



**OPERATING AND PARTS MANUAL**

FOR

INDUSTRIAL ELECTRIC AIR COMPRESSORS  
75UDG, 100UDG AND 100UDII HP MODELS  
WITH S1 MICRO PROCESSOR CONTROL

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Part Number: OPM0306/75/100 S1

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## **SECTION 1 - SAFETY**

### **1.1 GENERAL**

SULLIVAN-PALATEK designs all its compressors so they can be operated safely despite the fact that operating a motor driven air compressor is inherently hazardous. Responsibility for continued safe operation rests with those who install, use and maintain the equipment. The precautions offered in this section will minimize the inherent hazards and reduce the likelihood of accidental damage or injuries.

The operation of air compressors should be limited to personnel who have been so trained and specifically assigned to do so, and who have read and understand this Operator's Manual. Failure to follow the instructions and safety precautions in this manual may increase the possibility of accidents or injuries.

Never start this compressor unless it is safe to do so. Do not attempt to operate the air compressor with an unsafe condition relative to the compressor, the electrical system or the air piping, filtering, regulating, preparation, conditioning, valving, hosing or air-using components. Open the main disconnect switch or circuit breaker, then lock it out and tag it to prevent anyone else from starting the compressor until the unsafe condition has been corrected.

Operate compressors only in full compliance with all applicable Federal, State and local codes and requirements such as OSHA, NEC, NFPA, CSA, etc.

**WARNING: Do not modify this compressor without specific written approval from the factory.**

### **1.2 PRESSURE RELEASE**

Operate manually the pressure relief valve(s) periodically to be sure there is no blockage, obstruction, or inability to operate.

Shut machine off by using stop button on Micro Processor. Open and lock-out disconnect switch, and vent all pressure before opening or removing any filter element, line, tube, fitting, valve, plug, cover, connection, or any other component on the air compressor or in the plant's compressed air system. Remove Oil Filler Cap, (Caution: Hot oil is present.) only when compressor has been turned off, the disconnect switch locked open, and there is no pressure in the oil separation tank. Bleed off any residual pressure by opening the pressure relief valve. **WARNING: compressors may re-start AUTOMATICALLY if not properly taken off the power line!**

Do not use accessories such as tools, valves, filters, hoses, piping, dryers, etc. that are rated lower than the maximum pressure or temperature rating of this compressor. Do not exceed the accessory component manufacturer's rated safe, continuous working pressure or temperature.

Install appropriate velocity-limiting valves (rated by pipe size and CFM) whenever air hose larger than ½ inch (12.5 mm) inside diameter is used anywhere in the system. This will reduce pressure in case of hose or connection failure. Install additional velocity limiting valves, in series, whenever 75 feet (22.8m) of hose length is exceeded. These valves must comply with pertinent OSHA requirements.

Do not use air pressure greater than 30 PSI (207 kPa) for blow-off or cleaning purposes, and then only with effective chip guarding and personal protective equipment as required by OSHA.

Compressed air filters or lubricators with plastic bowls may be affected by lubricant and should not be used. Steel bowls are recommended.

Keep personnel out of line with, and away from, the discharge opening of airlines, or tools, or other areas of direct, or deflected, compressed air discharge.

Do not allow anyone to engage in horseplay with air hoses, as serious bodily injury or death may result.

Do not substitute bolts with material or marking different from original equipment.

Do not over-tighten any bolt, nut, fitting, connection, or spin-off filter element.

### **1.3 FIRES/EXPLOSIONS**

Clean up any spilled oil or oil leakage, and repair oil leaks as soon as they are discovered.

Do not allow oil to accumulate on, in, or around acoustic noise material. Immediately replace any oil-soaked material after cleaning enclosure surface with nonflammable solvent.

Do not operate compressor when there is a possibility of its ingesting flammable, toxic or explosive fumes, mists or particles.

Do not operate compressor with the temperature sensor inoperative or any of its two Pressure Switches inoperative or incorrectly connected.

Keep conductive objects away from exposed live electrical parts, such as terminals, to avoid sparks that may serve as a source of ignition.

Replace the air/oil separator element only with factory original equipment replacement parts to be certain that anti-static provisions are present.

Ground the machine in accordance with National Electrical Code (NEC) requirements.

Do not use plastic pipe for compressed air.

### **1.4 MOVING PARTS**

#### **WARNING: Do not operate the compressor with its Fan Guard removed.**

Keep clothing, hands, arms, and other parts of the body, away from the fan and drive coupling.

Wear snug-fitting protective clothing (no neckties) and confine long hair when working around compressor.

### **1.5 PHYSICAL DANGERS**

Wear OSHA approved personal protective gear including gloves, safety shoes, safety glasses, head covering, and ear protection when working on or around the compressor.

Avoid bodily contact with hot oil, hot surfaces, sharp edges and corners.

Keep all parts of the body away from all potential points of air discharge, including pressure relief valve ports.

Keep an adequate first-aid kit nearby. Obtain medical assistance promptly in case of injury. Do not ignore small cuts, burns or minor eye injuries as they may lead to infection.

Perform repairs and maintenance in well lighted conditions. Clean and dry components prior to servicing.

### **1.6 TOXICITY**

**WARNING: Air from this compressor should not be used for breathing air, unless you adhere to specific OSHA standards.**

Operate the compressor only in open or well-ventilated areas.

Carefully analyze the compressor inlet conditions to be certain that the compressor is ingesting no dangerous levels of contaminants.

Do not permit air from this compressor to contact foodstuff except in compliance with FDA Standard 21 CFR 178.3570 and other applicable regulations. (Use food grade lubricant for such applications.)

### **1.7 ELECTRIC SHOCK**

Remove watches & rings, and keep all parts of the body, tools, or other conductive objects away from exposed live parts of the electrical system. Maintain dry footing, stand on insulating surface and do not contact any other portion of the compressor when making adjustments.

Turn compressor off, open main disconnect and lock it out and tag it prior to opening the Starter Enclosure or when testing or replacing any electrical component such as: switches, wiring, terminals, transformer, starter, timer, coil, relay, contact, interlock, fuse, overload heater, etc.

Be certain that the equipment is properly grounded in accordance with NEC and all other applicable state & local codes.

Initial installation and wiring must be done by a trained and qualified electrician and be in accordance with all Federal, State and local codes, standards, and regulations. Improper installation or unsafe servicing could result in serious bodily injury or death.

Should a breaker trip for any reason, be sure to check for the cause that produced the trip. Fix the root cause if possible prior to resetting and operating the compressor. When restarting, check for maximum current being drawn by the circuit.

If a fuse should blow, for any reason, always replace it with one of the same size, type, and ampere rating.

## **1.8 LIFTING**

Lift or move the compressor only with equipment of sufficient load capacity that has been inspected and is in good condition.

Keep personnel out from under and away from the area when lifting or moving the compressor.

Lift no higher than necessary. Carry as low as possible when moving.

Keep lifting operator in attendance whenever compressor is suspended.

Set compressor down only on level surface capable of supporting several times the machine weight.

Do not lift entire machine by motor lifting eyes, as they are intended only for lifting the motor.

## **1.9 AUTOMATIC START AND/OR RESTART**

Do not assume that any air compressor is ready for maintenance, service, or troubleshooting if it is not running. It may be in the "Automatic-Start" mode "Sleep" mode, or was not shut down properly prior to power having been shut off, then when power is re-applied the compressor may suddenly re-start, thereby creating a hazardous condition! Also, compressor may be wired to BLT or sequencer which might call for a start.

Close discharge air valves and shut off machine. Open main disconnect; lock it out and tag it to prevent others from inadvertently re-closing it.

## **1.10 NOISE**

Working near an open-air compressor, or an enclosed machine with doors and/or access panels open or removed, can prove hazardous even during short-term exposure. The noise may interfere with hearing verbal warnings or other sounds of impending dangers.

**WARNING: For prolonged exposure to machinery noise, hearing protection is recommended and may be required by OSHA.**

**1.11 HAZARD WARNING SIGNS**

SULLIVAN-PALATEK compressors are all equipped with brightly colored, weather-resistant, pictorial/verbal self-adhesive decals. These are designed to warn the operator against potential hazards in order to minimize risk of property damage, bodily injury or death. All operators must be aware of the Warning Signs and follow the instructions thereon.

If any Warning Signs are missing, damaged or painted over, or located in such a position as to be unreadable in a given installation, new Warning Signs must be ordered. Be sure they are properly positioned and installed correctly.

**WARNING: If any operators are not fully conversant with the English language and/or cannot comprehend the intended pictorial warnings, it becomes incumbent upon the owner, lesser or other responsible administrator to be sure the operator is properly trained and also made aware of, and understands, the meaning of all Warning Signs.**

<u>SIGN</u>	<u>LOCATION</u>
<u>WARNING SIGN</u>	
<u>HIGH VOLTAGE/MOVING PARTS</u>	<u>MOTOR/STARTER</u>
<u>WARNING SIGN</u>	
<u>COMPRESSED AIR</u>	<u>INSTRUMENT PANEL</u>
<u>WARNING SIGN</u>	
<u>HOT OIL/PRESSURIZED AIR</u>	<u>SEPARATOR TANK</u>



## SECTION 2 - SPECIFICATIONS

MODEL	75UDG	100UDG	100UDII
MOTOR SIZE (HP)	75	100	100
AIR DELIVERY (CFM @ 125 PSIG)	344	440	420
MAX. FULL LOAD PRESSURE	125	125	125
MIN. FULL LOAD PRESSURE	70	70	70
LUBRICOOLANT CAP'Y GAL.SYST/SUMP	15/12	15/12	15/12

DIMENSIONS:		
OPEN	LENGTH	80
	WIDTH	45
	HEIGHT	57
ENCLOSED	LENGTH	80
	WIDTH	45
	HEIGHT	64

**NOTE: SEE INSTALLATION DRAWINGS ON PAGES 53 - 56 OF THIS MANUAL**

### **2.1 DATA AND DIMENSIONS**

SULLIVAN-PALATEK reserves the right to change the design or construction of the above compressors, or to offer them with options which will cause subject equipment to differ from the above specifications, without reference to any descriptions in this manual.

### **2.2 LUBRICATION GUIDE**

SULLIVAN-PALATEK recommends using Palasyn 45 synthetic lubricoolant for normal plant-air service. For compressors running two or three shift operations, extended life lubricants such as Pallube 32p, or Pal-extra 44 are offered as factory fill. Also, where incidental food contact may happen, we offer a Food Grade 32FLL.

For extreme environments (i.e. fine particulate, caustic, acidic, or oxidant atmospheres) contact the factory for lubricant recommendations. Also, for such conditions we would suggest oil analysis every 1000 hours.

Mixing of these or any other type of oil or synthetic fluid will void the 5-year compressor unit warranty and could result in greatly increased maintenance and service expenses.

**2.3 APPLICATION GUIDE**

Ambient Temperature Range: +35° to +104° F (+1° to +40° C). The lower temperature limit is to prevent freeze-up of condensate in the aftercooler and/or control lines. When operating these compressors for plant air in food or beverage processing industries, contact the factory for a Lubricoolant that is FDA approved for “incidental contact with foodstuffs.” For instrument-grade air, contact the factory for recommendations related to specialized compressed air preparation accessories.

Whenever a SULLIVAN-PALATEK rotary screw compressor is installed in parallel with a reciprocating type of compressor, it is imperative that the SULLIVAN-PALATEK be the “lead” machine and the reciprocating the “lag” machine. That is, the SULLIVAN-PALATEK should be the first to start and the last to stop when being operated in the “automatic stop/start” mode, or the first to load and the last to unload, when in the “continuous run” mode. It should require the least electrical power consumption for the combination. Maximum number of starts per hour:

Motor HP	75	100
Starts/Hr	4	4

**SECTION 3 - DESCRIPTION**

**3.1 INTRODUCTION**

SULLIVAN-PALATEK Plant Air Compressors are electric motor driven, single-stage rotary screw type, continuous-duty compressor. They are designed and constructed to offer the greatest value and lowest life cycle cost of operation. The compressor package includes: a direct-connected electric motor-driven compressor, air intake/capacity control system, air-cooled cooling system (including a standard air-cooled aftercooler), discharge system, instrument panel and electrical system. They are available base mounted, with or without enclosures. These machines are intended for indoor installation, or protected outdoor operation in moderate climates.

**3.2 COMPRESSOR UNIT**

All SULLIVAN-PALATEK compressors feature direct-connected, single-stage, positive displacement, flood-lubricated rotary screw compressor units with heavy-duty long-life rolling element bearings. The lubricoolant fluid is injected directly into the compressor unit and mixes with the air as the rotors compress it. The lubricoolant lubricates the rotors, bearings and shaft seal, cools the compressor by absorbing much of the heat of compression and acts to block slippage of compressed air through the compressor’s internal clearances.

**3.3 MOTOR**

The electric motor used to power each SULLIVAN-PALATEK UD Series 75/100 horsepower compressor is a NEMA standard three phase 60 Hertz AC induction type motor, fitted with a C-face register at the compressor drive end to assure proper coupling alignment at all times. The main compressor motor is connectable for 230 or 460 volts. The 75/100 horsepower machines utilize a separate TEFC fan motor. Contact the factory for any other requirements, such as TEFC or premium efficiency main drive motor.

### **3.4 INTAKE/CONTROL SYSTEM**

The intake/control system consists of: an air filter, connecting rubber elbow, a combination compressor inlet valve/reverse-flow check valve, control signal regulator valve, blowdown valve, and control pressure transducer. (See Intake Control Schematic.) The air filter is a multi-stage dry-type with a high efficiency cleanable/replaceable cellulose element. The element should be cleaned periodically, depending upon the amount of particles in the air, and replaced annually, or if a high delta-p fault is shown. If remote air intake is desired, consult the factory for a special intake option.

The intake valve controls the capacity or air delivery of the compressor in direct response to the plant air system demand via a varying signal from the control regulator valve, or an unload control signal. During periods of very low or zero air usage the inlet valve is held shut by an air signal from the blowdown valve. This air signal simultaneously reduces the pressure in the oil separation tank, allowing the compressor to run unloaded with a minimum of power consumption. Upon shutdown the intake valve checks shut to eliminate blowback.

#### **Control Operation - Starting:**

When the compressor start key is pressed, or starts automatically (signal from BLT or sequencer), it will run for approximately 10 seconds unloaded. After this interval, the pressure will rise quickly to 60 PSIG (415 KPA) which is the minimum pressure valve opening pressure. Until the controller pressure setting is reached, the compressor inlet valve is wide open and the compressor will deliver its full rated capacity.

#### **Normal Full Load Mode:**

From 60 to 125 psi (415 to 863 kPa) the minimum pressure valve is open and the compressor delivers its full rated capacity to the air receiver and/or the plant air piping system.

#### **Modulating Mode:**

Whenever less than the rated capacity of the compressor is being used, the service air pressure will continue to rise until the control regulator gradually opens. This applies pressure to the inlet valve piston that partially closes the inlet valve disc thus reducing the amount of air entering the compressor air inlet until it matches the amount of air being used. The control will function continually in this manner between the adjustable limits in response to varying demands from the plant air service line. The control regulator has an orifice that vents a small amount of control air whenever it is sending a pressure signal to the intake controller capacity control. This orifice is vital to the smoothness of the control operation.

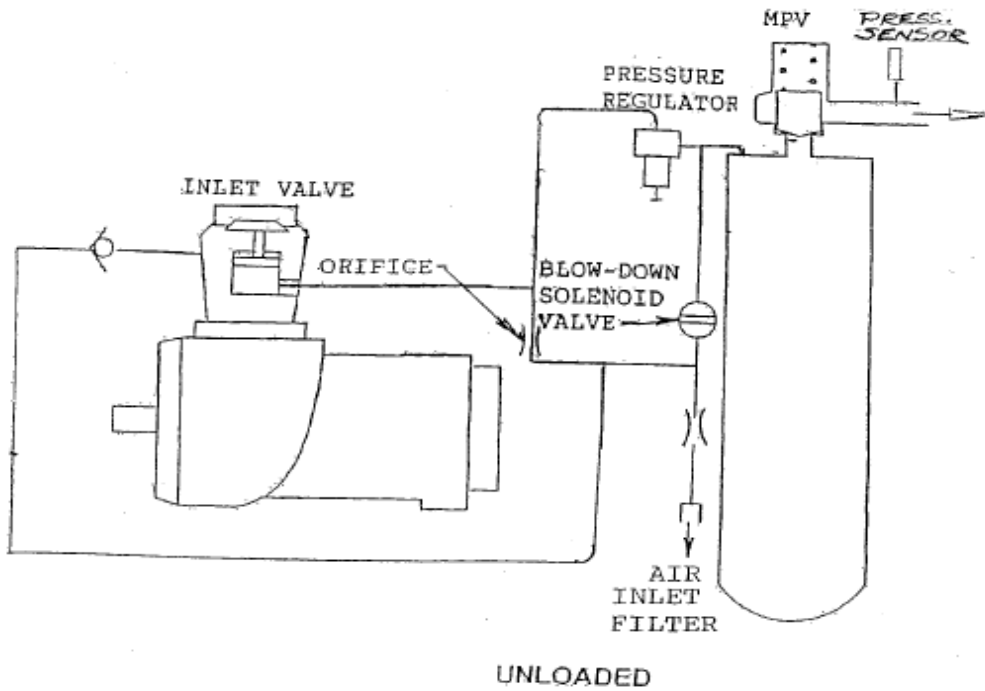
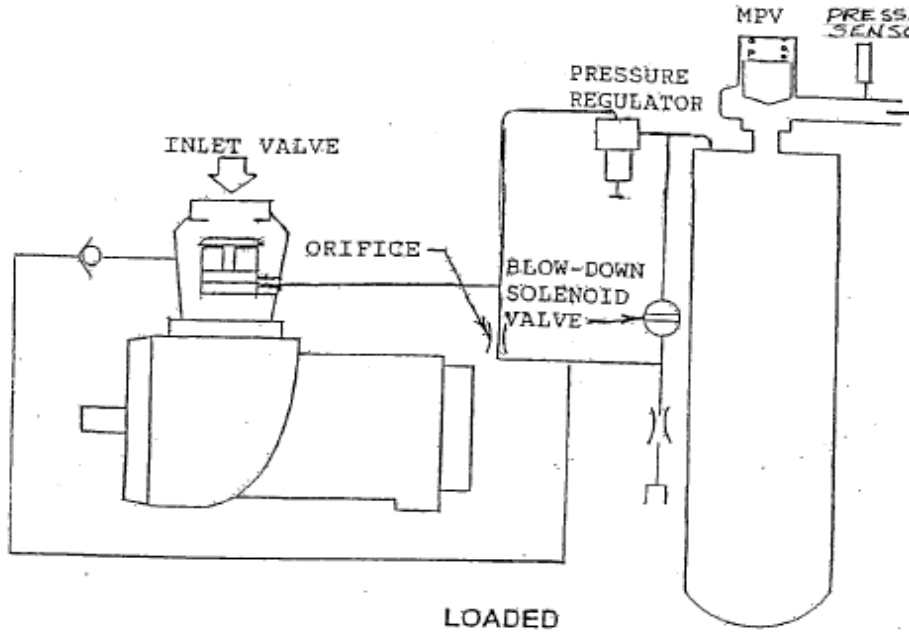
#### **Unloaded and/or Shutdown Modes:**

When little or no air is being used, the service line pressure will rise to the "unload" setting of the micro processor which will interrupt the voltage to the control solenoid to open and allow air pressure to close the inlet valve. This same air pressure which is holding the inlet valve shut is also venting the pressure in the separator tank to reduce the power required.

