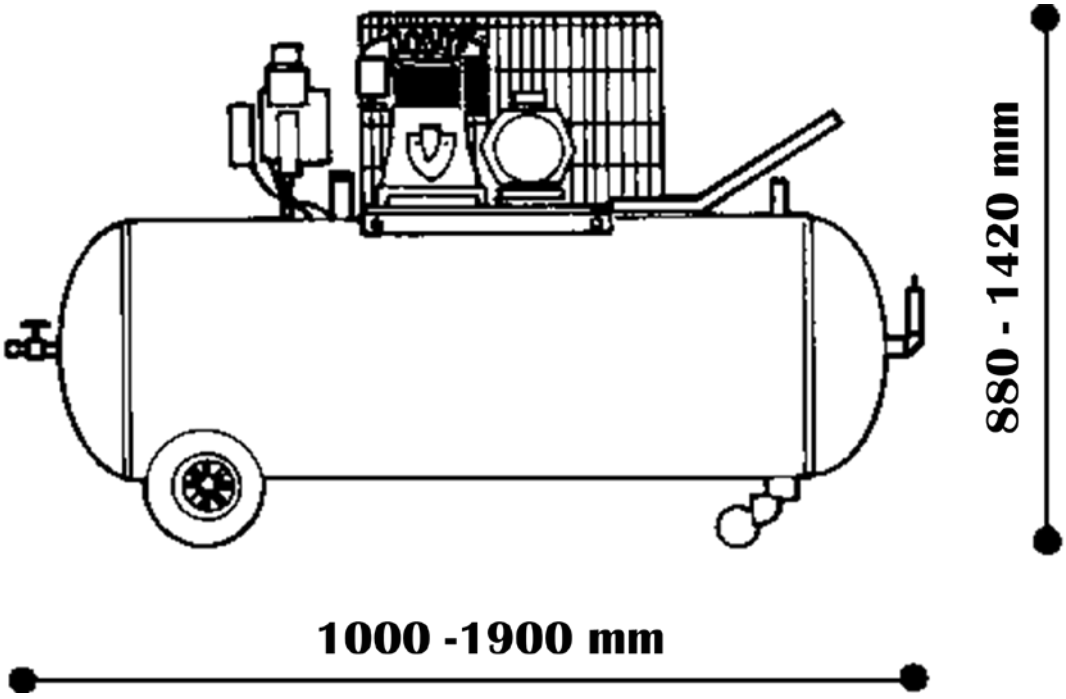
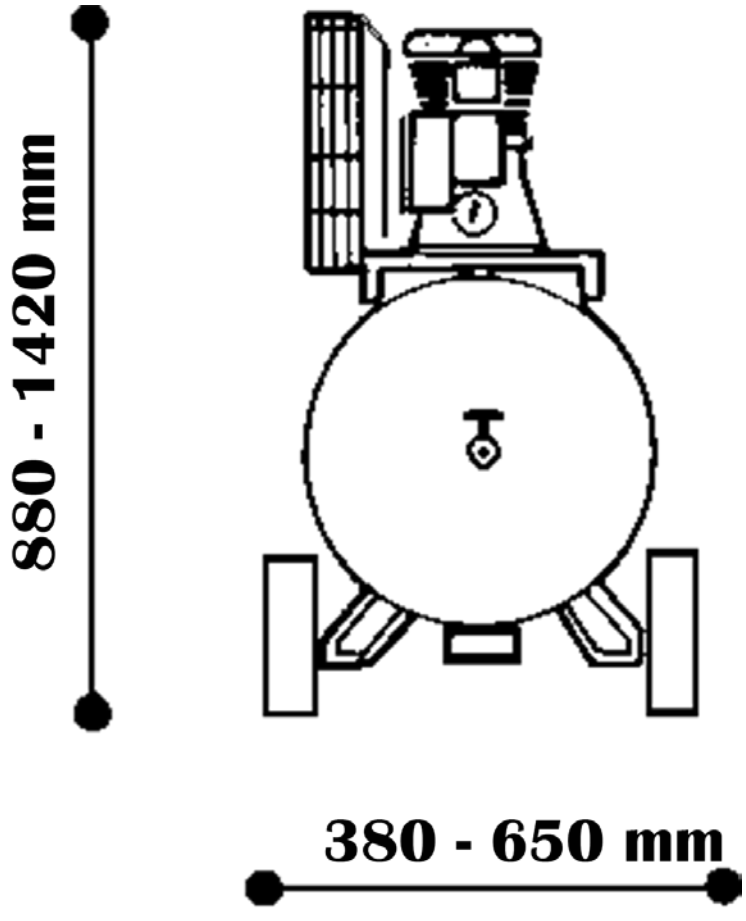
Compressor

User manual GB

04.2025


880 - 1420 mm
1000 -1900 mm


880 - 1420 mm
380 - 650 mm

CONTENT

GENERAL INFORMATION

Foreword

In the preparation of this manual, we have considered all operations and refer to normal and regular use of the compressor.
For proper and optimal use of the compressor, it is necessary to read and follow all instructions.
We recommend that this manual is always kept in good condition and stored in an easily accessible place near the compressor.
The compressor must only be operated by qualified and experienced personnel. We recommend that no repairs or interventions be performed unless specifically mentioned in the manual.

