Air COMMAND®
'Stands the test of time'

# WORKSHOP 3HP 230V AIR COMPRESSOR


## WS3.0CI

## OPERATING MANUAL

# CONTENTS

## 1 General Information

1.1 This operator's manual, combined with the Technical Datasheet, is the document containing technical details of the compressor unit (further on "compressor"), operation guidelines and specifications secured by the manufacturer.
1.2 Before using the compressor, the operating staff must carefully study this manual and rigorously follow the instructions in order to safely operate and the compressor to perform as intended.
1.3 The manufacturer reserves the right to make changes, though not specified in this manual, in compressor construction design regarding upgrades and durability time without notice.

## 2 Set Completeness

2.1 The completeness of the compressor delivered is given in Table 1.

Table 1

| Name | Quantity, pcs | Note |
|---|---|---|
| Compressor unit | 1 | |
| Set of wheels and shock absorbers* | 1 | |
| Transport packing | 1 | |
| Compressor unit operating instruction | 1 | |
| Declaration of conformity for receiver | 1 | |
| Declaration of conformity for security valve | 1 | |
| Note:<br>* The set of wheels and shock absorbers as well as the fasteners are packed up separately. | | |

## 3 Safety Warnings

3.1 All safety alerts and warning labels on the compressor must be kept visible and legible at all times. The alerts have the following meanings:

WARNING
High voltage

WARNING
Under pressure

WARNING
High temperature

Operating staff should study the instructions

Do not open the valve until the pneumatic hose is hooked up

WARNING
This equipment operates automatically and without warning

Make sure all moving part guards and covers are securely mounted

Start/Stop element

Attention. Danger (other hazards).
Pay special attention to the instructions marked with this sign in this manual.

3.2 Only individuals who are trained and familiar with the compressor's design, operation procedures, safety protocols, and first-aid instructions are permitted to operate or service the unit.

3.3 This compressor is designed exclusively for compressing atmospheric air.
⚠ **Do not use it to compress any other gases.**

3.4 Compressed air may be used for applications such as: Supercharging, Operating pneumatic tools, Spray painting, Cleaning with water-based agents. However: Each application must comply with the specific safety and usage regulations relevant to that use case.

3.5 Ensure the compressor is in proper working condition during operation. Immediately address and correct any faults or malfunctions.

3.6 Always follow current fire safety regulations and standards while operating the compressor.

3.7 Always wear safety goggles or protective eyewear when operating the compressor to prevent eye injury from airborne debris or high-velocity air streams.

3.8 If noise levels are excessive during operation, use appropriate hearing protection (e.g., earplugs or earmuffs).

3.9 Never use any part of the compressor as a support, step, or ladder.

3.10 Follow these safety instructions when operating the air receiver:

- Use the receiver only within the specified pressure and temperature limits listed in the technical data table
- Operate the receiver properly to avoid damage or hazardous conditions
- Always monitor the condition and performance of critical safety and control devices, including the pressostat (pressure switch), safety relief valve, and pressure gauges.
- Drain condensate daily from the air receiver to prevent internal corrosion and ensure proper operation.
- When operating the receiver, comply with all regulations and safety instructions applicable to the use of pressure vessels or tanks.

**DO NOT – Critical Safety Prohibitions**
**To ensure safe operation and avoid serious injury or equipment damage, NEVER:**

- Operate the compressor without proper grounding
- Connect the compressor to a household power supply or use extension cords if the voltage drop between the supply and load point exceeds 5% of the nominal voltage (per IEC 60204, Section 13.5)
- Operate the compressor if electrical safety protections are damaged or disconnected
- Use the compressor when it is in an **unserviceable condition or without completing required maintenance**
- Modify or interfere with the compressor's **electrical or pneumatic systems,** especially:
  - **Readjusting full pressure settings**
  - **Tampering with the safety relief valve**
- Alter the design of the receiver, including:
  - **Reshaping, welding, or cutting**
  - If corrosion or damage is found, the **receiver must be replaced entirely**
- Operate the compressor with **safety guards removed** from the **V-belt drive**
- During or after operation, **touch hot components,** such as:
  - **Cylinder head**
  - **Cylinder block**
  - **Air pressure lines**
  - **Cooling fins of the electric motor**
- Touch the compressor with **wet hands** or work while wearing **wet shoes**
- Direct the **compressed air stream toward any part of the body,** yourself or others
- Allow **unauthorised persons, children, or animals** into the compressor's working area
- Store **kerosene, petrol, or other flammable liquids** near the compressor
- Leave the compressor **plugged in when not in use**
- Attempt any **repairs** on the compressor if it is:
  - **Connected to electricity**
  - **Under pressure**
  - **Without lockout measures** to prevent accidental activation (e.g., unexpected motor start or air discharge)
- **Transport the compressor** while it is **under pressure**

## 4 Purpose of Use

4.1 This compressor is intended for generating compressed air to power pneumatic equipment, tools, and systems commonly used in industrial settings and automotive service environments.

**Note:**
**The compressor does not include internal air purification systems for removing moisture, oil (in mist or vapor form), or particulates. To achieve the required air quality for specific applications, external filtration and air purification equipment must be installed.**

**Prohibited Use:**
**This compressor must not be used for household or medical applications under any circumstances.**

## 5 Specifications

5.1 The compressor is designed and manufactured in accordance with applicable safety standards and technical regulations relevant to this equipment type.
5.2 Key technical specifications are detailed in Table 2 of this manual.
5.3 The compressor operates on alternating current (AC). Voltage and frequency ratings are specified:
- In the technical datasheet
- On the cover page of this manual
- On the compressor nameplate

5.4 The compressor operates on an intermittent duty cycle, with a cyclic duration factor (ПВ) of up to 60%. Each cycle lasts 6 to 10 minutes.
Continuous operation is permitted for up to 15 minutes, but no more than once every 2 hours.
5.5 After startup, the compressor regulates air output automatically using a repetitive start-stop method.
5.6 The Ingress Protection (IP) rating is not lower than IP20.
5.7 The unit features Class I electric shock protection.
5.8 The annual fire risk for a single compressor unit is no greater than $10^{-6}$.
5.9 The average noise level does not exceed 80 dBA, measured at points located at least 1 metre from the unit, during operation at a 60% duty cycle.
5.10 The compressor is rated for climatic category UHL 3.1* (boreal climate), suitable for operation in ambient temperatures from +1°C to +40°C, and altitudes up to 1000 metres above sea level.

