

**B5 (T) (TD) &
B7.5 (T) (TD)
Rotary Screw
Air Compressor
Units
- - -
Installation
And
Service Data**

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Please read this manual before installing or using your Air Compressor Unit. It contains valuable information that will help in the receiving, installation, use, and maintenance of the Unit.

Please keep this manual in a safe place for future reference.

All of the information, policies, and procedures in this reference manual apply exclusively to DV Systems.

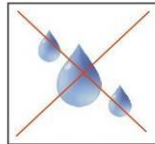
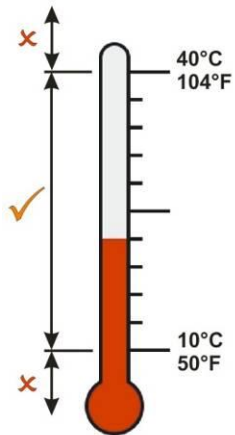
If you require assistance, please contact your local DV Systems Distributor or Authorized Service center. You may contact the manufacturer directly as follows:

Phone: (705) 728-5657
Web: www.dvsystems.com
Email: sales@dvsystems.com

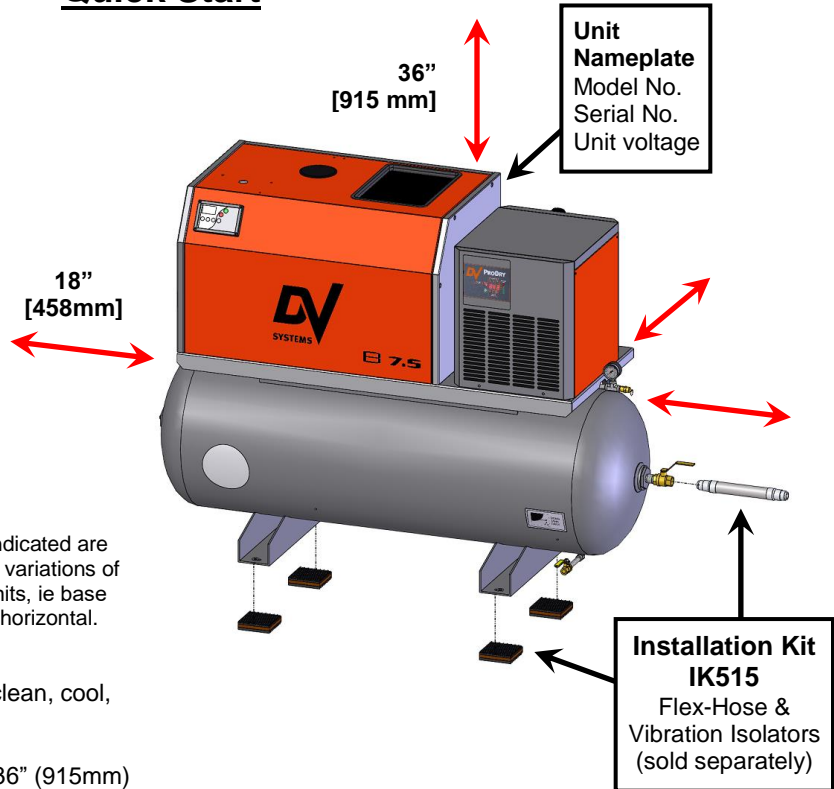
Quick Start

Mechanical Installation.

(Refer to Page 6)



Note: Dimensions indicated are typical for all variations of 'B-Series' Units, ie base mounted, or horizontal.



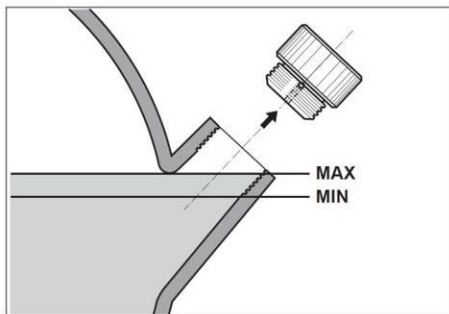
- The Unit must be located indoors, in a dry, clean, cool, dust free, and well ventilated area.
- Allow a minimum 18" (458mm) around and 36" (915mm) above Unit.
- The ambient temperature should be between 10°C and 40°C (50°F and 104°F).
- Ensure that the floor under the Unit is smooth, level and capable of bearing the weight of the Compressor.
- If installed in a compressor room, ensure that the room is adequately ventilated.
- The unit must be anchored to the floor using isolator pads.

CAUTION

Drain condensate (water) from oil tank.
If compressor work cycle experiences long pauses, condensate will gather in oil tank.
Drain condensate EVERY 50HRS OR WEEKLY.
(Refer to Page 8 for details)

Lubrication.

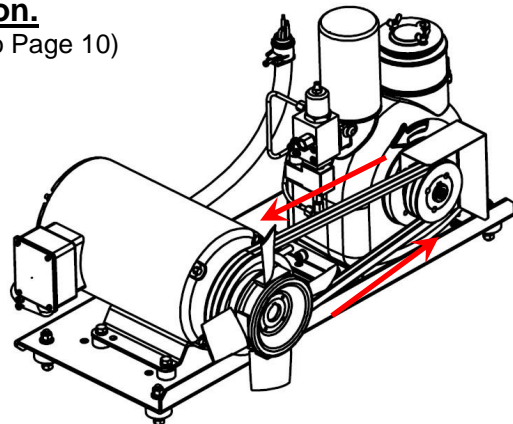
(Refer to Page 8)



- Ensure the oil level in the Air End is between the top (maximum) or bottom (minimum) thread as shown.

Rotation.

(Refer to Page 10)



- The correct rotation is as shown.
- The Unit is equipped with an Anti-Rotation Switch. Check that the rotation is correct.

Quick Start (cont'd)

Unit Operation.

Shown below is the 'CSC50' Controller which regulates the operation of the Unit. It is used to start and stop the Unit, and it provides information as to system pressure, temperature, etc.

Starting the Unit: Press the '**Start**' Button.

Stopping the Unit: Press the '**Stop**' Button

Note:

1. Do not stop the Unit by use of a disconnect or breaker.



Using the disconnect, or breaker to stop the Unit will not allow the Unit to go through an unloading sequence, and could result in damage to the Motor, Starter, or other electrical components. Damage caused in this manner is not covered by the manufacturers Warranty.

Digital Readout.

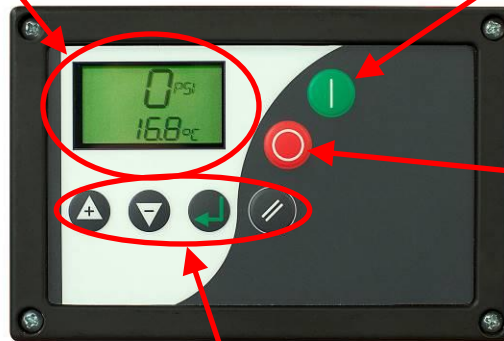
Provides system pressure, temperature, etc.

Start.

Allows the Unit to begin compressing air.

Stop.

Causes the Unit to enter 'Idle' mode and then shut off.



Up, Down, Enter & Reset

Used in the programming and changing of operating parameters of the Unit.







Safety Precautions

In order to operate the Compressor Unit safely and correctly, we have opted to use the following symbols to make you aware of important points. These points relate to user safety and preventing equipment problems. Please pay close attention to these sections.

<div style="text-align: center; background-color: black; color: white; padding: 5px; border-radius: 10px; margin-bottom: 10px;">  WARNING </div> <p>Important safety Information. A hazard that may cause serious injury or loss of life.</p>	<div style="text-align: center; background-color: black; color: white; padding: 5px; border-radius: 10px; margin-bottom: 10px;">  CAUTION </div> <p>Important information that indicates how to prevent damage to equipment, or how to avoid a situation that may cause minor injury.</p>	<div style="text-align: center; background-color: black; color: white; padding: 5px; border-radius: 10px; margin-bottom: 10px;">  NOTE </div> <p>Information that you should pay special attention to.</p>
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 **WARNING**

The following hazards may occur during the normal use of the equipment. Please read the following chart.

<u>Area:</u>	<u>Hazard:</u>	<u>Safeguards:</u>
What to look for.	What may occur if precautions are not observed.	How to avoid the hazard.
	Tampering with the Unit while under full or partial pressure may cause an explosion.	Relieve all pressure from the Unit before attempting any repair or maintenance work.
	As the Unit starts and stops automatically, serious injury may result from working on the Compressor with the power still in the 'on' position.	Shut off all power to the Unit before attempting to repair or maintain the Compressor.
	As the Unit starts and stops automatically, do not come into contact with moving parts.	Shut off all power to the Unit before attempting to repair or maintain the Compressor.
	Air compressed by the Unit is not suitable for inhaling. It may contain vapours harmful to your health. Compressor capable of pressures >50psi.	Never breath untreated compressed air produced by the Compressor. Do not direct air stream at body.
	Compressor Air End, Motor, and Tubing become hot when running. Touching these areas may cause serious burns.	Never touch the Air End, Motor, or Tubing during or immediately after operation.
	As the electrical components on the Compressor are General Purpose, there is a potential for explosion, should vapours be present in the area.	Do not install in hazardous locations. The Compressor must be a minimum of 20 feet (6.1 meters) from any source of potentially explosive vapours.

Unpacking and Inspection

NOTE

Each DV Systems Air Compressor is carefully tested and inspected before shipment. Though every attempt is made to ensure the safe and complete shipment of our product, freight damage or misplacement of goods may occur.

Shipments of DV Systems products are the property of the Consignee when the products leave our facility. DV Systems Inc. is not responsible for any damages or shortages caused to the product after it has left our shipping dock.

It is the responsibility of the receiver of the goods, either the Distributor or Customer, to ensure that the product has been shipped in full, and has arrived in suitable condition. Damage to the product may not be visible at time of off-loading, but may only become apparent upon unpacking or start-up.

Some areas to initially check are as follows:

- a) Check for damage to the crating and/or packaging.
- b) Check the exterior of the Cabinet for damage, either cosmetic or mechanical.
- c) If there is mechanical damage, open the Cabinet to determine whether there is any internal damage to the Unit.

Should there be damage to the product or shortages in shipment:

- 1) Stop any further unpacking or operation of the product.
- 2) Make note of the problem on the Freight Bill, should it concern a shortage or visible damage to the product.
- 3) Should the damage be noticed only after the product has been received, contact the transport company immediately to file a claim.
Depending on the problem, it may be wise to photograph the damage. Also, it may be wise to discuss with the carrier representative the time allotted to give notice of loss or damage to the product; there may be guidelines which limit timeframes of same.
- 4) Do not attempt further unpacking or operation of the product. Also, do not discard any packing material used.
- 5) A Loss or Damage Claim must be submitted to the carrier and supported by the following documents:
 - Copy of Freight Bill of Lading
 - Copy of the Invoice and Estimate to repair, in case of damage
 - Damage Report
 - Copy of photos, if applicable

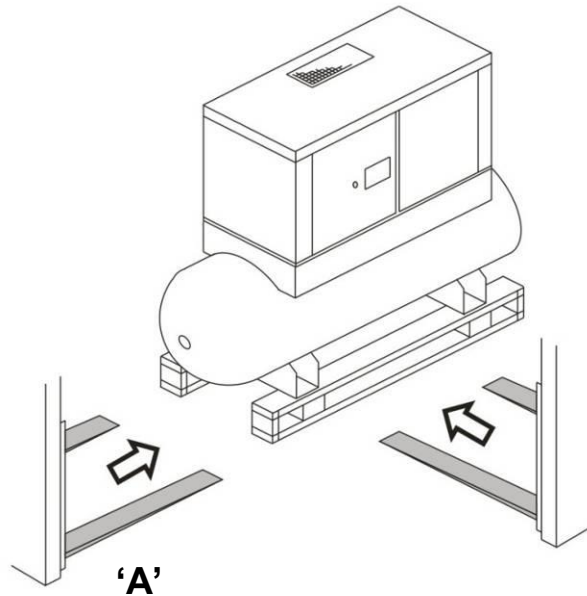
Installation – Mechanical

Moving of the Unit.

When moving the Air Compressor, the forklift or hand lift forks go under the Unit from the directions as indicated.

When lifting from position 'A', use extended forks.

Please be advised that, though care must be taken when moving all Units, extra care must be taken when positioning a vertical Compressor as they are top heavy.



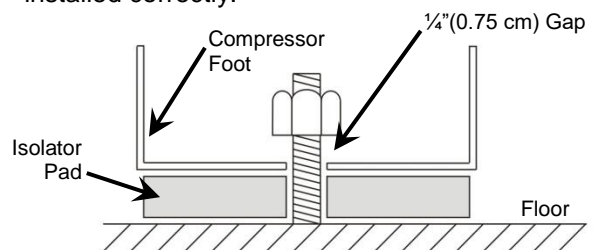
Location of the Unit.

Items to consider when installing the Unit are as follows:

- The Unit must be located indoors, in a dry, clean, cool, dust free, and well ventilated area. If possible, the Compressor should be located in a separate room or area, away from the general operations of the shop.
- Allow approximately a minimum of 18" (458mm) around and 3 feet (915mm) above the Unit for easy access to the various sides, this being for both the proper ventilation of the Unit and ease of servicing.
- Ensure that the floor under the Unit is smooth, level and capable of bearing the weight of the Compressor. The Compressor must sit squarely on the floor.
- Ensure that the Units is anchored to the floor using isolator pads.
- If installed in a compressor room, ensure that the room is adequately ventilated. (One Horsepower produces approximately 2500 BTU/HR.)

- If installing the Unit on a mezzanine, ensure that the structure can safely support the weight of the Unit. As well, the sound level of the Unit may increase due to the harmonics created by the structure; use Vibration Pads to lessen this.
- When anchoring the Unit, ensure that there is approx.. ¼" (0.75cm) between the Nut and the Compressor Foot (as shown below). Do not bolt down tightly.

Many common Compressor problems can be attributed to the location or installation of the Unit. Make sure the Unit is in a suitable location, and installed correctly.



