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SIP Variable Speed Direct Drive Rotary Screw Compressors With Dryer and Filter



SIP Codes 08264 to 08281

For help or advice please contact
your distributor, or sip directly
on:

Tel.: 01509 500400

Email:

sales@sip-group.com

or

customerservice@sip-group.com

www.sip-group.com

Please read and fully understand the instructions in this manual
before operation. Keep this manual safe for future reference.



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INTRODUCTION

Thank you very much for choosing and using the SIP Industrial Products series of Variable Speed Direct Drive Screw Compressors.

Please read the user's manual carefully before operating the machine.

The SIP VSDD series of screw compressors are a Rotary Screw design. The compressor has high performance and reliable operation. It has high air volume production, excellent dynamic balance, low noise and vibration. Designed with ease of operation and accessible maintenance. It offers long performance life and environment protection. Commonly used in industries of precision machinery and instruments, electronic products and Food, Chemical Fibre and Textile, Aerospace application and Chemistry, Decorative Coating, Medical Pharmaceutical, Automotive and Agriculture etc.

- The rotating compressors are destined for arduous and continuous industrial use. They are particularly adapt for application in industries where a large consumption of air is requested for long periods of time.
- The compressor must be used exclusively as indicated in this manual, which must be kept carefully in an easily accessible place known to everyone, as it must remain with the machine for its entire duration.
- The company in which the compressor is to be installed must appoint a person in charge of the compressor itself. Controls, adjustments and maintenance interventions are under his responsibility: if this person must be replaced, the substitute must read the user and maintenance manual and any notes made regarding technical and maintenance interventions carried out up to this time.



Note: Regular preventative maintenance is required for this compressor.

SAFETY SYMBOLS USED THROUGHOUT THIS MANUAL



Note: Supplementary information.



Danger / Caution: Indicates risk of personal injury and/or the possibility of damage.



Warning: Risk of electrical injury or damage!



CAUTION: The warnings and cautions mentioned in this user manual can not cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be applied.

SAFETY INSTRUCTIONS

Make sure that mains voltage corresponds to the voltage indicated on rating plate and that cable of suitable cross-section are used for electric connections.

Always check oil level before starting the compressor.

Be familiar with emergency stop control and all other controls.

Unplug / disconnect from the mains supply before any maintenance work, to avoid accidental start. Ensure that all parts have been correctly reassembled after any maintenance work.

Keep children and animals off the working area to avoid injuries caused by devices connected to the compressor.

Ensure that temperature of the working environment ranges between +2 and + 45 °C. Compressor working temperature shall range between 70÷85°C (20-25°C room temperature). Lower temperatures may causes condensate accumulation inside the oil separator tank (inside the compressor). ***Check for condensate and if necessary, drain it (see maintenance).***

The compressor should be installed and operated in a non-explosive environment.

Allow at least 1.5m between the compressor and the wall so to allow free air flow to the fan & access for maintenance.

Press the emergency button on the control panel ***only*** in case of actual need so as to avoid possible damages to people or the very compressor.

Always Run / Stop the compressor using the correct buttons not the emergency stop.

Do not stop the compressor using the mains on/off switch or isolator.

When calling for technical assistance and/or advice, always mention model,

SAFETY INSTRUCTIONS...Cont

code and serial number indicated on rating plate.

Always follow the maintenance schedule specified in the user's guide.

Do not touch inner parts and pipes as they are very hot during compressor operation and stay hot for a certain time after the compressor stops.

Do not position flammable parts / chemicals close to and onto the compressor.

Do not move the compressor when the tank is under pressure.

Do not operate the compressor if the power cable is damaged or defective or if the connection is unstable.

Do not operate the compressor in wet or dusty environments. Never aim the air jet at people or animals.

Do not allow unauthorized people to operate the compressor.

Do not hit fans with blunt objects as they might break during compressor operation.

Never operate the compressor without air filter.

Do not tamper with safety and adjusting devices.

Never operate the compressor when doors/panels are open or removed.

Do not tamper with safety and adjustment devices.

Never allow the compressor to function with the hatches/panels open or removed.

SAFETY INSTRUCTIONS...Cont

1. Compressed air is dangerous. Do not point the jet of air at persons or animals and do not discharge compressed air against the skin.
2. DO NOT operate your compressor with any protection guard removed.
3. Repairs must only be carried out by a qualified engineer. If problems occur, contact your dealer.
4. Before carrying out any maintenance, make sure that the pressure is released from the air tank and that the compressor is disconnected from the electrical supply.
5. DO NOT leave pressure in the receiver overnight, or when transporting.
6. DO NOT adjust, or tamper with the safety valves. The maximum pressure is factory set, and clearly marked on the compressor.
7. DO NOT operate in wet or damp conditions. Keep the compressor dry at all times. Similarly, clean air will allow the compressor to work efficiently. Do not use in dusty or otherwise dirty locations.
8. Some of the metal parts can become quite hot during operation. Do not touch these until the compressor has cooled down.
9. Always use a pressure regulator and ensure it is set to the recommended setting for the tool.
10. When spraying flammable materials e.g. cellulose paint, ensure that there is sufficient airflow and keep clear of any source of ignition.
11. Before spraying any material always consult paint manufacturers instructions for safety and usage.
12. Protect yourself. Goggles will protect your eyes from flying particles. Face masks will protect you against paint spray and fumes.
13. Do not apply strain to electrical cables and make sure that air hoses are not kinked or wrapped around the compressor.
14. When disconnecting air hoses or other equipment from your compressor, make sure that the air supply is turned off at the outlet and

SAFETY INSTRUCTIONS...Cont

vent all pressurised air from within the tank and other equipment attached to it.

15. Make sure that children and animals are kept well away from the compressor and any equipment attached to it.
16. Make sure that all individuals using the compressor have had the necessary training and have read and fully understand these operating instructions.
17. Make sure that any equipment or tool used in conjunction with your compressor has a safe working pressure exceeding that of the compressor.
18. Be careful when transporting the compressor to prevent tipping over
19. Permanently installed systems must be installed by a competent engineer.
20. These compressors produce noise levels in excess of 68dB(A). Persons working near the compressor must be supplied with ear protection.



This compressor contains surfaces which may reach a high temperature during operation. Never operate with the motor housing removed.