Table 2

| Value description | WS3.0CI |
|---|---|
| Number of compression stages | 1 |
| Quantity of compressor cylinders | 2 |
| Oil filling volume, l | 1.21 |
| Oil consumption, g/$m^3$ | 0.3 |
| Suction capacity, l/min ($m^3$/h) | 420 (25.2) |
| Max Working Pressure | 10bar / 145PSI |
| Receiver capacity, L | 90 |
| Drive Belt | A1168 |
| Motor | 2.2kW / 3.0HP Single Phase 230V |
| Pump Type | V 2 Cylinder Cast Iron Single Stage |
| Pump Displacement | 370L/min, 12.7cfm |
| FAD @ Working Pressure | 210L/min |
| Pump Speed | 1180 RPM |
| Power Supply Requirement | 230V Single Phase 15A |
| Duty Cycle | 60% |
| Sound Pressure Level | 80dBA |
| Connecting element | ARO Quick Coupling |
| Overall dimensions, cm, up to: length x width x height | 115 x 40 x 83 |
| Net weight, kg, up to | 84 |
| Gross Weight, kg, up to | 106 |
| Mean life to complete repairs, hrs | 7500 |

## 6 Preparation for Work

### 6.1 General Instructions

6.1.1 Carefully unpack the unit. Check that everything is there. Make sure there is no damage.

6.1.2 Thoroughly study and follow the instructions in this manual.

6.1.3 Be sure that the data in the compressor and electric engine tables correspond with the information in the Proof of Acceptance and Packaging.

### 6.2 Receiver Commissioning

6.2.1 The receiver commissioning procedure as well as the production order is determined by local laws and regulations.

6.2.2 The documentation for the air receiver (which is part of the compressor system) must be retained for the entire service life of the receiver.

### 6.3 Installation

**DO NOT OPERATE THE COMPRESSOR IN AREAS WHERE THERE IS A RISK OF EXPLOSION OR THERE IS A FIRE**

**DO NOT OPERATE THE COMPRESSOR IF THERE IS A RISK OF EXPOSURE TO ATMOSPHERIC CONTAMINATION OR FALLOUT.**

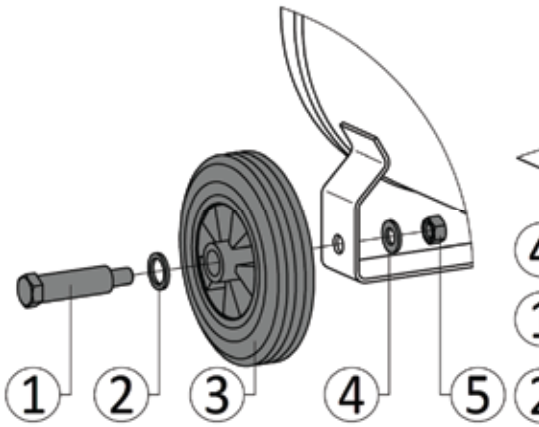
6.3.1 Compressor overall dimensions are given in Table 2.

6.3.2 Operate the compressor only in a well-ventilated area, maintaining the ambient temperature limit within 1°C and 40°C . When the ambient air temperature exceeds 30°C, ensure that the compressor draws intake air from outside the installation area, or implement measures to reduce the surrounding temperature.

6.3.3 The intake air must not contain dust, gases, explosive or flammable gases, sprayed solvents or colouring or agents, or toxic smoke of any types.

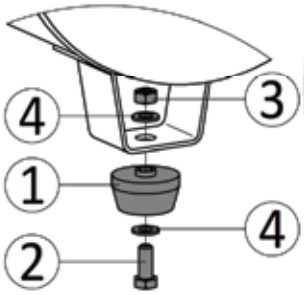
6.3.4 Mount the wheels with shock absorbers on the receiver supports according to figures 1, 2, 3.

**DO NOT MOUNT THE COMPRESSOR RIGIDLY TO THE FLOOR OR BASE PLATE!**



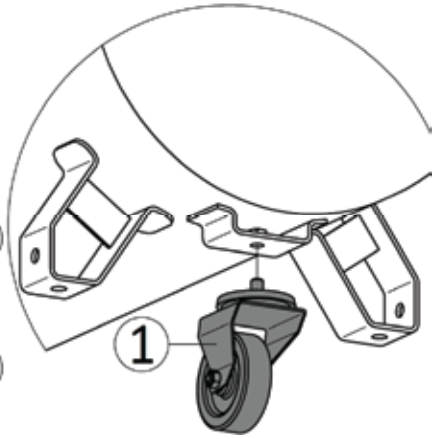

1 - Bolt
2 - Washer
3 - Wheel
4 - Washer
5 - Nut

Figure 1




1 - Shock absorber
2 - Bolt
3 - Nut
4 - Washer

Figure 2




1 - Wheel

Figure 3

6.3.5 Position the compressor on a flat, level surface to ensure proper lubrication of all internal components and effective drainage of condensate water. The base surface should be flat, non-slip, and constructed from materials that are resistant to oil, fire, and wear.

6.3.6 Ensure easy access to the power switch, air supply valve, and condensate drain controller. For adequate ventilation and efficient cooling, maintain a minimum clearance of 1 metre between the compressor and any wall or obstruction.

### 6.4 Connecting to Aerial System

6.4.1 When connecting the compressor to an air distribution system or an end-use device, use pneumatic valves and flexible hoses that are correctly rated for bore size, pressure, and temperature according to system requirements.

6.4.2 Compressed air is a powerful energy source and must be treated as potentially hazardous. All piping operating under pressure must be:

- In good working condition
- Properly installed and securely connected

### 6.5 Connection to Electricity

6.5.1 Electrical connection of the compressor must be performed by qualified personnel and must comply with all applicable safety regulations and standards.

6.5.2 The power connection must be made through a circuit protection device capable of protecting the system against short-circuit currents.