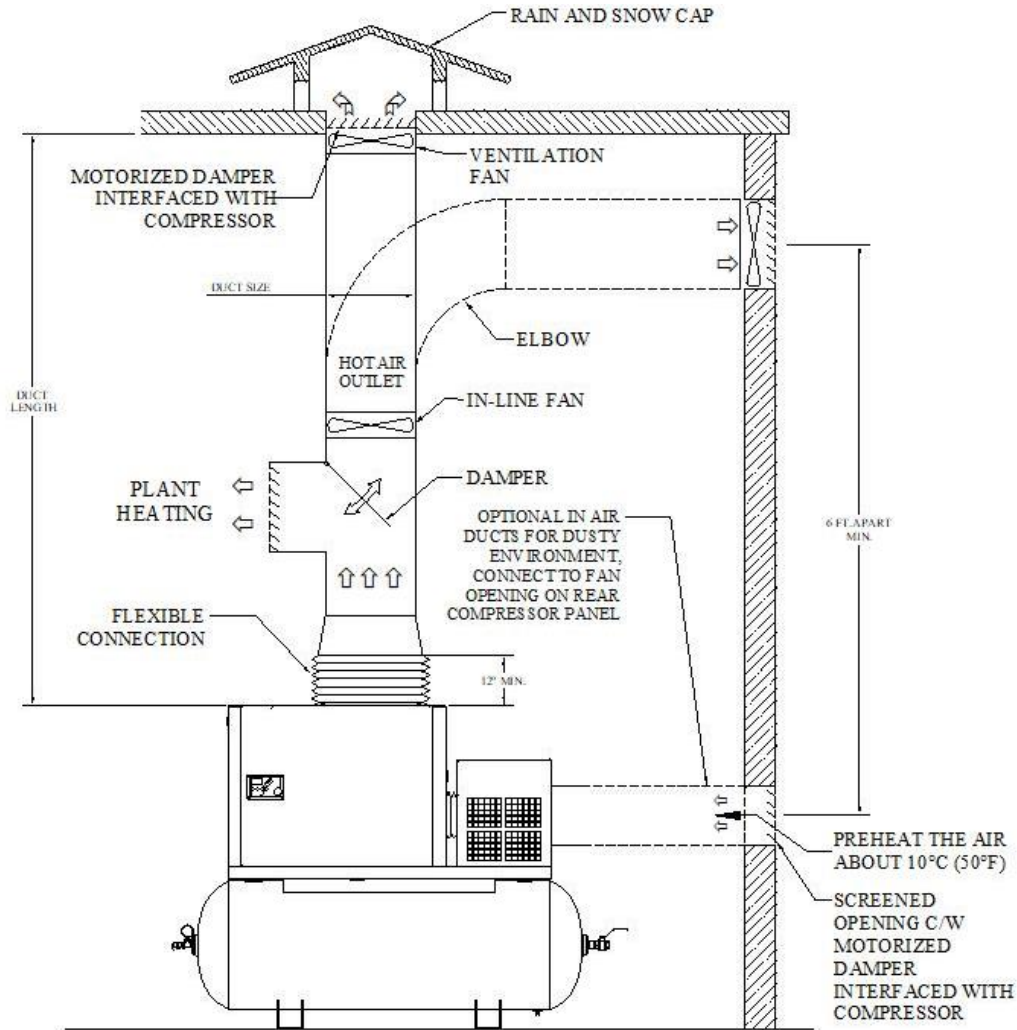
NOTE

The Compressor must not be operated in a confined area where the heat from the Unit cannot readily escape.

Installation – Mechanical (cont'd)

Shown below are items which assist in making a good installation. These are both intake and exhaust ductwork, helping the Unit to a) draw in clean outside air and b) exhaust the warmer air away from the Unit. The warmer air may be used, with the inclusion of a damper in the exhaust ducting, to warm the interior of the building during the colder months of the year.

TYPICAL DUCTING INSTALLATION LAYOUT



MODEL	HP	HEATLOAD (BTU/HOUR)	COOLING AIR (CFM)	RECOMMEND MIN. DUCT SIZE	MAX. DUCT LENGTH L _{in} - L _{out}	INLET & OUTLET AT COMPRESSOR
B 5	5	12,505	625	Ø 12" (CIRL.) 12" x 12" (RECT.)	10 Ft. (0 ELBOW) 8 Ft. (1 ELBOW)	OUTLET SIZE 12 1/2" x 17 3/8"
B 7.5	7.5	18,758	650	Ø 12" (CIRL.) 12" x 12" (RECT.)	6 Ft. (2 ELBOW)	INLET SIZE 11 1/2" DIA.

NOTE:

1. DUCTING SIZE BASED ON GALVANIZED STEEL DUCTS.
2. MAXIMUM PRESSURE DROP DUE TO DUCTING SYSTEM SHOULD BE WITHIN 0.1 IN. OF WATER.
3. ADDITIONAL VENTILATION SYSTEM (IN-LINE FANS) NEEDED FOR PRESSURE DROP EXCEED ABOVE LIMIT.
4. AMBIENT TEMPERATURE: MIN. 10°C (50°F) ~ MAX. 40°C (104°F).
5. ANY DEVIATION FROM ABOVE INSTALLATION, CONSULT DV SYSTEMS TECHNICAL SUPPORT.

Lubrication

Initial Start-up.

Each Compressor Unit built is extensively tested at the factory before shipment. The Unit is shipped with the original oil in it as used for testing purposes.

Check the Oil level and for any Oil leaks on a daily basis. This must be done when the Unit is off. Top up the Oil level on a monthly basis.

Use only DV Systems '**DEV-3000**' Synthetic Oil. As well, do not mix the 'DEV-3000' with any other lubricant.

Subsequent Oil Changes.

Drain the existing oil from the Unit. (Please be advised that the Unit cannot be drained fully of oil, as some oil may remain in various components ie Cooler, Tubing, etc.)

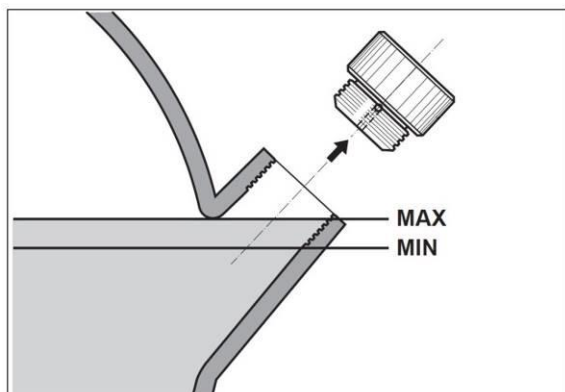
Fill the Oil Reservoir to the top of the Oil Fill Port as shown below. Do not under or overfill. See drawing below.

Use only DV Systems '**DEV-3000**' Synthetic Oil, available in both 1 US gallon (3.8 litre) jugs or 5 US gallon (5 x 3.8 litre) pails. Any remaining oil may be used for 'top-ups'.

The '**MK-B57**' Maintenance Kit includes:

- (1) US Gallon (3.8 litre) Oil ('DEV-3000')
- (1) Oil Filter ('DSC-603')
- (1) Air/Oil Separator Filter ('DSC-002476')
- (2) Air Filters ('DSC-001569')

This Kit should be used in the regular servicing of your Unit.



Do not attempt to operate the Unit without first checking whether there is oil in the Air End Reservoir. Add oil as required. Serious damage may result from use, however limited, without oil.

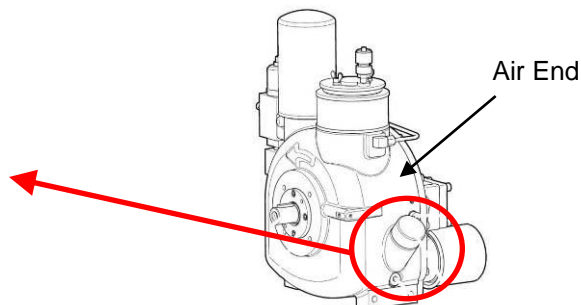


Use of improper oil may negatively affect Compressor performance or shorten Unit life. Resulting problems are not covered by the DV Systems Inc. Air Compressor Warranty.



Condensation (water) may form in the Air End if the compressor work cycle experiences long pauses. If this occurs, the condensate MUST be drained EVERY 50HRS OR WEEKLY:

- Wait for compressor to cool for approx. 2HRS.
- Remove service panel
- Slowly remove/open the oil drain cap/valve on the air end & drain condensate
- When the first traces of oil appear, close the cap/valve
- Top up the Air End with new oil using only DV Systems 'DEV-3000' oil.



Installation - Electrical

General Information.

It is your responsibility to ensure that the Compressor Unit is electrically connected in a safe and correct manner. **Any electrical work should be carried out by a competent Electrician, and be done in such a way that it meets all applicable Codes and Regulations.**

Ensure that a Fused Disconnect (by others than DV Systems) is installed in the electrical supply before the Compressor Unit.

Ensure that a suitable Fused Disconnect or Breaker is sized and installed according to the appropriate local electrical codes.

Electrical wiring and conduit from the building supply, through the Compressor Cabinet, and to the Switch in the Compressor Control Panel, must be rated for 90°C (194°F) or higher.



- **Failure to correctly connect the Compressor to your building's electrical services may result in serious personal injury or damage to the equipment.**
- **Before servicing the Unit, ensure the power source has been shut down and locked off.**
- **Install all covers and panels before applying power to the Unit.**
- **Read and understand the information contained in this manual before installing or operating the Unit.**
- **Failure to install proper fuse protection may void the unit warranty.**
- **This product must be connected to a grounded, metallic, permanent wiring system, or an equipment-grounding terminal or lead on the product.**

Failure to observe any of the above precautions could result in severe personal injury or death, and/or damage to the Unit.

Wiring Practices.

When making power and control wiring connections, please observe the following precautions:

- Ensure that all wiring, fusing, etc is done in a manner that meets with the appropriate codes and regulations.
- See the sales drawing and electrical schematic contained in this booklet for Unit amp draw, as well as Unit fuse sizes and overload settings.
- A licensed Electrician is to determine the appropriate Disconnect/Breaker and wiring sizes based on the Unit amp draw and the appropriate Electrical Code.

Fixed Speed Units:

Use TIME-DELAY type fuse.

Max. Allowable Fuse = 1.75 x Motor Full Load Amp

Installation – Electrical (cont'd)

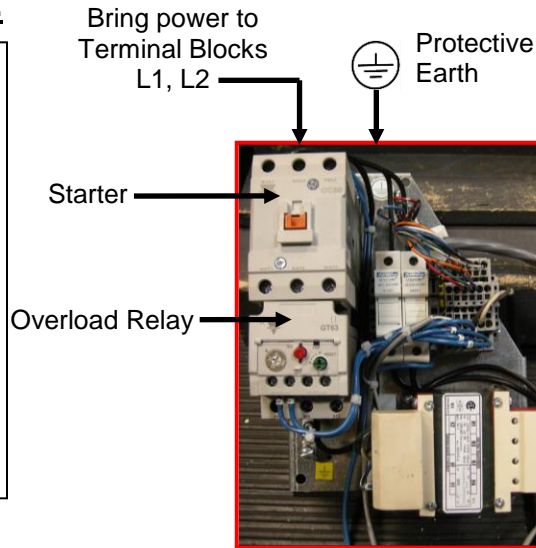
CAUTION

Do not attempt to operate the Unit without first checking whether there is oil in the Air End Reservoir. Add oil as required. Serious damage may result from use, however limited, without oil.

Electrical Connection.

The Electrician is to bring power to the Unit at the Electrical Panel accessible by means of removing the Unit LH Panel.

A licensed Electrician is to determine the appropriate Disconnect/Breaker and wire size based on the Unit amp draw as indicated on the sales drawing at the back of this booklet.



Connect ground wire to Protective Earth terminal. Bring power to L1 and L2. See page 11 for start-up procedures.

Motors.

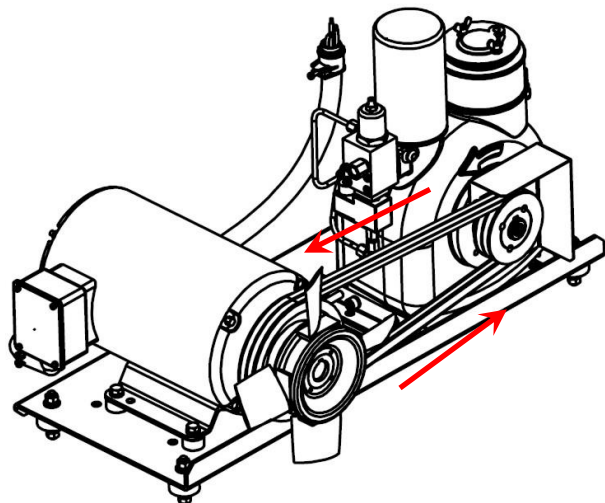
Wiring must be done in a manner that the full Motor nameplate voltage +/- 10% is available at the Motor terminals during start-up. Contact your local Distributor or Service Centre if additional information is needed.

The Warranty that exists on the Electric Motor is that of the original manufacturer. In the event of a Motor failure, contact your DV Systems Distributor or Service Centre for the location of the nearest authorized Motor Service Centre.

Motor/Air End Rotation.

The correct rotation is as indicated by the arrow on the Air End, or as shown at right.

The Unit is equipped with an Anti-Rotation Switch. If the Unit will not start and an 'Anti Rotation' error is noted on the Controller, simply change #1 and #3 leads to the Control Panel.



Start-up Procedures

CAUTION

Do not attempt to operate the Unit without first checking whether there is oil in the Air End Reservoir. Add oil as required. Serious damage may result from use, however limited, without oil.

Initial Start-up

- 1) Remove the LH Side Access Panel, and ensure that there is sufficient Oil in the Air End. Refer to the 'Lubrication' section (page 8) in this manual for proper type and level of Oil.
- 2) Do a visual inspection of the Unit, and ensure that all fasteners are sufficiently tightened. This must be done, as some fasteners may become loose in transit.
- 3) Place the Fused Disconnect or Breaker in the 'On' Position. Check that there is power to the Controller.
- 4) During normal operation of the Unit, keep the Access Panels closed at all times. As well, do not place any obstructions against or on top of the Unit, thereby limiting the flow of cooling air.
- 5) Ensure the Ball Valve on the Unit is closed, press the 'Start' Button, and run the Unit up to maximum pressure. The Unit will run up to approx. 145 psi (10bar), at which point the Motor will continue to run but not compress air.
- 6) Once the Unit reaches 145 psi (10bar), it will idle for 5 minutes and shut off.
- 7) Open the Ball Valve slightly and allow the air to bleed from the Tank. Once the pressure reaches approx 120 psi (8.3bar), the Unit will start and begin to compress air after a short delay.
- 8) Measure the amp draw when the Unit reaches the maximum pressure of 145 psi (10bar).
- 9) Close the Ball Valve, allow the Unit to reach maximum pressure, idle, and shut off. Once off, check the various fittings etc inside the Cabinet to ensure there are no internal leaks.
- 10) The Unit is ready for normal use.
- 11) Register the Unit to Activate the Warranty at:
gdg.gardnerdenver.com/DV-Rotary-Warranty

CAUTION

Do not place any materials in close proximity to the Compressor. Placing materials against or close to the Unit will limit the cooling required, and could lead to premature failure.