Wear safety goggles when using this compressor.

ELECTRICAL CONNECTION



WARNING: Read these electrical safety instructions thoroughly before connecting the product to the mains supply.

This compressor is for use with a 400V three phase industrial supply and should be grounded/earthed. Make sure that the product is connected to an outlet with the correct rating.

If an extension lead is used, make sure the cable size is sufficient as to be able to take the current of the compressor.

Check with a qualified electrician if the grounding instructions are not understood or there is doubt as to whether the product is properly grounded. Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a licensed electrician.

Improper installation of the grounding plug will result in a risk of electric shock. If repair or replacement of the cable or plug is necessary, consult a qualified electrician.

Models Supplied Without a Mains Input Cable:

- Ensure that the isolator switch is in the **OFF** position, otherwise you will be unable to open the access door.
- Locate the *Mains Supply Isolator Switch Fig.1.*
- Slide of the *Insulation Cover* forward to expose the terminals *Fig.1.*
- Connect the mains supply cable to L1, L2, L3. A hex head key will be required.
- Ground the cable to the Earth point. *Fig.1*

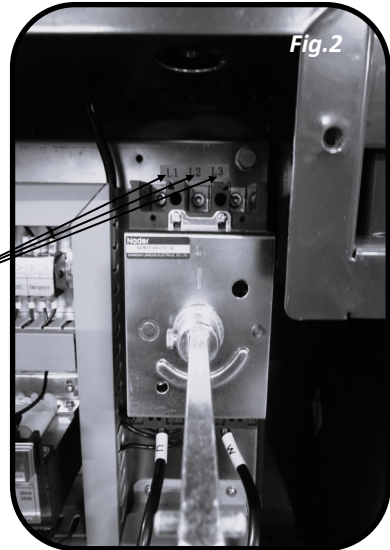
ELECTRICAL CONNECTION...Cont



Insulation Cover

Mains Supply Isolator Switch

Earth / Ground Connection



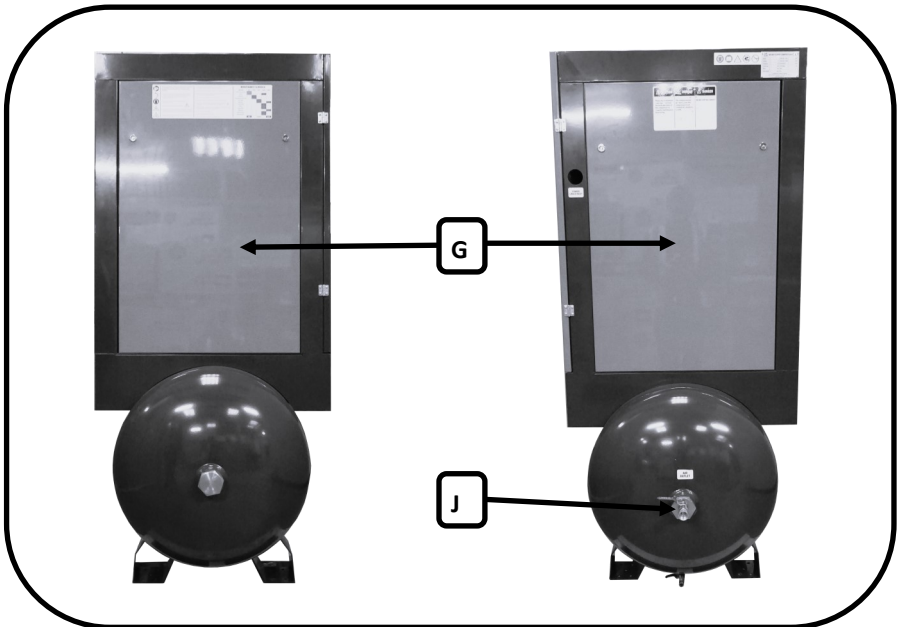
Connect the mains input cable to terminals L1, L2, L3

TECHNICAL SPECIFICATION

<i>Model</i>	<i>08271 & 08280</i>	<i>08272</i>	<i>08276</i>	<i>08273</i>	<i>08281</i>
Mains Supply	400v 32A	400v 32A	400v 32A	400v 64A	400v 64A
Rated Power	7.5KW	14KW	14KW	18KW	18KW
Motor Power - IE4	5.5KW	11KW	11KW	15KW	15KW
Receiver	200L	500L	500L	500L	500L
Free Air Delivered (CFM)	22CFM 630LPM	50CFM 1415LPM	50CFM 1415LPM	66CFM 1868LPM	66CFM 1868LPM
Max Working Pressure	10Bar	10Bar	10Bar	10Bar	10Bar
Oil Qty	5L	5L	5L	10L	10L
Air Outlet	3/4" BSP	3/4" BSP	3/4" BSP	3/4" BSP	3/4" BSP
Dimensions L x W x H	1450 X 700 X 1500mm	1920 X 820 X 1950mm	1920 X 820 X 1950mm	1920 X 820 X 1950mm	1920 X 820 X 1950mm
Noise	62dB(A)	62dB(A)	62dB(A)	62dB(A)	62dB(A)

<i>Model</i>	<i>08264 & 08269</i>	<i>08266</i>	<i>08277</i>	<i>08267</i>	
Mains Supply	400v 32A	400v 32A	400v 32A	400v 64A	400c 64A
Rated Power	7.5KW	14KW	14KW	18KW	18KW
Motor Power	5.5KW	11KW	11KW	15KW	15KW
Receiver	200L	500L	500L	500L	500L
Free Air Delivered (CFM)	25CFM 720LPM	57CFM 1613LPM	57CFM 1613LPM	75CFM 2123LPM	75CFM 2123LPM
Max Working Pressure	8Bar	8Bar	8Bar	8Bar	8Bar
Oil Qty	5L	5L	5L	10L	10L
Air Outlet	3/4" BSP	3/4" BSP	3/4" BSP	3/4" BSP	3/4" BSP
Dimensions L x W x H	1450 X 700 X 1500mm	1920 X 820 X 1950mm	1920 X 820 X 1950mm	1920 X 820 X 1950mm	1920 X 820 X 1950mm
Noise	62dB(A)	62dB(A)	62dB(A)	62dB(A)	62dB(A)