If the micro processor determines that the compressor has been unloaded for 3 minutes, then the compressor goes into a "sleep" mode which shuts off the drive motor. When air is being used again, the compressor will re-start (provided that it has been off for a least a minute).

# SULLIVAN-PALATEK

Note that the micro processor is programmed to limit the number of starts per hour (depending on motor size) for motor protection. If the compressor is starting too often, thus causing the compressor to be off when air is required; please contact the factory for adjustments to be made to the controls to avoid this problem (i.e. adjust regulating valve, lengthen run-on time, etc.).

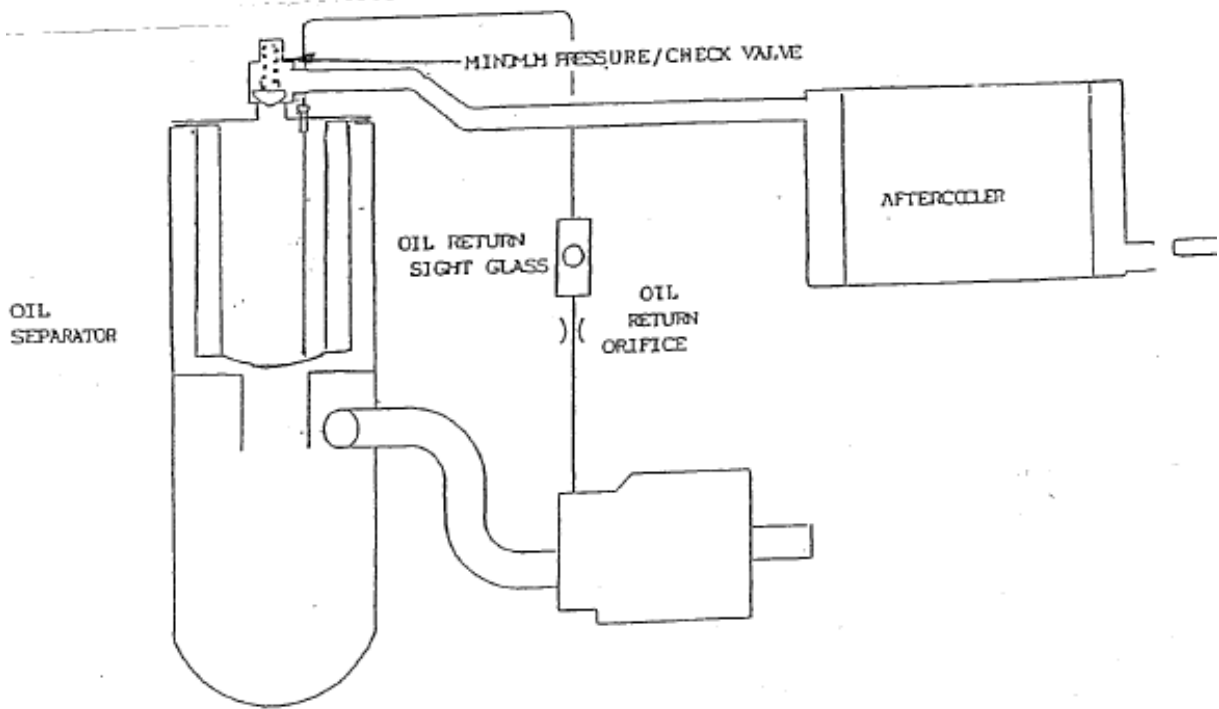


### 3.5 COMPRESSOR LUBRICATION/COOLING SYSTEM

The cooling system consists of a fan, fan motor, finned-tube radiator-type fluid cooler, thermostatic valve to accelerate warm-up, and to control operating temperature, a full-flow filter, a drain valve and interconnecting tubing.

Pressure in the oil separation tank utilizes air pressure over oil which causes the lubricant to flow from this region of relatively high pressure through the system to an area of lower pressure at the compressor unit. Fluid flows from the oil separation tank to the cooler; from the cooler to the filter, and from the filter to the compressor. During cold starts, the thermostatic valve is open allowing the fluid to by-pass the oil cooler and go directly to the filter. While warming up, a gradual change occurs where the fluid flow is split - partial flows being shared by both the oil cooler and thermostatic valve. When fully warmed up, the thermostat closes to maintain proper operating temperature.

The fluid filter is of the spin-on replacement element type. The element should be changed in accordance with the Maintenance Schedule.



Discharge System Schematic

### **3.6 COMPRESSOR DISCHARGE SYSTEM**

The compressor unit discharges a mixture of compressed air and lubricoolant directly into the oil separation tank where it accomplishes the following three functions:

- A) Primary separation - by change of direction and reduction of velocity, which allows the heavier droplets of lubricoolant to fall.
- B) Serves as the lubricoolant sump - by collecting the hot lubricoolant prior to re-circulation through the cooling system.
- C) Houses the final oil separation element: a replaceable, multi-layered, multi-media coalescing element with pleated initial stage for reduced velocity, improved separation performance and extended service life. Separated oil is returned to the compressor oil system via a small diameter return line, or scavenger tube.

A sight gauge is provided to monitor the lubricoolant level in the oil separation tank, and a capped oil fill port is provided to keep the oil the proper level and to refill the system after changing the lubricoolant.

**WARNING: Do not remove caps, plugs or other components or connections while the compressor is running or pressurized. Shut the compressor off, open and lock out the electrical disconnect switch, and relieve all sump pressure before doing so.**

The oil separation tank is ASME rated for 200 psig (1380 kPa) maximum working pressure. A combination minimum-pressure/check valve in the separator cover assures a minimum pressure of 60 psig (415 kPa) for proper lubricoolant circulation and separation. At the same time it prevents a reverse flow of compressed air from an auxiliary air receiver and/or the plant air-main back through the compressor at shutdown or during periods of unloaded operation.

A pressure relief valve (located upstream, or on the “wet” side of the separator) is set to open if a control malfunction would allow the pressure to exceed 200 psig (1380 kPa). However, since the opening of this valve is noisy and results in hot oil being expelled, an over-pressure switch, ROP, has been installed to shut the motor off at 10 PSI above operating pressure.

The panel-mounted micro processor shows the pressure at the discharge of the MPV. (i.e. line pressure). Additionally, differential pressure switches which trip if the pressure drop across the oil filter and the separator element are too high, and will indicate such by a fault signal.

The compressor discharge temperature is also displayed on the micro processor screen. Normal discharge temperature should be approximately 180-220° F (82-105° C), or about 100° F (38° C) above ambient.

The micro processor is programmed to shut off the compressor should the discharge temperature exceed 240° F. Should this occur, check for adequate lubricant, cooling fan operation, dirty cooler, or varnish in oil & cooler.

### **3.7 STARTER AND ELECTRICAL PARTS**

The three-phase electric motor starter supplied with the SULLIVAN-PALATEK Plant Air Compressor has a NEMA-1 rated enclosure. This is also the location of: the control power transformer, the control pressure transducer, the over-pressure shutdown switch ROP, the anti-restart pressure switch ASP, fan motor disconnect fuses, and fan overload.

The starter contactor is amp-rated to match the motor power at the customers voltage. An overload relay is selected and set to match the motor voltage full load amp rating.

The over-pressure shutdown switch acts to stop the compressor in the event of control malfunction or improper control adjustment, to prevent the pressure relief valve on the oil separation tank from suddenly opening.

The control power transformer converts power from one phase of the incoming line power to a 120v control voltage. This is to minimize the potential for arcing at the contact points of switches, or relays. The primary (high voltage) incoming power and the secondary (control voltage) circuits are both provided with breakers to minimize the potential for damage due to overloading or short-circuit faults. In addition a 24 volt output transformer is needed to supply the proper operating voltage for the micro processor control.

### **3.8 INSTRUMENTATION**

Each SULLIVAN-PALATEK Plant Air Compressor is equipped with a micro processor control. This control normally displays line pressure and compressor discharge temperature. In addition, the micro processor will indicate faults due to motor overloads, high differential pressures on; oil filter, air/oil separator, and inlet filter. In addition, the micro processor will display a code signal for exceeding the following maintenance service intervals; oil filter change, oil change, air filter change & air/oil separator change. When this service is performed, the appropriate service timer (meno PO4) must be re-set using service access code 0100.

## **SECTION 4 - INSTALLATION**

### **4.1 RECEIVING**

Carefully inspect for any signs of possible shipping damage

#### **4.1a WELDING**

**WARNING: Do not weld on compressor package.**

### **4.2 LOCATION**

The standard compressor is designed for indoor operation or protected outdoor site with an ambient temperature range of 35° to 104° F (2° to 40° C). It is important that there be sufficient unobstructed ventilating airflow to prevent re-circulation of hot air. The compressor should be in a clean, dry, lighted area with ample space for maintenance and servicing. Duct the hot air outside if necessary to prevent excessively high ambient temperatures. Below is a listing of heat loads and fan air volumes that must be accommodated to keep machines operating normally. It is possible to utilize this heat for space heating, combustion air pre-heating, product drying, etc., --providing that no additional restriction is imposed upon the compressor cooling fan. Consult the factory for assistance if heat recovery is desired.

Model	75UDG	100UDG	100UDII
AIRFLOW (CFM)	7,500	9,500	9,500
HEAT REJECTION (BTU/HR)	220,000	300,000	300,000

Locate compressor as close as practical to where the compressed air is to be utilized. This saves piping and reduces power requirements necessary to transmit compressed air long distances. The compressor should be piped into a receiver tank prior to any filters or dryer. It is recommended that a moisture separator be placed between compressor and receiver tank.

### **4.3 SUPPORT**

The compressor may be mounted on any level surface capable of supporting its weight. It is recommended that the machine be mounted on isolation pads and secured to prevent movement.

### **4.4 ELECTRICAL**

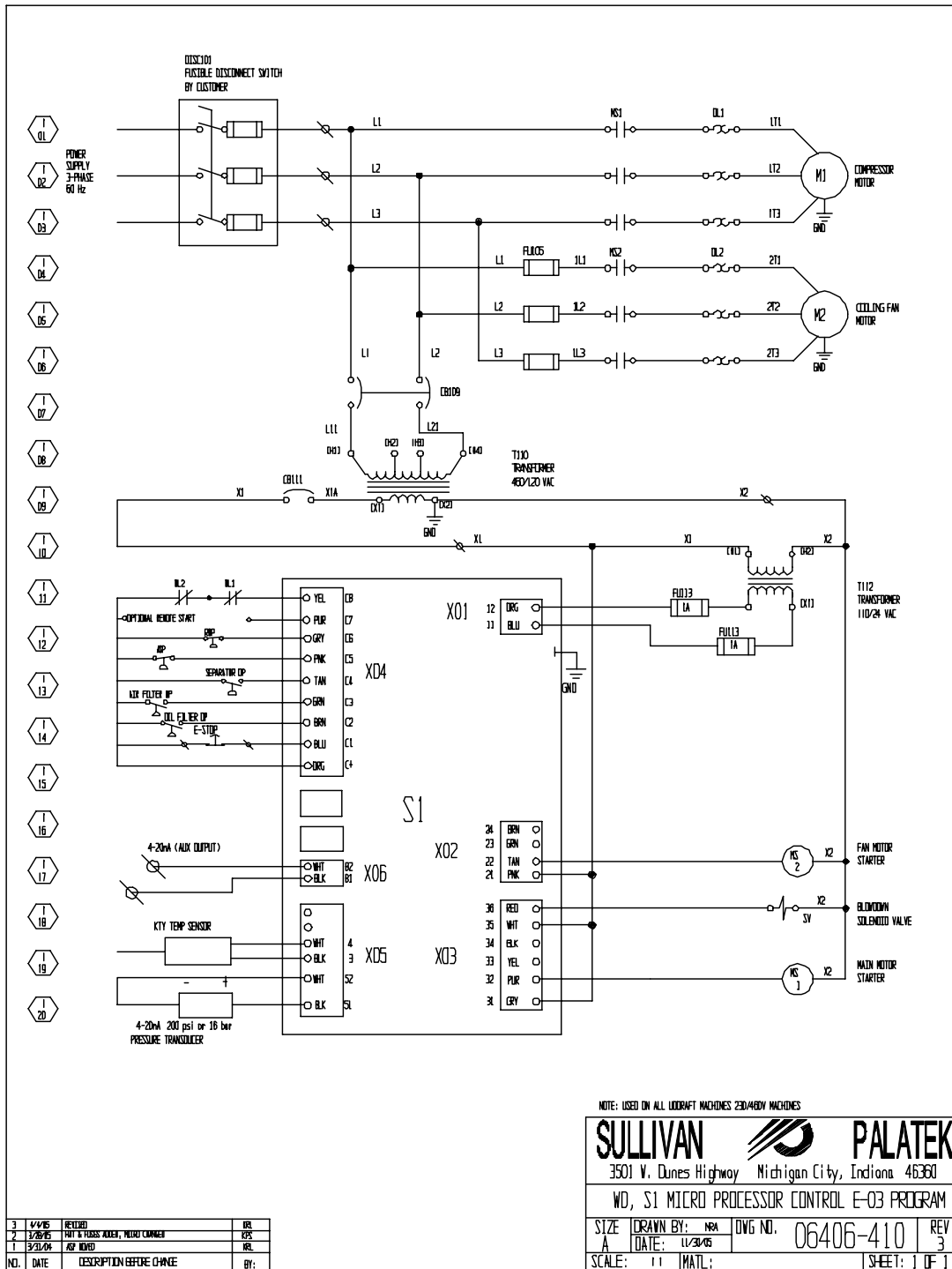
A trained qualified electrician must do electrical wiring to the motor starter with all pertinent Federal, State and local codes concerning isolation switches, short circuit protection, grounding, etc.

Check all electrical connections for tightness.

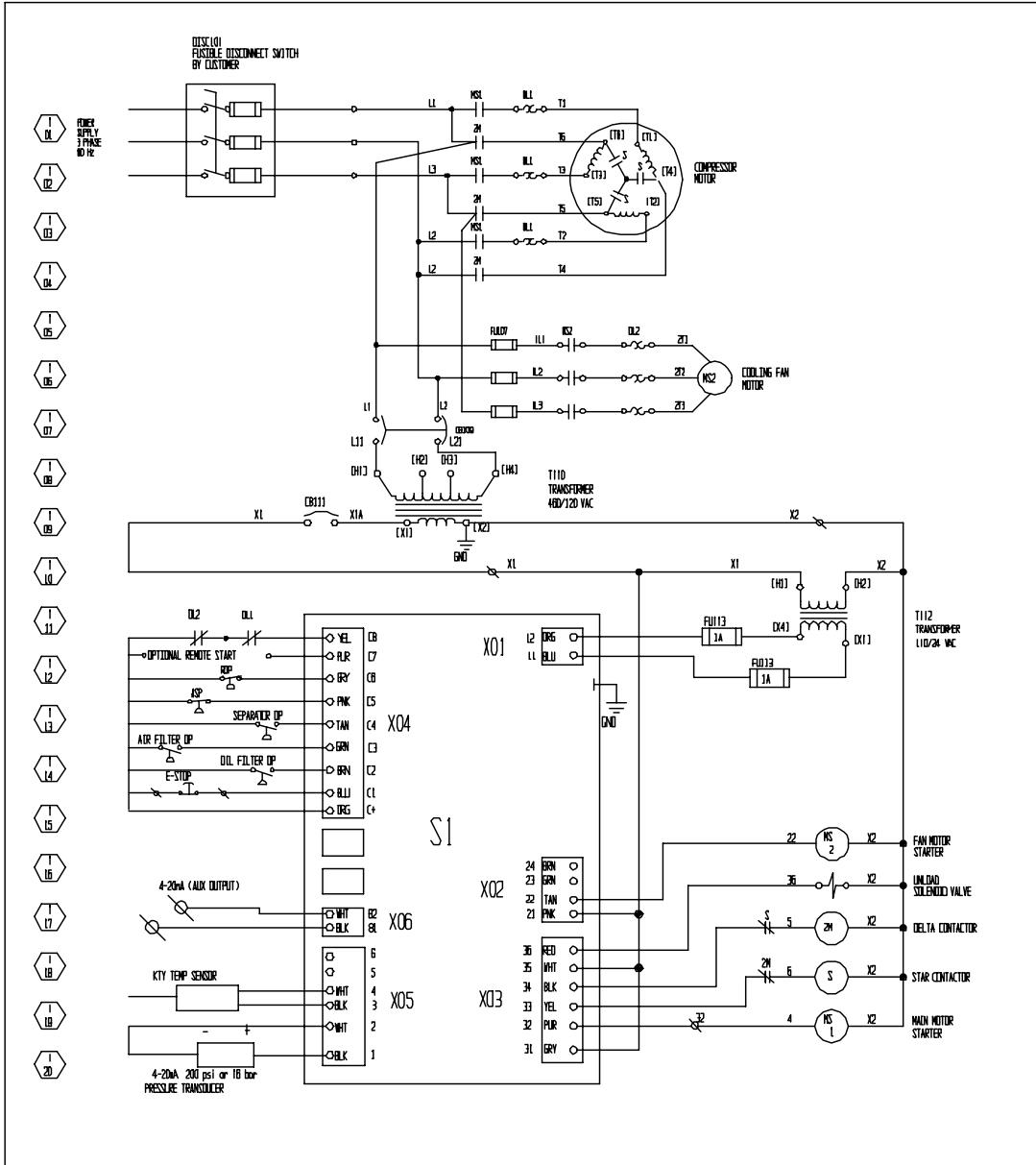
Check incoming voltage to be sure the motor is properly connected to match, and the starter is properly sized and the overload relay is properly adjusted to match the motor nameplate full load amps.