All repairs requiring the disassembly of compressor components must be carried out by an authorized technician. To ensure the efficiency and longevity of the compressor, we suggest using only original spare parts.

Warranty

The compressor is supplied with a warranty period of 36 months starting from the date on the purchase invoice.

This warranty only covers manufacturing defects in accordance with applicable Danish legislation, excluding wear parts and electrical components. If the compressor is used incorrectly or modified in any way, the warranty is immediately void.

If the compressor needs to be returned, even if under warranty, this must be done at the customer's own expense.
The warranty is not valid without a purchase invoice, or if the date on the invoice is more than 36 months old.

Compressor Identification

The compressor is identified via the label on the side of the motor plate (Fig1).

Fig1

Contacting the supplier

For any written or verbal contact with the dealer, it is necessary to provide the following information to enable precise identification of the compressor and its issue:

1. Type, model, and serial number of the compressor (found on the nameplate in Fig. 1)
2. Voltage and frequency of the compressor (found on the nameplate in Fig. 1)
3. Name of the dealer where the compressor was purchased (see receipt/invoice)
4. Date of purchase (receipt/invoice must be available)
5. Description of the fault
6. Approximate number of working hours per day the compressor is active

Please direct inquiries to:
Nexion Northern Europe A/S
Barrit Langgade 188-190
7150 Barrit
Phone: +45 76 82 12 22
Email: salgdk@stenhoj.dk

DESCRIPTION OF THE COMPRESSOR AND SPECS

Intended use of the compressor

The compressor has been developed and manufactured for the purpose of producing compressed air. The compressor must be used in appropriate surroundings (well-ventilated, temperature between +5°C and +35°C), and never in the presence of dust, acids, vapors, explosive or flammable gases.

Personnel responsible for the compressor must, after sufficient training in use and maintenance, meet the minimum age requirement as specified by the laws of the country where the compressor is used. Personal protective equipment must be used, and all safety measures mentioned in this manual must be followed. Additional protective measures may be required depending on working conditions and the workplace.

Modifications and safety

Using a compressor always involves compliance with some basic safety rules:

- Do not touch the machine with bare feet, or with wet hands or feet (risk of electric shock).
- Do not pull the power cable to unplug it or move the compressor (risk of electric hazard).
- Do not expose the compressor to direct rain, sunlight, fog, or frost. If installed outdoors, it must at a minimum be placed under a shelter and fitted with an automatic water drain.
- Do not allow untrained individuals to use the compressor without proper supervision.
- Do not perform welding or mechanical work on the tank. In case of defects or corrosion, the tank must be replaced. For technical inspections, follow local regulations.
- The use of compressed air for various intended applications (inflation, pneumatic tools, painting, cleaning with detergents or water-based solutions, etc.) requires knowledge of and compliance with applicable regulations. Maintain a minimum distance of 6 meters between the compressor and the work area to avoid damage caused by materials used during operation.
- The compressed air produced by the compressor, without additional treatment, is not suitable for pharmaceutical, food-grade, or sanitary use (due to oil content: 76 mg/m³). The compressor is not suitable for filling diving tanks.
- Never loosen any connections to the tank while it is under pressure: always make sure the tank is empty.
- Never carry out repairs or maintenance on the compressor without first unplugging it from the power supply.
- Operating temperature range: +5°C to +35°C.
- Do not direct air jets or flammable liquids toward the compressor.
- Do not place flammable objects near the compressor.
- Set the pressure switch to “0” (off) during work intervals.
- Never blow compressed air toward people or animals.
- Do not transport the compressor with the tank under pressure.
- Keep children and animals away from the working area of the compressor.
- As it is strictly designed for air compression, the compressor must not be used with other types of gases.
- The machine must not be used in explosive environments.

Finally, please note that to ensure optimal durability and a long service life, any piston compressor should be used at no more than approximately 50% of its maximum capacity.

Restrictions

Special care must be taken while the compressor is operating, as the motor head, cooling pipes, and check valve become hot and can cause severe burns upon contact (see Fig. 2).

Likewise, moving parts (belt pulley and flywheel) can cause serious accidents.
Pay close attention to all of this and do not remove any installed safety guards.

Personal Protection

The use of compressed air requires safety goggles, which are essential for protecting your eyes from foreign objects carried by the air jet.