GETTING TO KNOW YOUR VSDD COMPRESSOR



GETTING TO KNOW YOUR VSDD COMPRESSOR...Cont

<i>Item</i>	<i>Description</i>	<i>Item</i>	<i>Description</i>
A	200/500L Receiver	G	Side Access Panel
B	Front Access Panel	H	AVM Mounting Point
C	Mains Isolator Switch	I	Fan Motor
D	Emergency Stop	J	Ball Valve 3/4" BSP
E	Colour LCD Touch Screen	K	Condensate Drain
F	Rear Access Panel		

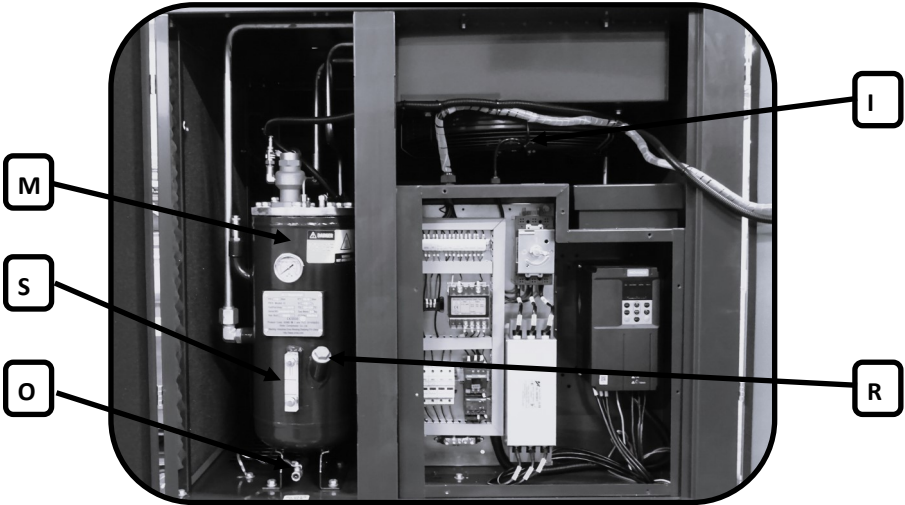
<i>Item</i>	<i>Description</i>	<i>Item</i>	<i>Description</i>
M	Oil Separator Tank	T	Motor
N	Air / Oil Radiator	U	Air-End
O	Separator Condensate Drain	V	Air Filter Assembly
P	Transport Screw	W	Air Intake Regulator Valve
Q	Oil Filter	X	Anti-Vibration Mounts
R	Oil Filler	Y	Frequency Inverter Control
S	Oil Sight Glass	Z	Mains Isolator Switch