4.5 WIRING DIAGRAM, FULL VOLTAGE STARTER (STANDARD)



4.5a WIRING DIAGRAM Y-DELTA START (OPTIONAL)



NOTE: USED ON ALL UPDRAFT MACHINES 480V Y-DELTA

3501 V. Dunes Highway Michigan City, Indiana 46360	
WD, S1 MICRO PROCESSOR CONTROL E-03 PROGRAM Y-DELTA	
SIZE	DRAWN BY: NRA
A	DATE: 12/5/05
DWG NO.	06413-410
SCALE: NONE	REVISION: 3
MATL:	SHEET: 1 OF 1

3	4/4/05	REVISED	REL
2	3/28/05	TRIT & ROSS: WHEEL MOTOR CHANGE	OPS
1	3/31/04	ASP REVISED	REL
NO.	DATE	DESCRIPTION BEFORE CHANGE	BY:

#### **4.6 DIRECTION OF ROTATION**

Once the control circuit has been checked, all piping installed, and compressor is filled with lubricoolant, push the 'run' key (green) followed by the 'stop' button (red) and observe the direction of rotation. If rotation direction is incorrect, there may be a fault signal appear (ER0050). Change two power leads if rotation is incorrect.

#### **4.7 COMPRESSED AIR PIPING**

Connect the compressor to the plant air system with a flexible connector rated for at least 200 psi (1380 kPa) and 275° F (135° C). Support the piping to insure that no pipe stress is transmitted to any compressor component.

Compressor should be piped into a receiver tank prior to any filters or dryer. A moisture separator may be placed between the compressor and receiver tank.

Piping should be as large as possible to minimize transmission losses. Piping should be in a "closed loop" configuration, sloping to drain points, with service air outlets taken from the side or, preferably, the top of the pipe. Point-of-use filters, coalescers, regulators and/or lubricators are often required. (Note: Never use plastic air piping or plastic bowls on filters or lubricators. See Section 1.) Inspect piping and air hoses frequently for leaks.

#### **4.8 ADDITIONAL HELP**

By making the cleanest, coolest air available to the compressor inlet, maintenance and power consumption will be minimized. On the 75/100hp, the standard air filter is locally mounted. For a remote inlet an optional filter must be fitted.

When connecting to a remote air inlet, use a flexible connector at the filter inlet. Keep the piping as short and as straight as possible. Intake duct must be the same size as filter inlet, or larger, to accommodate long runs and several bends creating no restrictions to air flow.

Support intake ducting properly to prevent its weight being transmitted to the compressor air filter.

For multiple machine installation, contact the factory for special sequencing controls that can reduce power cost during part-load operation.

Fan air ducted outside will reduce the machine noise somewhat, but care must be taken not to impose additional restriction to the fan air flow. With proper attention to the ducting, this fan air can also be utilized for heating purposes.

## **SECTION 5 - OPERATION**

### **5 INTRODUCTION**

Read this entire Operator's Manual to familiarize yourself with the SULLIVAN-PALATEK Plant Air Compressor, giving special attention to the Section 1 - SAFETY.

#### **5.1 INITIAL START**

Open main disconnect to be sure there is no power to the compressor.

Review all the steps covered in Section 4 - INSTALLATION to be certain all instructions have been complied with.

Inspect for any visible signs of damage that could have occurred during installation.

Check lubricoolant level. Check that oil-fill cap is tight.

Close main disconnect. The micro processor display will illuminate and indicate line pressure and discharge temperature.

Follow procedure in 4.6 to establish correct rotation.

**WARNING: Reverse rotation will cause damage that is not covered by warranty. Rotation must be checked whenever the compressor has been moved to a new location, or after any change or reconnection of the main electrical wiring.**

After closing and latching the starter cover door, close the main disconnect and start the compressor by pushing green 'run' button.

With the service air valve closed, allow machine to pump up to normal operating pressures and observe operation of automatic controls, and look for any possible leaks.

Open service air valve and check operation throughout the range of pressures, observing operating temperatures.

Push red 'stop' button and check lubricoolant level after it has been allowed to settle for a few minutes. If it is necessary to add lubricoolant, be sure to open main power disconnect, lock it out, and be sure to relieve all oil separation tank pressure prior to removing fill cap to top off tank.

If unloaded pressure is incorrect, readjust regulator and control pressure switch settings as required.

#### **5.2 MICRO PROCESSOR PROGRAMMING; GENERAL INSTRUCTIONS**

The operational menus which normally have to be addressed are PO1 (operations), PO2 (fault history) and PO4 (maintenance setting). Access codes which are required to change settings are:

0009 for operational settings (PO 1)  
0100 for faults & service (PO2 & PO 4)

To get to the access code use the following procedure;

- a. Simultaneously press the 'up' (+) & 'down' (-) keys.
- b. Press enter to advance digits.
- c. Use 'up' (+) or "down' (-) keys to select the correct numeral.

- d. When the appropriate access code is shown, press 'enter'.
- e. After the access code has been selected, use the 'up' (+) or 'down' (-) key to select the corresponding parameter menu (i.e. PO1, PO2, or PO4)
- f. Once the parameter has been selected, use the 'up' (+) or 'down' (-) key to select the setting to be changed
- g. Press 'enter' to select this setting.
- h. Press 'enter' again and then use the 'up' (+) or 'down' (-) key to change the settings.
- i. Press the 'up' (+) or 'down' (-) key to select other items to change.
- j. Once the desired settings have been made, press the 'C' key twice (or hold 'reset' for 2 seconds) to return to main menu.

### **5.3 NORMAL OPERATION**

1. Open and lock out main power disconnect.
2. Check lubricoolant level. Refill if necessary.
3. Re-close disconnect switch. Micro processor will illuminate indicating compressor is ready to start.
4. Start machine by pressing 'run' button on micro processor.
5. Fully open service air valve.
6. Observe pressure and temperature. If temperature is incorrect, refer to SECTION 6.6 – TROUBLE SHOOTING.

### **5.4 SHUTDOWN**

To stop compressor, close service valve, allow sump pressure to fall to 40-45 PSI, then press stop button on micro processor control.

### **5.5 RESTARTS**

After a power failure, open and lock out the main disconnect, check all fuses and breakers. Close disconnect switch and follow Normal Operation start-up procedure.

Following a shutdown caused by either of the protective switches (i.e. temperature or R.O.P.), open and lock out the main disconnect switch, correct the cause of shutdown, reset electrical controls, then close the disconnect and follow Normal Operation start-up procedure.

1. If the overload relay has tripped the motor off, first open and lock out the main power disconnect, then push the starter overload reset button. Next, check overload relay to be sure that it is properly sized and correctly adjusted. Note: Never adjust overload relay higher than indicated by starter manufacturer to match motor nameplate amperage rating, as an unsafe operating condition will result!
2. Check lubricoolant level. Refill if necessary.
3. Re-close disconnect switch.
4. Start machine by pressing 'run' button on micro processor.
5. Fully open service air valve.
6. Observe pressure and temperature displayed by micro processor.

## **SECTION 6 - MAINTENANCE**

### **6.1 MAINTENANCE SCHEDULE**

- Daily** -1. Check lubricoolant level prior to start-up  
2. Drain condensate from auxiliary tank.  
3. Check micro processor for any fault or alarm codes (see 5.2 instructions.)  
4. Keeping a daily log of all operating parameters is recommended.

**First 50 hours** - Change compressor lubricoolant filter element.

- Every 1,000 hours** -1. Change compressor lubricoolant filter element.  
2. If operated in an extreme environment, take sample of lubricoolant and submit for analysis. (Ex: Chemical Fumes, Oxidizing elements, Fine Dust.)

#### **PALASYN 45 LUBRICANT:**

**Every 4,000 hours or once a year, whichever occurs first -**

Drain Palasyn 45 lubricoolant and replace with a fresh charge. Inspect interior of tank - clean if any build-up of deposits present. (This may have to be done sooner, depending upon results of lubricoolant analysis.)

Replace air and oil filter elements and air/oil separator element (sooner if excessive lubricoolant loss is experienced).

#### **FOOD GRADE – LONG LIFE:**

**Every 4,000 hours – (If using Food Grade – Long Life)**

Change Food Grade – Long Life lubricoolant and inspect tank interior. Replace lubricant filter and air/oil separator element.

#### **PALLUBE 32p LUBRICANT:**

**Every 8,000 hours - (If using Pallube 32p)**

Change Pallube 32p lubricoolant and inspect tank interior.  
Replace lubricant filter and air/oil separator element.

#### **PAL-EXTRA 44 LUBRICANT:**

**Every 10,000 hours - (If using Pal-Extra 44)**

Change Pal-Extra 44 lubricoolant and inspect tank interior.  
Replace lubricant filter and air/oil separator element.

**NOTE: System capacity for 75/100 HP is 15 gal's.**

#### **As Required -**

1. Clean or replace air filter element.
2. Clean exterior surfaces of oil cooler/aftercooler.
3. Lubricate motor (refer to motor manufacturer's instructions.)
4. Clean & grease MPV with Lithium Grease ex: Lubriplate 630-2 or Mobil SHCPM.
5. Rebuild inlet valve every two years.
6. Check electrical connections for tightness. Ensure disconnect switch is locked open.

**6.2 OIL FILTER *Replace if differential pressure exceeds 15psid (fault signal is shown) or every 1000 hrs.***

1. Open and lock-out main disconnect.
2. Relieve all internal system pressure.
3. Using a strap wrench, remove spin-on oil filter elements.
4. Spread a thin film of grease on the gasket.
5. Install element by hand until gasket touches the filter head.
6. Tighten 2/3 to one more turn.
7. Replace element every 1000 hrs or sooner if required.

**6.3 AIR FILTER *Inspect every 1000 hours or sooner in severe dust conditions Change if fault signal is shown on micro processor (H3)***

1. Open and lock out main disconnect.
2. Remove rear cover from housing.
3. Remove air filter element, taking care to prevent dirt that has collected on the outer surface of element from falling into the air filter housing. **NOTE:** To minimize down time it is recommended that a spare element be kept on hand.
4. Replace element as needed. **NOTE:** An optional HD filter with safety element is available for severe dust conditions.
5. Snap the end cover back on once the filter element has been replaced.

**6.4 AIR/OIL SEPARATOR *Replace annually or if differential pressure exceeds 8psid i.e. fault signal is shown on micro processor,(H5)***

1. Open and lock out main disconnect.
2. Disconnect main air line to aftercooler.
3. Disconnect control air tubing.
4. Unbolt cover in a diagonal criss-cross pattern.
5. Remove cover, oil pick-up tube, and separator element.
6. Drain lubricoolant and clean interior of oil separation tank if element appears dirty.
7. Clean flange and cover surfaces.
8. Coat surfaces of gaskets lightly with high-temperature or lithium grease.
9. Install new element. Check for proper grounding of separator element to the tank.
10. Replace cover and re-install oil pick-up tube.
11. Tighten all cover bolts progressively in a diagonal criss-cross pattern until all bolts are properly torqued to 120 ft. pounds. These separator cover bolts are a special high-strength alloy, designated "SAE GRADE 8". No substitution is allowed.
12. Remove oil return sightglass assembly from scavenger line then remove filter and clean. Check and clean orifice.
13. Re-install oil return sightglass assembly.
14. Reconnect all tubing.

**6.5 PRESSURE ADJUSTMENT**

Note: prior to making any control pressure adjustments, turn the adjusting screw on the modulating (or regulating) valve in several turns to get it out of the action. Once the control has been set, then the regulating (or modulating) valve is re-adjusted so that it starts operating (as determined by air coming out the vent hole in cap) at 5 PSIG lower pressure than the control set pressure.

In order to change the control (unload) pressure and/or the unload pressure settings, the following procedures must be used:

- A. Both the unload and load pressures are set by going into the 'Operations' menu, PO 1.
- B. To change any pressure, the access code 0009 must be entered.
- C. Press the 'up' (+) and 'down' (-) keys simultaneously
- D. Press 'enter' key several times until last digit is flashing.
- E. Now use down (-) key to get to 0009
- F. Press 'enter' key, then down (-) key to enter menu PO1.
- G. Press 'enter' key twice, then use up or down keys to change the unload pressure Pu.
- H. Now press 'enter' to store this setting.
- I. Press down (-) key to get to the load pressure Pl. (this is normally set at a pressure 8 to 12 PSI below the unload pressure)
- J. Press 'enter', then use up (+) or down (-) keys to change setting.
- K. Press 'enter' to store setting
- L. Press 'reset' (double bar) for 2 seconds to return to normal display.
- M. Press down (-) arrow to get the temperature display.

## **6.6 SERVICE/MAINTENANCE PROCEDURES**

All service parameters are located in menu PO4. In order to change any of these settings access code 0100 must be selected:

- A. Simultaneously press 'up' (+) and 'down' (-) keys.
- B. Press 'enter' to advance the digits.
- C. Use the 'up' (+) or 'down' (-) keys to select the appropriate digit.
- D. When the correct code is shown press 'enter' again.
- E. Use the 'up' (+) or 'down' (-) key to select the appropriate menu (i.e. PO4)
- F. Press 'enter' and then press the 'up' (+) or 'down' (-) keys to pick the setting to be changed. (H3 air filter, H4 oil change, H5 separator change, H6 oil filter service)
- G. Press 'enter'
- H. Press 'enter' again, and then use the 'up' (+) or 'down' (-) key to change the setting.
- I. Press 'enter' to record this change.
- J. Use the 'up' (+) or 'down' (-) key to pick other settings to be changed.
- K. Once the desired settings have been changed, press the 'C' twice (or hold the 'reset' for 2 seconds) to return to the main menu.

## **6.7 TROUBLESHOOTING**

### **SYMPTOM**

### **PROBABLE CAUSES AND REMEDIES**



<b>A. MACHINE WILL NOT START</b>	
	1. Main disconnect open. Close switch.
	2. Line fuse(s) blown. Replace Fuse(s).
	3. Control circuit breaker tripped. Reset circuit breaker.
	4. Motor starter overload tripped. Reset. Should trouble persist, check sizing and adjustment of overload. Check if motor starter contacts are functioning properly.
	5. Low incoming line voltage. Check voltage. Should voltage check low, consult your power company.
	6. Power failure; see start-up.
	7. Unit locked up: k. Filled with oil - leaking inlet valve. Replace inlet valve. l. Unit failure – replace unit.

**SYMPTOM**

**PROBABLE CAUSES AND REMEDIES**

<b>B. MACHINE SHUTS DOWN WITH AIR DEMAND PRESENT</b>	
	1. Loss of control voltage. Reset. If trouble persists, check that line pressure does not exceed the operating pressure of your machine as specified on the nameplate.
	2. Low incoming voltage. Consult your power company.
	3. Excessive operating pressure. (O.L. Trips) a. Separator requires maintenance. Check for fault signal H5. b. High pressure shutdown switch ROP, is set too low. Adjust or replace switch .
	4. Monitor temperature at micro processor: normal discharge temperature should be 100-110° F (37-43° C) above ambient; control is set to trip at 235-245°F (112-118°C). a. Cooling air flow restricted. Clean cooler and check for proper ventilation. b. Ambient temperature is too high. Provide sufficient ventilation. c. Low lubricoolant level. Add lubricoolant. d. Clogged oil filter. Change the oil filter element. e. Thermostat not working properly. Replace. f. Check for proper cooling fan operation. Fan should always be running between 165° to 190°F.

**6.7 TROUBLESHOOTING, CON'T.**

**SYMPTOM**

**PROBABLE CAUSES AND REMEDIES**

C. MACHINE WILL NOT BUILD UP FULL DISCHARGE PRESSURE	
	1. Air demand too great. Repair system air leaks. Add compressor capacity to satisfy demand.
	2. Dirty air filter. Change or clean element if required.
	3. Control pressure regulator out of adjustment. Adjust regulator.
	4. Defective control regulator. Check diaphragm and replace if necessary.
	5. Blowdown valve open. Repair or replace.
	6. Faulty over pressure switch. (R.O.P.) Replace
	7. Micro processor control setting off. See 6.5 for adjustment procedure.

**SYMPTOM**

**PROBABLE CAUSES AND REMEDIES**

D. LINE PRESSURE RISES ABOVE CUT-OUT PRESSURE	
	1. Leak in control system causing loss of pressure signal. Replace tubing/repair leak.
	2. Defective R.O.P. Replace.
	3. Improperly adjusted or defective regulator. Readjust or replace if necessary.
	4. Defective blowdown valve. Check that sump pressure is exhausted to the atmosphere when pressure switch opens. Replace if necessary.
	5. Faulty inlet valve. Repair or replace.

**SYMPTOM**

**PROBABLE CAUSES AND REMEDIES**

E. EXCESSIVE LUBRICOLANT CONSUMPTION	
	1. Clogged oil return line. Clean strainer and/or orifice.
	2. Separator element is damaged or not functioning properly. Change separator.
	3. Leak in lubrication system. Check all pipes, connections and components.
	4. Defective inlet valve. Repair inlet valve
	5. Operating pressure below 60 psig. Repair minimum pressure valve.