6.5.3 Verify that the technical specifications on the compressor's datasheet match the actual parameters of the power supply network. Acceptable fluctuations are:

Voltage: ±10% of the nominal value
Frequency: ±1% of the rated frequency

Voltage drop between the power source and the motor: must not exceed 5% of the rated value (per IEC 60204-1)

6.5.4 Electrical diagrams for the compressor are provided in Appendix A, Figures A.1 and A.2.

**WARNING: When making the electrical connection, the phase sequence must be correct. It determines the direction of motor shaft rotation, which must match:**

- **The arrow indicator on the pulley blade of the piston barrel, or**
- **The index marking on the electric motor aspirator cover**

**Incorrect rotation direction (reverse) may result in compressor failure.**

6.5.5 To confirm correct shaft rotation:

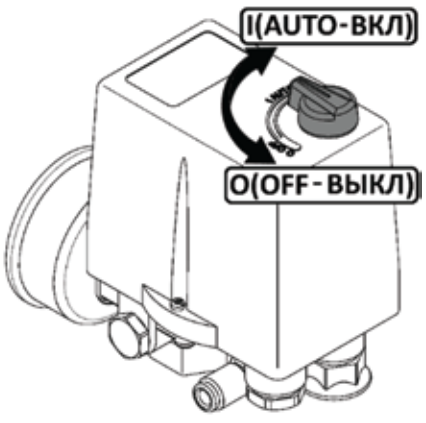


Figure 3

1. Ensure the pressure switch is in the OFF position (O).
2. Connect the compressor's power cable to the power source (or plug it in).
3. Turn on the main input switch, if present.
4. Quickly turn the compressor ON, then OFF, using the switch on the pressure switch:
   - Turn it to position I, then immediately switch it back to O
5. Observe the direction of the pulley-fan on the piston unit:
   - If it rotates in the direction of the arrow, the phase sequence is correct.
   - If it rotates in the opposite direction, swap any two phase wires at the power connection point to correct it.

### 6.6 Initial Start-Up

**WARNING: ONLY USE THE PRESSURE SWITCH (PRESSOSTAT) TO START THE COMPRESSOR WHEN CONNECTED TO THE MAINS!**

6.6.1 Before the initial start-up - and each time before operating the compressor - verify the following:

- The power cable is undamaged and the unit is properly grounded
- The V-belt drive safety guards are secure and correctly mounted
- The shock absorbers and wheels are firmly attached
- All piping connections are tight and leak-free
- The safety relief valve, control systems, and operating devices are functioning properly
- The oil level in the piston barrel crankcase complies with Section 8.2.1

6.6.2 At initial start-up - and every time the unit is connected to the mains - ensure the motor rotation direction matches the arrows on the electric motor housing and the piston barrel pulley. Refer to Section 6.5.5 for verification steps.

6.6.3 If the compressor uses a three-phase motor connected to the mains:

1. Open the outlet valve
2. If using a local power switch, turn it ON
3. Turn the pressure switch (pressostat) to the AUTO position to start the compressor

6.6.4 For compressors with a single-phase motor not connected directly to the mains, refer to the procedure in Section 6.5.5.

6.6.5 After starting the compressor:

- Allow it to run for a few minutes with no load, keeping the outlet valve open. This allows proper distribution of lubricant.
- Then, close the outlet valve to apply a full pressure load. Monitor operation:
- The pressostat will automatically stop the motor when maximum pressure is reached (see Table 2)
- The motor will automatically restart when air is used and receiver pressure drops below the preset limit

The pressure adjustment range is $\Delta P = (0.25 \pm 0.05)$ MPa

**Note: The pressostat is factory-set and should not be adjusted by the customer.**

6.6.6 Adjust the pressure control unit according to Section 7.3.1, if applicable.

### 6.7 Shutdown

**WARNING: NEVER SHUT DOWN THE COMPRESSOR BY SIMPLY UNPLUGGING IT FROM THE POWER SUPPLY!**
**Always use the appropriate switch or control method for a safe shutdown.**

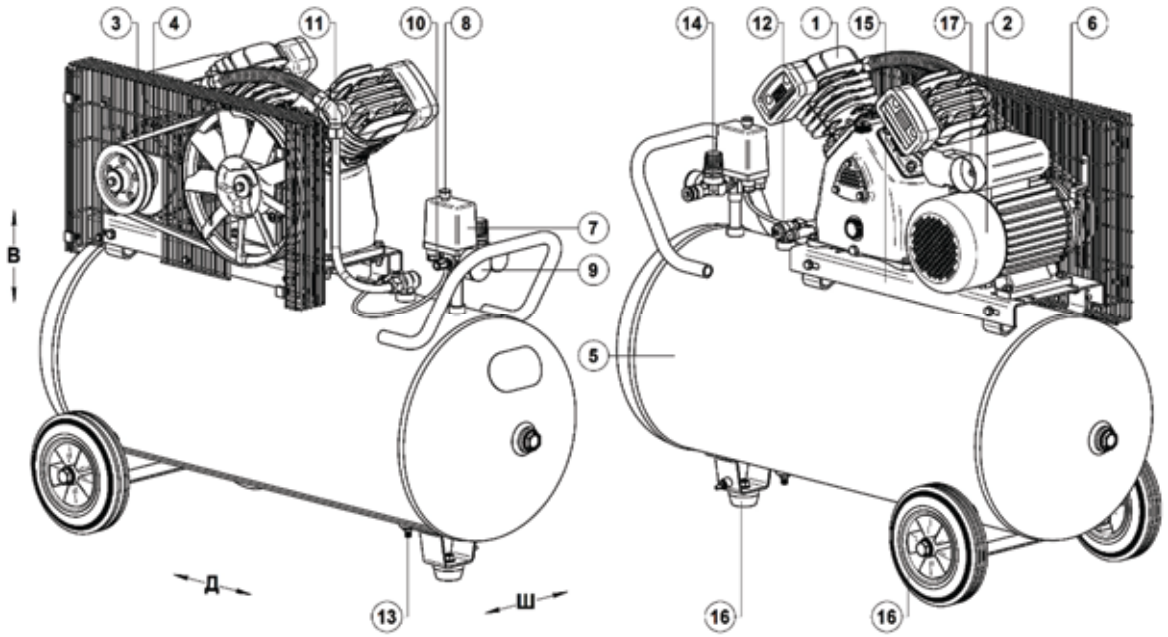
6.7.1 To safely stop the compressor, follow these steps:
Turn off the compressor using the pressure switch (pressostat):

1. Set the switch to the "O" or "OFF" position (depending on your model — see Figure 4).
   → This will stop the electric motor and release air pressure from the discharge pipe and piston barrel.
2. Depressurize the air receiver:
   Open the appropriate valve to allow the receiver pressure to drop to atmospheric level.
3. Disconnect the power supply:
   Either switch off the local power switch or unplug the compressor from the mains power source.