Electrical System

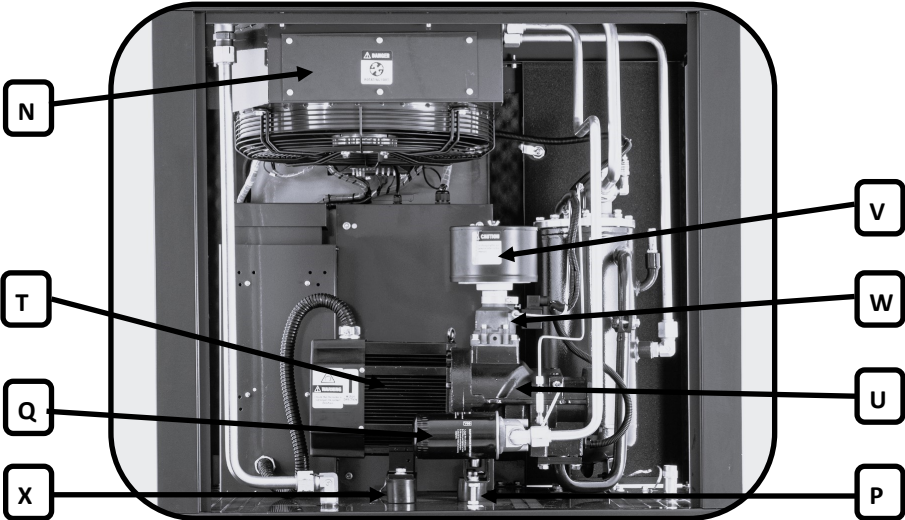


GETTING TO KNOW YOUR VSDD COMPRESSOR...Cont

Internal - Front

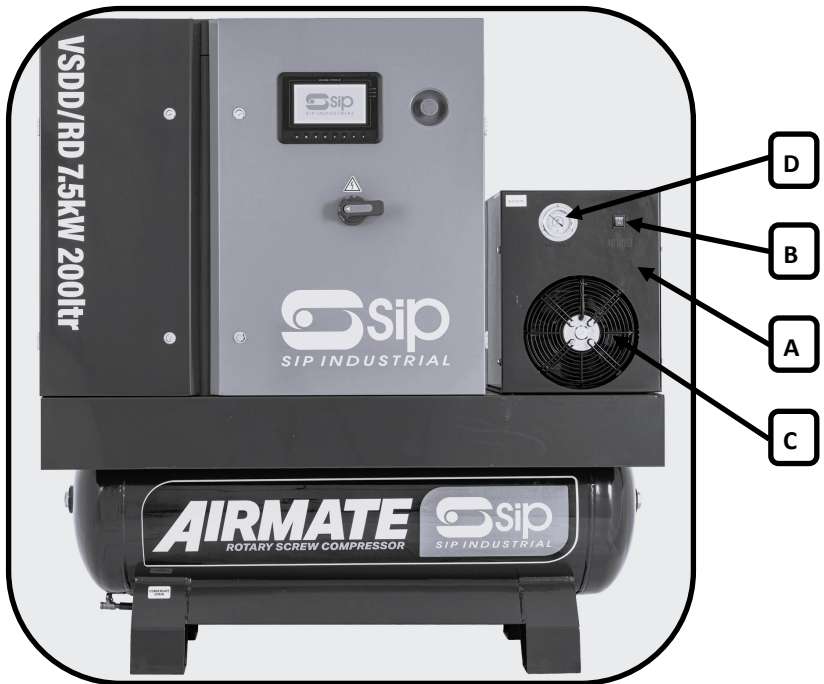


Internal - Rear



GETTING TO KNOW YOUR VSDD COMPRESSOR...Cont

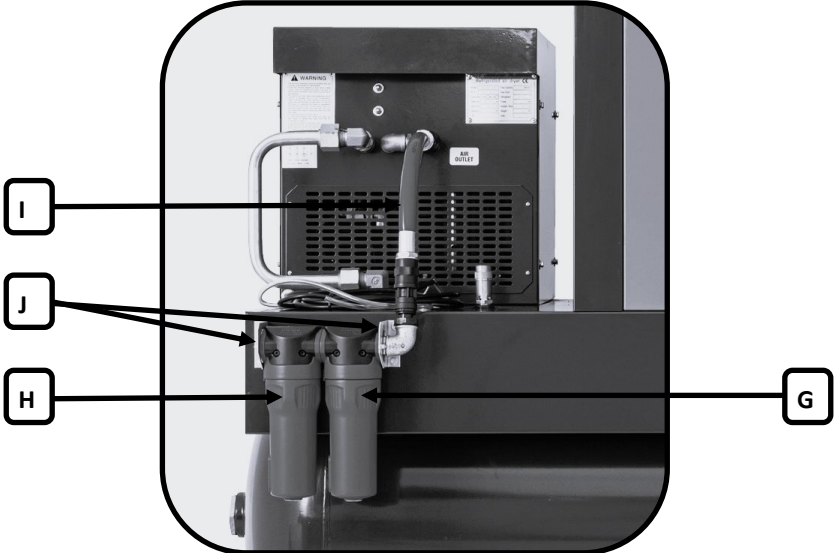
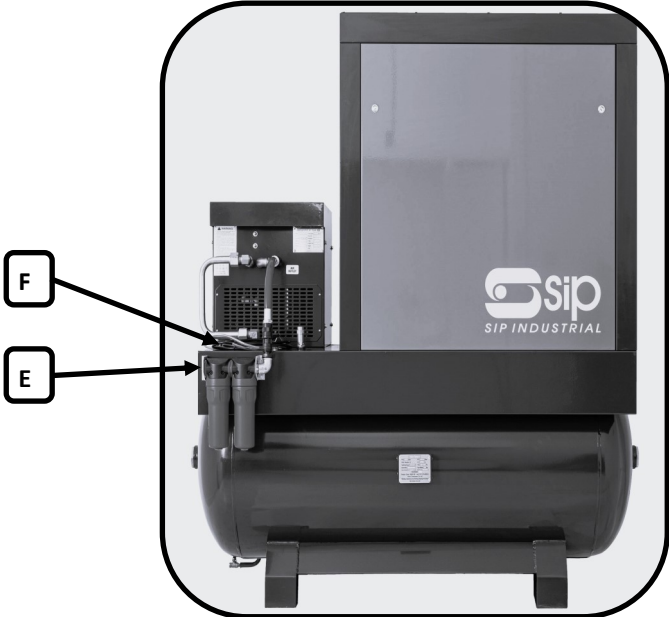
Item	Description	Item	Description
A	Refrigerator Dryer	G	Particulate Filter (H)
B	Power Switch	H	Coalescing Filter (T)
C	Cooling Fan	I	Link Hose
D	Temperature Gauge	J	Filter Brackets
E	Air Outlet	K	Filter Mounts
F	Condensate Drain Pipe		



WARNING: Ensure the (F) Condensate Drain Pipe is secured into place, and condensate is suitably collected.

GETTING TO KNOW YOUR VSDD COMPRESSOR...Cont

Filtration System (Optional)



GUARANTEE

These SIP VSDD's are covered by a 12 month parts and labour warranty covering failure due to manufacturers defects, and a further 12 months parts and labour warranty after the successful completion of a paid-for service.

This does not cover failure due to misuse or operating the compressor outside the scope of this manual - any claims deemed to be outside the scope of the warranty may be subject to charges Including, but not limited to parts, labour and carriage costs. Consumable items such as fuses are not covered by the warranty.

In the unlikely event of warranty claims, contact your distributor as soon as possible. Proof of purchase will be required before any warranty can be honoured.



NOTE: Proof of purchase will be required before any warranty can be honoured



IMPORTANT: All screw compressors are required to "make air" between 1000 - 2000hrs minimum per year. Compressors with low pumping hours increase the likelihood of the oil emulsifying and oil "pass-through".



IMPORTANT: Any damaged caused to the air-end by compressors not pumping a minimum of 1000hours per year is not covered under warranty.

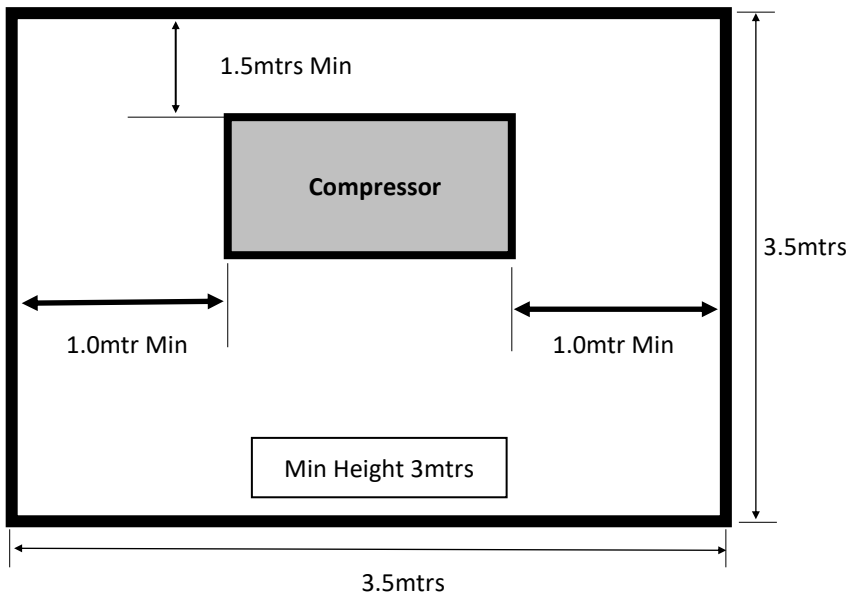
INSTALLATION

Location

The room chosen for the installation of the compressor should meet the following requirements and comply with what is specified in the current safety and accident prevention regulations:

- **Low percentage of fine dust**
- **Proper room ventilation and size that allows room temperature below 45°C.**

The dimensions of the spaces below are indicative only but it is advisable to follow them as closely as possible:



Condensate Management:

- The Hazardous Waste regulations 2005 affect all owners of com-

INSTALLATION...Cont

pressed air systems with respect to the proper disposal of condensate. The UK Water Resources Act states that it is an offence to knowingly permit entry of toxic waste to surface or ground water. It is an offence with a fine of £20,000 or more.