WARNING

Shut off all power to the Air Compressor Unit before attempting any repair or maintenance.

NOTE

Adjusting the settings of the Controller could adversely affect the performance of the Unit. Only those individuals with knowledge of the Unit should make any adjustments.

Preventative Maintenance Schedule



When servicing the Air Compressor, shut off all power to the Unit, and drain it of air pressure.



It is the responsibility of the compressor owner to ensure that a regular Maintenance Schedule is followed.

Noted on the following pages are general Maintenance guidelines based on average working conditions. Should the Unit be worked under extreme conditions, please contact your DV Systems Distributor for further input. As well, all maintenance/service work must be carried out by a qualified Technician.

If the operating temperature of the Unit is too low (less than 70°C (158°F)):

- condensation will build up in the system and mix with the oil, causing internal component problems in the Unit
- Change the ambient conditions to increase the operating temperature.

If the operating temperature of the Unit is too high (above 85°C (185°F)):

- the oil will oxidize and lose its properties, this causing internal damage to components as well
- to combat this, the oil must be changed more often than noted below.

Note: For Compressor Units used in an environment where the ambient temperature is above 32°C (90°F), the components marked with a ' # ' (on the chart on the following page) must be changed more frequently, and not as noted below.

Regular Maintenance Items.

DV Systems offers a Maintenance Kit for your Unit, namely:

MK-B57 5, 7½ and 10 HP 'B Series' Units

Each Kit consists of the following items, these suitable for approximately 2000 hours of operation.

- | | | |
|-----|--------------------|--------------------------|
| (1) | DEV-3000-K1 | 1 Gal. of Synthetic Oil |
| (1) | DSC-603 | Oil Filter |
| (1) | DSC-002476 | Air/Oil Separator Filter |
| (2) | DSC-001569 | Air Filter |

Internal Access for Maintenance.

The internal components of the Unit are accessible for servicing by way of removing the LH Side Panel.

The Back Panel is also removable to access the Belts if required.





Preventative Maintenance Schedule (cont'd)

Maintenance Item:	Daily	Maintenance Interval (in 000's of Hours)																				
		2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	
Compressor Room																						
Temperature	Inspect	Ambient Temperature should be between 10°C and 40°C (50°F and 104°F)																				
Cleanliness	Inspect	[Yellow grid]																				
Air Compressor Unit																						
Check Oil Level	Inspect	[Yellow grid]																				
Replace Oil # (See Note b)	(1)				X					X					X				X		X	
Replace Oil Filter #	(2)		X		X		X		X		X		X		X		X		X		X	
Replace Air / Oil Separator #	(3)				X					X					X					X		X
Replace Air Intake Filter #	(4)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Check Belt Tension		X	X	X		X	X	X		X	X	X		X	X	X		X	X	X		X
Replace Belts	(5)				X					X					X				X			X
Replace Tank Relief Valve							X								X					X		
Replace Solenoid	(9)				X					X					X				X			X
Rebuild Intake Valve	(6)				X					X					X				X			X
Rebuild Thermo Valve	(7)						X								X					X		
Rebuild Minimum Pressure Valve	(8)				X					X					X				X			X
Motor Bearing Lubrication		Refer to Motor Manufacturer's Recommendations																				

- Notes:**
- a) For Compressor Units used in an environment where the ambient temperature is above 32°C (90°F), or b) where the Unit temperature runs regularly above 80°C (175°F), the components marked with a '#' must be changed twice as often (example: in 4000 hours instead of 8000), and not as noted above.
 - b) The DV Systems Oil used in the Rotary Screw Units is rated as an 8000 hour Oil. A complete Oil change must be done every 8000 hours of Unit operation, or every 12 months, whichever occurs first. Please refer to the Warranty on Page 21 for further information.
 - c) If a component, during a regular inspection, has proven to be defective or unfit for regular operation, it must be repaired or replaced.

Parts and Repair Kits based on the above chart are as follows:

- | | | |
|-----|-----------------------------|---|
| (1) | Oil: | DEV-3000-K1 |
| (2) | Oil Filter | DSC-603 |
| (3) | Air / Oil Separator: | DSC-002476 |
| (4) | Air Intake Filter | DSC-001569 |
| (5) | Belts (5 HP Unit) | DSC-002256 (Qty of 2 Req'd) |
| (5) | Belts (7.5 HP Unit) | DSC-002257 (Qty of 2 Req'd) |
| (6) | Intake Valve Repair Kit | DSC-001712 |
| (7) | Thermo Valve Repair Kit: | DSC-002057 (for Units of s/n '37214' and greater) |
| (7) | Thermo Valve Repair Kit: | DSC-001711 (for Units of s/n '37213' and lower) |
| (8) | Minimum Pressure Valve Kit: | DSC-001713 |
| (9) | Solenoid 24 volt: | DSC-001676 |
| | Shaft Seal Kit | DSC-002055 |

As noted previously, the 'MK-B57' Maintenance Kit includes the following items:

- | | | |
|-----|--------------------|--------------------------|
| (1) | DEV-3000-K1 | 1 Gal. of Synthetic Oil |
| (1) | DSC-603 | Oil Filter |
| (1) | DSC-002476 | Air/Oil Separator Filter |
| (2) | DSC-001569 | Air Filter |

Use only 'Genuine DV Systems' parts and kits for your DV Systems Screw Compressor, this to ensure that

- a) it works at it's optimum performance level and
- b) you maintain your DV Systems Compressor Warranty.



Common Compressor Faults

Common Faults.

Noted below are the most common Faults experienced.

'CSC50' Alarms.

There is an issue with the Unit, but it will still operate.

<u>Code:</u>	<u>Description:</u>	<u>Most Common Items to Check:</u>
A:2118	High Pressure	Solenoid not working, Intake Valve Orifice clogged, Transducer dirty or faulty, pressure changed incorrectly, alternate external pressure source
A:2128	High Temperature	Ambient temp high, Unit dirty, low oil level, no air flow through Unit, Temp Sensor defective
A:2816	Power Failure Occurred	Press 'Reset' Button and restart Unit
A:3123	Run Inhibited – Temp too low	Ambient temp low, Temp Sensor defective
A:3423	Load Inhibited – Temp too low	Ambient temp low, Temp Sensor defective
A:4804	Service Due	Service unit (please refer to Preventative Maintenance Schedule on pg. 13)

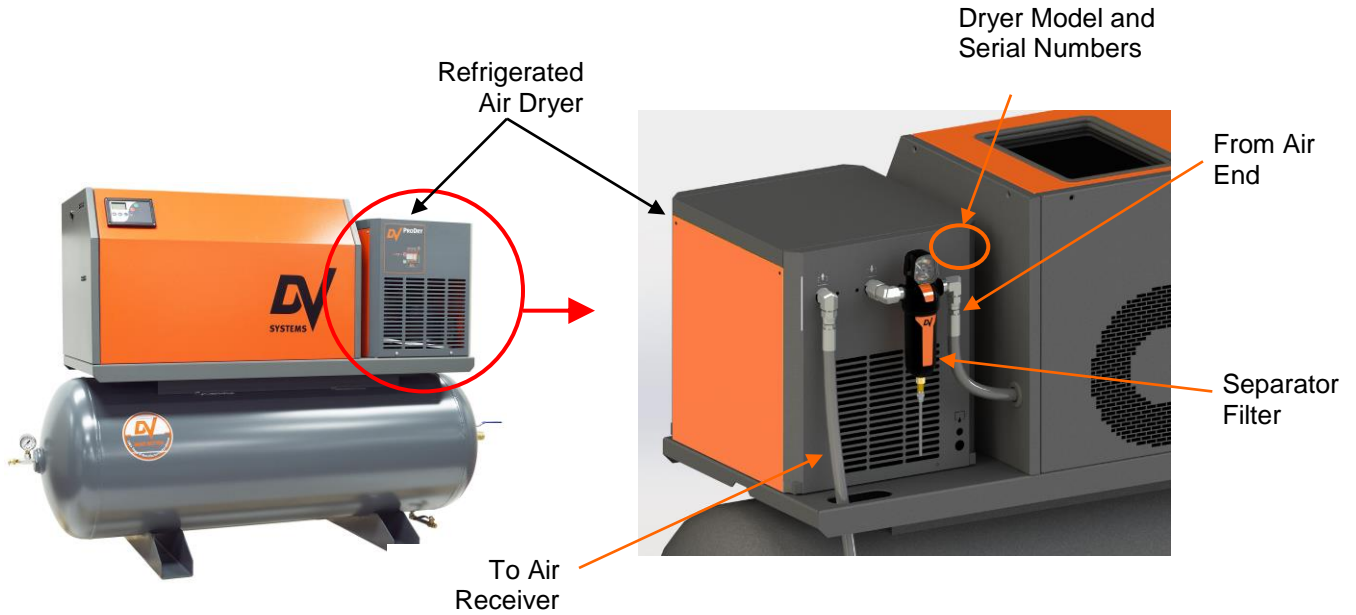
'CSC50' Shutdown Errors.

There is an issue with the Unit, and the Unit will not operate until the Fault has been addressed.

<u>Code:</u>	<u>Description:</u>	<u>Most Common Items to Check:</u>
E:0020	Motor Overload	Motor drawing high amps, low voltage, higher pressure settings, low oil level, loose wires
E:0040	Anti-Rotation	Rotation of Motor wrong, Solenoid Valve not relieving pressure, Intake Valve Orifice clogged
E:0115	Pressure Sensor Fault	Transducer cable loose, Pressure Transducer defective
E:0119	Excessive Pressure	Solenoid Not working, Intake Valve Orifice clogged, Transducer dirty or faulty, pressure changed incorrectly, alternate external pressure source
E:0125	Temperature Sensor Fault	Temperature Sensor not making good electrical contact, or defective
E:0129	Excessive Temperature	Ambient temp high, Unit dirty, low oil level, no air flow through Unit, Temp Sensor defective
E:0866	Control Power Low	Low Line Voltage, Fuse(s) Blown

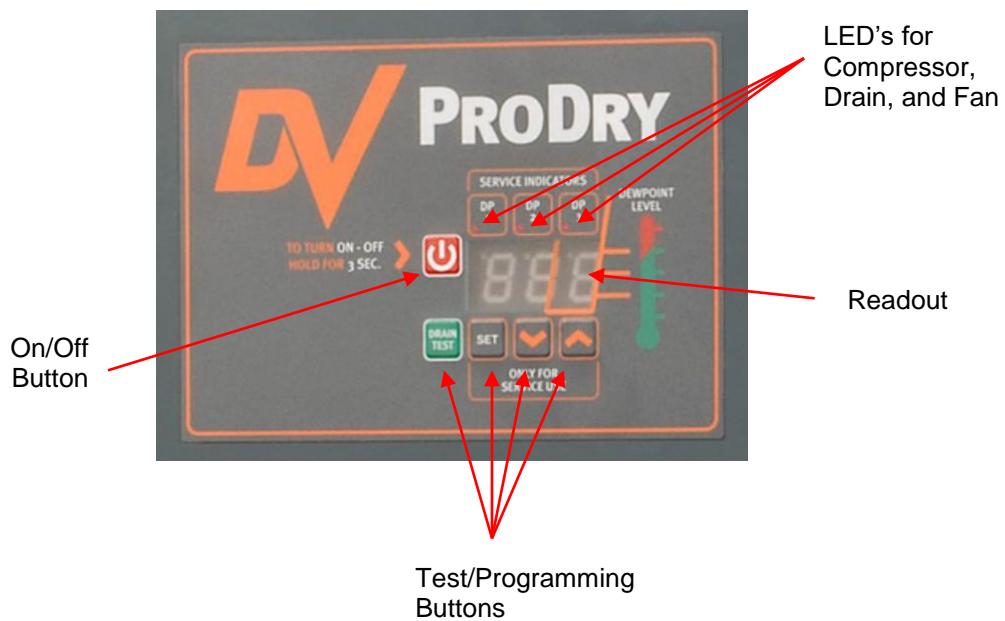
Separator Filter and Refrigerated Air Dryer

Your Unit may be equipped with a Separator Filter and an 'ASD15' (on 'B5TD' Units) or 'ASD30' (on B7.5TD Units) Refrigerated Air Dryer Unit as indicated below. These items are located in the compressed air lines after the air is compressed but before it enters the Air Receiver. This allows for what is termed a 'dry' Tank.



More detailed information concerning the Dryer Unit is included in the Dryer manual. The information contained in this manual is a 'quick reference' only.

Dryer Controls.

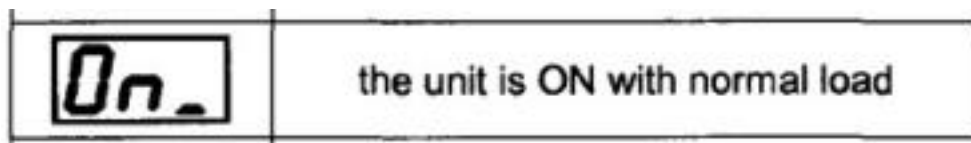


Separator Filter and Refrigerated Air Dryer (cont'd)

Typical Dryer Operation.

The Dryer will operate as follows:

- Pressing the 'On/Off' Button for 3 seconds will start the Unit
- There is a time delay of up to 2 minutes before the Refrigerant Compressor starts.
- The Condenser Fan will start approx. 30 seconds there-after.
- The Fan will not normally run at full speed, this indicated by a flashing LED
- The readout will initially show ambient temperature indicated by 3 horizontal bars on the readout
- Once the Fan and Compressor start, the dew point of the Unit will decrease to approx. 1°C, this indicated by 1 horizontal bar.
- Once at approx. 1°C, the Fan will stop, only to be called to run again once the temperature increases to approx. 5°C
- Pressing the 'On/Off' Button (when the Unit is operating) will run the Fan at full speed for several seconds, after which the Unit will stop. (The LED will be on continually while the Fan runs at full speed.)



- As well as showing the dew point, the readout may indicate several fault codes as suggested below.

Typical Fault Codes.

The readout will indicate a variety of 'fault codes', the most common being as follows:

ESA

Energy Saving Mode.

- The Dew Point has been running at below -1°C for over 6 minutes.
- The Unit will automatically restart operation at 6°C.

PFI

Temperature Probe Alarm.

- The Temperature Probe is not working properly. It may not be connected to the Board, or the Probe may be defective.
- Replace the Probe if necessary.