## 7 Features and Operation

### 7.1 Features

7.1.1 The general arrangement of the compressor is shown in Figures 6, 7, and 8. The main components are:




1 - Piston barrel, 2 - Electric motor, 3 – Pulley, 4 – Belt, 5 – Receiver, 6 - Safety guard, 7 – Pressostat, 8 – Switch, 9 – Gauge, 10 - Safety relief valve, 11 - Air pipe, 12 - Reverse valve, 13 - Condensate drain, 14 - Pressure control unit,
15 - Pressure control unit gauge, 17 - Shock absorbers and wheels

Figure 6 - Compressor WS3.0CI G general arrangement

1. **Piston Barrel** – Generates compressed air. The internal surfaces are lubricated via an oil-splashing method.
2. **Electric Motor** – Powers the piston barrel.
5. **Receiver** – Stores compressed air, minimizes pressure fluctuations, and collects condensate. It also serves as the structural base for mounting other compressor components.
6. **Safety Guards** – Prevent accidental contact with moving parts such as the V-belt drive.

7. **Pressostat** (Pressure Switch) – Automatically controls compressor startup and shutdown, maintaining receiver pressure within the preset range.
8. **Power Switch** – Manually starts and stops the compressor.
9. **Pressure Gauge** – Displays the air pressure inside the receiver.
10. **Safety Relief Valve** – Limits the maximum pressure in the receiver; factory-set to open at up to 10% above the rated delivery pressure.
12. **Check Valve (Reverse Valve)** – Allows compressed air to flow from the piston barrel into the receiver, preventing backflow.
13. **Condensate Drain** – Used to discharge water and oil condensate collected in the receiver.
14. **Pressure Control Unit** – Regulates outlet air pressure to meet the operating requirements of connected pneumatic tools and serves as an auxiliary control device.

### 7.2 Control, Operation and Safety Devices

7.2.1 The compressor is equipped with multiple control and safety features, including:

- Pressure Gauge – Monitors receiver air pressure
- Pressostat (Pressure Switch) – Controls automatic start/stop cycles
- Unloading Valve – Relieves pressure from the piston barrel when the motor is off
- Safety Relief Valve – Prevents receiver pressure from exceeding safe limits
- Overload Protection Device – Protects the electric motor from short circuits or phase failures

Note for WS3.0CI Models: The overload protection device is integrated directly into the electric motor.

### 7.3 Operation Procedure

7.3.1 Adjusting Pressure for Connected Pneumatic Devices. Use the pressure control unit (Figure 7) as follows:

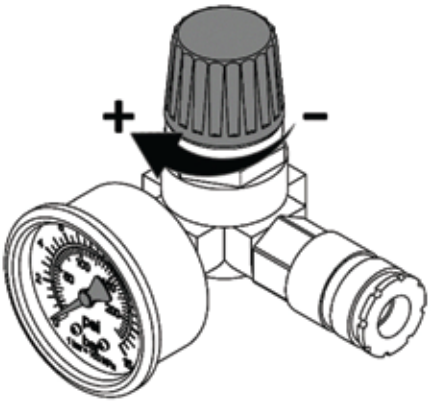



Figure 7

1. Connect the pneumatic device to the pressure control unit
2. Unlock the regulator by pulling the knob upwards
3. Adjust the pressure:
   - Turn the knob clockwise (+) to increase pressure
   - Turn the knob counterclockwise (–) to decrease pressure
4. Verify the pressure on the gauge
5. Lock the setting by pushing the knob back down

7.3.2 The compressor is fitted with overload protection device. The motor's overload protection will activate automatically in the event of power supply interruption or operation exceeding the allowed duty cycle (more than 60%) automatically actuate when the supply mains power is interrupted or when operating with a cyclic duration factor more than 60%.

To restart the WS3.0CI compressor after protection has been triggered:
1. Set the pressostat to the “O”/“OFF” position (see Figure 4)
2. Allow the motor to cool down to safe operating temperature
3. Press the reset button on the electric motor to re-enable the thermal protection
4. Switch the pressostat to “I”/“ON” (see Figure 5) to restart the compressor

**WARNING: WHEN VOLTAGE IN THE SUPPLY MAINS IS RECOVERED AFTER AN EMERGENCY SHUTDOWN, THE COMPRESSOR STARTS UP AUTOMATICALLY!**

**CAUTION: TO PREVENT MOTOR BREAKDOWN, NEVER INTERFERE WITH THE PROTECTION SYSTEM!**

## 8 Maintenance

8.1 Refer to this instruction manual and all applicable workplace safety regulations when performing any technical inspection or maintenance task.

**WARNING: BEFORE PERFORMING ANY MAINTENANCE, YOU MUST:**
- **DISCONNECT THE COMPRESSOR FROM THE MAIN POWER SUPPLY**
- **SHUT OFF THE AIR SYSTEM**
- **ENSURE THERE IS NO RESIDUAL PRESSURE IN THE AIR SYSTEM**

**WARNING: SOME COMPONENTS MAY REMAIN EXTREMELY HOT AFTER OPERATION! ALLOW THEM TO COOL BEFORE SERVICING.**

8.2 To ensure long-term, safe, and efficient operation, follow the maintenance schedule outlined in Table 4 and the instructions provided below.

Table 4

| Service intervals / Maintenance operations | Daily | First 8 hours | First 50 hours | First 100 hours or in a month | Every 100 hours or once a month | Every 300 hours or once a | Every 600 hours or every six | Every 1200 hours |
|---|---|---|---|---|---|---|---|---|
| Compressor visual inspection (8.2.12) | • | | | | | | | |
| Checking and adjusting the oil level (8.2.1, 8.2.2) | • | | | | | | | |
| Checking tightness of air duct connections (8.2.10) | • | | | | | | | |
| Draining condensate from the receiver (8.2.9) | • | | | | | | | |
| Cleaning the compressor from dust and dirt (8.2.13) | • | | | | | | | |
| Checking the tightening torque of the piston block cylinder head bolts (8.2.5) | | • | • | | | | | |
| Checking the belt tension (8.2.6) | | | • | | | • | | |
| Checking the air filter (filter element) (8.2.7) | | | | | • | | | |
| Oil change (8.2.3) | | | | • | | • | | |
| Checking the strength of fastening of the piston unit, electric motor, platform (8.2.11) | | | | | | • | | |
| Replacing the air filter (filter element) (8.2.8) | | | | | | | • | |

| Service intervals / Maintenance operations | Daily | First 8 hours | First 50 hours | First 100 hours or in a month | Every 100 hours or once a month | Every 300 hours or once a | Every 600 hours or every six | Every 1200 hours |
|---|---|---|---|---|---|---|---|---|
| Check valve maintenance (8.2.14) | | | | | | | | • |
| Visual inspection of electrical equipment (8.2.15) | | | | | | | • | |
| Control and tightening of terminal connections of power wires and control circuits (8.2.16) | | | | | | | • | |