Protect your nose and mouth with a mask if you are using the compressor for painting.
In such cases, do not work in enclosed spaces or near open flames, and make sure the room is well-ventilated.

Noise measurements

The noise level measured at a free distance of 1 meter is stated in the table below (with a tolerance of ±3 dB(A)).

Itemnr.	**Hk (kW)**	**dB (A)**
0530000	4,0 hk (3,0 kW)	65 dB
0530001	5,5 hk (4,0 kW)	77 dB
0530002	5,5 hk (4,0 kW)	65 dB
0530003	7,5 hk (5,5 kW)	67 dB
0530004	7,5 hk (5,5 kW)	77 dB
0530005	10 hk (7,5 kW)	82 dB
0530006	10 hk (7,5 kW)	85 dB
0530007	5,5 hk (4,0 kW)	78 dB
0530010	5,5 hk (4,0 kW)	66 dB

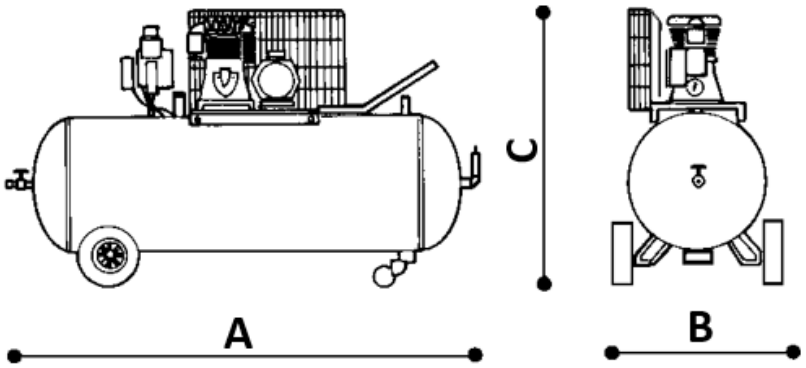
Expected lifespan of the compressor

Under normal working and maintenance conditions, the expected lifespan of the compressor is approximately 10 years.

Disposal of the compressor

Once the compressor has completed its operational life, it can be disposed of at a standard industrial recycling facility.

Dimensions



	A	B	C
90 liter (3 kW) - 0530000	1000 mm	380 mm	880 mm
90 liter (4 kW) - 0530001	1000 mm	520 mm	880 mm
90+90 liter (4 kW) - 0530002	1000 mm	750 mm	1130 mm
90+90 liter (5,5 kW) - 0530003	1000 mm	750 mm	1130 mm
500 liter (5,5 kW) - 0530004	1900 mm	620 mm	1170 mm
500 liter (7,5 kW) - 0530005	1900 mm	650 mm	1420 mm
500 liter (7,5 kW) - 0530006	1900 mm	650 mm	1420 mm
270 liter (4,0 kW) - 0530007	1600 mm	560 mm	1240 mm
90+90 liter (5,5 kW) - 0530010	1100 mm	740 mm	920 mm

Technical specifications

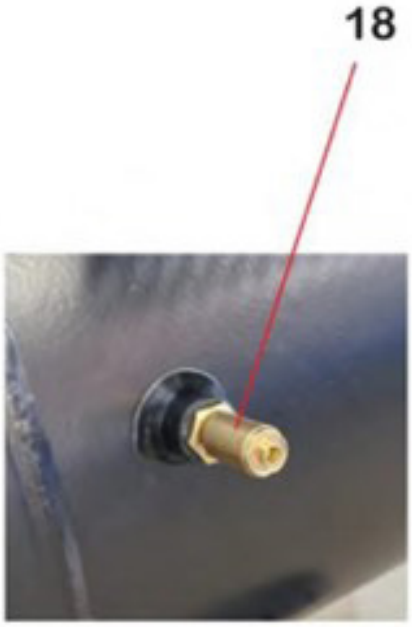
	Tank Capacity	Intake Air (l/min)	Output Air (l/min)	RPM	HP	kW	Bar	Weight	dB(A)
90/40SW 0530000	90 liter	474 L/min	302 L/min	632 rpm.	4,0	3,0	10	115 Kg.	77 dB (A)
90/55SW 0530001	90 liter	672 L/min	436 L/min	913 rpm.	5,5	4,0	10	130 Kg.	65 dB (A)
90+90/55SW 0530002	90+90 liter	700 L/min	450 L/min	575 rpm.	5,5	4,0	10	180 Kg.	65 dB (A)
90+90/75SW 0530003	90+90 liter	966 L/min	561 L/min	900 rpm.	7,5	5,5	10	200 Kg.	67 dB (A)
500/75SW 0530004	500 liter	966 L/min	586 L/min	789 rpm.	7,5	5,5	10	280 Kg.	77 dB (A)
500/100SW 0530005	500 liter	1275 L/min	1050L/min	691 rpm.	10	7,5	10	280 Kg.	82 dB (A)
500/100SW 0530006	500 liter	850 L/min	665 L/min	691 rpm.	10	7,5	15	285 Kg.	85 dB (A)
270/55SW 0530007	270 liter	452 L/min	365 L/min	725 rpm.	5,5	4,0	15	195 Kg.	78 dB (A)
90+90/55SW 0530010	90+90 liter	672 L/min	436 L/min	913 omdr.	5,5	4,0	10	180 Kg.	66 dB (A)