- Please ensure that Oil / Water separators are used and that you comply with national & local legislation. Please contact your local authority for help & advice.

Installation

- Installation of the new compressor should be performed by qualified personnel.
- All operators should read and understand the contents of this user manual.
- The Motor & Air-end transport screw **must** be removed prior to use, and reinstalled during any further transport.
- The compressor should not be modified and used for only the purpose it is intended.
- The compressor should be installed indoors, with good ventilation and temperature less than 45°C.
- The compressor should be connected using national regulations and installed by a qualified electrical installer / electrician.
- Keep the lubricating oil level in the centre of the sight glass.
- We suggest using **SIP Screw Compressor Oil Code 02405**.
- Never work on or repair the compressor with the mains electrical power switched on.
- Never work on or repair the compressor with receiver pressur-

INSTALLATION...Cont

ised or whilst fitted to a pressurised air system.

- The air receiver condensate should be drained daily.
- The oil separator tank condensate should be drain daily and the oil level checked daily.
- Do not use flammable solvents to clean or maintain and parts.
- Safe, non-corrosive chemicals should only be used.
- Ensure that temperature of the working environment ranges between **+2 and + 45 °C**. Compressor working temperature shall range between **70 - 85°C (20-25°C room temperature)**. Lower temperatures



IMPORTANT: All screw compressors are required to make air between 1000 - 2000hrs minimum per year. Compressors with low pumping hours increase the likelihood of the oil emulsifying, oil “pass-through” and air-end damage



NOTE: To qualify for the additional 12 month warranty after year 1, a “paid for” annual service must be performed using genuine parts and by performed **SIP Industrial Products** or an approved **SIP Service Agent**.



WARNING: Do not use if the working environment temperature is at freezing or below.

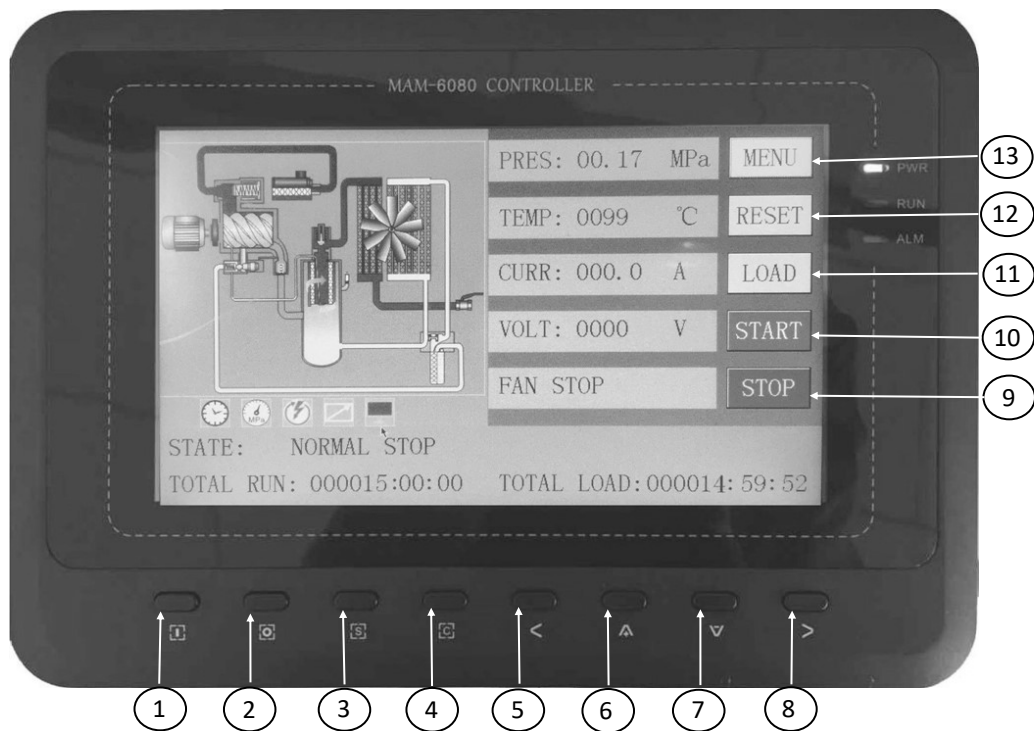


WARNING: Do not use outside uncovered or expose this compressor to the elements; rain, snow etc.

may causes condensate accumulation inside the oil separator tank (inside the compressor).