8.2.1 Oil Level Inspection

- Check the oil level daily, and before each use.
- The oil level in the crankcase should be visible at the red mark on the sight glass.
- If oil is discoloured:
  - White = contains water
  - Dark = indicates overheating
  - → In either case, replace oil immediately (see Section 8.2.3)

Do not allow oil to leak from joints or spill onto the exterior of the compressor.

8.2.2 Adjusting the Oil Level

- Never mix oils of different types or specifications.
- Use only the oil type listed in the Proof of Acceptance and Packaging.

If oil level is low (see 8.2.1), follow these steps:

- Remove the oil fill cap from the top of the crankcase
- Add oil until the desired level is reached
- Replace and secure the oil fill cap

8.2.3 Oil Replacement Procedure

**WARNING: RISK OF BURNS – OIL CAN BE EXTREMELY HOT!**

Replace the oil after the first 100 hours of use, then every 300 hours thereafter.

Steps to replace oil:

1. Stop the compressor as described in Section 6.7
2. Wait until the oil cools to a temperature between 50°C and 80°C
3. Remove the oil fill cap on the upper side of the crankcase
4. Loosen the drain (relief) fitting at the bottom of the crankcase
5. Position a suitable container beneath the fitting and drain the oil completely

6. Secure the drain fitting once draining is complete
7. Refill with the recommended oil to the proper level (see Section 8.2.4 and Table 2 for volume)
8. Reinstall the oil fill cap
9. Dispose of used oil according to local environmental regulations

8.2.4 Oil Types

Recommended Oil Use compressor oils with a viscosity rating of 100 mm²/s at 40°C or oils with equivalent properties, such as:

| | |
|---|---|
| SHELL Corena S2 P 100;<br>Mobil Rarus 427;<br>ROSNEFT Compressor VDL 100; | TEXACO Compressor Oil EP VDL 100;<br>LUKOIL Ctabio 100;<br>Gazpromneft Compressor VDL-100. |

8.2.5 Cylinder Head Bolt Torque Check

- Perform torque checks after the first 8 hours, and again at 50 hours of operation.
- Tighten bolts only if needed, and only when the piston barrel is cooled to ambient temperature.

Table 5

| Thread Size | Min Torque | Max Torque |
|---|---|---|
| M6 | 9 Nm | 11 Nm |
| M8 | 22 Nm | 27 Nm |
| M10 | 45 Nm | 55 Nm |
| M12 | 76 Nm | 93 Nm |

8.2.6 Belt Tension Inspection and Adjustment

- Check belt tension after the first 50 hours and every 300 hours thereafter.
- Clean the belts during inspection.

  Incorrect tension causes performance issues and component wear.
- Too loose: Slipping, vibration, reduced efficiency, overheating
- Too tight: Bearing overload, premature wear, motor and piston overheating

Belt Tension Check Procedure:

1. Stop the compressor as per Section 6.7
2. Remove the safety guard
3. Apply a force of 20 N to the center of the belt span
4. Measure belt deflection (X) (Acceptable range: 5–6 mm)
5. If adjustment is needed:
    a. Loosen the bolts securing the electric motor to the platform
    b. Shift the motor to increase or decrease belt tension
    c. Ensure both motor and piston pulleys are aligned in the same plane
6. Secure the motor in place
7. Reinstall the safety guard

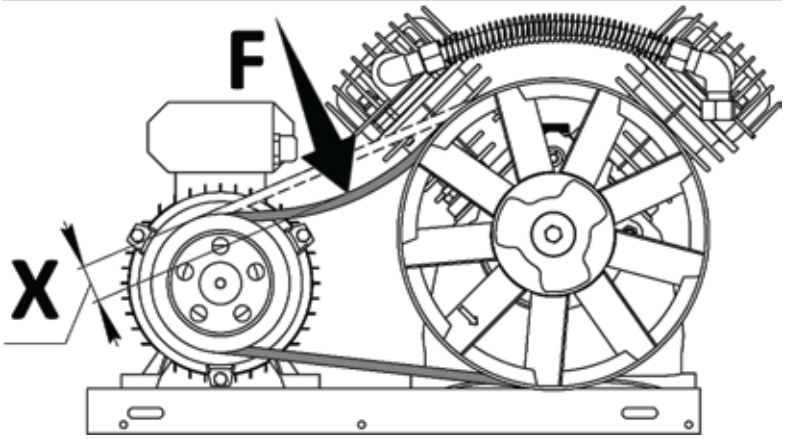


Figure 8

8.2.7 Suction Air Filter Inspection

Check the suction air filter (filter element) at least every 100 operating hours, or more frequently depending on working conditions.

- Clean or replace the filter element if dirty.
- A clogged filter reduces airflow, increases power consumption, shortens the compressor's service life, and can cause damage to the suction, discharge, or reverse valves.

8.2.8 Replacing the Suction Air Filter

Replace the suction air filter (filtering element) every 600 hours of operation or sooner if an external inspection reveals:

- Dirt buildup inside the filter, or
- A noticeable change in the filter's colour or condition

8.2.9 Condensate Discharge Procedure

Drain condensate from the receiver daily and after each use by following these steps:

1. Shut off the compressor
2. Decompress the receiver to 2–3 bar
3. Place a suitable drainage vessel under the condensate outlet
4. Loosen the drain screw and allow the condensate to fully discharge
5. Tighten the drain screw securely
6. Dispose of condensate in accordance with environmental protection regulations

8.2.10 Checking Air Line Connection Tightness

Perform a tightness check of all air line connections daily and before each use.