HTA

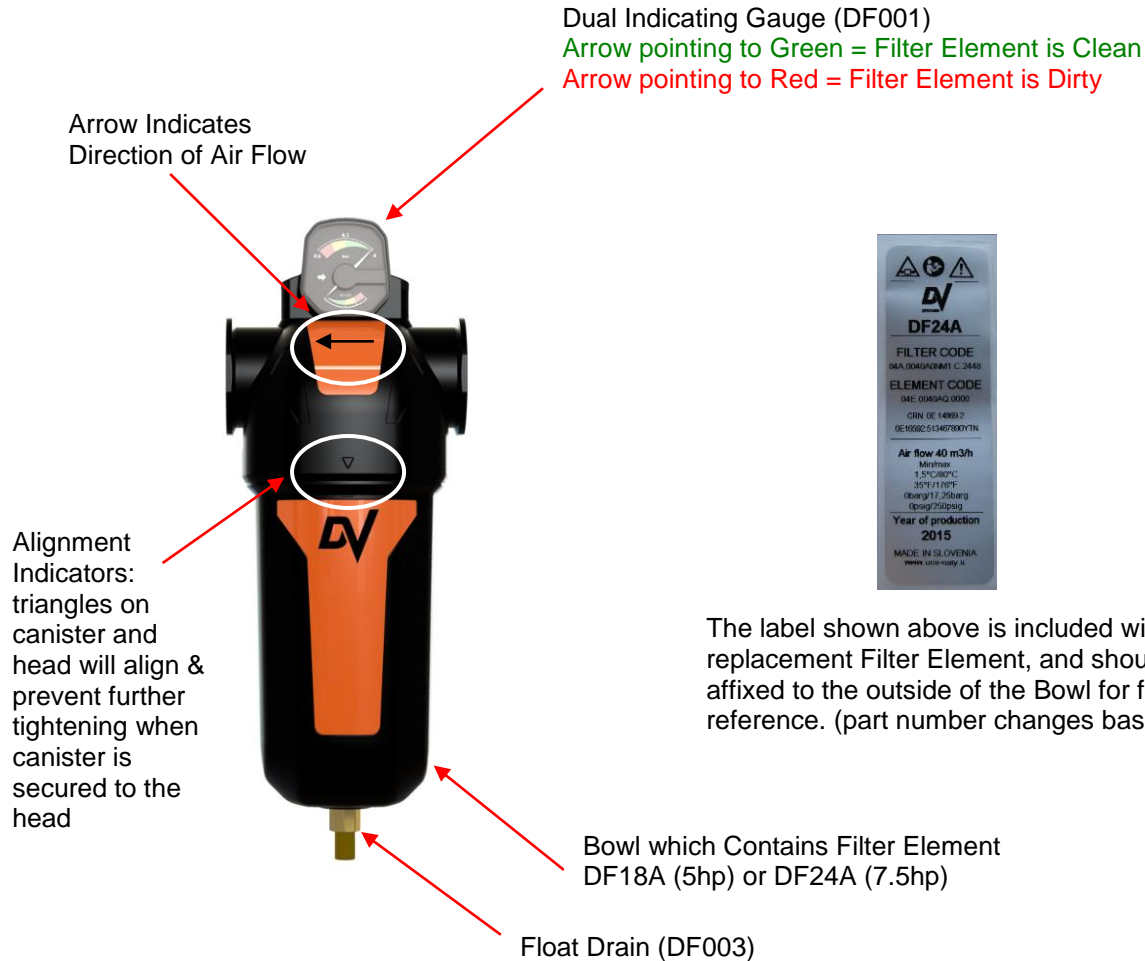
High Temperature Alarm.

- The Dew Point has been running at above 12.5°C for over 6 minutes. The Unit must be manually turned off and on.
- The fault could be caused by a dirty radiator, high ambient temperature, a faulty Fan, or a faulty refrigerant Compressor, to name a few.

Separator Filter and Refrigerated Air Dryer (cont'd)

Typical Separator Filter.

As previously noted, the Separator Filter is located between the Air End and the Refrigerated Dryer. It contains a 1 micron Separator Element which protects the Dryer Unit by removing liquids and solid particles 1 micron and larger.



Filter Element Replacement.

To replace a dirty Filter Element:

- Shut the Compressor Unit off.
- Bleed any compressed air from the system to ensure there is no pressure at the Filter.
- Unscrew the Bowl from the assembly and remove the filter element.
- Clean any debris from the inside of the Bowl
- Remove the O-ring from the inside of the Canister Head
- Install the new O-ring making sure it is properly seated
- Place the new 1 micron Separator Filter Element into the Bowl (the filter is self-centring).
- Screw the Canister with the Element inside it to the Canister Head until the indicators line up.
- Gauge will return to **green** when Filter is once again under pressure.

Trouble Shooting Guide



When servicing the Air Compressor, shut off all power to the Unit, and drain it of air pressure.

The 'Conditions', 'Causes', and 'Suggested Corrections' as indicated below and on the following page(s) are only a guideline for failures that we have found to be most common.

Though this information is provided in this booklet, it is assumed and expected that any personnel involved in the servicing of an Air Compressor Unit is knowledgeable with this type of equipment. Do not attempt to service a Compressor Unit unless you are familiar with it, as there are many issues that may come into play, the most important being personal safety and the welfare of the Unit.

Should you have any questions, or require servicing to your Unit, please contact your local DV Systems Distributor/Service Center.

<u>Condition:</u>	<u>Cause:</u>	<u>Suggested Correction:</u>
A. Unit won't start.	No power to the Unit.	Check that power at the disconnect or breaker is on. Also, check any primary and secondary fuses.
	Loose and/or missing wires in the electrical circuit.	Check that all wiring connections are tight. With a wiring schematic, check that all wiring is present and correct.
	Emergency Stop Button pressed in.	Release by twisting and pulling out.
	Motor Overload is tripped.	Reset the overload inside the Control Panel.
	Compressor over-heated and stopped.	Insufficient air flow to cool Unit. Ambient temperature too high. Heat Exchanger is dirty. Faulty Temperature Switch. Oil level is low.
	Compressor stopped by over-pressure.	Solenoid Valve faulty. Seals on Intake Valve leaking. Intake Valve Spring broken. Pressure Transducer stopped Unit. Lower maximum pressure setting.
	Unit shut off because pressure is not below 120 psi.	Drop pressure below 120 psi.
	Automatic Idle Time stopped the Unit.	Drop the pressure below 120 psi.
Power interruption.	Reset the Unit.	



Trouble Shooting Guide (cont'd)

<u>Condition:</u>	<u>Cause:</u>	<u>Suggested Correction:</u>
B. No or Insufficient Air Flow.	Air Filter is dirty. Oil Separator is blocked. Intake Valve is faulty. Air leaks in the system. Pressure limits are incorrectly set. Blowdown Solenoid Valve is open. Belt are broken or slipping	Replace the Air Filter. Replace the Oil Separator. Repair or replace the Intake Valve. Check the Unit and system for air leaks. Adjust the pressure settings. Check the wiring to the Solenoid and replace as necessary. Check Belt tension and that Belts are in good condition.
C. Unit is overheating.	Ambient temperature is too high. Blocked air circulation at the Unit. Heat Exchanger is dirty. Oil level is too low. Using wrong type of compressor oil. Thermo Valve is faulty. Oil Filter is blocked. Temperature Sensor is faulty. Thermostat is faulty. Pressure is too high. Cabinet door/panel is open/off.	Check cooling air circulation. Check the air circulation in and around the Unit. Clean the Heat Exchanger Add oil as required. Change to the factory recommended oil. Check and repair as necessary. Replace the Oil Filter. Check the wiring to the Temperature sensor. Replace the Sensor if necessary. Replace the Thermostat. Lower the pressure setting. Secure the door/panel to the Unit.
D. Compressor Starts Slowly.	Intake Valve Seal is closed. Ambient temperature is too low. Minimum Pressure Valve leaking back to Air End. Minimum Pressure Valve setting is too high. Using wrong type of oil.	Intake Valve is seized. Repair or replace. Stop and restart once ambient increases. Repair or replace the Minimum Pressure Valve. Adjust Minimum Pressure Valve setting to 65 psi. Change to factory recommended oil.



Trouble Shooting Guide (cont'd)

<u>Condition:</u>	<u>Cause:</u>	<u>Suggested Correction:</u>
E. Intake Valve Leaks Oil When Unit Stops.	<p>Intake Valve Seal leaks.</p> <p>Intake Valve stuck in open position.</p> <p>Blowdown Solenoid not functioning.</p>	<p>Repair using an Intake Valve Repair Kit.</p> <p>Repair or replace the Intake Valve.</p> <p>Replace the Solenoid.</p>
F. Oil Consumption is Too High.	<p>Oil level is too high.</p> <p>Oil Return Line (Scavenge Line) is blocked.</p> <p>Oil Separator is saturated with oil.</p> <p>Wrong type of oil used.</p> <p>Unit is operating at too high a temperature.</p> <p>Oil leak.</p> <p>Unit load is light or excessive load/idle cycles.</p>	<p>Reduce the oil level to the proper level.</p> <p>Clean and/or replace the Scavenge Line Sight Glass.</p> <p>Replace the Oil Separator.</p> <p>Change to factory recommended oil.</p> <p>See 'Section C'.</p> <p>Repair oil leak.</p> <p>Ensure Unit is set to operate at correct pressures, and there is a <u>minimum</u> of 10 psi differential. Also the Unit could be oversized for the tank capacity.</p>
G. Compressor Surges.	<p>Restriction in Heat Exchanger or Hoses.</p> <p>Pressure Transducer setting is incorrect or malfunctioning.</p> <p>Blockage at Unit outlet.</p> <p>Dryer is freezing up, not allowing air to pass through.</p>	<p>Flush out or replace.</p> <p>Set pressure as per instructions or replace.</p> <p>Check for obstructions in outlet piping.</p> <p>Check that the Dryer parameters are correct. Increase dew point to 2.0 if required.</p>
H. High Power Consumption.	<p>Improper air pressure settings.</p> <p>Blowdown Solenoid is not functioning.</p> <p>The voltage in the building is too low or there is a phase imbalance.</p> <p>The Motor is failing.</p>	<p>Reset the pressure as per factory defaults.</p> <p>Inspect or replace as necessary.</p> <p>Contact an Electrician to verify.</p> <p>Have Motor inspected.</p>
I Fault Alarms.	<p>Emergency Stop.</p> <p>High Temperature.</p> <p>Low Temperature.</p> <p>High pressure.</p>	<p>Ensure Emergency Stop Button is not pressed in.</p> <p>See 'Section C'.</p> <p>Ambient temperature is too low. Increase to 10°C.</p> <p>Check the pressure settings, the Pressure Transducer and the wiring to the Transducer.</p>



Standard Warranty
Oil-Lubricated Rotary Screw
A, B, C, G, H, J, K, and N

STANDARD WARRANTY

DV Systems (the “Company”) warrants to each original retail purchaser (“Purchaser”) of its new products from the Company or its authorized distributor that such products are, at the time of delivery to the Purchaser, free of defects in material and workmanship.

STANDARD WARRANTY PERIOD

The Company’s obligation under this warranty is limited to repairing or, at its option, replacing, during normal business hours at an authorized service facility of the Company, any part which in its judgment proved not to be as warranted within the applicable warranty period as follows. **Regular maintenance in accordance with the service manual is required. Use of genuine DV Systems OEM parts and lubricants are highly recommended. If a component failure is deemed a result of using non-genuine DV Systems parts and lubricants, warranty will not be allowed.**

COMPONENT	SERIES	STANDARD WARRANTY COVERAGE	DETAILS
Package	ALL SERIES	12 months (1 year) from startup or 18 months from date of manufacture, whichever occurs first	All components within the package, excluding normal wear items
Airend	ALL SERIES	12 months (1 year) from startup or 18 months from date of manufacture, whichever occurs first	Normal wearing items, such as shaft seals and inlet valve components, along with the servicing of these items is not covered under the warranty unless deemed as material or workmanship defects. Any disassembly or partial disassembly of the airend, or failure to return the “unopened” airend per Company instructions, will be cause for denial of warranty
Electric Motors	ALL SERIES	12 months (1 year) from startup or 18 months from date of manufacture, whichever occurs first	Includes both drive motor and cooling fan motor if applicable. For nonstandard motors, the original manufacturer’s warranty will take precedence.
Package Controller & VFD	ALL SERIES	12 months (1 year) from startup or 18 months from date of manufacture, whichever occurs first	Includes package controller and variable frequency drive if applicable
Major Package Components	ALL SERIES	12 months (1 year) from startup or 18 months from date of manufacture, whichever occurs first	Includes air/oil reservoir and air/oil cooler
Labor	ALL SERIES	12 months (1 year) from startup or 18 months from date of manufacture, whichever occurs first	Service will be provided by Company representative or authorized service personnel, for repair or replacement of any product or part which in the Company’s sole judgment is proved to be as warranted. Labor shall be limited to the amount specified in the Company’s labor rate schedule. All costs of transportation of product, parts, and repaired or replacement parts claimed not to be as warranted to and from such service facilities shall be borne by the Purchaser. The Company may require the return of any part claimed not to be as warranted to one of its facilities as designated by Company, transportation prepaid by Purchaser, to establish a claim under this warranty. Replacement parts provided under the terms of the warranty are warranted for the remainder of the Warranty Period.