**6.7 TROUBLESHOOTING, CON'T.**

**SYMPTOM**

**PROBABLE CAUSES AND REMEDIES**

F. RELIEF VALVE OPENS REPEATEDLY	
	1. High pressure shutdown switch (ROP) is defective. Replace.
	2. Faulty Pressure Relief Valve. Replace.
	3. Incorrect control settings. Re-adjust/as per 6.5

**SYMPTOM**

**PROBABLE CAUSES AND REMEDIES**

G. LINE PRESSURE VENTING THROUGH BLOWDOWN	
	1. Defective Check Valve portion of Minimum Pressure/Check Valve. Repair or replace check valve.

# ***PARTS LISTING***

**SCREW COMPRESSOR AIR-END EXCHANGE PROGRAM**

After the warranty period has expired a factory re-manufactured air-end can be purchased on an exchange basis. All bearings and seals have been replaced. All other parts not meeting our quality standards are also replaced. An exchange air-end has a warranty that is 12 months from start up date or 18 months from date of shipment in accordance with the terms set forth in the SULLIVAN-PALATEK Warranty policy.

**SECTION 7 - PARTS LIST****7.1 PARTS ORDERING**

Parts should be ordered from the nearest full-service Distributor or Factory Authorized Compressor Center. If parts cannot be obtained locally, contact the factory directly.

**SULLIVAN-PALATEK**  
**3501 W. DUNES HWY.**  
**MICHIGAN CITY, IN 46360**  
**TELEPHONE: 219-874-2497 FAX: 219-872-5043**  
**E-mail: palatek.com**

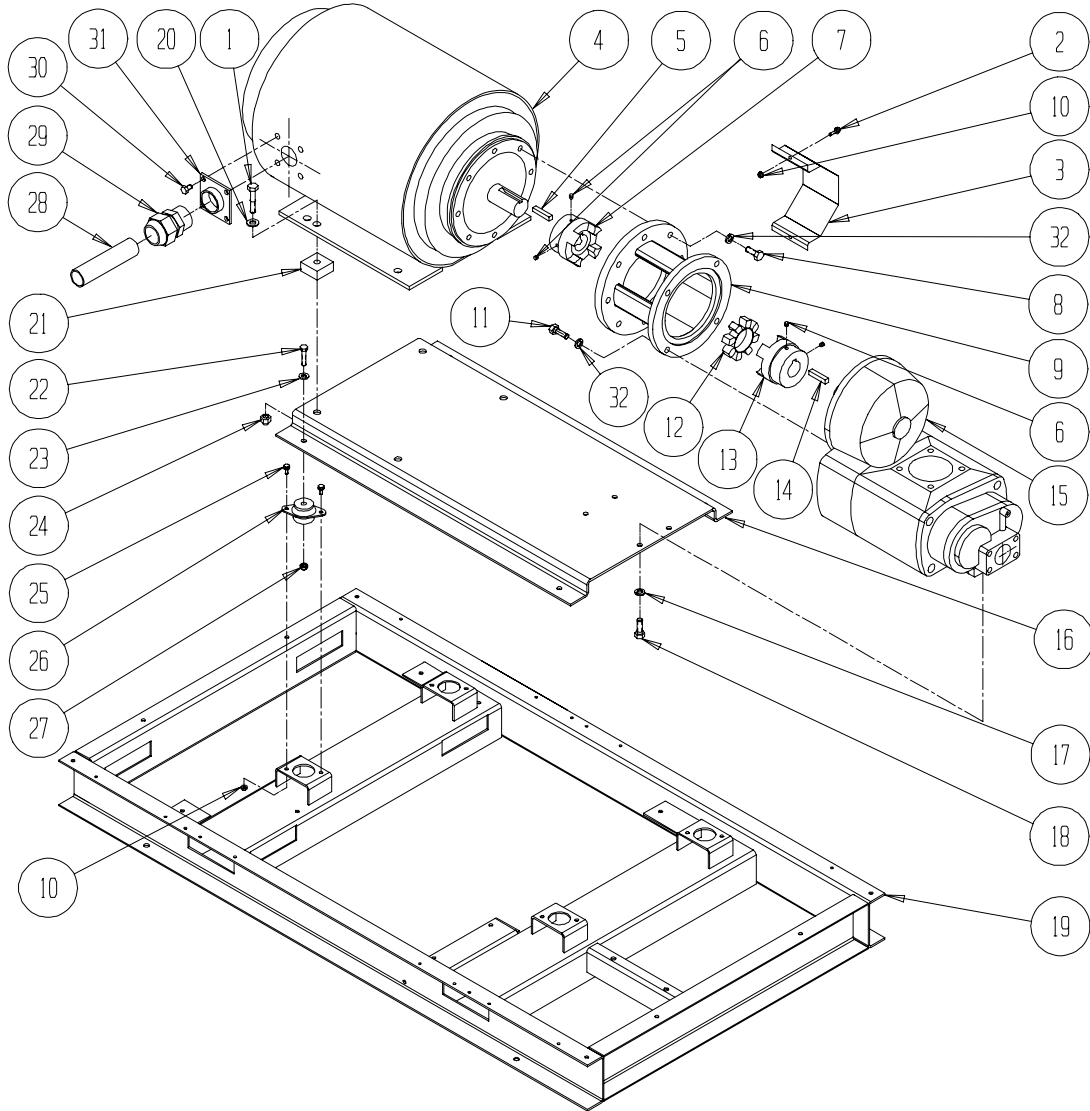
When ordering parts, be prepared to indicate the Model and Serial Number of the machine(s). This can be obtained from the Bill of Lading or the Serial Number Plate.

Standard commercial hardware items such as fasteners or fittings may not be listed since it is usually more convenient and economical to obtain such items locally.

**7.2 RECOMMENDED SPARE PARTS**

ITEM	DESCRIPTION	75/100 UDG	100 UDII	QTY.
		PART NO.	PART NO.	
1	ELEMENT, AIR FILTER	28174-113		1
	PRIMARY	N/A	00521-075	1
	SECONDARY	N/A	00521-075S	1
2	ELEMENT, OIL FILTER	00520-016	00520-016	1
3	ELEMENT, OIL SEPARATOR	K08000-025	K08000-025	1
4	KIT, REGUL. VALVE REPAIR	K09661-002	K09661-002	1
5	VALVE, SOLENOID BLOWDOWN	40529-011	40529-011	1
5A	KIT, SOLENOID VALVE DIAPHRAM	K40529-011A	K40529-011A	1
6	VALVE, PRESSURE RELIEF	03100-006	03100-006	1
7	SENSOR PRESS. 4-20 ma	69674-006	69674-006	1
8A	SENSOR TEMP., KTY	31-89529-679	31-89529-679	1
8B	SENSOR, OIL TEMP. 'J' T.C.	0528-001	0528-001	1
8C	TRANSMITTER 'J' T.C.	69082-001	69082-001	1
9	SWITCH, ANTI RE-START	09344-001	09344-001	1
10	SWITCH, OVERPRESSURE	09344-003	09344-003	1
11A	SEAL KIT, COMPRESSOR SHAFT	31-30834-150	31-50341-810	1
11B	KIT, TOOL, SHAFT SEAL	KT31-30834-150	KT31-50341-811	1
12A	PALASYN 45 LUBRICOOLANT (5 GALLON)	00061-005	00061-005	2
12B	PAL-EXTRA 44 LUBRICOOLANT (5 GALLON)	00051-005	00051-005	2
12C	FOOD GRADE – LONG LIFE	00062-005	00062-005	2
12D	PALLUBE 32p LUBRICOOLANT (5 GALLON)	00064-005	00064-005	2
12E	PAL-EXTRA 44	00066-005	00066-005	2
13	ELEMENT COUPLING (RED)	08516-055	08516-065	1
14	INLET VALVE REPAIR KIT	K09790-009	K09790-005	1

**MOTOR, COMPRESSOR AND MOUNTING PARTS**



# SULLIVAN-PALATEK

## 7.3 MOTOR COMPRESSOR AND MOUNTING PARTS

ITEM#	75hp PART NUMBER	100hp PART NUMBER	100hpUDII	DESCRIPTION	QTY.
1	90115-095	90115-056	90115-056	BOLT, HEX MOTOR MOUNTING	4
2	93115-012	93115-012	93115-012	BOLT, WHIZ 5/16-18 X 1"	2
3	00697-011	00697-011	00697-011	GUARD, COUPLING-HALF	2
4	SEE	CHART	BELOW	MOTOR, MAIN (SEE BILL)	1
5	90947-286	90947-286	90947-286	KEY, MOTOR 1/2"X1/2"X2.75"	1
* 6	90502-062	90502-062	90502-062	SET SCREW 3/8" X 1/2"	4
7	08516-072	08516-073	08516-074	HUB, MOTOR	1
8	90115-035	90115-035	90115-035	BOLT, HEX 5/8-11X1 1/2"GR5	8
9	01240-075	01240-075	01240-125	ADAPTER, MOTOR TO COMPR.	1
10	93165-003	93165-003	93165-003	NUT, WHIZ-5/16	10
11	95201-322	95201-322	95201-321	BOLT, HHC M16-2 X 40	4
12	08516-055	08516-055	08516-065	SPIDER, COUPLING-RED	1
13	08516-572	08516-572	08516-574	HUB, COMPRESSOR-45MM	1
14	00858-003	00858-003	00858-006	KEY, COMPR. METRIC	1
***15	56800-075	56800-100	80075-000A	UNIT, AIR END- GEARED-TAM	1
16	28339-003	28339-003	28339-007	SUPPORT, MOTOR/COMPR.	1
17	90305-004	90305-004	92581-200	WASHER, LOCK-1/2"	4
18	95201-117	95201-117	95201-419	BOLT, HHC M12-1.75 X 25	4
19	10144-009	10144-009	10144-009	FRAME, BASE 75/100hp	1
20	90321-006	-----	-----	WASHER, FLAT-5/8"	4
21	01419-001	01419-002	01419-002	SPACER, MOTOR MTG	4
22	90115-094	90115-094	90115-094	BOLT, HEX 1/2-13 X 3" GR5	4
23	90321-005	90321-005	90321-005	WASHER, FLAT-1/2"	4
24	99988-010	99988-012	99988-012	NUT, NYLOK MOTOR MTG.	4
25	93115-002	93115-002	93115-002	BOLT, WHIZ-5/16-18 X 3/4"	8
26	08182-009	08182-009	08182-010	ISOLATOR, VIB. 75/100hp	4
27	99988-008	99988-008	99988-008	NUT, NYLOK-1/2-13	4
28	96701-032	96701-032	96701-032	CONDUIT, FLEX-2"	2
29	91432-032	91432-032	91432-032	CONNECTOR, CONDUIT-2"	2
**30	90115-004	90115-004	90115-004	BOLT, HEX-1/2" X 3/4"	4
31	03000-113	03000-117	03000-117	ADAPTER, CONDUIT-2"	1
32	90305-064	90305-064	90305-064	WASHER, LOCK-5/8"	12

\* SUPPLIED WITH COUPLING HUB

\*\* SUPPLIED WITH MOTOR

\*\*\* SHAFT SEAL REPAIR KIT AND SPECIAL TOOL KIT REQUIRED TO INSTALL SHAFT SEAL (PLEASE REFER TO SPARE PARTS LIST ON PAGE #30 OF THIS MANUAL).

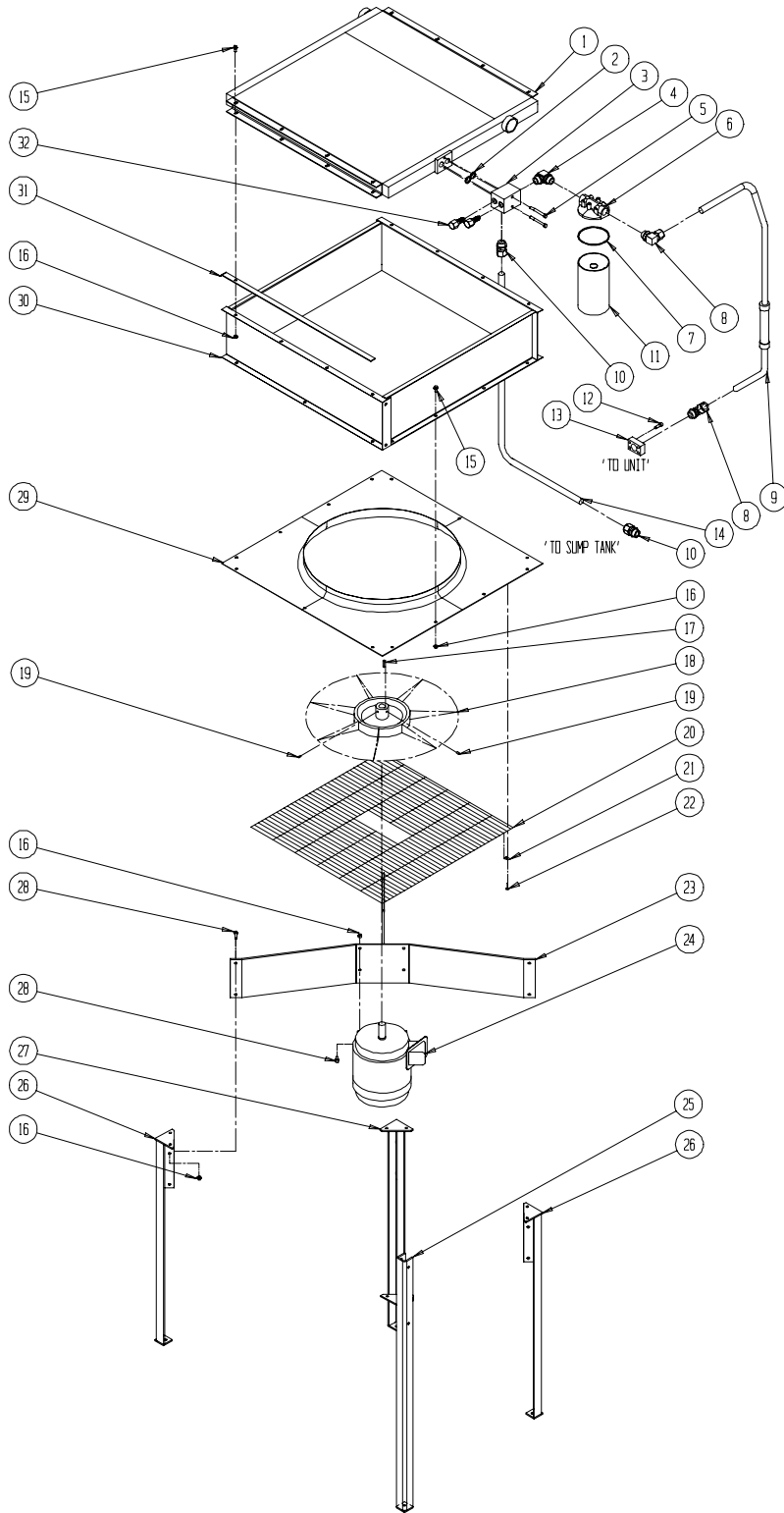
NOTE: SHIMS MAY BE REQUIRED BETWEEN MOTOR AND SPACER.

NOTE: FOR GSA 75 & 100 HP COMPRESSORS PLEASE REFER TO 75/100HP UDS MANUAL.

75HP MOTOR		100HP MOTOR	
ODP	#08741-075	ODP	#08741-100
TEFC	#08747-075	TEFC	#08747-100



LUBRICATION AND COOLING SYSTEM – AIR COOLED



**SULLIVAN-PALATEK**

**7.4a LUBRICATION AND COOLING SYSTEM – AIR COOLED**

ITEM#	75hp PART NUMBER	100hp PART NUMBER	100hpUDII PART NUMBER	DESCRIPTION	QTY.
* 1	07711-020	07711-021	07711-021	COOLER, OIL/A.C.	1
2	90659-121	90659-121	90659-121	O-RING, VITON	2
3	08207-011	08207-011	08207-011	HOUSING, BY-PASS 60-100	1
4	98390-016	98390-016	98390-016	ELBOW, 90° DRB/DRB-1"	1
5	90115-113	90115-113	90115-113	BOLT, HH-3/8" X 3 1/2"	2
6	08415-016	08415-016	08415-005	HEAD, FILTER-OIL	1
**7	-----	-----	-----	GASKET, OIL FILTER	1-2
8	80220-016	80220-016	80220-016	ELBOW, CMS/DRB-1" X 1"	2
9	09616-051	09616-051	09616-051	TUBE, FLEX-1"	1
10	80120-016	80120-016	80120-016	CONNECTOR, CMS/DRB-1"	2
11	00520-016	00520-016	00520-016	ELEMENT, OIL FILTER	1-2
12	95206-019	95206-019	95206-119	BOLT, SOC. 30MM LONG	4
13	03000-018	03000-018	03000-014	PLATE, OIL INLET-E25	1
14	09600-112	09600-112	09616-100	TUBE, 1" THERMO VLV TO SUMP	1
15	93115-002	93115-002	93115-002	BOLT, WHIZ-5/16" X 3/4"	20
16	93165-003	93165-003	93165-003	NUT, WHIZ-5/16"	30
17	90947-514	90947-001	90947-001	KEY, FAN MOTOR-1/4" X 1 1/8"	1
18	08080-075	08080-100	08080-100	FAN, COOLING	1
19	90502-032	90502-032	90502-032	SCREW, SET-5/16" X 3/8"	2
20	03216-012	03216-015	03216-015	GUARD, FAN	1
21	92906-008	92906-008	92906-008	CLIP, FAN GUARD-3/16"	12
22	94302-032	94302-032	94302-032	SCREW, SELF DRILL #8 X 3/4"	12
23	01528-064	01528-062	01528-062	SUPPORT, FAN MOTOR	1
24	08747-002	08747-003	08747-003	MOTOR, COOLING FAN	1
25	01528-063	01528-063	01528-063	SUPPORT, COOLER ASS'Y-SIDE	1
26	01528-066	01528-066	01528-066	SUPPORT, COOLER ASS'Y-SIDE	2
27	01528-067	01528-066	01528-066	SUPPORT, COOLER ASS'Y-SIDE	1
28	93115-012	93115-012	93115-012	BOLT, WHIZ-5/16" X 1"	10
29	01680-008	01680-007	01680-007	VENTURI, COOLING FAN	1
30	10992-005	10992-007	10992-007	PLENUM, COOLER	1
31	09870-004	09870-004	09870-004	WEATHERSTRIP, 1" X 1/8"	12
32	09505-006	09505-006	09505-006	VALVE, THERMOSTAT 165/185	2-1
32	-----	-----	09505-006B	VALVE, THERMOSTAT BLOCKED OPEN	1

\* ON NOV 1, 2004 THE OIL COOLERS CHANGED FROM, 75hp 07711-012 TO 07711-020, AND 100hp 07711-013 TO 07711-021

\*\* GASKET SUPPLIED WITH OIL FILTER AND CAN'T BE ORDERED SEPERATELY.