- Activate the compressor and allow the receiver pressure to reach 5–7 bar
- Listen for any signs of air leakage at the connections
- If leakage is detected, tighten the fittings accordingly

**WARNING: BEFORE TIGHTENING CONNECTIONS, ALWAYS DEPRESSURIZE THE RECEIVER TO ATMOSPHERIC PRESSURE.**

8.2.11 Holding Strength Inspection – Piston Barrel, Electric Motor, and Base Plate
Every 300 operating hours or every 3 months (whichever comes first), inspect the mounting strength of the piston barrel, electric motor, and base plate:

- Tighten bolts if necessary
- Ensure the pulleys of the electric motor & piston barrel are aligned in the same plane

8.2.12 External Inspection of the Compressor
Perform a daily visual inspection, and before each use, check: Power cable, Safety relief valve, Pressure gauge, Pressure switch (pressostat). Ensure: All components are free from visible damage, cracks, breaks, or deformities and the grounding is secure and intact

8.2.13 Cleaning Dust and Contamination
To maintain proper cooling:

- Daily, clean all outer surfaces of the piston barrel and electric motor
- Use only cotton or linen cloths to wipe off dust and debris
- Avoid using abrasive materials or compressed air

8.2.14 Reverse Valve Maintenance
Service the reverse valve every 1,200 hours of operation or once per year, whichever occurs first. To clean the valve and its seating:

1. Unscrew the hex head cover
2. Remove the valve body
3. Clean both the valve and seating surface
4. Reassemble the unit in reverse order

8.2.15 Regularly inspect the following electrical components for any signs of damage: Electric motor housing, Pressure switches, Power wiring & Terminal connections inside the motor terminal box

8.2.16 After 600 operating hours, inspect the tightness of terminal connections for both power and control circuits:

- If needed, re-tighten to 1.2 Nm torque
- Perform the tightening only after the motor has cooled to ambient temperature
- This prevents loosening or rotation of the terminal screws

8.3 After completing any maintenance tasks, reinstall all safety guards and protective covers. Follow the initial start-up warnings (see Section 6.6) before operating the compressor again

8.4 All maintenance procedures must be recorded in the Maintenance Registry (Appendix B, Form 1). Although filling out the Maintenance Record Sheet (Appendix B, Form 2) is not mandatory, it is recommended for:

- Quick reference and control of completed maintenance
- Statistical tracking of service history

The “Check-off” box on the Record Sheet corresponds to notes in the Registry. You may also include short remarks such as oil refill volumes or part replacements.

## 9 Troubleshooting and Remedies

Table 6

| Troubleshooting, the symptoms | Probable cause | Remedy |
|---|---|---|
| Insufficient performance of compressor | Fouling in air filter | Clean or replace filtering element |
| | Connection failure or damage of air pipes | Locate the air leakage, tighten fittings, replace the air pipe |
| | Belt slide because of insufficient tension or fouling | Tighten the belt, clean from fouling |
| Air leaks from the receiver to the air duct: “hissing noise” when the compressor is shut down pressure duct | Wearing of the reverse valve or foreign particles between the valve and the seat | Unscrew hexagon head, clean seat and valve |
| Compressor will shutdown while operating, motor overheats | Insufficient oil level in compressor crankcase | Check for oil quality and level, fill in if required |
| | Extended operation of compressor with cyclic duration factor [ ] more than 60%, maximum pressure and air consumption; motor protection will activate | Reduce load capacity on compressor by lowering air consumption, restart motor |
| Compressor will stop while operating | Feed circuit breakdown | Check feed circuit |
| Compressor vibrates while operating, motor unevenly droning. After restart, motor drones, compressor will not start up | No voltage in a phase of feed circuit | Check feed circuit |
| Surplus oil in compressed air and receiver | Oil level above normal in crankcase | Regulate level to normal |
| NOTE. If other issues emerge, contact your local authorised agent or the reseller. | | |

## 10 Transportation and Storage

**DO NOT STAND UNDER SUSPENDED LOADS!**

**WARNING: DO NOT PLACE THE COMPRESSOR ON PROTECTIVE GUARDS, THE PISTON BARREL, OR THE ELECTRIC MOTOR.**

### 10.1 Transportation

10.1.1 The compressor must be properly packaged for transport and may only be shipped using covered (roofed) trucks, railcars, or containers.

10.1.2 Loading and unloading must be performed in accordance with the shipping instructions printed on the packaging and must comply with all relevant workplace safety regulations.

10.1.3 Before lifting, transporting, or handling the compressor, ensure the following:

- Disconnect the unit completely from the power supply and air system.
- Decompress the air receiver to atmospheric pressure.
- Secure any movable or detachable components to prevent tipping or damage.
- Verify the compressor's weight and dimensions as specified in this manual.
- Use lifting equipment with adequate capacity and keep the lift height to a minimum.

**WARNING: When transporting the compressor with a forklift, it must be palletised. To prevent the equipment from falling, set the forks as far apart as possible for maximum stability.**

### 10.2 Storage

10.2.1 Store the compressor in its original manufacturer packaging and place it indoors, protected from environmental exposure. The storage environment must maintain:

A temperature range between –25°C and +50°C

A maximum relative humidity of 80% at 25°C

**CAUTION! Do not store the compressor in areas exposed to acid or alkali vapours, aggressive gases, or other corrosive contaminants.**

10.2.2 The compressor may be stored safely for up to 12 months without requiring additional preservation measures (re-conservation).