NO WARRANTY IS MADE WITH RESPECT TO:

1. ANY PRODUCT WHICH HAS BEEN REPAIRED OR ALTERED IN SUCH A WAY, IN THE COMPANY’S SOLE JUDGMENT, AS TO AFFECT THE PRODUCT ADVERSELY
2. ANY PRODUCT WHICH HAS, IN THE COMPANY’S SOLE JUDGMENT BEEN SUBJECT TO NEGLIGENCE, ACCIDENT, IMPROPER STORAGE, OR IMPROPER INSTALLATION OR APPLICATION
3. ANY PRODUCT WHICH HAS NOT BEEN OPERATED OR MAINTAINED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE COMPANY
4. ANY RECONDITIONED OR PRIOR OWNED PRODUCT

STANDARD WARRANTY DISCLAIMER

THE FOREGOING WARRANTY IS EXCLUSIVE AND IT IS EXPRESSLY AGREED THAT, EXCEPT AS TO TITLE, THE COMPANY MAKES NO OTHER WARRANTIES AND HEREBY EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, INCLUDING WITHOUT LIMITATION, EXPRESSED, IMPLIED OR STATUTORY WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE. THE REMEDY PROVIDED UNDER THIS WARRANTY SHALL BE THE SOLE, EXCLUSIVE AND ONLY REMEDY AVAILABLE TO PURCHASER AND IN NO CASE SHALL THE COMPANY BE SUBJECT TO ANY OTHER OBLIGATIONS OR LIABILITIES. UNDER NO CIRCUMSTANCES SHALL THE COMPANY BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, EXPENSES, LOSSES OR DELAYS HOWSOEVER CAUSED. NO STATEMENT, REPRESENTATION, AGREEMENT, OR UNDERSTANDING, ORAL OR WRITTEN, MADE BY ANY AGENT, DISTRIBUTOR, REPRESENTATIVE, OR EMPLOYEE OF THE COMPANY WHICH IS NOT CONTAINED IN THIS WARRANTY WILL BE BINDING UPON THE COMPANY UNLESS MADE IN WRITING AND EXECUTED BY AN OFFICER OF THE COMPANY. THIS WARRANTY SHALL NOT BE EFFECTIVE AS TO ANY CLAIM WHICH IS NOT PRESENTED WITHIN 30 DAYS AFTER THE DATE UPON WHICH THE PRODUCT IS CLAIMED NOT TO HAVE BEEN AS WARRANTED. ANY ACTION FOR BREACH OF THIS WARRANTY MUST BE COMMENCED WITHIN ONE YEAR AFTER THE DATE UPON WHICH THE CAUSE OF ACTION OCCURRED. ANY ADJUSTMENT MADE PURSUANT TO THIS WARRANTY SHALL NOT BE CONSTRUED AS AN ADMISSION BY THE COMPANY THAT ANY PRODUCT WAS NOT AS WARRANTED. WARRANTY IS NOT TRANSFERABLE



Premium Warranty Plan
Oil-Lubricated Rotary Screw
A, B, C, G, H, J, K, and N Series

The extended warranty is available on all new DV Systems oil-lubricated rotary screw packages **shipped after October 30th, 2020**. To receive the extended airend and package component warranty, the requirements listed below must be performed and documented during the full warranty period. In the event of a claim under this warranty, documentation shall be provided evidencing full compliance with this requirement.

PREMIUM WARRANTY PLAN PERIOD

DV Systems (the “Company”) shall warrant the components identified below to be free of defects in material and workmanship for the warranty period. Normal wearing components and servicing of these items is not covered under the premium warranty. The Company’s obligation under this warranty is limited to repairing or, at its option, replacing, during normal business hours at an authorized service partner, any part which in its sole judgment proved not to be as warranted within the applicable warranty period as follows. **Regular maintenance in accordance with the service manual and use of genuine DV Systems OEM parts and lubricants is required.**

COMPONENT	SERIES	PREMIUM WARRANTY COVERAGE	DETAILS
Package	ALL SERIES	12 months (1 year) from startup or 18 months from date of manufacture, whichever occurs first	All components within the package, excluding normal wear items
Airend	ALL SERIES	60 months (5 years) from startup or 66 months from date of manufacture, whichever occurs first	Normal wearing items, such as shaft seals and inlet valve components, along with the servicing of these items is not covered under the warranty unless deemed as material or workmanship defects. Any disassembly or partial disassembly of the airend, or failure to return the “unopened” airend per Company instructions, will be cause for denial of warranty
Electric Motor	ALL SERIES	60 months (5 years) from startup or 66 months from date of manufacture, whichever occurs first	Includes three-phase main drive motor. It does not include single-phase motors and cooling fan motors.
Package Controller & VFD	H40-50B	36 months (3 years) from startup or 42 months from date of manufacture, whichever occurs first	Includes package controller and variable frequency drive if applicable
	A, B, C, G, H40-50A, J, K, and N	60 months (5 years) from startup or 66 months from date of manufacture, whichever occurs first	Includes variable frequency drive if applicable. It does not include package controller.
Major Package Components	ALL SERIES	60 months (5 years) from startup or 66 months from date of manufacture, whichever occurs first	Includes air/oil reservoir and air/oil cooler
Labor	H40-50B	Package: 12 months (1 year) from startup or 18 months from date of manufacture, whichever occurs first Package Controller & VFD: 36 months (3 years) from startup or 42 months from date of manufacture, whichever occurs first Airend / Major Package Components (Excludes Motor): 60 months (5 years) from startup or 66 months from date of manufacture, whichever occurs first	Service will be provided by Company representative or authorized service personnel, for repair or replacement of any product or part which in the Company’s sole judgment is proved to be as warranted. Labor shall be limited to the amount specified in the Company’s labor rate schedule. All costs of transportation of product, parts, and repaired or replacement parts claimed not to be as warranted to and from such service facilities shall be borne by the Purchaser. The Company may require the return of any part claimed not to be as warranted to one of its facilities as designated by Company, transportation prepaid by Purchaser, to establish a claim under this warranty. Replacement parts provided under the terms of the warranty are warranted for the remainder of the Warranty Period.
	A, B, C, G, H40-50A, J, K, and N	Package / Package Controller: 12 months (1 year) from startup or 18 months from date of manufacture, whichever occurs first Airend / VFD / Major Package Components (Excludes Motor): 60 months (5 years) from startup or 66 months from date of manufacture, whichever occurs first	



PREMIUM WARRANTY PLAN REQUIREMENTS

1. The Package Unit must be registered with the manufacturer within 30 days from the date of purchase. This is done by completing the Warranty Registration online at 'gdg.gardnerdenver.com/DV-Rotary-Warranty'.
2. Use of **Genuine DV Systems OEM parts and lubricant (or warranty kits)** as specified in the service manual must be purchased from an authorized DV Systems distributor. **Maintenance shall be performed in accordance to the recommended maintenance schedule found in the service manual for the appropriate compressor package.** Consult the service manual for proper maintenance intervals for the operating hours of the equipment.
3. The use of approved DV Systems lubricants is required. The following lubricants are approved for warranty and must be changed in accordance with the above maintenance tables or a **minimum of every 12 months**. Oil filter and separator elements must be replaced at the time of the lubricant change.

DEV-3000, DEV-3500 (Food Grade Synthetic)

4. A log of all maintenance performed must be maintained with the corresponding operational hours. This includes the following changes: air filter, oil filter, separator, and lubricant. All other maintenance and repairs also require logging and documentation with corresponding hours.

PREMIUM WARRANTY PLAN DISCLAIMER

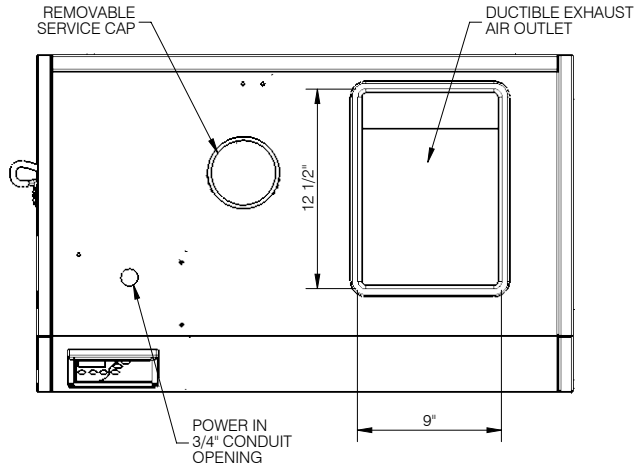
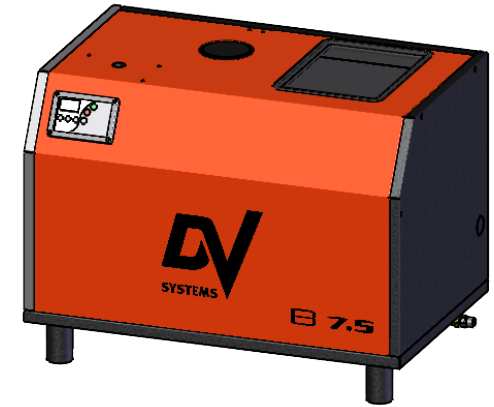
DV SYSTEMS RESERVES THE RIGHT TO CHANGE THE PREMIUM WARRANTY PLAN AND/OR REQUIREMENTS AS DEEMED APPROPRIATE BY THE COMPANY. DV SYSTEMS RESERVES THE RIGHT TO REFUSE PARTICIPATION IN THE PREMIUM WARRANTY PLAN TO ANY DISTRIBUTOR AND/OR END CUSTOMER OF THE COMPRESSOR. THIS PREMIUM WARRANTY PLAN IS SUPPLEMENTAL TO THE STANDARD WARRANTY. COMPANY MAKES NO OTHER WARRANTY OR REPRESENTATION OF ANY KIND, EITHER EXPRESS OR IMPLIED. THE FOREGOING WARRANTY IS EXCLUSIVE AND IT IS EXPRESSLY AGREED THAT, EXCEPT AS TO THE TITLE, COMPANY MAKES NO OTHER WARRANTIES EXPRESSED, IMPLIED, OR STATUTORY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY. THIS WARRANTY SHALL NOT BE EFFECTIVE AS TO ANY CLAIM WHICH IS NOT PRESENTED WITHIN 30 DAYS AFTER THE DATE UPON WHICH THE PRODUCT IS CLAIMED NOT TO HAVE BEEN AS WARRANTED. ANY ACTION FOR BREACH OF THIS WARRANTY MUST BE COMMENCED WITHIN ONE YEAR AFTER THE DATE UPON WHICH THE CAUSE OF ACTION OCCURRED.

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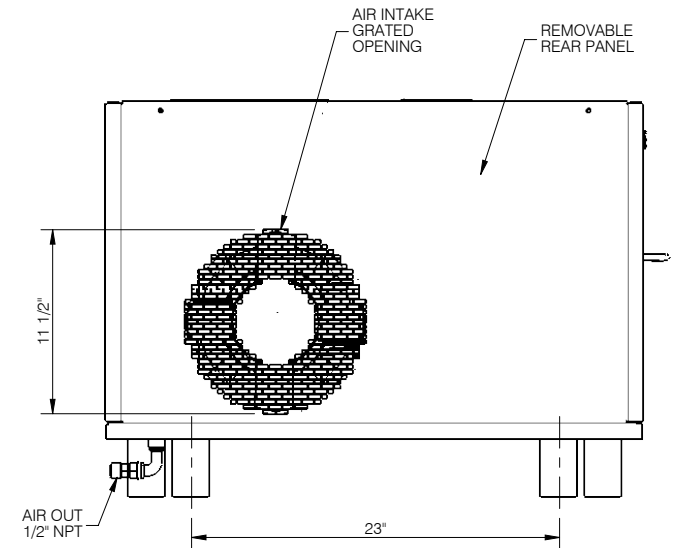
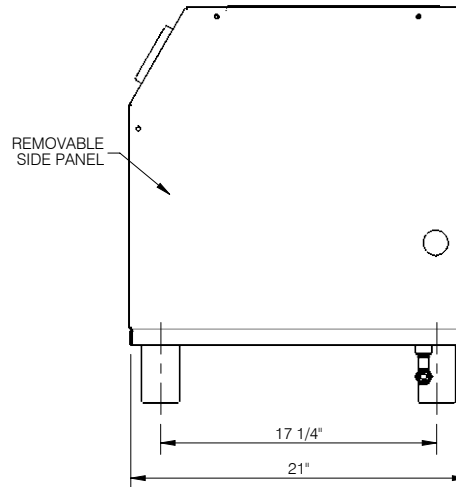
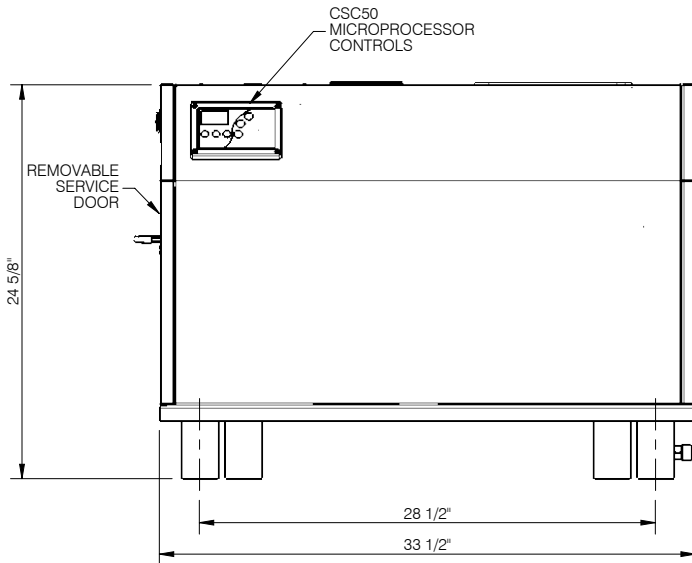
MODEL NO.	HP	PRESSURE PSI	ACFM @ LOAD PRESSURE	NOMINAL SOUND @ 1 METRE	FULL LOAD CURRENT (AMPS)					WEIGHT LBS
					230V/1/60	200V/3/60	230V/3/60	460V/3/60	575V/3/60	
B5	5	125-145	16.0	65 dBA	28	17.5	15.2	7.6	6.1	378
B7.5	7.5	125-145	28.6	68 dBA	40	25.3	22	11	9	404

*MOTOR NAMEPLATE AMP SHOWN



INSTALLATION REQUIREMENTS

1. MAINTAIN 18" DISTANCE FROM WALLS AND OTHER OBJECTS FOR PURPOSE OF COOLING AND SERVICING. ALLOW MINIMUM OF 36" TO THE NEAREST OBSTRUCTION ABOVE THE UNIT.
2. COMPRESSOR MUST BE LEVEL AND ANCHORED DOWN TO SOLID LEVEL FLOOR.
3. AMBIENT CONDITIONS:
10°C (50°F) MIN. 40°C (104°F) MAX.
4. APPROACH TEMP. FROM TANK 5°C (41°F)



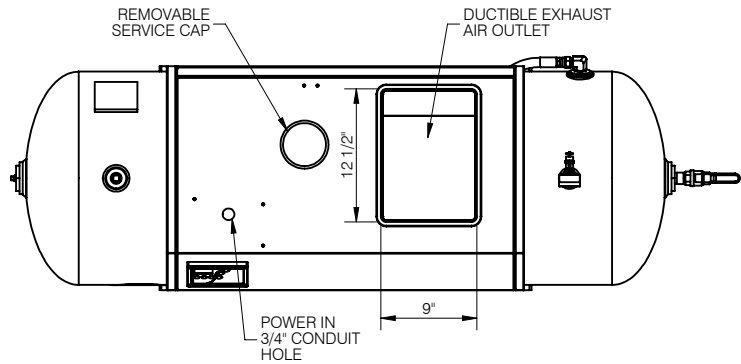
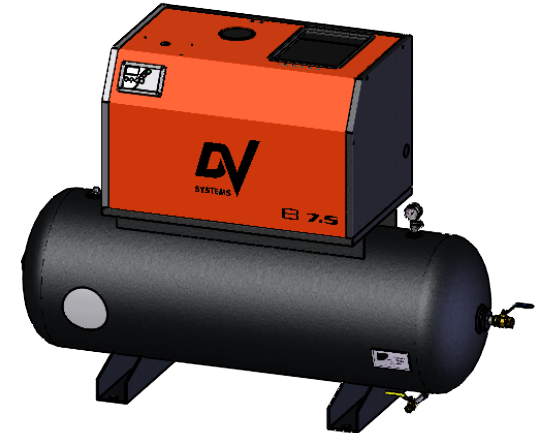
REV.	DATE	REVISION DESCRIPTION	ECN NO.
01	02/26/20	INSTALLATION REQUIREMENTS UPDATED	1131974