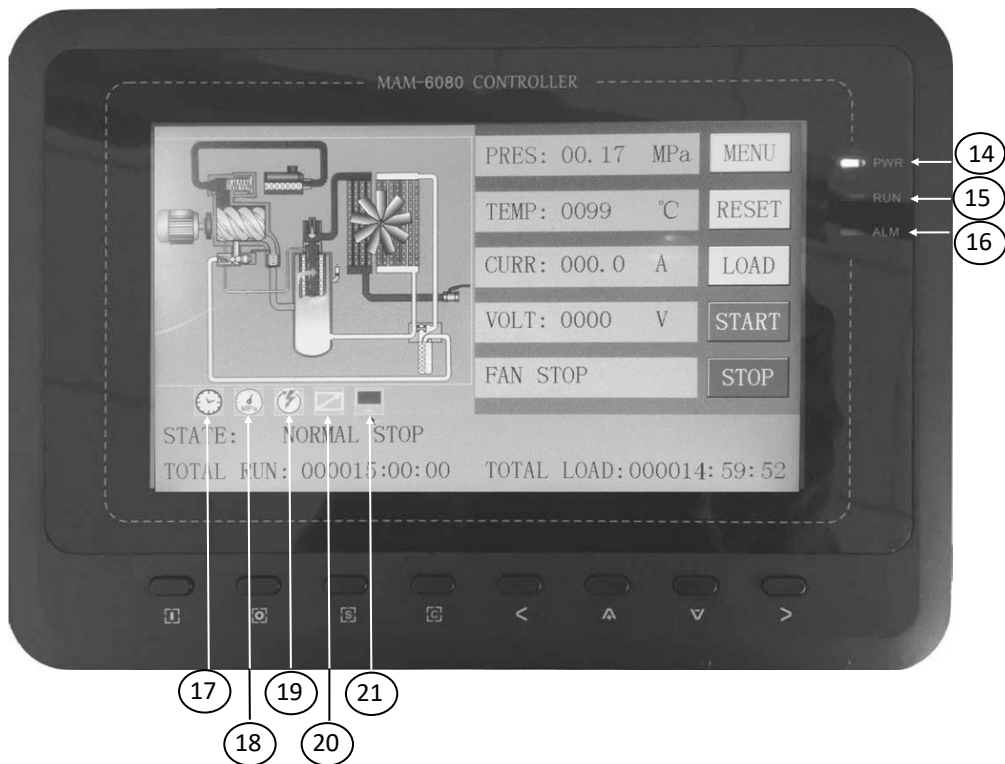
OPERATING INSTRUCTIONS

LCD Controller - Basic Operation



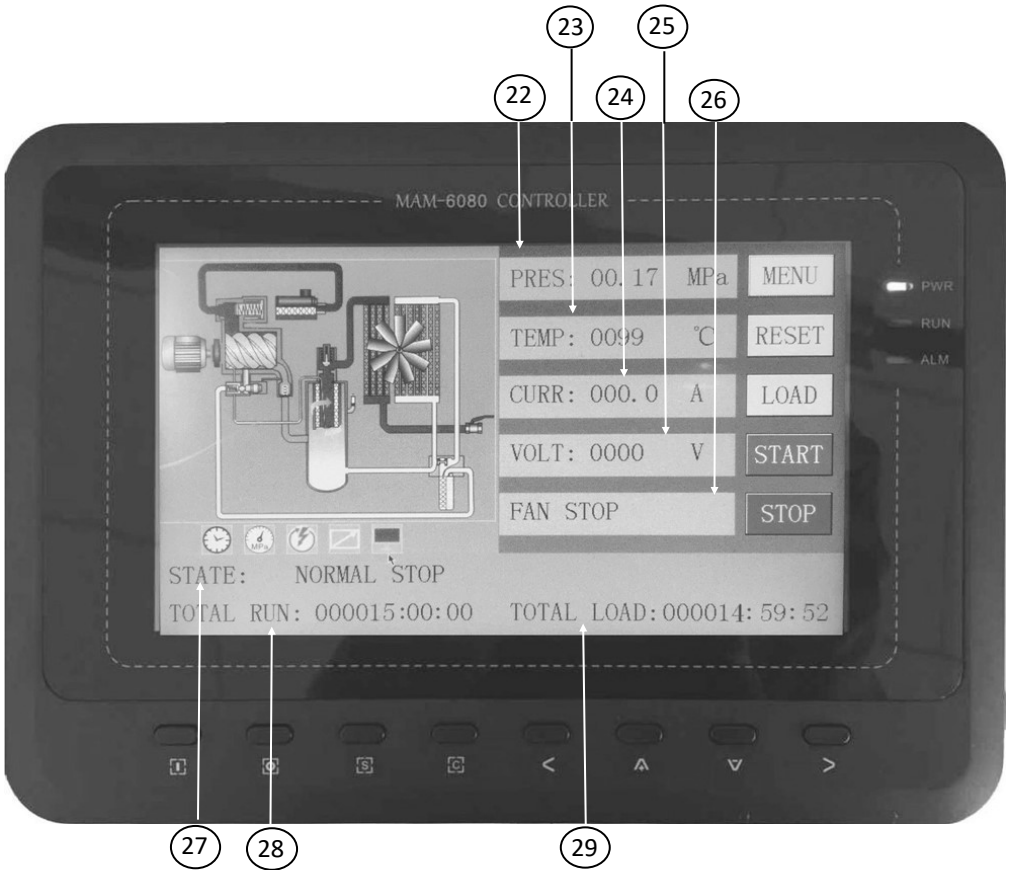
Item	Description	Item	Description
1	Start Button	8	Move Right / Enter
2	Stop Button	9	Touch Screen Stop
3	Set Button - Load /Unload	10	Touch Screen Start
4	Return Button	11	Touch Screen Load
5	Move Left	12	Reset
6	Move Up / Increase	13	Menu
7	Move Down / Decrease		

OPERATING INSTRUCTIONS ...Cont



<i>Item</i>	<i>Description</i>	<i>Item</i>	<i>Description</i>
14	Power LED	18	“P” Function
15	Compressor Run	19	Restart Activation
16	Alarm / Alert	20	Remote Activation
17	Scheduled On/Off	21	Computer Icon

OPERATING INSTRUCTIONS ...Cont



<i>Item</i>	<i>Description</i>	<i>Item</i>	<i>Description</i>
22	Receiver Pressure	26	Cooling Fan Status
23	Internal Temperature	27	Compressor State
24	Current Draw	28	Total Hours
25	Inverter Voltage	29	Total Load / Run Hours

OPERATING INSTRUCTIONS ...Cont

1 & 10: To start the compressor press either button 1 or the touchscreen 10. Touchscreen will take 0.5second to react.

2 & 9: To stop the compressor press either button 2 or touchscreen 9. Only ever stop the compressor using these 2 buttons.

Only use the emergency stop for what it is designed. Never use the main isolator switch to stop the compressor during it's running state. Only use the isolator after the compressor stop button has been pressed and the compressor has stopped to isolate the supply.

3: Set Button; Load / unload button:

When the compressor is at running status ,press this button to load or unload. When modifying data in textbox, press this button to save data and exit modification status. When cursor is on any page icon, press this button to execute the corresponding function.

4: Return button / Reset button:

When the controller is at an alarm and stop status, press this button for 5s to reset. When modifying data, press this button to exit data setting mode. When viewing the menu, press this button to return to previous menu.

5: Move Left Cursor:

6: Move up / Increase Values.

7: Move down / Decrease Values:

8: Move right / Enter.

11: Touchscreen Load mode.