### 10.3 Disposal

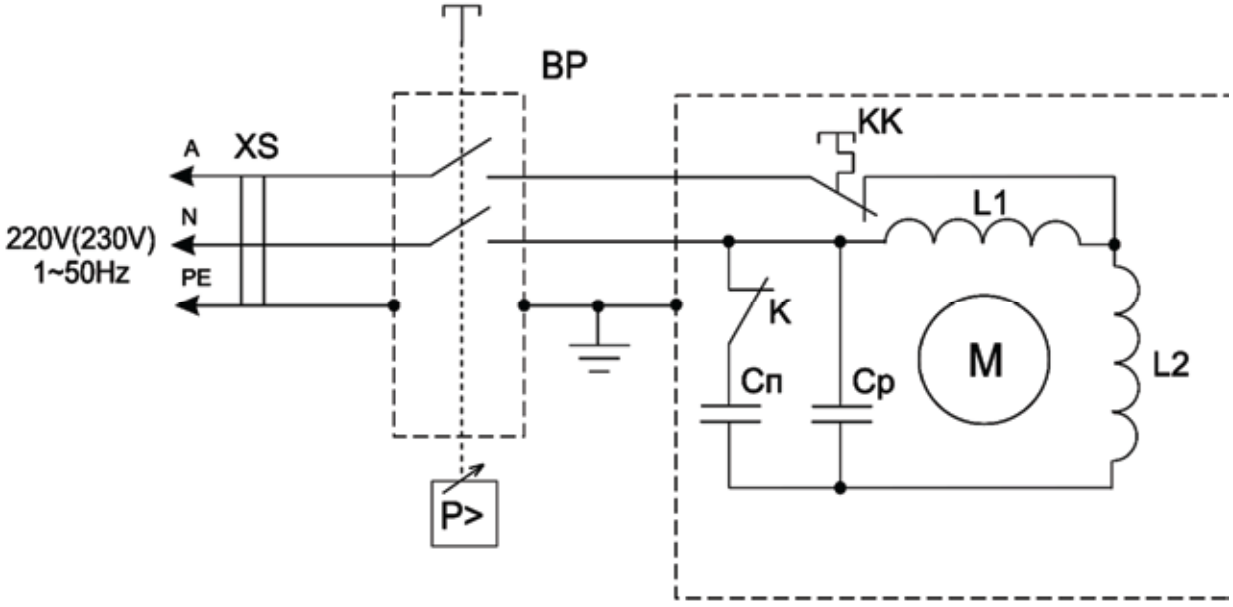
10.3.1 Used oils, filters, and condensate must be disposed of in accordance with local environmental protection regulations. Ensure all waste materials are handled and processed safely to avoid environmental contamination.

## 11 Main Fitments, Monitoring Instruments and Safety Devices

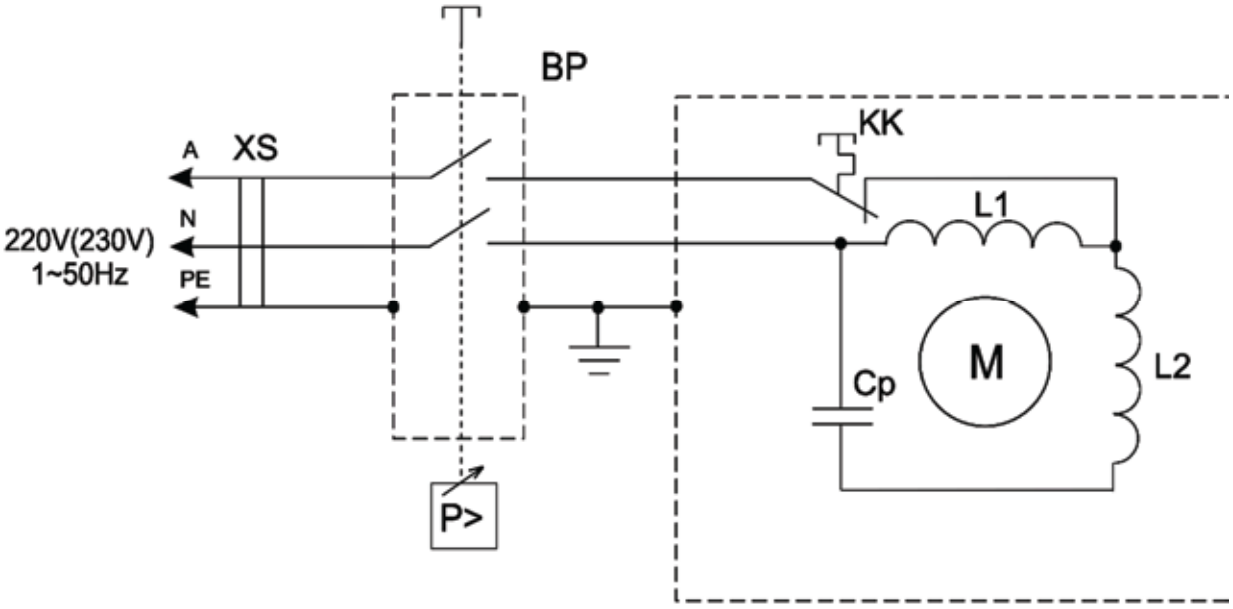
Table 7

| Name | Number, pcs. | Installation location | Nominal diameter, mm | Nominal anal pressure, MPa | Body material | |
|---|---|---|---|---|---|---|
| | | | | | Grade | Standard |
| WS3.0CI | | | | | | |
| Safety valve | 1 | Pressure switch | 6 | 1,1 | Brass | - |
| Pressure gauge | 1 | Pressure switch | - | 1,1 | Brass | - |
| Check valve | 1 | The receiver | 15 | 1,6 | Brass | - |
| Pressure switch | 1 | The receiver | - | 1,1 | Aluminum | - |
| Condensate drain tap | 1 | The receiver | 10 | 3,0 | Brass | - |
| Pressure regulator | 1 | The receiver | 6 | 1,6 | Aluminum | - |
| Quick-release coupling | 1 | Pressure regulator | 7,5 | 1,6 | Brass | - |

## Appendix A
## Electrical Circuits




For the execution of an electric motor with a starting capacitor




For electric motor design without starting capacitor

**BP** Pressure switch, 230V
**Cp** The capacitor is working
**Cп** Starting capacitor
**K** Centrifugal disconnector
**KK** Thermal relay
**M** Electric motor
**XS** Fork

Electrical schematic diagram of the compressor WS3.0CI

## Appendix B Servicing Records

Form 1
(recommended)

### Maintenance Registry

_____

(date)

1.

_____

(sequence No, maintenance procedure)

_____

_ _____ _____ _____

(job position) (signature) (name, surname)

Form 2
(recommended)

### Maintenance Record Sheet

| Procedures | Date | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Oil level adjustment | Check-off | | | | | | | | |
| Oil replacement | | | | | | | | | |
| Checking bolt torque in piston barrel | | | | | | | | | |
| Checking and adjustment of belt tension | | | | | | | | | |
| Checking and cleaning of sucking air filter | | | | | | | | | |
| Replacement of sucking air filter (filtering element) | | | | | | | | | |
| Checking holding strength of piston barrel, electric motor, base plate. Tightening fittings | | | | | | | | | |
| Other maintenance procedures | | | | | | | | | |

## WARRANTY

As part of an on-going commitment to excellence in product support, Euroquip offers a comprehensive product warranty program.