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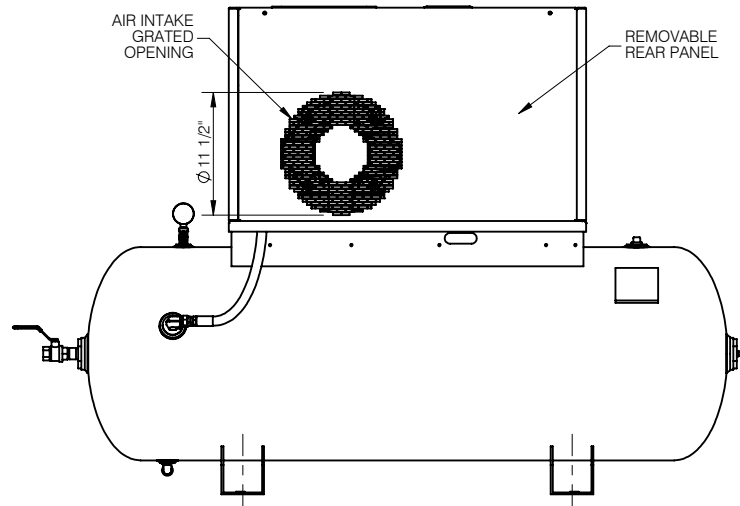
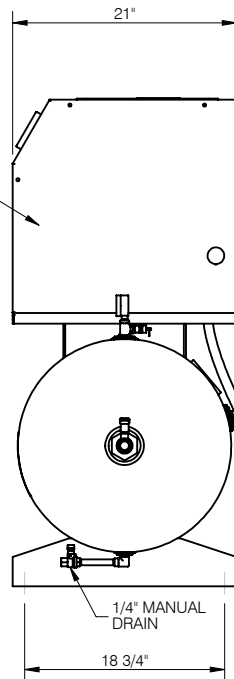
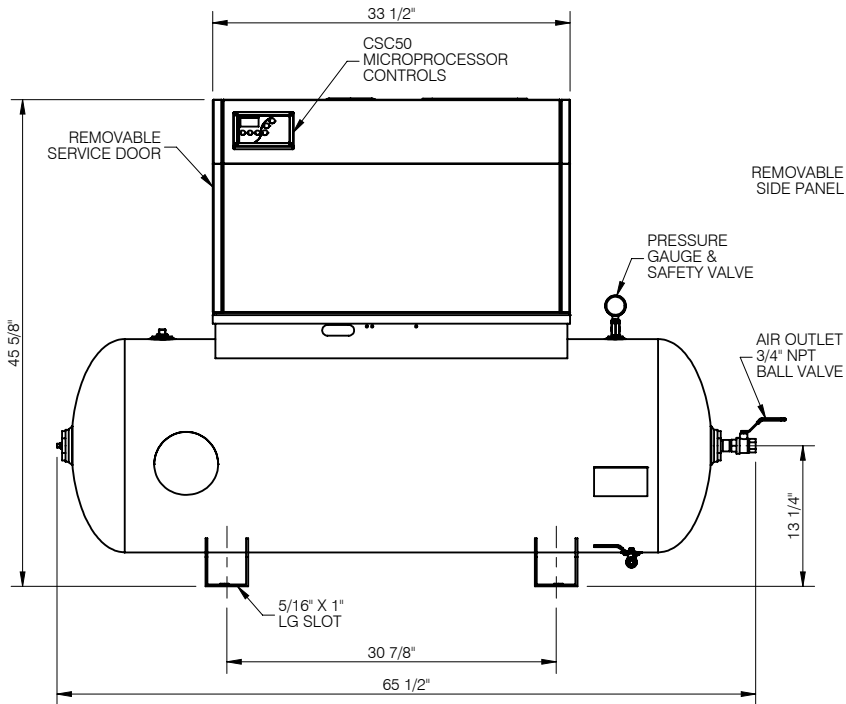
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B5-7.5II SCREW COMPRESSOR				SALES-ENGINEERING DRAWING	
DRAWN BY	CHECKED BY	DATE	SCALE	DRAWING NO.	SHT NO/REV.
YJ	LT	11/21/19	N.T.S	B5II B7.5II-SE	1/1 01

MODEL NO.	HP	PRESSURE PSI	SCFM @ 145PSI	NOMINAL SOUND @ 1 METRE	MOTOR AMP					AIR RECEIVER GAL.	WEIGHT LBS
					230V/1/60	200V/3/60	230V/3/60	460V/3/60	575V/3/60		
B5T	5	125-145	18	63 dBA	28	17.2	15.2	7.6	6.1	80	650
B7.5T	7.5	125-145	27	66 dBA	40	25.3	22	11	9	80	660



INSTALLATION REQUIREMENTS

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2. COMPRESSOR MUST BE LEVEL AND ANCHORED DOWN TO SOLID LEVEL FLOOR.
3. AMBIENT CONDITIONS:
10°C (50°F) MIN. 40°C (104°F) MAX.
4. APPROACH TEMP. FROM TANK 5°C (41°F)



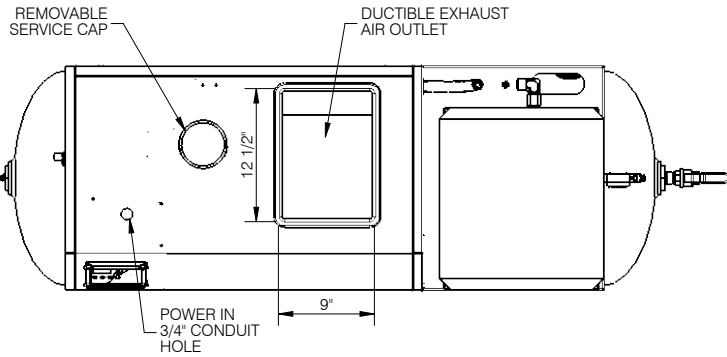
REV.	DATE	REVISION DESCRIPTION	ECN NO
01	02/11/20	INSTALLATION REQUIREMENTS UPDATED	1131974

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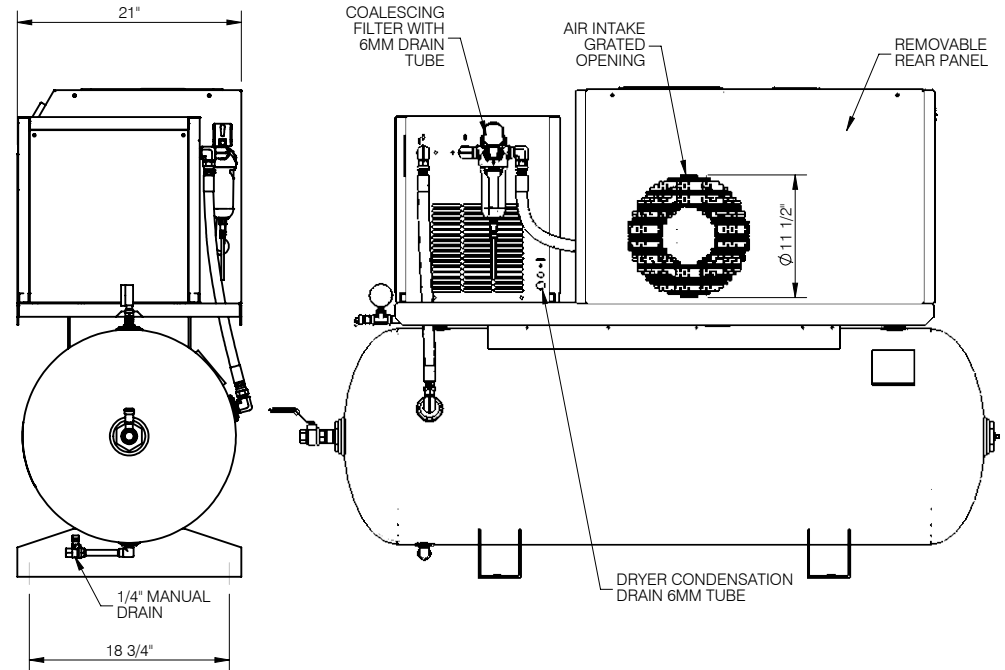
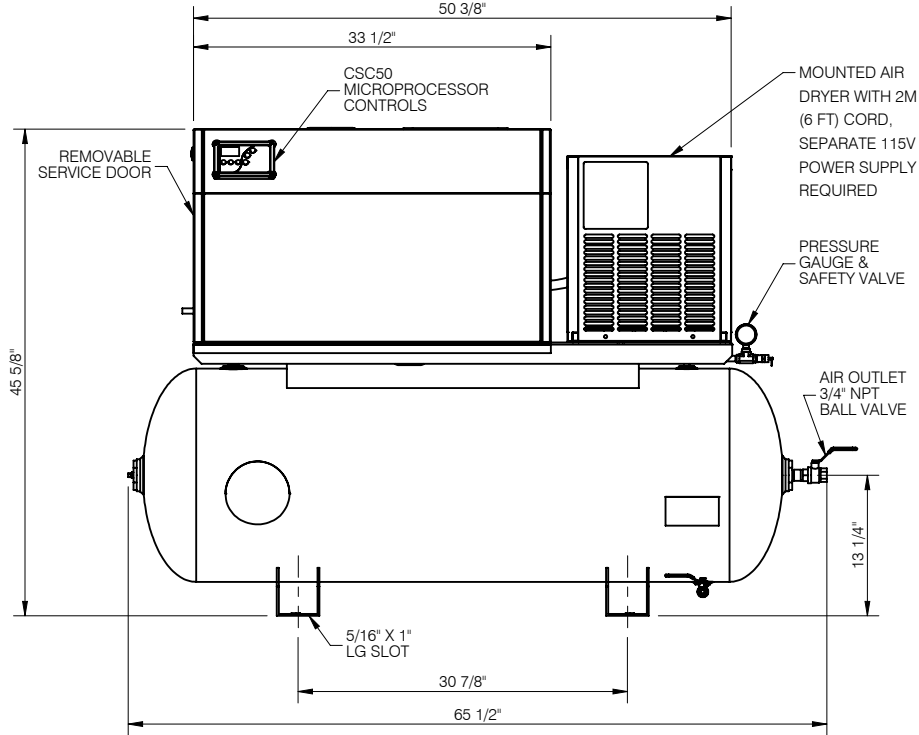
NAME OF PROJECT				DESCRIPTION OF DRAWING	
B5-7.5II SCREW COMPRESSOR				SALES-ENGINEERING DRAWING	
DRAWN BY	CHECKED BY	DATE	SCALE	DRAWING NO.	SHT NO/REV.
YJ	LT	11/21/19	N.T.S	B5II B7.5II-SE	1/1 01

MODEL NO.	HP	PRESSURE PSI	ACFM @ LOAD PRESSURE	NOMINAL SOUND @ 1 METRE	FULL LOAD CURRENT (AMPS)					AIR RECEIVER GAL.	DRYER	FILTER ELEMENT	WEIGHT LBS
					230V/1/60	200V/3/60	230V/3/60	460V/3/60	575V/3/60				
B5TD	5	125-145	16	63 dBA	28	17.5	15.2	7.6	6.1	80	ASD-15 115V, 60Hz, 2.2A	1 MICRON	665
B7.5TD	7.5	125-145	28.6	66 dBA	40	25.3	22	11	9	80	ASD-30 115V, 60Hz, 3.5A	1 MICRON	715



INSTALLATION REQUIREMENTS

1. MAINTAIN 18" DISTANCE FROM WALLS AND OTHER OBJECTS FOR PURPOSE OF COOLING AND SERVICING. ALLOW MINIMUM OF 36" TO THE NEAREST OBSTRUCTION ABOVE THE UNIT.
2. COMPRESSOR MUST BE LEVEL AND ANCHORED DOWN TO SOLID LEVEL FLOOR.
3. AMBIENT CONDITIONS:
10°C (50°F) MIN. 40°C (104°F) MAX.
4. APPROACH TEMP. FROM TANK 5°C (41°F)



