compressor Model# \_\_\_\_\_

Installation Company \_\_\_\_\_ Compressor Serial # \_\_\_\_\_

Installation Technician \_\_\_\_\_

Drive Engine:  Gasoline  Diesel  Natural Gas

Location of Install:  Truck Body Open  Van  Trailer  Box Truck  Other \_\_\_\_\_

Auxiliary fuel Tank needed \_\_\_\_\_ Auxiliary Fuel pump needed \_\_\_\_\_

Wiring extension added:  Yes  No

Wiring extension Technician \_\_\_\_\_

Compressor package inspected for air leaks :  Yes  No

Compressor tank drain checked for function:  Yes  No

Unit install location in weather proof enclosure:  Yes  No

Unit tank fill time 0-125psi \_\_\_\_\_ (Put N/A if pressure not applicable to installed unit)

Unit tank fill time 0-150psi \_\_\_\_\_ (Put N/A if pressure not applicable to installed unit)

Unit tank fill time 0-175psi \_\_\_\_\_ (Put N/A if pressure not applicable to installed unit)

Unit Cooling Fan  Pulls air through cooler  Push's air through cooler)

Compressor Temperature gauge reading Before start up \_\_\_\_\_ After start up \_\_\_\_\_

Belt tension checked after startup:  Yes  No

Vibration Pads properly installed:  Yes  No

Remote air/oil cooler installed:  Yes  No

If remote cooler installed distance from compressor package \_\_\_\_\_

All installation steps completed:  Yes  No If no, reason: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Send copy of completed installation sheet to manufacture to begin warranty

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