### 1. THIS WARRANTY:

The benefits provided to the consumer in this warranty are in addition to other rights and remedies of a consumer under the New Zealand Consumer Guarantees Act 1993 and any other laws in relation to the products to which this warranty relates. This warranty:

- Covers the product against faulty materials or workmanship; and
- Covers the replacement of parts, the repair labour used, a refund of the price of the product or replacement of the machine, or other compensation for the remainder of the warranty period.

This product warranty is only applicable to the original purchaser of the machine and only purchases made from Euroquip Authorized Retailers.

### 2) WARRANTY PERIODS:

### Commercial: 24 Months

*Or*

*1000 hours of operation – whichever occurs first.*

*Commercial Warranty applies to commercial or business use of the product: All uses other than domestic use, including use for income-producing (including farming) or rental purposes.*

*These Air Command Warranty periods are for products that are:

- Serviced by a Air Command Dealer in accordance with the Air Command service schedule, using genuine parts and the correct grade of oil (proof required)
- Meeting all other warranty requirements

**NOTE:** These warranty conditions apply to New Zealand only.

Euroquip warrants each new Air Command machine free from defect in material and workmanship under normal use and routine servicing, for the warranty periods specified. Conditional to the limitations and exclusions list below. The warranty period begins when the product is purchased by the end user. Warranty is not transferrable and is only claimable by the original purchaser.

Proof of purchase documentation with product serial number must be provided. If it has been lost and Euroquip does not have a record of the purchaser's details, the warranty period shall be calculated from the appropriate dealer wholesale sale date.

The purchaser must keep a record of all service and maintenance history as proof of servicing history. This may be requested when assessing any future warranty claims. The decision that an issue with a product qualifies as a warranty claim is made at the sole jurisdiction of Euroquip.

No costs incurred will be considered under warranty if repairs or maintenance are carried out by any party other than a Euroquip Approved Service Agent, unless with prior consent in writing from Euroquip.

It is the full responsibility of the purchaser to deliver the product under warranty to the nearest relevant service agent or product reseller. Warranty does not cover transportation costs including call outs, mileage and freight costs.

Customers are responsible for the care and cleaning of their product prior to sending it to our service centre. Any product being sent us must be thoroughly cleaned. Depending on what the product has come into contact with, it could pose an Occupational/ Work Health and Safety risk for our staff and or/service agents to inspect, repair or service a product that has come into contact with a hazardous substance. If we are asked to inspect, repair or service a product that has come into contact with a hazardous substance such as chemicals, asbestos or silica dust, we may not be able to inspect, service or repair the product. If this is the case, we will inform the purchaser and the product will be returned.

If a product is repaired under warranty, parts and labour required for the repair will be supplied at no charge. All defective parts replaced under warranty become property of Euroquip. Consumable items such as, but not limited to, oils, coolants, filter and spark plugs shall be the responsibility of the owner. Warranty assessment and repair will be scheduled and executed according to the normal work flow at the service location and depending on the availability of suitable replacement parts.

This warranty policy is an additional benefit and does not supersede the legal rights of any customer, reseller or service agent.

Should any issue be found to be a combination of a warranty failure and a non-warranty issue such as incorrect charging techniques, the repair cost component to rectify and repair the non-warranty failure is the **customer's** full responsibility.

## 3) EXCLUSIONS:

- Warranty does not cover parts that are subject to wear and tear from usage and/or damage which results from neglect of periodic maintenance.
- Evidence must be provided that the product has been maintained and serviced suitably for a claim to be considered under warranty.
- Batteries supplied with your product are warrantied against defect for 3 months and does not include lack of charge due to non-use. Consumable items such as, but not limited to, oils, coolants, filters, spark plugs and batteries shall be the responsibility of the purchaser.
- Failure caused by incorrect operation of the product as specified in the manual either intentionally or by error.
- Lack of proper care and maintenance of the product.
- Any damage which results from unavoidable natural disasters, fire, collision, theft, etc.
- Any normal wear or deterioration, such as that of sliding or rotating parts caused under normal operating conditions.
- Any damage that results from misuse or use beyond the imitations of the products intended purpose (such as overloading or use under abnormal conditions).
- External circumstances such as product deterioration or corrosion due to environmental conditions like heat, cold, salt spray , sand or due to the passage of time
- Normal phenomena such as noise, vibration or oil seepage which are considered by Euroquip as not affecting the quality, function or performance of the product.
- Any damage due to improper storage or transport.
- Consumable replacement items: Spark plugs, contact points, shear pins, fuel strainers, oil filter elements, air cleaner elements, brake shoes or pads, clutch components, fuses, motor brushes, gaskets, tube or hoses, belts, cutting blades, light bulbs, serviceable bearings. Petroleum and others fluids: Oil, grease, battery electrolyte, and radiator coolant. Other items specified by Euroquip.
- Periodical maintenance items such as cleaning, inspection and adjustments.
- Contaminated fuel
- Modifications or installations of other products to the product
- Damage that results from the use of non-genuine parts, lubricant or fluid not approved by Euroquip
- Any repair and/or adjustment to correct improper or poor quality work previously performed.
- Attempted repair/ service by a party other than an Approved Service Agent, or any repair undertaken prior to approval of warranty be Euroquip is not covered under warranty.
- Warranty does not cover pre delivery service and adjustment, or failure that may occur as a result of lack of/ incorrect pre delivery service and adjustment. Warranty does not cover any incidental, indirect or consequential loss, damage, personal injury, or expense that may result from any defect, failure, malfunction, or misuse of a product.
- Any product that is found to have come into contact with hazardous substances such as chemicals,asbestos or silica dust and NOT been industrially cleaned prior to servicing.

## 4) HOW TO CLAIM WARRANTY:

In the event you are faced with a manufacturing fault with your Air Command product, you can claim a repair or part replacement under warranty if the following conditions are fulfilled:

- The problem is related to production quality or specifications of the machine
- The machine is within the warranty period outlined in schedule
- The issue does not fall within the warranty exclusions listed

If the criteria above is met, and you would like to request a warranty, then please go online to https://www.euroquip.co.nz/Service-Request-End-User and log your warranty claim.


Congratulations on your new AIR COMMAND product. We are proud to have you as our customer and will strive to provide you with the best service and reliability in the industry. This product is backed by our extensive warranty and service network. To locate your nearest distributor or service agency visit www.euroquip.co.nz, or email us at customerservice@euroquip.co.nz