REV.	DATE	REVISION DESCRIPTION	ECN NO.
01	02/26/20	INSTALLATION REQUIREMENTS UPDATED	1131974

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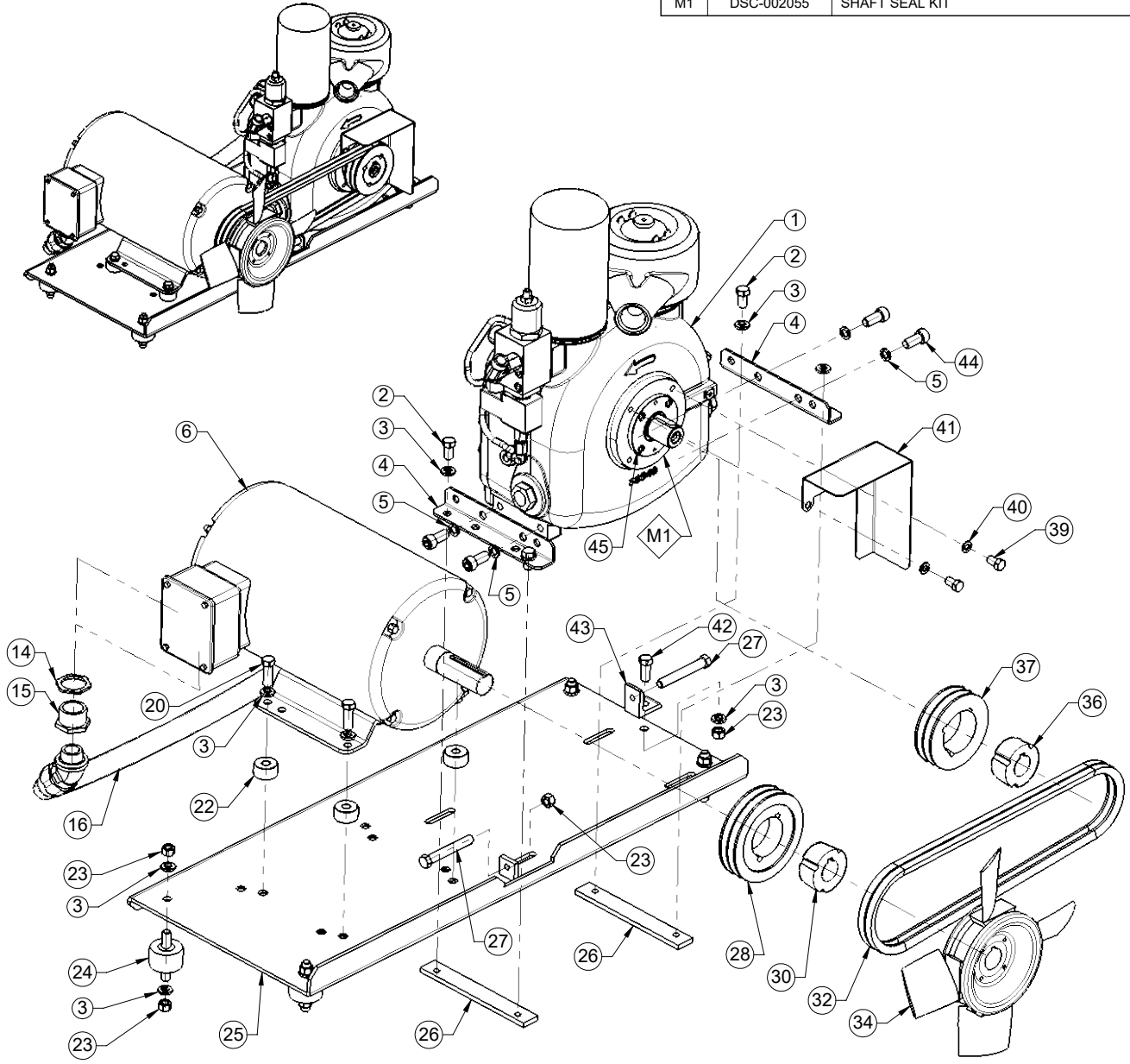
NAME OF PROJECT				DESCRIPTION OF DRAWING			
B5-7.5II SCREW COMPRESSOR WITH DRYER				SALES-ENGINEERING DRAWING			
DRAWN BY		CHECKED BY		DATE		SCALE	
YJ		LT		11/21/19		N.T.S	
				DRAWING NO.		SHT NO/REV.	
				B5IITD B7.5IITD-SE		1/1 01	

MAINTENANCE KIT			NO.	PART NUMBER	DESCRIPTION	QTY.
M1	DSC-002055	SHAFT SEAL KIT	1	DSC-002053	B-SERIES AIR END 24V	1
			2	SS-23	3/8-16 X 3/4 HHCS B/M	4
			3	SS-1502	3/8" LOCKWASHER	17
			4	DSC-001540	B5-7.5 AIR END MOUNTING ANGLE	2
			5	SS-1515	M10 HC LOCKWASHER	4
			6	MO-9025	MOTOR 5HP 230/60/1	1
			6	MO-6407	MOTOR 5HP 200/60/3	1
			6	MO-6435	MOTOR 5HP 230/460/60/3	1
			6	MO-6414	MOTOR 5HP 575/60/3	1
			6	MO-9033	MOTOR 7.5HP 230/60/1	1
			6	MO-6507	MOTOR 7.5HP 200/60/3	1
			6	MO-6535	MOTOR 7.5HP 230/460/60/3	1
			6	MO-6514	MOTOR 7.5HP 575/60/3	1
			14	SS-9956	LOCK NUT 1" (7.5HP-3PH)	1
			15	SS-9931	ELECTRICAL BUSHING 1" X 3/4" (7.5HP-3PH)	1
			16	MH-9027	MOTOR HARNESS 5/230/1	1
			16	MH-9028	MOTOR HARNESS 5/200-575/3, 7.5/460-575/3	1
			16	MH-9029	MOTOR HARNESS 7.5/230/1	1
			16	MH-9030	MOTOR HARNESS 7.5/200-230/3	1
			20	SS-26	3/8-16 X 1-1/4 HHCS (5HP ONLY)	4
			20	SS-23	3/8-16 X 3/4 HHCS (7.5HP ONLY)	4
			22	SS-10012	SPACER 1-1/8" DIA X 5/8" (5HP ONLY)	4
			23	SS-657	3/8-16 HEX NUT	10
			24	DSC-001330	VIBRATION ISOLATOR	4
			25	DSC-002242	B5-7.5II SUB BASE	1
			26	DSC-001516	B5-7.5 HOLDING BAR	2
			27	SS-34	3/8-16 X 3" HHCS	2
			28	PU-9259	B5 MOTOR PULLEY	1
			28	PU-9238	B7.5 MOTOR PULLEY	1
			30	DSC-001558	B5 MOTOR BUSHING	1
			30	DSC-613	B7.5 MOTOR BUSHING	1
			32	DSC-002256	BELT D6	2
			32	DSC-002257	B7.5 BELT	2
			34	DSC-001565	B5 FAN ASSEMBLY	1
			34	DSC-001567	B7.5 FAN ASSEMBLY	1
			36	DSC-001557	AIR END BUSHING	1
			37	PU-9259	B5 AIR END PULLEY	1
			37	PU-9261	B7.5 AIR END PULLEY	1
			39	DSC-678	M8 X 16MM HHCS	2
			40	SS-1503	5/16" LOCKWASHER	2
			41	DSC-001555	B5-7.5 FINGER GUARD	1
			42	SS-25	3/8"-16 X 1" HHCS GR2	1
			43	DSC-002210	ANGLE HRS 1-1/2" X 1-1/2" X 1/4"	1
			44	SS-10025	M10 X 25MM SHCS	4
			45	DSC-002534	FRONT COVER B-SERIES AIR END	1

F	2/25/16	SS-9931,9956 REMOVED FROM 7.5HP-1PH	---
E	1/06/15	DSC-002534 ADDED	---
D	10/15/12	B-SERIES REDESIGN 1ST SN. 37895	12-17
C	5/31/12	STRAIGHTENING BOLT & BRACKET ADDED	12-14
REV.	DATE	REVISION DESCRIPTION	ECN NO.

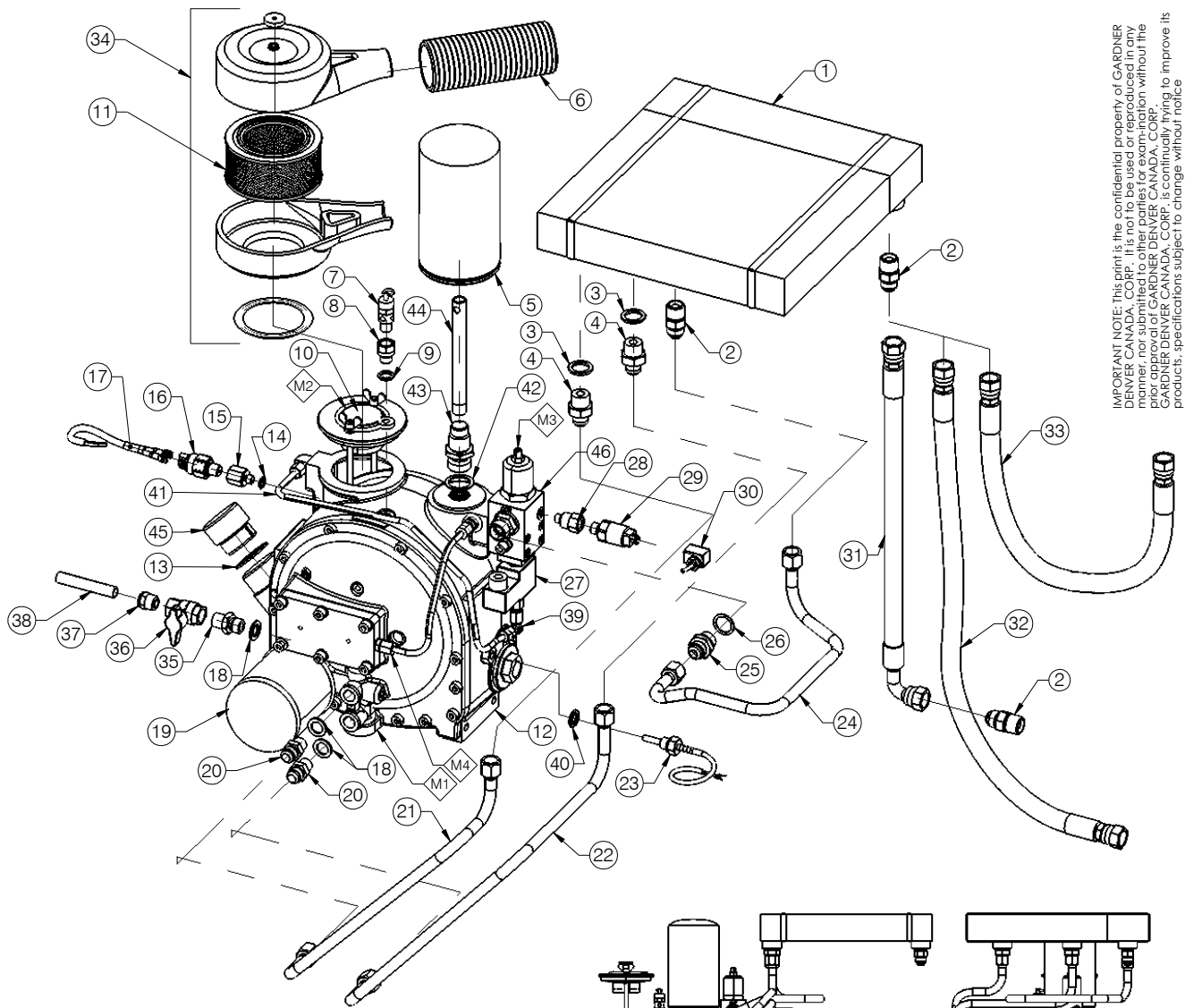


NAME OF PROJECT				DESCRIPTION OF DRAWING			
B5-7.5 SCREW COMPRESSOR				DRIVE COMPONENTS			
DRAWN BY		CHECKED BY		DATE		SCALE	
LT				10/04/12		N.T.S	
DRAWING NO.		SHT NO/REV.					
B5 B7.5		D1				F	



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NO.	PART NUMBER	DESCRIPTION	QTY.
1	DSC-002221	B5-7.5 HEAT EXCHANGER	1
2	DSC-001353	ADAPTER 1/2"NPT(M) - JIC 8(M)	3
3	DSC-200	BONDED WASHER 1/2" BSPP	2
4	DSC-001214	ADAPTER 1/2"BSPP - JIC 8	2
5	DSC-002476	AIR/OIL SEPARATOR FILTER	1
6	DSC-002215	AIR INLET TUBE	1
7	TIA-5200	SAFETY VALVE 200PSI	1
8	DSC-001564	ADAPTER 1/4"BSPPM - 1/4"NPTF	1
9	DSC-001968	COPPER SEALING RING 1/4"BSPP	1
10	DSC-001572	B5-10 INTAKE VALVE	1
11	DSC-001569	A5, B5-10 AIR FILTER	1
12	DSC-002053	B-SERIES AIR END 24V	1
13	DSC-002258	OIL CAP O-RING B5-10 NK31 SN.37213 TO PRESENT	1
14	DSC-001667	COPPER SEALING RING 1/8"BSPP	1
15	DSC-001659	ADAPTER 1/8"BSPPM - 1/4"NPTF	1
16	DSC-102	ANTI-ROTATION PRESSURE SWITCH	1
17	DSC-522	ANTI-ROTATION SWITCH CABLE	1
18	DSC-427	BONDED WASHER 3/8"	3
19	DSC-603	OIL FILTER	1
20	DSC-001563	ADAPTER 3/8"BSPPM - JIC8	2
21	DSC-002239	B5-7.5 OIL INLET TUBE	1
22	DSC-002238	B5-7.5 OIL OUTLET TUBE	1
23	DSC-001238	TEMPERATURE SENSOR CSC200300	1
24	DSC-002237	B5-7.5 AIR HOSE TO COOLER	1
25	DSC-002220	ADAPTER-SH 1/2"BSPP - JIC 8	1
26	DSC-002219	COPPER WASHER 1/2"BSPP	1
27	DSC-001676	SOLENOID 24V	1
28	DSC-001568	ADAPTER 1/8"BSPPM - 1/4"BSPPF	1
29	DSC-001237	PRESSURE TRANSDUCER CSC200300	1
30	DSC-001366	PRESS. TRANSD. CABLE CSC200300	1
31	DSC-442	B5-75 AIR OUTLET HOSE(WITH DSC-001353)	1
32	DSC-002223	B5-7.5T AIR OUTLET HOSE	1
33	DSC-001729	B5-7.5TD AIR OUTLET HOSE	1
34	DSC-002969	AIR FILTER ASSEMBLY B-SERIES	2
35	DSC-002825	ADAPTER 3/8"BSPP(M) - 3/8"NPT(M)	1
36	DSC-002828	BALL VALVE 3/8" NPTF X 3/8" NPTF	1
37	DD-00091	3/8"NPT X 1/2"DIA PNEU. FITTING	1
38	R8504	PE TUBING 1/2" OD	1 FT
39	DSC-002870	ELBOW FITTING B-SERIES	1
40	DSC-001217	BONDED WASHER 1/4"BSPP	1
41	DSC-002871	CONTROL LINE TUBE B-SERIES	1
42	DSC-001997	COPPER WASHER 3/4"BSPP	1
43	DSC-002854	SEPARATOR FITTING B-SERIES	1
44	DSC-002855	SEPARATOR SPOUT B-SERIES II	1
45	DSC-002954 DSC-002955	OIL CAP & SEAL B5-10 NK30 SN.37212 & EARLIER OIL CAP B5-10 NK31 SN. 37213 TO PRESENT	1
46	DSC-001716	B5-10 MPV & HOUSING ASSEMBLY	1



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MAINTENANCE KITS			
NO	PART NUMBER	DESCRIPTION	
M1	DSC-002057 DSC-001711	THERMO VALVE REPAIR KIT SN. >= 37214 THERMO VALVE REPAIR KIT SN. <= 37213	
M2	DSC-001712	INTAKE VALVE REPAIR KIT	
M3	DSC-001713	MINIMUM PRESSURE VALVE REPAIR KIT	
M4	DSC-002058	ORIFICE & TUBE SN. >= 37214	
---	MK-B57	2000 HR MAINTENANCE KIT	