Water Cooled Machines:

75 hp

Oil Cooler #00549-004

After Cooler #00549-005

Water Reg. Valve #18338-020

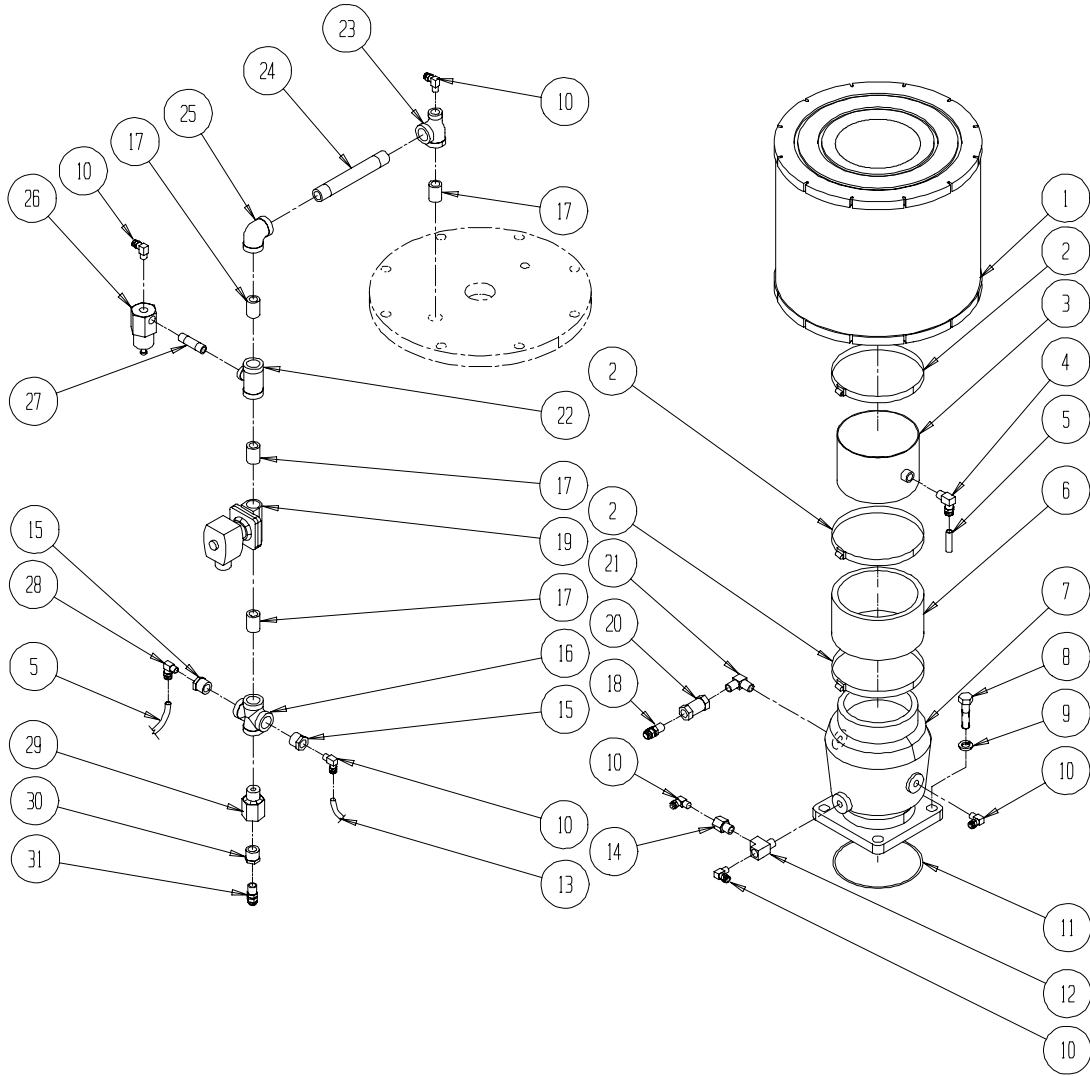
100 hp

Oil Cooler #00549-005

After Cooler #00549-008

Water Reg. Valve #18338-020

INTAKE AND CAPACITY CONTROL SYSTEM



**SULLIVAN-PALATEK****7.5a INTAKE AND CAPACITY CONTROL SYSTEM – 75G & 100G**

ITEM#	PART NUMBER	DESCRIPTION	QTY.
* 1	28174-113	FILTER, AIR INTAKE	1
2	92320-176	CLAMP, HOSE-5 1/2"	3
3	00496-013	DUCT, INLET-5" X 3/8"	1
4	91557-066	ELBOW, NT-3/8" X 3/8" MPT	1
5	90082-006	TUBING, NYLON-3/8" O.D.	7
6	00077-500	SLEEVE, HOSE-5"	1
**7	09790-010	VALVE, INTAKE-4"	1
8	95201-322	BOLT, HHC-M16 X 2 X 35	4
9	90305-064	WASHER, LOCK-5/8"	4
10	91157-044	ELBOW, NT-1/4" X 1/4"	6
11	90659-253	O-RING, VITON	1
12	95510-004	TEE, MALE-RUN-1/4"	1
13	90082-004	TUBING, NYLON-1/4"	78
14	03001-063	ORIFICE, .063 X 1/4"	1
15	91167-005	BUSHING, RED-1/2" X 1/4"	2
16	92190-008	CROSS, PIPE-GALV-1/2"	1
17	91177-008	NIPPLE, PIPE-GALV-1/2" X CL	4
18	91553-064	CONNECTOR, NT-3/8" X 1/4" NPT	1
19	40529-011	VALVE, SOLENOID-2W-1/2"	1
20	91299-044	VALVE, CHECK-1/4"	1
21	96399-004	ELBOW, MALE-90°	1
22	95330-078	TEE, GALV-1/2" X 1/2" X 1/4"	1
23	95330-008	TEE, GALV-1/2" X 1/4" X 1/2"	1
24	91177-166	NIPPLE, PIPE-GALV-1/2" X 5"	1
25	91027-008	ELBOW, PIPE-90°-GALV-1/2"	1
26	09661-002	VALVE, REGULATOR-1/4"	1
27	92469-056	NIPPLE, BRASS-1/4" X 2"	1
28	91157-064	ELBOW, 90°-NT-3/8" X 1/4" M	1
29	03001-250	ORIFICE, .250 X 1/2"	1
30	91163-006	BUSHING, RED-1/2" X 3/8"	1
31	91553-066	CONNECTOR, NT-3/8" X 3/8" MPT	1

\* FOR REMOTE AIR INLET FILTER ASS'Y USE: 28174-112

REPLACEMENT PRIMARY ELEMENT: 00521-075

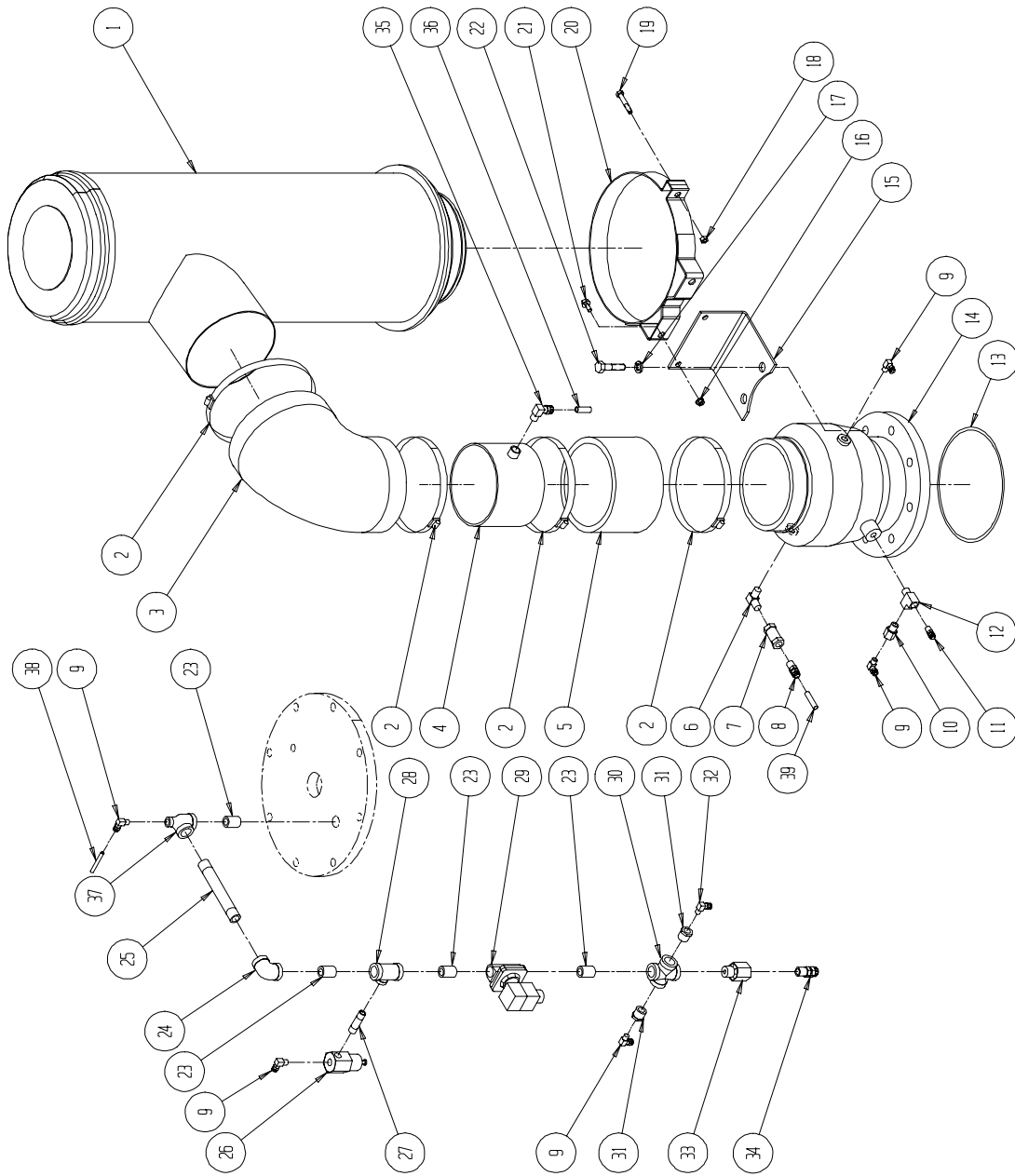
REPLACEMENT SECONDARY ELEMENT: 00521-075S

\*\* FOR INLET VALVE REPAIR KITS REFER TO THE SPARE PARTS

LIST ON PAGE #30 OF THIS MANUAL

NOTE: FOR GSA 75 & 100HP COMPRESSOR PARTS PLEASE REFER TO  
75 & 100HP UDS MANUAL.

INTAKE AND CAPACITY CONTROL SYSTEM FOR MODEL 100 DIRECT

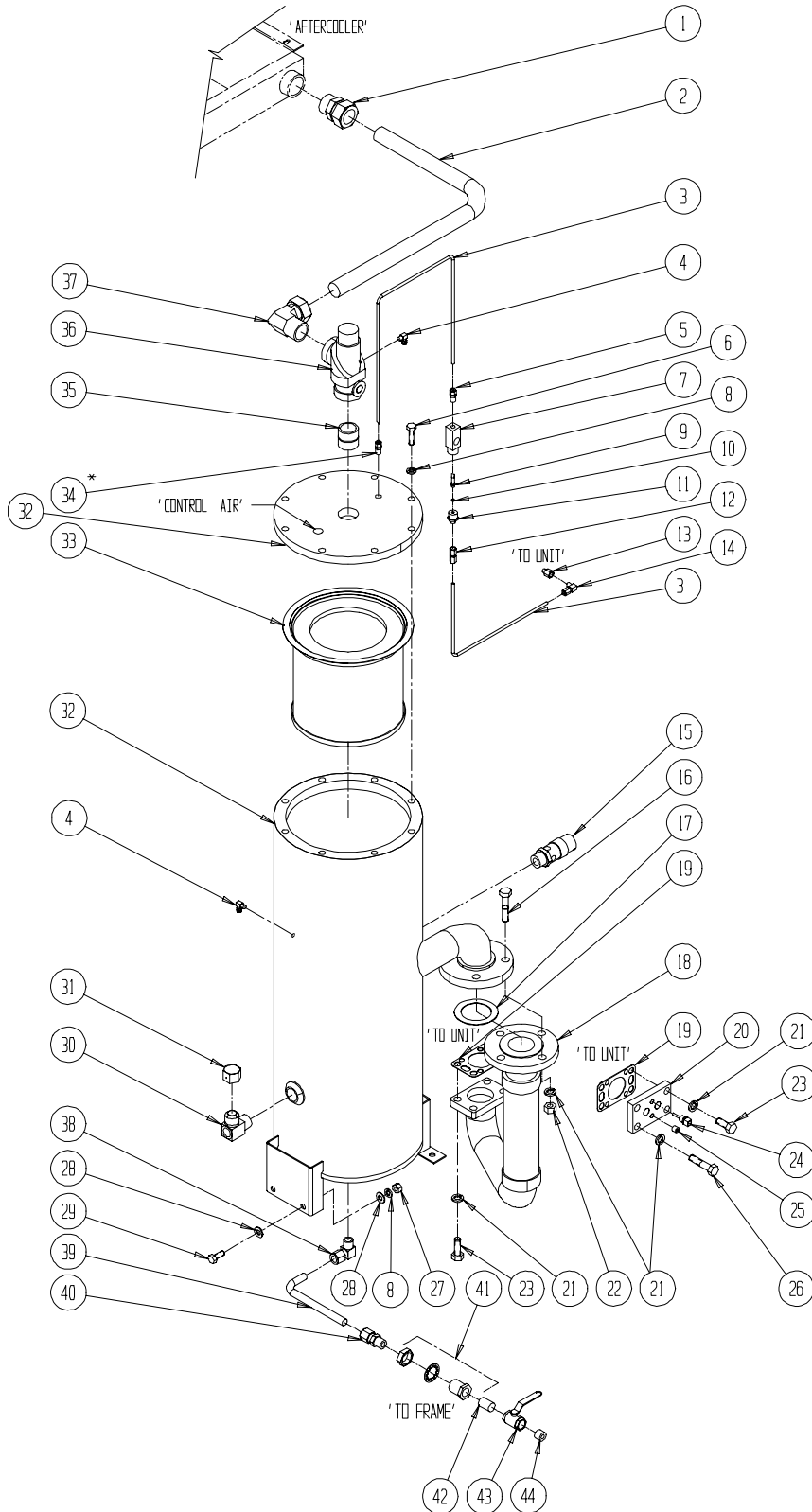


**7.5b INTAKE AND CAPACITY CONTROL SYSTEM FOR MODEL 100 DIRECT**

ITEM#	PART NUMBER	DESCRIPTION	DWG. SIZE	QTY.
* 1	18174-111	FILTER, AIR INTAKE	SS	1
2	92320-368	CLAMP, HOSE-7.50"	SS	4
3	91411-077	ELBOW, RUBBER-7" X 7"	SS	1
4	00496-014	DUCT, AIR INTAKE-7" OD X 5.00" LG	B	1
5	00077-770	SLEEVE, HOSE-7" X 3.50"	SS	1
6	96399-004	ELBOW, 90° MALE-1/4"	HW	1
7	91299-044	VALVE, CHECK-1/4" TEFLON	SS	1
8	91553-064	CONNECTOR, NT-3/8" X 1/4"	HW	1
9	91557-044	ELBOW, 90° NT-1/4" X 1/4"	HW	5
10	03001-063	ORIFICE, .063-1/4" X 1/4"	SS	1
11	91553-044	CONNECTOR, NT-1/4" X 1/4"	HW	1
12	95510-004	TEE, MALE RUN-1/4" BRASS	HW	1
13	90659-265	O-RING, VITON	HW	1
14	09790-005	VALVE, INLET-6"	SS	1
15	00520-007	SUPPORT, AIR FILTER	B	1
16	93165-003	NUT, WHIZ-5/16"	HW	2
17	90305-064	WASHER, LOCK-5/8"	HW	8
18	90165-003	NUT, HEX-5/16"	HW	1
19	90115-052	BOLT, HH-5/16" X 2"	HW	1
20	00131-110	BAND, MOUNTING-11"DIA.	SS	1
21	93115-002	BOLT, WHIZ-5/16" X 3/4"	HW	2
22	95201-324	BOLT, HHC M16 X 50MM	HW	8
23	91177-008	NIPPLE, PIPE-1/2" X CLOSE SCH. 80	HW	4
24	91027-008	ELBOW, PIPE 90°-1/2"	HW	1
25	91182-238	NIPPLE, PIPE GALV.-1/2" X 8"	HW	1
26	09661-002	VALVE, REGULATOR-1/4"	SS	1
27	92469-056	NIPPLE, BRASS-1/4" X 2"	SS	1
28	95330-078	TEE, GALV-1/2" X 1/2" X 1/4"	HW	1
29	40529-011	VALVE, SOLENOID-2-W-1/4"	SS	1
30	92190-008	CROSS, PIPE GALV.-1/2"	HW	1
31	91163-005	BUSHING, RED-1/2" X 1/4"	HW	2
32	91157-064	ELBOW, 90° NT-3/8" X 1/4"	HW	1
33	03001-250	ORIFICE-.25" X 1/2"	SS	1
34	91553-088	CONN. NT 1/2" X 1/2" MPT	HW	1
35	91557-088	ELBOW, NT 1/2" X 1/2" 90°	HW	1
36	90082-008	TUBING, NYLON 1/2" D.D. BLK	HW	4
37	95330-008	TEE, RED. GALV 1/2 X 1/4 X 1/2	HW	1
38	90082-004	TUBING, NYLON 1/4" D.D. BLK	HW	72
39	90082-006	TUBING, NYLON 3/8" D.D. BLK	HW	4