12: Touchscreen reset mode.

13: Touchscreen Menu.

OPERATING INSTRUCTIONS ...Cont

14: Power LED. Lights when mains power is on.

15: Compressor Run LED. Light when motor is running.

16: Alarm / Alert LED.

Screen Icons:

17: Standard ON/OFF setting mode.

18: Standard Pressure Setting mode.

19: Restart is activated.

20: Remote is activated.

21: Computer Icon.

22: Pumping / Receiver Pressure.

23: Internal Cabinet / Pump Temperature.

24: Current Draw (Amps).

25: Inverter Voltage.

26: Cooling Fan Status - ON/OFF.

27: Compressor Current State - RUN / OFF/ LOAD / UNLOAD.

28: Total Hours - this is the total hours the compressor has been switched on.

29: Total Load / Run Hour - this is the total hours that the compressor has been on load / pumping.

The compressor is set up to run in a standard generic mode.

The majority of the menu is locked and needs access via passwords.

SIP (Industrial Products) Ltd has access to the codes which will only be been available for special applications.



NOTE: After 5 minutes the Colour Screen will go into “sleep mode”. Just touch the screen to re-activate.

Starting the VSDD Rotary Screw Compressor.

- Make sure that receiver drain taps are closed prior to start-up.
- Ensure that there aren't any leaks on the connected pipeline or air tools.
- Prior to start-up make sure that the Emergency Stop button is in the operating position and not pressed in.
- Switch on the mains supply.
- Switch on the compressor Mains Isolator Switch.
- Press the Start Button (either buttons 1 or 10).
- The motor will start-up slowly until full speed is achieved.
- The display will the state as **Loading**. This means the air-end is pumping.
- This is a variable Speed Compressor so the Motor Speed will adjust according to air demand. The Inverter Frequency unit will automatically adjust the motor voltage & frequency.
- The screen will display the current state of the compressor showing air pressure, temperature, current draw, motor voltage and fan status.
- The compressor will pump air into the receiver and continue to reach the target pressure. This will be either 8Bar or 10Bar depending on model.
- The display shows the pressure in **Mega-Pascals (MPa)**.
- **1MPa = 10Bar = 150psi**

OPERATING INSTRUCTIONS ...Cont

- When the compressor starts to reach the target pressure the motor will start to slow slightly.
- Upon reaching the target pressure the display will show the compressor state as ***Unloading***. During this phase the compressor removes any pressure in the internal pipework system in preparation for re-starting.
- During ***Unloading***, air will be heard discharging from the air filter intake, this is perfectly normal.
- Once the demand for air is drawn from the tank then the compressor will automatically start-up again and start to make air. The motor will start-up normally within a 2Bar window of the target pressure.

Stopping the VSDD Rotary Screw Compressor.

- When stopping the compressor use only the ***Stop*** buttons (use buttons 2 or 9).
- Never use the ***Emergency Stop*** button to stop the compressor. Only use the ***Emergency Stop*** for its intended purpose.
- Once the compressor stops running, turn off the ***Mains Isolator Switch*** on the compressor and disconnect / switch off at the mains supply.

Servicing

Servicing should be carried out at 2000Hr intervals or annually; whichever comes first.

MAINTENANCE

Daily Checks

- Check the oil level in the Separator Tank.
- The level should be in the centre of the sight glass when the compressor is at rest. After use, allow around 40minutes for the oil to settle before checking the oil level.



This compressor contains surfaces which may reach a high temperature during operation. Allow the compressor to cool before checking the oil.

- Drain the condensate from the from the Separator tank (item M page 15)
Use the drain valve (item O page 15)
Collect condensate and dispose as per National Regulations (see below)
- Drain the air receiver condensate from the tank.
- The Hazardous Waste regulations 2005 affect all owners of compressed air systems with respect to the proper disposal of condensate. The UK Water Resources Act states that it is an offence to knowingly permit entry of toxic waste to surface or ground water. It is an offence with a fine of £20,000 or more.
- Please ensure that Oil / Water separators are used and that you comply with national & local legislation. Please contact your local authority for help & advice.
- Check the Radiator Matrix for dust build up. Loosen dust using a dry clean hand brush. Remove excess with compressed air.
- Follow the weekly checks along with inspecting the Air Filter Element.

MAINTENANCE...Cont



WARNING: Wear the appropriate Personal Protection Equipment when using compressed air to clean the radiator.

Weekly Checks

- Remove excess dust from the element. Compressed air can be used at **low** pressure, 2 - 3 bar.
- Wear appropriate PPE.

Maintenance Schedule

CHECK:	Daily	Weekly	2000hrs	4000Hrs
Current / Temp / Pressure				
Oil Level				
Condensate				
Machine Air Inlets				
Radiator Matrix				
Air Filter Element				
Oil Filter				
Separator Filter				
Motor Greasing				
Electrical Connections				
Nuts, Bolts etc				
			<i>First Service</i>	<i>Second Service</i>

TROUBLESHOOTING

Safety Protection / Alerts

A) Motor Protection

No.	Breakdown	Breakdown	Cause
1	Phase Missing	Shut-Down	Fuse blown; cable failure; mains switch
2	Overload	Shut-Down	Undersize supply; supply overload
3	Seized Rotor	Shut-Down	Mechanical failure; motor failure
4	Supply	Shut-Down	Undersize supply, cabling, switch
5	Short Circuit	Shut-Down	Electrical leakage, phase shortage

B) Air / Oil Temperature

If the temperature of the Air / Oil exhaust exceed the pre-set value then an alarm will sound. The controller will shutdown. Once the heat has reduced then the controller will re-set.

C) Phase Rotation (3 phase models only)

The controller is fitted with a phase rotation circuit. If the supply is connected incorrectly then 2 out of the 3 phase need to be reversed.

D) Internal Sensor /s Failure

The compressor is fitted with pressure and temperature sensors. Should either sensor fail or be triggered then the controller will shut down.



WARNING: All of the above faults should only be investigated / diagnosed by qualified personnel.