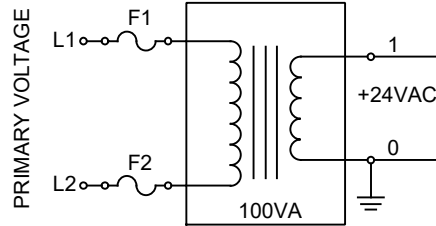
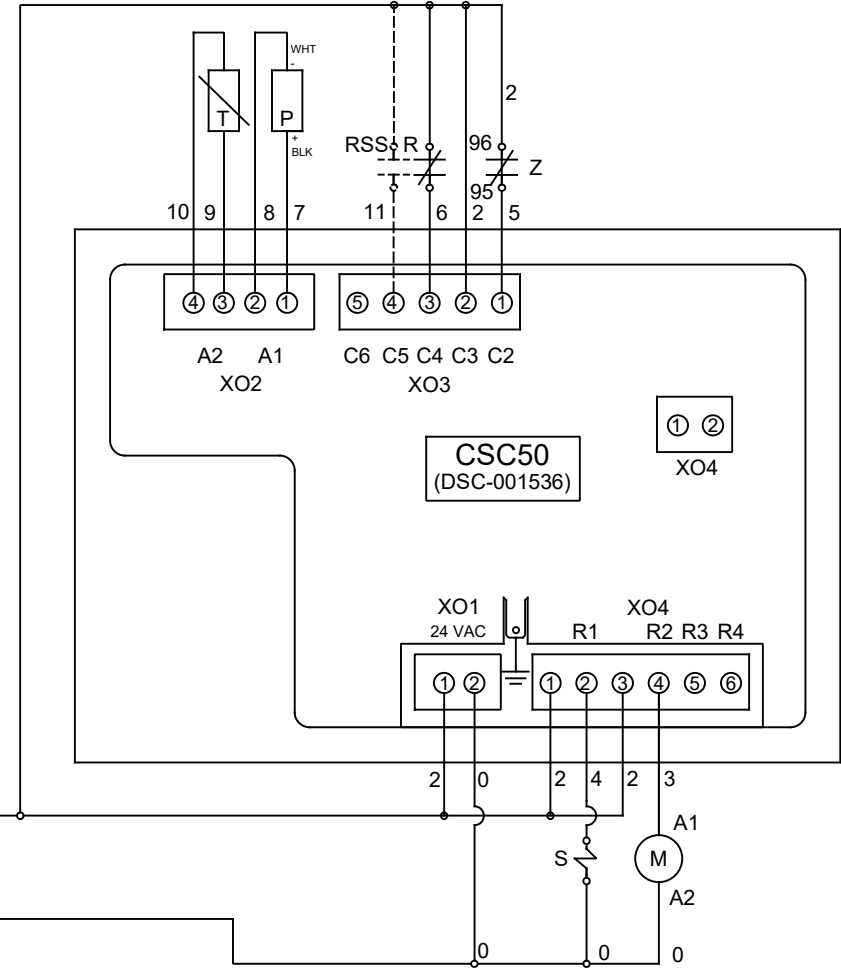
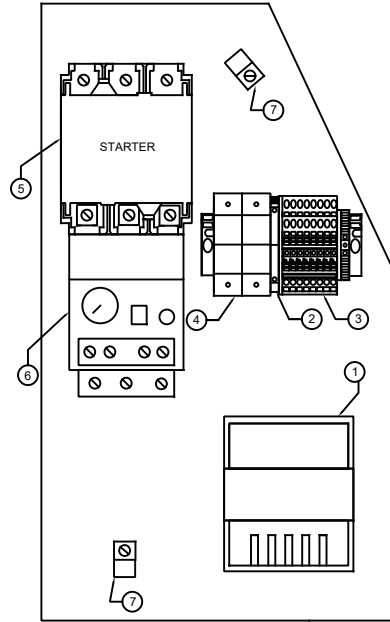
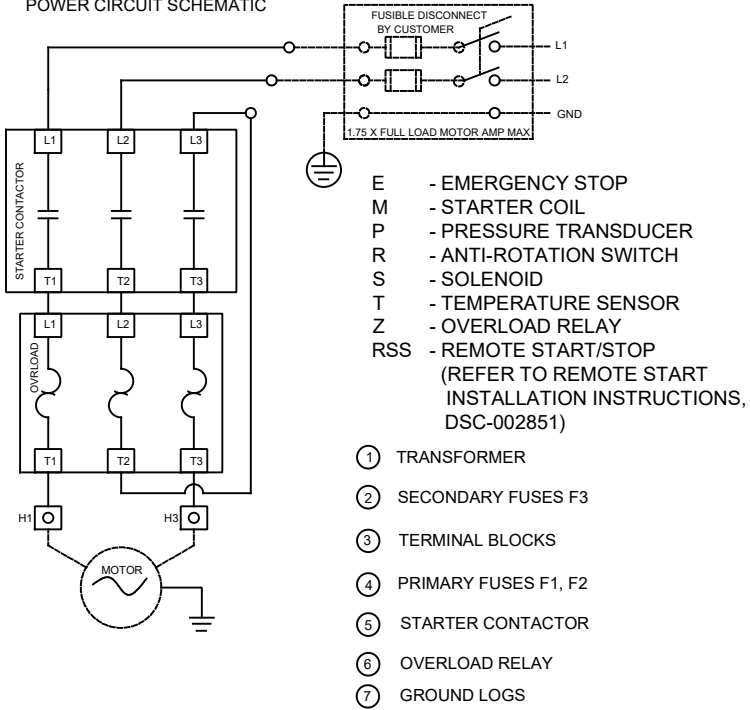
REV.	DATE	REVISION DESCRIPTION	PCN NO.
V	6/4/19	QTY. FOR DSC-002828 AND DD-00091 CHANGED TO 1, ITEM# 38 CHANGED TO R8504 AND ITS QTY TO 1 FT	---
U	7/24/17	DSC-002969 & DSC-001716 ADDED	---
	3/31/17	DSC-002954,55 ADDED	17-11
T	3/31/17	DSC-001238 REPLACES DSC-001360 SN > 085668	16-18



NAME OF PROJECT				DESCRIPTION OF DRAWING			
B5-7.5 SCREW COMPRESSOR				SYSTEM COMPONENTS			
DRAWN BY	CHECKED BY	DATE	SCALE	DRAWING NO.	SHT NO	REV.	
LT		06/23/15	N.T.S	B5 B7.5	1/1	V	

REV.	DATE	REVISION DESCRIPTION	PCN NO.
F	01/21/16	B7.5 575V OVLD SETTING CHANGED	16-02
G	12/11/17	RSS FROM N.C. TO N.O.	---
H	05/29/18	RSS INSTRUCTIONS CHANGED	---
J	06/04/19	CHANGED MOTOR HARNESS LABELS	---

POWER CIRCUIT SCHEMATIC



VOLTAGE	FUSE CHART						
	FUSE SIZE (AMPS)			OVERLOAD SETTING			
	F1	F2	F3	5HP	7.5HP	5HP	7.5HP
200	1	1	4	NA	NA	16	23
230	1	1	4	23	36	14	22
460	0.5	0.5	4	NA	NA	7	11
575	0.5	0.5	4	NA	NA	6	8.3

WARNING: REPLACE WITH THE SAME FUSE TYPE & RATING

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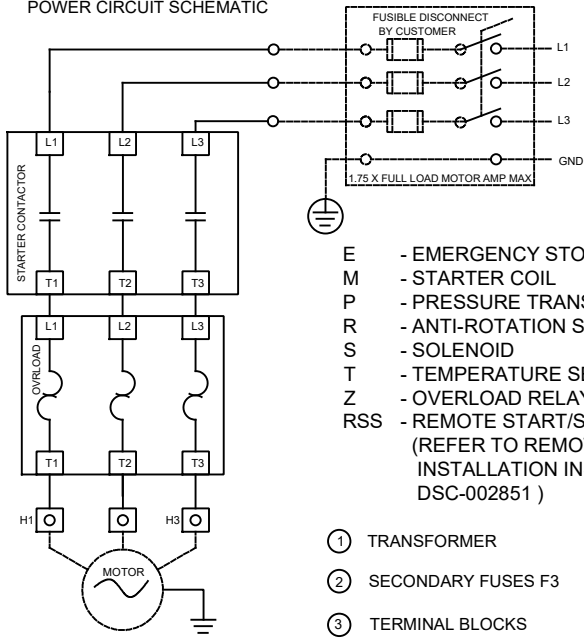
FRACTIONAL DIMENSIONS: ±1/32
DECIMAL DIMENSION: ±.005
ANGLES: ±1°
*UNLESS OTHERWISE SPECIFIED



NAME OF PROJECT				DESCRIPTION OF DRAWING		
SCREW COMPRESSOR BII-SERIES SINGLE PHASE CONTROLS				ELECTRICAL SCHEMATICS WITH MICROPROCESSOR		
DRAWN BY		CHECKED BY	DATE	SCALE		DRAWING NO.
CG			01/21/16	N.T.S.		CSC50
					SHT NO	REV
					1/1	J

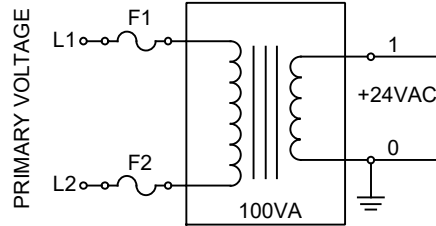
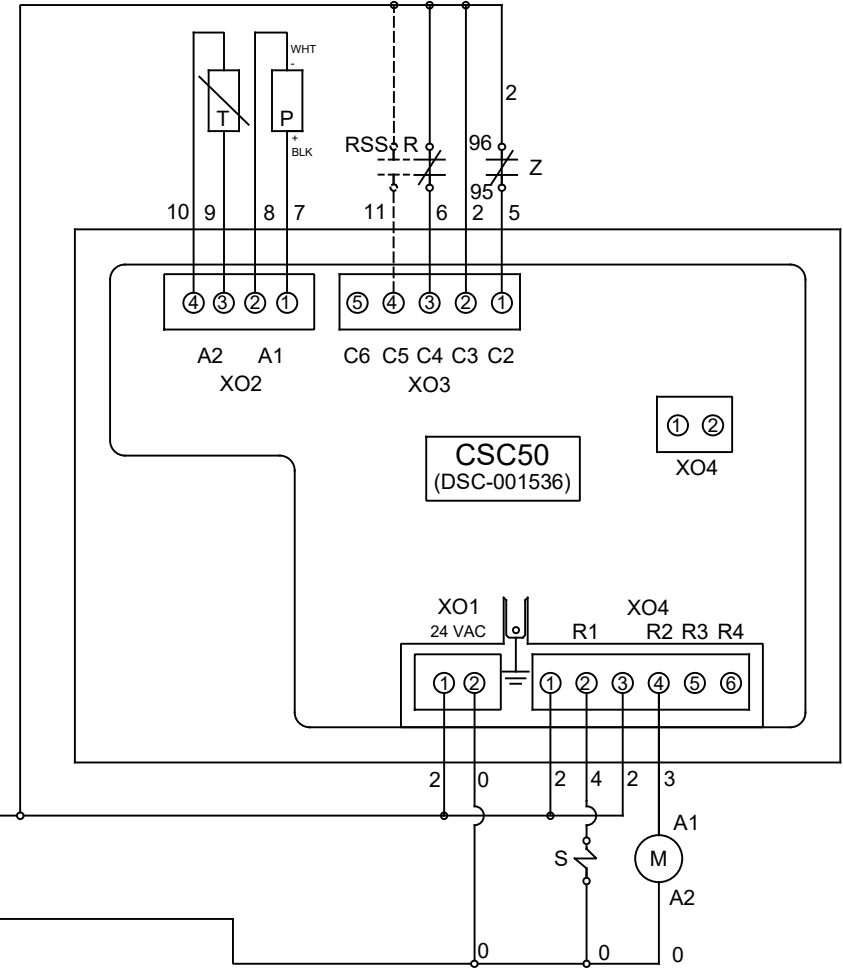
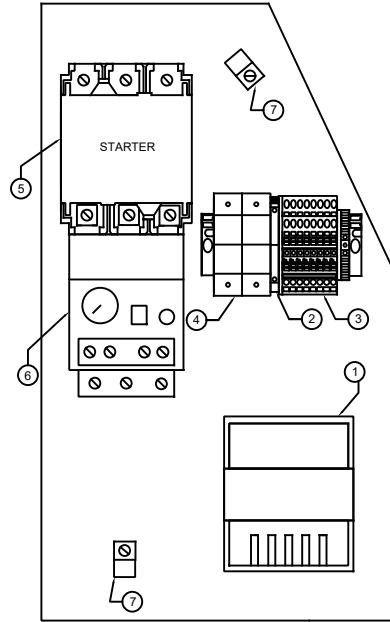
REV.	DATE	REVISION DESCRIPTION	PCN NO.
F	01/21/16	B7.5 575V OVLD SETTING CHANGED	16-02
G	12/11/17	RSS FROM N.C. TO N.O.	---
H	05/29/18	RSS INSTRUCTIONS CHANGED	---
J	06/04/19	CHANGED MOTOR HARNESS LABELS	---

POWER CIRCUIT SCHEMATIC



- E - EMERGENCY STOP
- M - STARTER COIL
- P - PRESSURE TRANSDUCER
- R - ANTI-ROTATION SWITCH
- S - SOLENOID
- T - TEMPERATURE SENSOR
- Z - OVERLOAD RELAY
- RSS - REMOTE START/STOP
(REFER TO REMOTE START
INSTALLATION INSTRUCTIONS,
DSC-002851)

- ① TRANSFORMER
- ② SECONDARY FUSES F3
- ③ TERMINAL BLOCKS
- ④ PRIMARY FUSES F1, F2
- ⑤ STARTER CONTACTOR
- ⑥ OVERLOAD RELAY
- ⑦ GROUND LOGS



VOLTAGE	FUSE CHART							
	FUSE SIZE (AMPS)				OVERLOAD SETTING			
	F1	F2	F3	5HP	7.5HP	5HP	7.5HP	
200	1	1	4	NA	NA	16	23	
230	1	1	4	23	36	14	22	
460	0.5	0.5	4	NA	NA	7	11	
575	0.5	0.5	4	NA	NA	6	8.3	

WARNING: REPLACE WITH THE SAME FUSE TYPE & RATING

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FRACTIONAL DIMENSIONS: ±1/32
 DECIMAL DIMENSION: ±.005
 ANGLES: ±1°
 *UNLESS OTHERWISE SPECIFIED



NAME OF PROJECT				DESCRIPTION OF DRAWING	
SCREW COMPRESSOR BII-SERIES THREE PHASE CONTROLS				ELECTRICAL SCHEMATICS WITH MICROPROCESSOR	
DRAWN BY		CHECKED BY	DATE	SCALE	DRAWING NO.
CG			01/21/16	N.T.S.	CSC50
					SHT NO
					1/1
					REV
					J