\* REPLACEMENT AIR FILTER ELEMENT P/N 00521-112

DISCHARGE SYSTEM UD



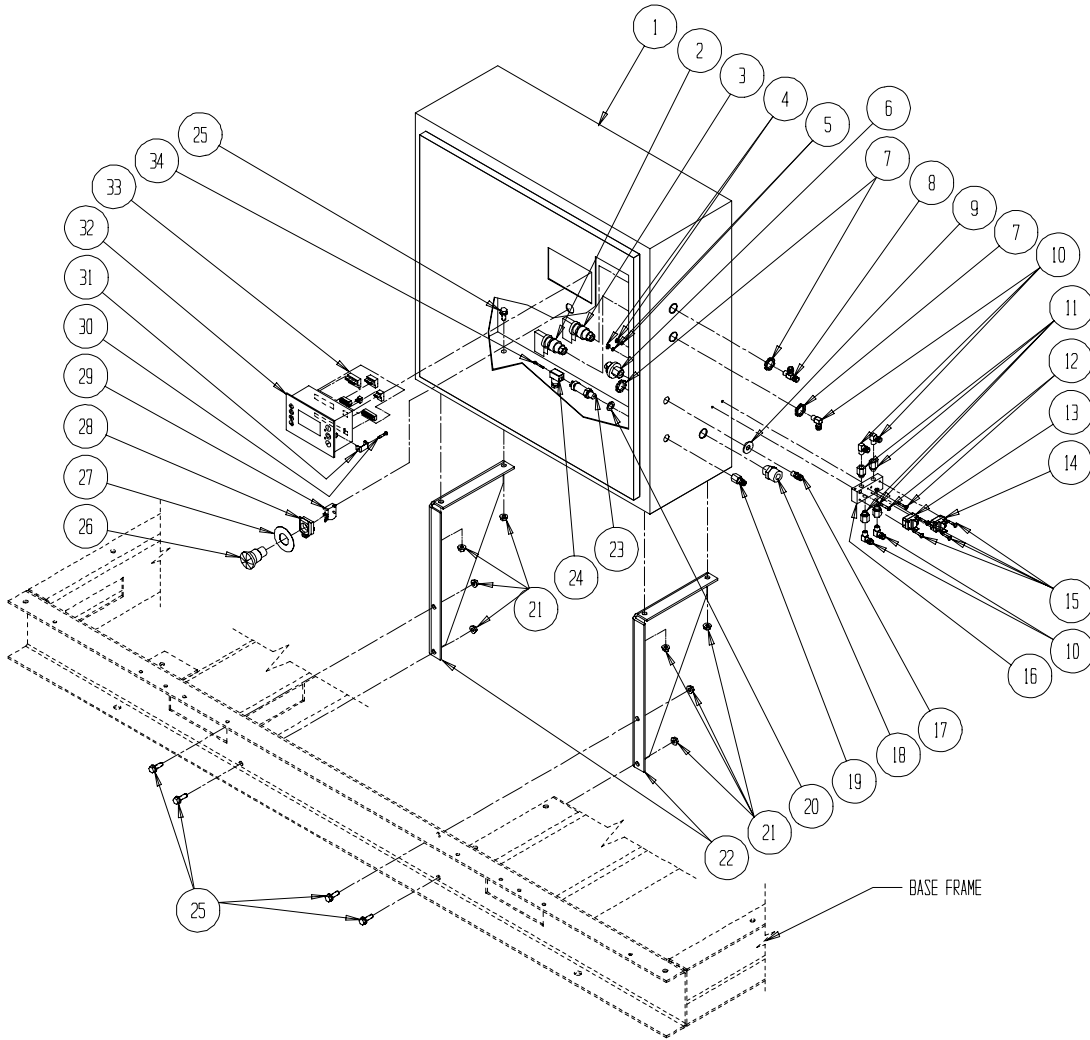
**7.6 DISCHARGE SYSTEM UD**

ITEM#	PART NUMBER	DESCRIPTION	QTY.
1	96363-242	CONNECTOR-TUBE-1 1/2X1 1/2	1
2	99600-024	TUBE, STEEL-1 1/2"	3
3	99600-004	TUBE, STEEL-1/4"	4
4	91557-042	ELBOW, 90° NT 1/4" X 1/8"MPT	2
5	96363-044	CONN. CFS 1/4" X 1/4"	1
6	90042-044	BOLT, 1/2" X 1 3/4" GR8	8
7	09349-001	SIGHT GLASS-OIL RTN	1
8	90305-004	WASHER, LOCK-1/2"	12
9	18577-001	INSERT, STRAINER	1
10	03001-064	ORIFICE, INSERT	1
11	00023-001	ADAPTER, SIGHT GLASS	1
12	95550-042	CONN. CFS-1/4" X 1/8"FPT	1
13	94855-022	ADAPTER, 1/8" MBSPP XFNPT	1
14	96390-042	ELBOW, CMS-1/4" X 1/8"MPT	1
15	03100-066	VALVE, RELIEF-1"-200PSIG	1
16	90115-095	BOLT, HH-5/8"-11 X 3"	4
17	90708-007	GASKET, 150#RF-2 1/2" FLG.	1
18	19600-021	PIPE, DISCHARGE-75/100	1
19	00633-016	GASKET, 100hp DISCH PIPE	2
20	03349-001	PLATE, DISCHARGE COVER	1
21	90305-064	WASHER, LOCK-5/8"	12
22	90165-006	NUT, HEX-5/8"-11	4
23	95201-322	BOLT, HHC-M16-2 X 40	6
24	31-89529-679	TEMP SENSOR (KTY)	1
25	91928-004	PLUG, PIPE-1/4"	1
26	95201-334	BOLT, HHC-M16-2 X 110	2
27	90165-005	NUT, HEX-1/2"-13	4
28	90321-005	WASHER, USS FLAT-1/2"	8
29	90115-024	BOLT, HH-1/2"-13 X 1 1/4"	4
30	17254-016	ELBOW, OIL-FILL/SIGHT	1
31	07255-016	CAP, VENTED (OIL FILL)	1
32	03448-102	TANK, SUMP/SEPARATOR	1
33	08000-025	ELEMENT, SEPARATOR-75/100hp	1
* 34	03286-003	FITTING, SIPHON	1
35	91176-024	NIPPLE, PIPE-1 1/2" X CLOSE	1
36	09610-004	VALVE, MPC-1 1/2"	1
37	96390-242	ELBOW, CMS-1 1/2" X 1 1/2"	1
38	96391-108	ELBOW, CMS-5/8" X 1/2"	1
39	99600-010	TUBING, STEEL-5/8"	1'
40	96363-108	CONN. CMS-5/8" X 1/2"	1
41	92141-005	BULKHEAD, BRASS-1/2"	1
42	91177-008	NIPPLE, PIPE-1/2" X CLOSE	1
43	95785-008	VALVE, DRAIN-1/2"	1
44	91928-008	PLUG, PIPE HEX SOCKET-1/2"	1

\* REPLACEABLE RUBBER SEAL #00547-001



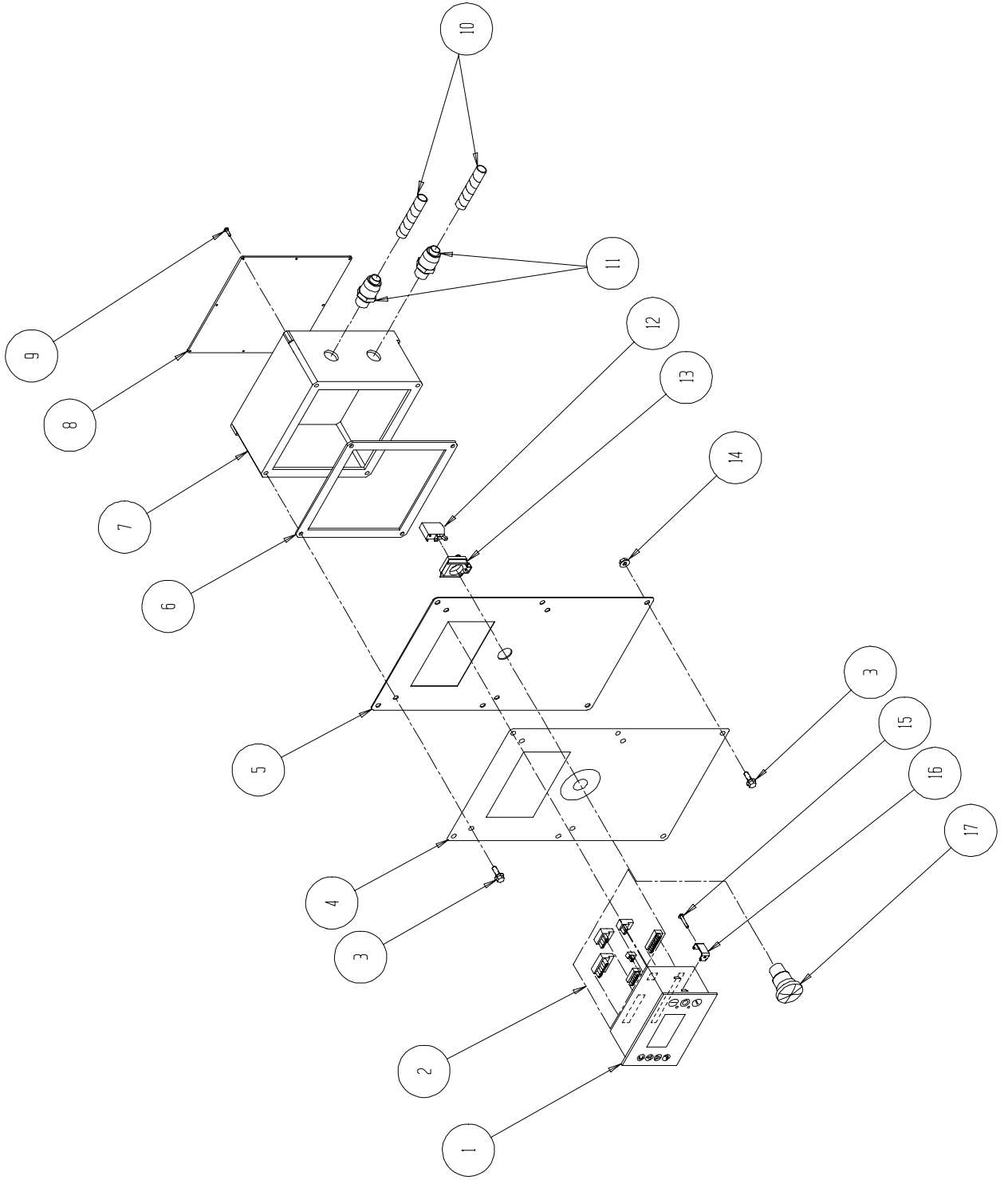
**MICRO PROCESSOR CONTROL & ELECTRICAL PARTS-OPEN COMPRESSOR**



**7.7 MICRO PROCESSOR CONTROL & ELECTRICAL PARTS-OPEN COMPRESSOR**

ITEM#	PART NUMBER	DESCRIPTION	QTY.
* 1	10543-XXX	BOX, ELECTRICAL CONTROL	1
2	09344-001	SWITCH, ANTI-RESTART	1
3	09344-003	SWITCH, (RDP)	1
4	90165-030	NUT, HEX- #6-32	2
5	90305-054	WASHER, LOCK-#6	2
6	31-85196-699	SWITCH, VACUUM DIFF.	1
7	91401-001	NUT, CONDUIT-1/2"	3
8	91565-042	TEE, MALE RUN-1/4"X1/8"	1
9	90321-004	WASHER, FLAT-3/8" ZINC	1
10	91557-042	ELBOW, NT 1/4"X1/8"	5
11	94855-022	ADAPTER, 1/8"BSPPX1/8" FPT	4
12	90363-086	SCREW, RD. HD. #6X1" PHILLIPS	2
13	31-85170-559	SWITCH, DIFF (RED)	1
14	31-85110-879	SWITCH, DIFF. (BLUE)	1
15	92513-615	SCREW, MACHINE M4X20MM PH	4
16	31-85170-689	PLATE, MTG. OIL FILTER DP	1
17	91553-042	CONNECTOR, NT-1/4"X1/8"	1
18	95795-002	GRIP, CORD-3/8 I.D.X1/2" CON.	1
19	91550-044	CONNECTOR, NT 1/4"X1/4"	1
20	96361-007	WASHER, SEALING-16/12 BP	1
21	93165-003	NUT, WHIZ-5/16"	8
22	09355-007	SUPPORT, CONTROL BOX	2
23	69676-004	SENSOR, PRESSURE	1
24	-----	SUPPLIED WITH ITEM #23	--
25	93115-012	BOLT, WHIZ-5/16" X 1"	8
26	31-89528-259	OPERATOR, E-STOP BUTTON	1
27	00350-011	LABEL, EMERGENCY STOP BUTTON	1
28	31-85152-649	BASE, PUSH BUTTON	1
29	31-85153-379	SWITCH, E-STOP (NC)	1
30	-----	SUPPLIED WITH ITEM #31	--
31	00216-108	CLIPS, MTG S1 MPC (PAIR)	1
32	69671-008	MICRO PROCESSOR, CTL S1	1
33	69674-006	CONNECTOR SET-S1	1
34	-----	SUPPLIED WITH ITEM #23	--

\* PLEASE CONSULT FACTORY FOR CORRECT P/N



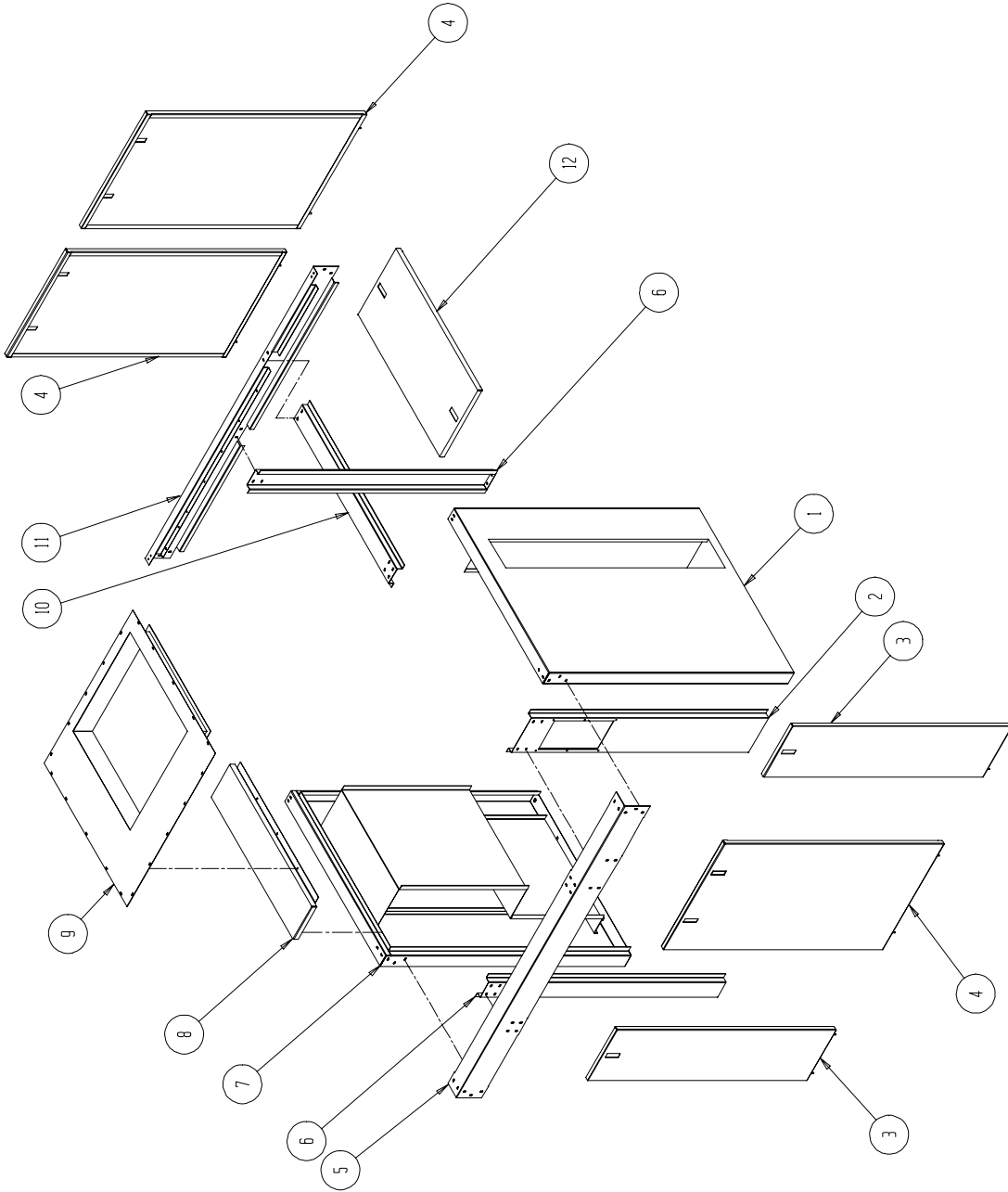
**SULLIVAN-PALATEK**

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**7.8 S1 MICRO PROCESSOR CONTROL ENCLOSED COMPRESSOR PACKAGE**

ITEM#	PART NUMBER	DESCRIPTION	QTY.
1	69671-008	MICRO PROCESSOR CONTROLLER-S1	1
2	69674-006	CONNECTOR SET-S1	1
3	93115-387	BOLT, SERR HEAD-1/4"X1/2"	10
4	08378-053	DECAL, INST MICRO PROCESSOR-S1	1
5	00944-027	PANEL, INST 40/400hp UD NRM	1
6	09870-004	WEATHERSTRIP, 1" X 1/8" (FT)	2
7	00543-088	ENCLOSURE, 8"X8"X4"	1
8	-----	COVER, ENCL/SUPPLIED WITH ITEM#7	1
9	-----	SCREW, COVER/SUPPLIED WITH ITEM #7	1
10	96701-008	CONDUIT, FLEX-1/2" (FT)	14
11	91432-001	CONNECTOR, CONDUIT-1/2"	4
12	31-85153-379	SWITCH, E-STOP (NC)	1
13	31-85152-649	BASE, E-STOP PUSH BUTTON	1
14	93165-002	NUT, HEX SERR-1/4"	6
15	-----	SCREW/SUPPLIED WITH ITEM #16	1
16	00216-108	CLIP, MTG.-S1 MPC (PAIR)	1
17	31-89528-259	OPERATOR, E-STOP BUTTON	1