TROUBLESHOOTING ...Cont

Item	Fault	Causes	Remedy
1	Motor starting up failure	No input voltage or the voltage is in abnormal condition .	Check the power supply circuit
		Phase failure (The motor gives out "buzz" sound)	Check the power line terminal, electric controller and on-line terminals
		Connection error in power phase position	Adjust the phase-sequence and repair or replace the main controller
		Blown fuse	Check and make sure there is no error in circuit and replace the fuse
		Burning of AC contactor or failure	Repair or replace
		Failure of pressure switch (Pressure sensor)	Repair or replace
		Motor burning out and bearing failure	Repair or replace
		Clamping stagnation in dynamic tray in handpiece or block up caused by bearing failure	Repair or replace
		Temperature sensor operation protection	Find out the causes and eliminate the breakdown
		Current protector operation protection	Find out the causes and eliminate the breakdown
2	Story frequent starting up	Failure in starting up the time delay unit	Check and reset the time delay unit and main controller or replace it
		Serious leakage in pipeline	Check the leaking parts and eliminate the breakdown
		Volume of air storage tank is not large enough	Add air storage tanks or replace larger air storage tanks
3	Exhaust (oil) temperature is too high	Environmental temperature is too high	Increase the air volume in the unit room
		The cooler is dirty and with bad heat dissipation	Clean the cooler
		Blocking in oil pipeline	Check and get the pipe through
		Failure of temperature sensor	Repair and replace
		The lubricating oil is not enough	Add lubricating oil
		Failure in cooling fan	Repair or replace
4	Too low exhaust pressure	Failure in pressure switch, force sensor and main controller	Repair adjust and replace
		Too much air consumption	Repair the pipeline, buy more air compressors and control the air volume
		Serious leakage in pipeline	Repair and replace if necessary
		Blocking in air filter	Clean and replace the filter element
		Breakdown in air inlet valve	Repair or replace
		Blocking in oil-gas separator	Repair or replace
		Leakage in unloading solenoid valve	Repair or replace
		Slipping in V shape rotational belt	Repair, adjust and replace

TROUBLESHOOTING ...Cont

5	Great consumption of lubricating oil	Blocking in oil return pipe	Disentangle or replace
		Warranty period of oil-gas separator is due	Clean or replace
		Too high lubricating oil level	Decrease the oil level
		Breakdown in minimum pressure valve	Repair or replace
		No use of special lubricating oil	Exchange the special lubricating oil
6	Abnormal noise and vibration	Fasteners become flexible. Host bearing wear or damage in motor	Repair or replace
		Conveyor wear	Replace the belt
		Wear or looseness in the coupling	Check, fasten or replace
		Foreign matters enter rotating parts such as handpiece, motor or fan	Repair or replace
7	Early deterioration in lubricating oil	Failure in empty the used lubricating oil	Empty the used oil and add new special lubricating oil
		No use of special lubricating oil	Exchange special lubricating oil
		Too high exhausting temperature	Increase air volume and decrease the environmental temperature or repair the temperature control valve and cooling system
8	Oil leakage in air filter when it is shutdown	Breakdown in air inlet valve	Repair or replace
		Gas return in minimum pressure valve	Repair or replace
		Unloading solenoid valve fails to deflate	Repair or replace
9	Great current or trip caused by slow rotation of the motor	Breakdown in handpiece, motor and the bearing	Repair or replace
		V shape rotation belt is too tight	Repair and adjust the handpiece
		Low input voltage (The wire is too long and the diameter is too small)	Adjust the wire
		Poor contact in circuit	Repair or replace
		Too great differential pressure in pipeline (Blocking in filter element)	Repair or replace
		Serious imbalance in three-phase voltage	Check and eliminate the breakdown
		Poor contact or current capacity of the breaker is not large enough	Repair or replace
No use of special lubricating oil	Exchange for special lubricating oil		
10	Failure of rotating in cooling fan	Too high temperature, great current and operation of overload protector	Repair or replace
		Phase failure	Check the circuit and AC contactor
		Breakdown in temperature controller and main controller	Repair or replace
		Inconformity in three-phase resistance value (Motor burnt our)	Repair or replace
		Breakdown in fan bearing	Repair or replace

EU - DECLARATION OF CONFORMITY

We

SIP Machinery Europe Ltd
Quayside Business Park
Dundalk
County Louth

As the manufacturer within England, Scotland and Wales, we declare that the
SIP VSDD Rotary Screw Compressors SIP Codes:-08258 08259 08262 08263
08260 08261 08265 08268

Conforms to the requirements of the following directive(s), as indicated:

2014/30/EU	Electro-Magnetic Compatibility Directive
2006/42/CE	Machinery Directive
2011/65/EU & 2015/863/EU	RoHS Directive
2014/68/EU	Pressure Equipment Directive

And the following harmonised standard(s):

EN1012-1
EN60204-1
EN61000-6-3
EN61000-6-4

Signed.....



Mr. Paul Ippaso

Managing Director SIP (Industrial Products) Ltd

Date: 22August2023



EU - DECLARATION OF CONFORMITY

We

SIP (Industrial Products) Ltd
Gelders Hall Road
Shepshed Loughborough
Leicestershire
LE12 9NH
England

As the manufacturer within England, Scotland and Wales, we declare that the
SIP VSDD Rotary Screw Compressors SIP Codes:-08258 08259 08262 08263
08260 08261 08265 08268

Conforms to the requirements of the following regulation(s), as indicated:

Electromagnetic Compatibility Regulations 2016
The Restriction of use of Certain Hazardous Substances in
Electrical and Electronic Equipment Regulations 2012
Pressure Equipment (Safety) Regulation 2016

And the following harmonised standard(s):

BS EN1012-1
BS EN60204-1
BS EN61000-6-3
BS EN61000-6-4

Signed.....



Mr. Paul Ippaso

Managing Director SIP (Industrial Products) Ltd

Date: 22August2023





Please dispose of packaging for the product in a responsible manner. It is suitable for recycling.

Help to protect the environment, take the packaging to the local amenity tip and place into the appropriate recycling bin.



Never dispose of electrical equipment or batteries in with your domestic waste.

If your supplier offers a disposal facility please use it or alternatively use a recognised recycling agent.

**FOR HELP OR ADVICE ON THIS
PRODUCT PLEASE CONTACT
YOUR DISTRIBUTOR, OR SIP
DIRECTLY ON:**

TEL: 01509 500400

**EMAIL: sales@sip-group.com or
customerservice@sip-group.com**