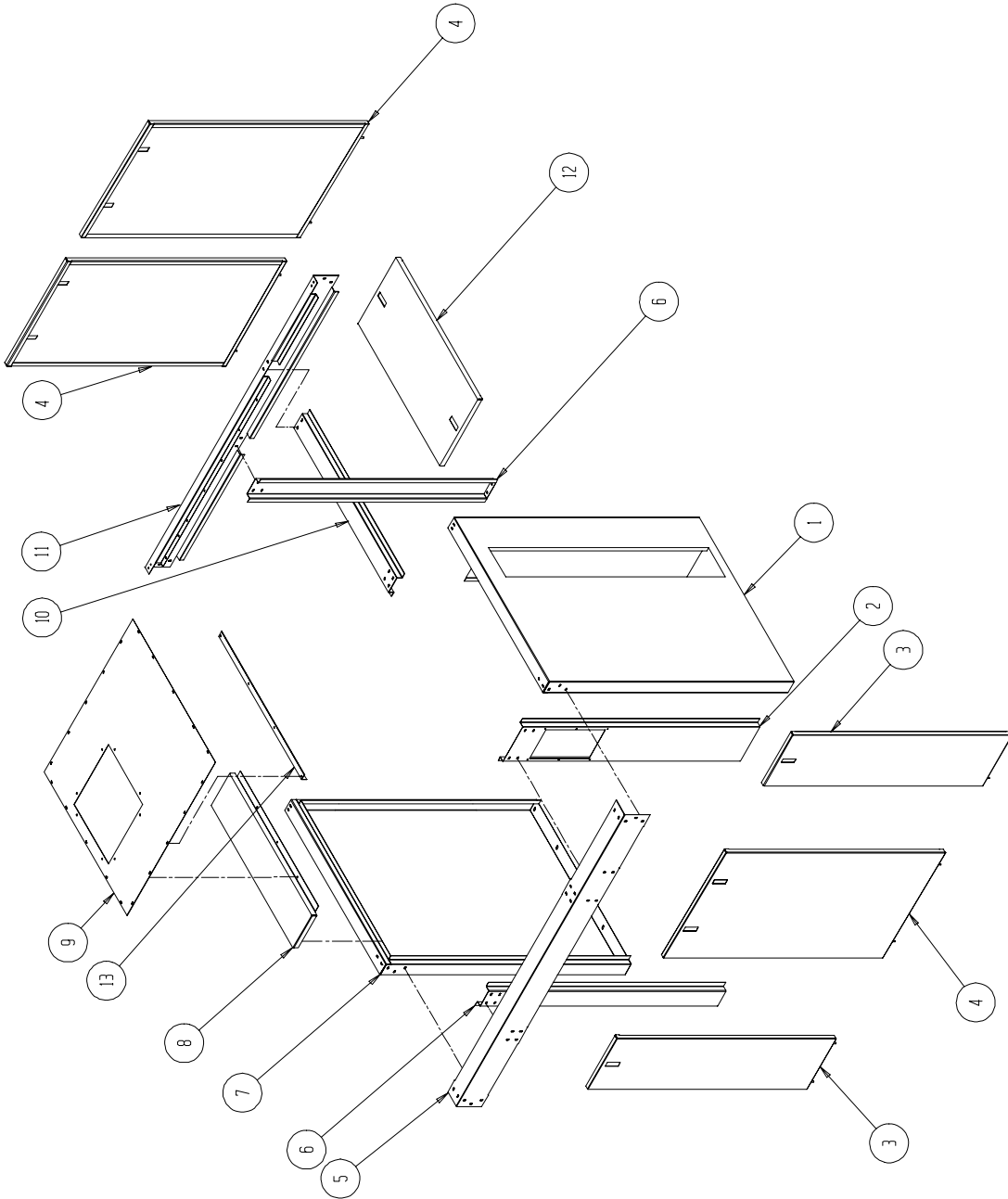
ENCLOSURE-AIR COOLED UD



**7.9 ENCLOSURE – AIR COOLED UD**

	75 hp	100hp		
ITEM#	PART NUMBER	PART NUMBER	DESCRIPTION	QTY
1	10947-031	10947-031	PANEL, TANK END BAFFLE	1
2	10947-080	10947-080	PANEL, SIDE SUPPORT-INST	1
3	00488-004	00488-004	DOOR, ACCESS SIDE-12"	2
4	00488-006	00488-006	DOOR, ACCESS SIDE-34"	3
5	00947-013	00947-013	PANEL, TOP-LH	1
6	10947-037	10947-037	PANEL, SIDE SUPPORT	2
7	10947-032	10947-032	PANEL, MOTOR END BAFFLE	1
8	00947-024	00947-024	PANEL, TOP-MOTOR END	1
9	10947-034	10947-033	PANEL, TOP AIR OUTLET	1
10	10947-015	10947-015	PANEL, SUPPORT TOP	1
11	00947-012	00947-012	PANEL, TOP-RH	1
12	00488-018	00488-018	DOOR, ACCESS-TOP-18.25"	1

ENCLOSURE – WATER COOLED UD



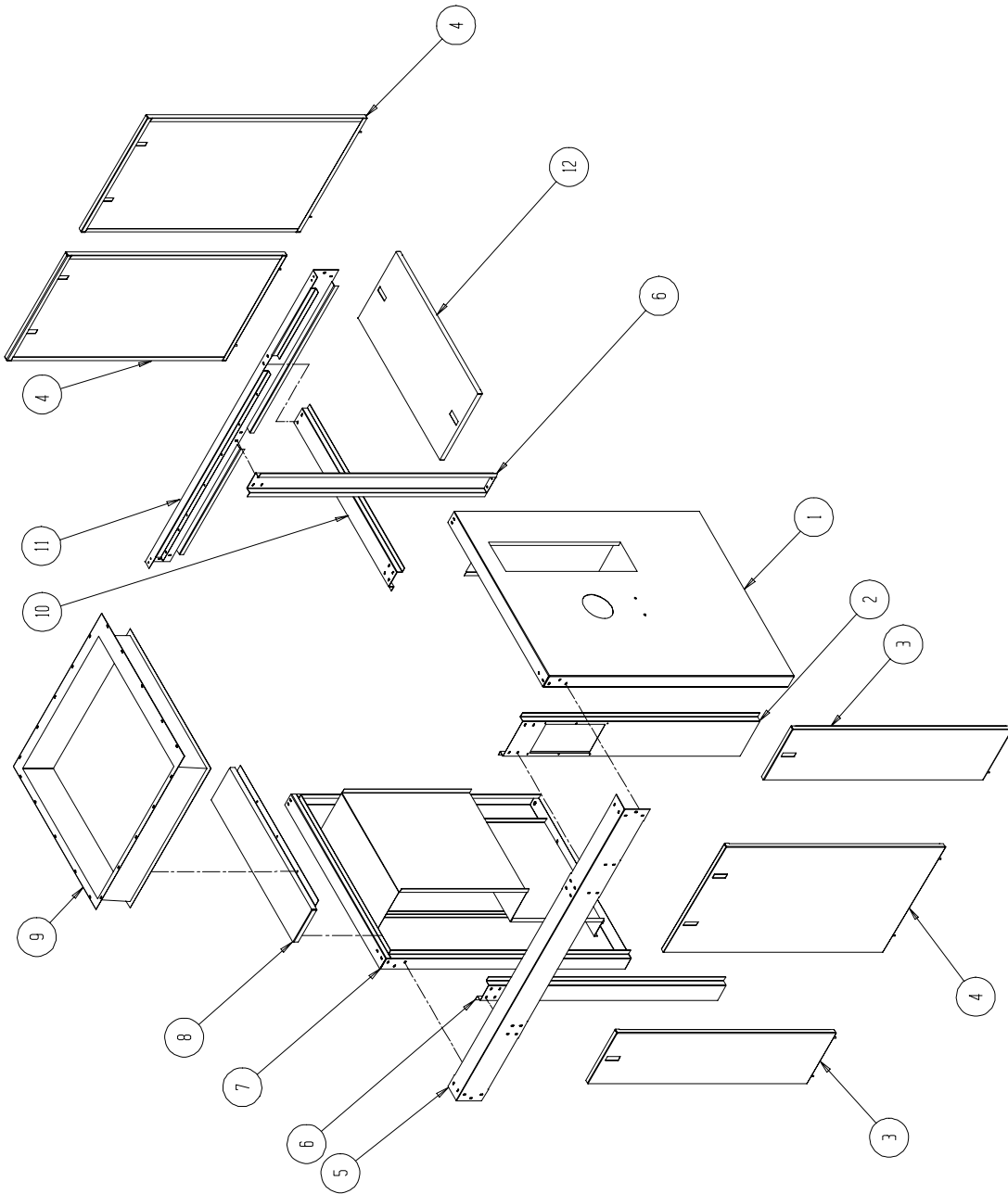
**7.10 ENCLOSURE – WATER COOLED UD**

ITEM#	PART NUMBER	DESCRIPTION	QTY
1	10947-031	PANEL, TANK END BAFFLE	1
2	10947-080	PANEL, SIDE SUPPORT-INST-S1	1
3	00488-004	DOOR, ACCESS SIDE-12"	2
4	00488-006	DOOR, ACCESS SIDE-34"	3
5	00947-013	PANEL, TOP-LH	1
6	10947-037	PANEL, SIDE SUPPORT	2
7	10947-035	PANEL, MOTOR END-WC	1
8	00947-024	PANEL, TOP-MOTOR END	1
9	10947-021	PANEL, TOP FAN SUPPORT	1
10	10947-015	PANEL, SUPPORT TOP	1
11	00947-012	PANEL, TOP-RH	1
12	00488-018	DOOR, ACCESS-TOP-18.25"	1
13	00935-007	ANGLE, SUPPORT-FAN MTG.	1

WATER COOLED VENT FAN P.N. 18080-016 1 QUANTITY NOT SHOWN IN DRAWING.



ENCLOSURE AIR – COOLED UDII



**7.11 ENCLOSURE AIR – COOLED UDII**

ITEM#	PART NUMBER	DESCRIPTION	QTY
1	10947-049	PANEL, TANK END BAFFLE	1
2	10947-080	PANEL, SIDE SUPT-INST-S1	1
3	00488-004	DOOR, ACCESS SIDE-12"	2
4	00488-006	DOOR, ACCESS SIDE-34"	3
5	00947-013	PANEL, TOP-LH	1
6	10947-037	PANEL, SIDE SUPPORT	2
7	10947-032	PANEL, MOTOR END BAFFLE	1
8	00947-024	PANEL, TOP-MOTOR END	1
9	10947-033	PANEL, TOP AIR OUTLET	1
10	10947-015	PANEL, SUPPORT TOP	1
11	00947-012	PANEL, TOP-RH	1
12	00488-018	DOOR, ACCESS-TOP-18.25"	1

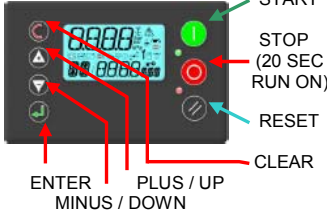
7.12 DECAL AND IDENTIFICATION

ITEM	DESCRIPTION	QTY	MODEL 75UDG	MODEL 100UDG & UDII
1	PLATE, NAME/S.N.	1	03832-043	03832-043
2	DECAL, VOLTAGE 460	1	08377-001	08377-001
3	DECAL, WARNING	1	08377-043	08377-043
4	DECAL, WARNING	1	08377-045	08377-045
5	DECAL, WARNING	1	08377-046	08377-046
6	DECAL, 3-POSITION SWITCH	1	08378-048	08378-048
7	DECAL, INSTRUCTIONS	1	08379-011	08379-011
8	DIAGRAM, WIRING	1	12288-003	12288-005

DECAL, INSTRUCTIONAL S1

**Sullivan Palatek®**

**AIRCON S1**



CLEAR – MOVE BACK ONE LEVEL,  
 PLUS/UP & MINUS/DOWN – MOVE  
 THROUGH MENUS & CHANGE  
 VALUES, ENTER – ENTER / SET.  
**RESET SERVICE TIMERS**  
 E:4804 (H3), E:4805 (H4),  
 E:4806 (H5), E:4807 (H6)  
 PRESS UP AND DOWN AT SAME  
 TIME, ENTER 0100, MOVE TO P04.

**MENU TREE**

P00 - PERFORMANCE DISPLAY

P01 - OPERATOR SETTINGS  
 • P UNLOAD • P LOAD • STOP TIME  
 • BLOWDOWN TIME • RUN ON TIME

P02 - ERROR LOG  
 • LAST FIFTEEN ERRORS (NEW FIRST)

P03 - SHUTDOWNS

P04 - ALARM & SERVICE TIMERS  
 • AIR FILT SERV • OIL LIFE SERV  
 • OIL SEP SERV • OIL FLT SERV

P05 - START INHIBITS

P06 - DIAGNOSTICS

P07 - FACTORY SETTINGS

P08 - SPEED REGULATION

P09 - CALIBRATION

P10 - MACHINE CONFIGURATION

P11 - CLOCK & PRESSURE SCHD

0009 - OPERATOR ACCESS  
0100 - SERVICE ACCESS

219-874-2497 X 136 FOR ASSISTANCE

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**SHUTDOWN CODES**

Er:0010 – EMERGENCY STOP  
 Er:0050 – ASP TRIPPED  
 (WRONG ROTATION / NOT BLOWN DOWN)  
 Er:0060 – RECEIVER OVERPRESSURE  
 Er:0080 – MOTOR/DRIVE FAULT  
 Er:0115 – DEL. PRESS. SENSOR BAD  
 Er:0119 – DEL. PRESSURE HIGH  
 Er:0125 – TEMP. SENSOR BAD  
 Er:0129 – TEMPERATURE HIGH  
 Er:0821 – INPUT SHORT/GROUND  
 Er:0846 – DEL. PRESS. SENS. RANGE  
 Er:1801 – AIR FILTER SERVICE  
 Er:1802 – OIL LIFE SERVICE  
 Er:1803 – SEPARATOR ELE. SERVICE  
 Er:1804 – OIL FILTER SERVICE  
 &  
**ALARM CODES (NON-SHUTDOWN)**  
 Er:2020 – OIL FILTER DIFFERENTIAL  
 Er:2030 – AIR FILTER DIFFERENTIAL  
 Er:2040 – SEP ELE DIFFERENTIAL  
 Er:2118 – DEL PRESSURE HIGH  
 Er:2128 – TEMPERATURE HIGH  
 Er:2816 – PWR FAIL IN START MODE  
 Er:3123 – TEMPERATURE TO LOW  
 Er:4804 – AIR FILTER SERVICE  
 Er:4805 – OIL LIFE SERVICE  
 Er:4806 – SEPARATOR ELE. SERVICE  
 Er:4807 – OIL FILTER SERVICE

**SYMBOLS**

- GREATER / LESS THAN  
 - UP / DOWN    - WYE / DELTA  
 - MOTOR RUNNING    - LOADED  
 - TIME, TIMER    - FILTER, DP  
 - PRESSURE SETPOINTS  
 - AUTO RESTART (PWR LOSS)  
 - REMOTE LOAD  
 - REMOTE START / STOP  
 - ACCESS LOCK / UNLOCK  
 - GENERAL FAULT  
 - EMERGENCY STOP  
 - EXCESS PRESSURE  
 - POWER FAILURE  
 - ABOVE SET TEMPERATURE LIMIT  
 - LUBRICATION, OIL, OIL LEVEL  
 - MOTOR  
 - SERVICE DUE, MAINTENANCE  
 - FILTER DIFFERENTIAL, SERVICE

P/N 08379-026

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## **SECTION 8 – WARRANTY**

### **Sullivan-Palatek**

#### ***New Industrial Compressors- 15 and greater Horsepower***

Sullivan-Palatek warrants its new stationary industrial air compressor products to be free from defects in material and workmanship and against loss of capacity due to wear, subject to the following provisions:

**Warranty Registration:** The purchaser shall complete and return the warranty registration form within 10 days of start-up to validate the warranty. Failure to submit the warranty registration will cause the warranty effective date to be the Sullivan-Palatek ship date.

**Warranty Period:** The warranty period for applicable Sullivan-Palatek products is as follows (subject to the Exclusions and Limitations noted below):

- **Compressor unit and Coupling:** 60 months (5 years) from the date of start-up by authorized distributor or 66 months from date of shipment by Sullivan-Palatek, whichever occurs first.
- **Compressor Shaft Seal and Coupling Element:** Warranted for 12 months from date of start-up or 18 months from date of shipment by Sullivan-Palatek, whichever occurs first.
- **Components not manufactured by Sullivan-Palatek:** Sullivan-Palatek's warranty obligation with regard to equipment and components not of its own manufacture is limited to the warranty actually extended to the company by its supplier.
- **Oil Leaks:** Oil leaks will be covered under warranty for a period of 60 days from start up, but not longer than 90 days after shipment from Sullivan-Palatek.

**Warranty replacement parts:** Remainder of the original warranty period of the replaced part.

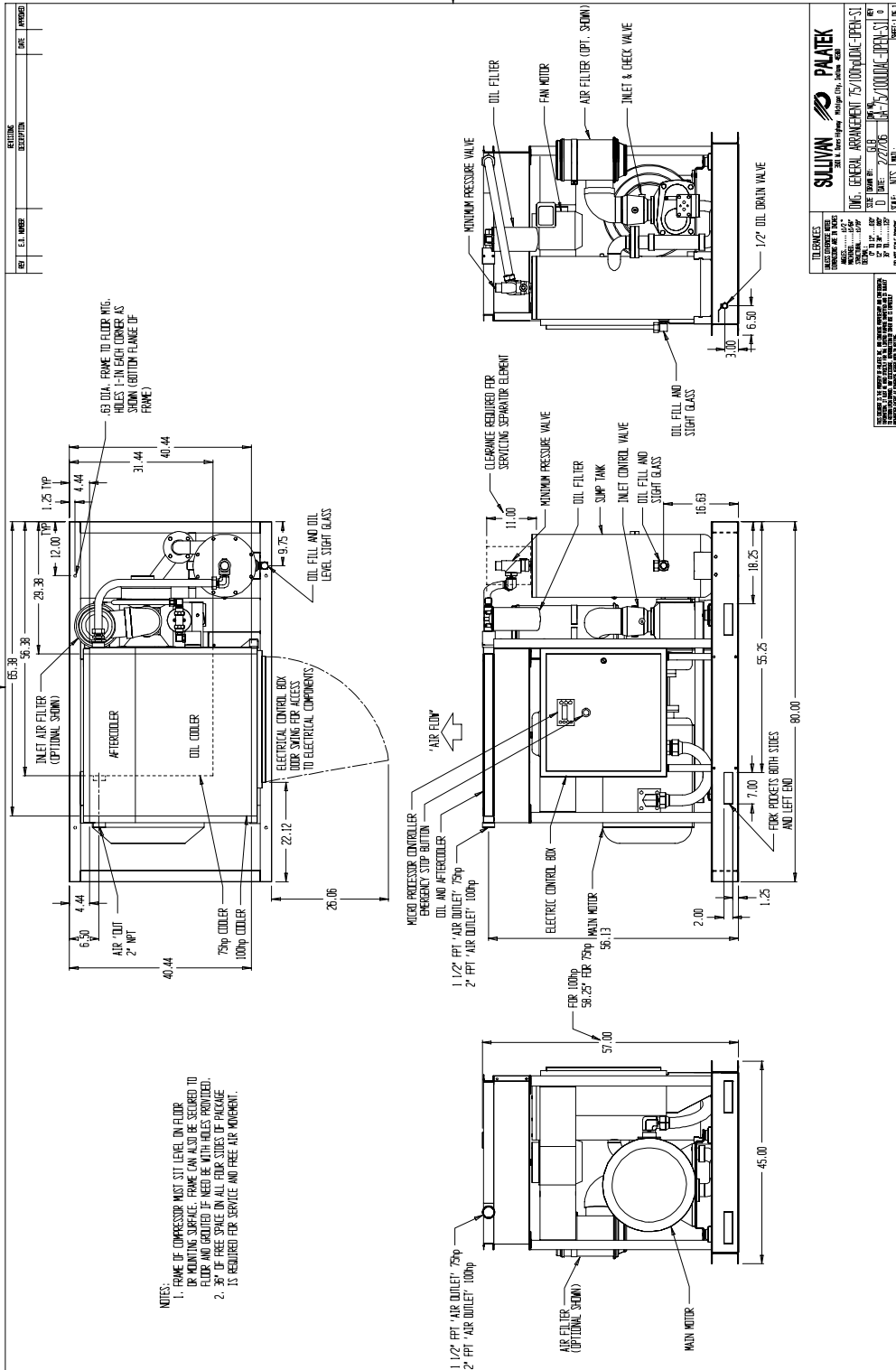
**Sullivan-Palatek's Obligations:** Sullivan-Palatek's exclusive obligations with respect to breach of warranty are (i) to repair or replace (at Sullivan-Palatek option and subject to return of defective parts) any defective part, (ii) to pay the reasonable cost of making the repair, or installing the replacement part (iii) to pay ground freight for the return of defective parts and shipment of replacement parts.

**Customer Responsibility:** As a condition to Sullivan-Palatek's obligations under this warranty, customer shall; (i) give Sullivan-Palatek written notice of warrantable failure of the Sullivan-Palatek product within the applicable warranty period, (ii) make the product available for repair; (iii) return defective parts to Sullivan-Palatek; (iv) pay reasonable travel expenses for field repairs performed at customer's request, (v) pay the costs of investigating performance complaints that are not covered by this warranty; and (vi) pay costs of air freight or other expedited delivery made at customer's request.

**Exclusions and Limitations:** Disassembly of the air compressor unit will void this warranty and the unit exchange policy. Sullivan-Palatek has no obligation for product failures or defects resulting from overload, misuse, neglect, accident, failure to comply with Sullivan-Palatek's product manual or failure to install product improvements provided by Sullivan-Palatek Attachment of accessories or service parts not supplied or recommended by Sullivan-Palatek may void the warranty of the product.

**THIS WARRANTY IS SULLIVAN-PALATEK'S ONLY WARRANTY OF ITS STATIONARY INDUSTRIAL AIR COMPRESSOR PRODUCTS AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED. ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED. SULLIVAN-PALATEK HAS NO OBLIGATION UNDER THIS WARRANTY OR OTHERWISE (REGARDLESS OF THE FORM OF ACTION) FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES, INCLUDING WITHOUT LIMITATION LOST PROFITS OR LOST INCOME.**

This warranty applies to all Sullivan-Palatek stationary industrial air compressors of 15 horsepower or greater shipped after April 1, 2003 superseding previous warranty policies, except to the extent expressly superseded by a later warranty. In the event of any conflict between this warranty and earlier warranty statements, the terms of this warranty will control.

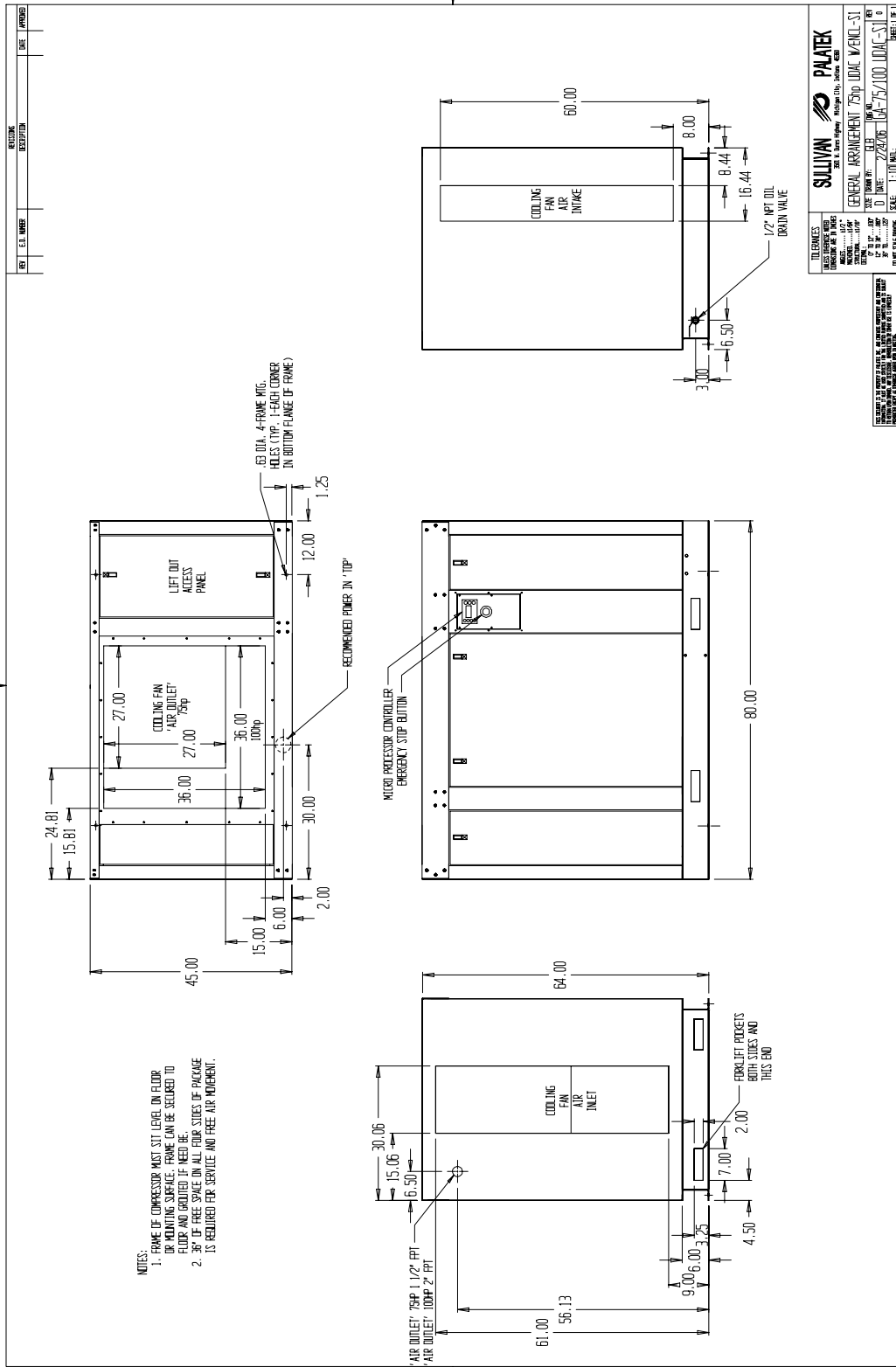


**SULLIVAN PALATEK**  
 3011 West 10th Street  
 Minneapolis, MN 55425  
 TEL: 612-835-2276 FAX: 612-835-2276  
 WWW.SULLIVANPALATEK.COM

**TERMS:**  
 1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.  
 2. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE SPECIFIED.  
 3. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.  
 4. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE SPECIFIED.  
 5. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.

**MODEL:** 75/100HP-CPH-51  
**DATE:** 08/20/06  
**BY:** JMS  
**CHECKED BY:** JMS

**FIG. GENERAL ARRANGEMENT 75/100HP-CPH-51**



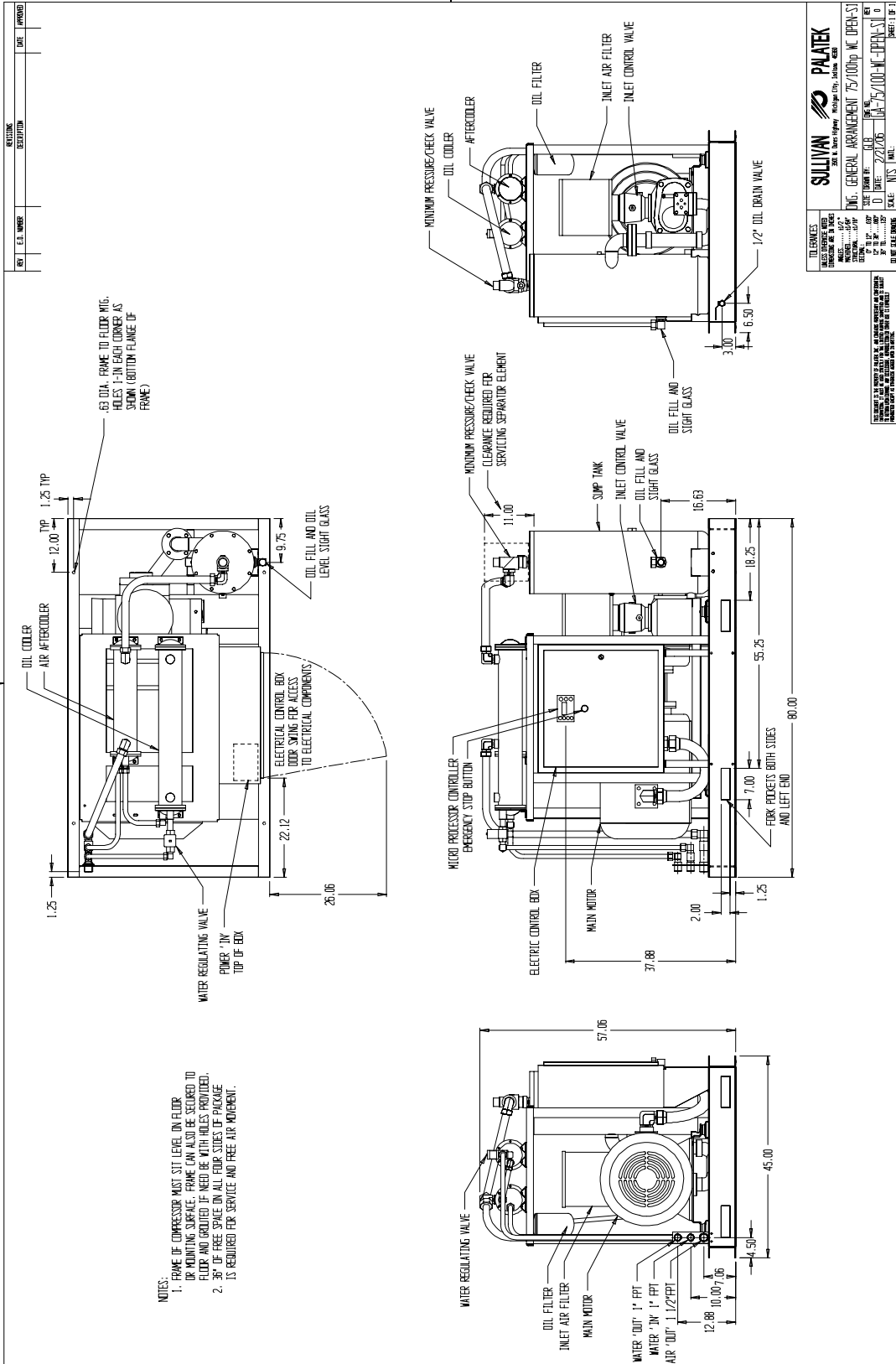
**SULLIVAN-PALATEK**  
 1000 W. 10th St., Suite 100  
 Lincoln, NE 68502  
 TEL: 402-479-2200 FAX: 402-479-2201  
 WWW.SULLIVAN-PALATEK.COM

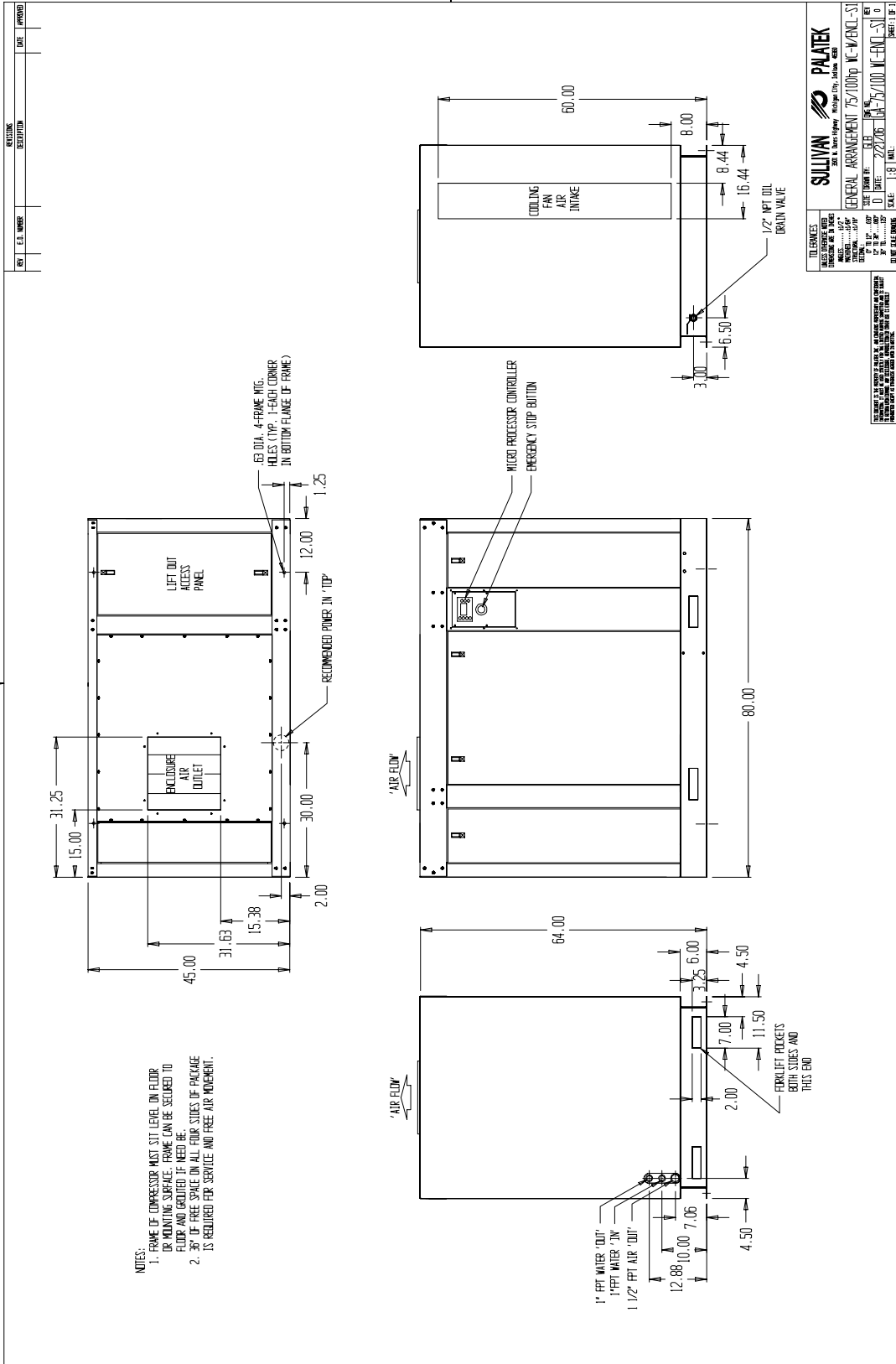
**GENERAL ARRANGEMENT 75hp UDAC W/ANEL-S1**

DATE: 08-15-10  
 DRAWN BY: JAC  
 CHECKED BY: JAC  
 PROJECT NO: 108-75-100 UDAC-S1

SCALE: 1:100

DATE: 08-15-10





REV	E.A. NUMBER	REVISION DESCRIPTION	DATE	APPROVED

**SULLIVAN PALATEK**  
 300 E. Broad Highway, Wichita, KS 67203  
 TEL: (316) 261-1100 FAX: (316) 261-1101  
 WWW.SULLIVANPALATEK.COM

PROJECT NUMBER: 222208  
 DATE: 08-25-2008  
 SCALE: 1:8  
 SHEET: 1 OF 1

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