Included parts

The compressor is delivered ready for use and comes with: Power cable (including CE plug with phase inverter), Ball valve, User manual, Compressors delivered with 2 x 90-liter tanks also include a mounted automatic water separator.

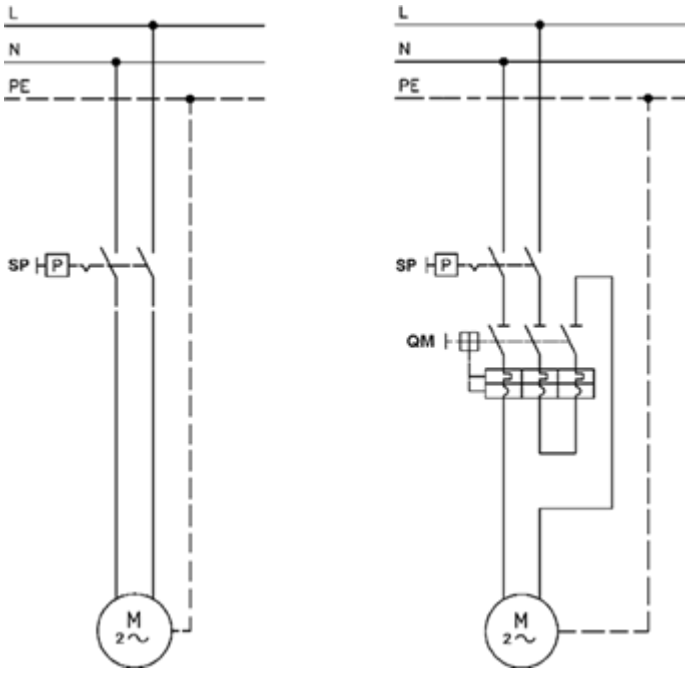
Description of Compressor Parts

1. Front wheel
2. Air tank
3. Tank pressure gauge
4. Handle
5. Pressure switch
6. ON / OFF switch
7. Electric motor
8. Protective grille
9. Air filter
10. Oil level inspection
11. Oil filling
12. Oil drainage
13. Compressor block
14. Check valve
15. Nameplate
16. Connection fitting
17. Rear wheel
18. Safety valve (Located at the back of the compressor)

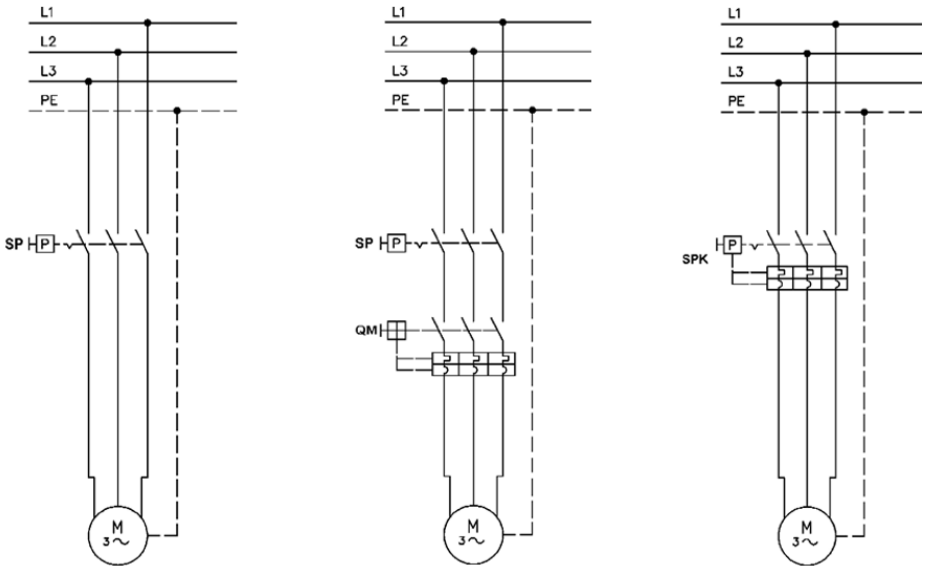


WIRING DIAGRAM

Wiring Diagram for Single-Phase Models (with/without overload protector)



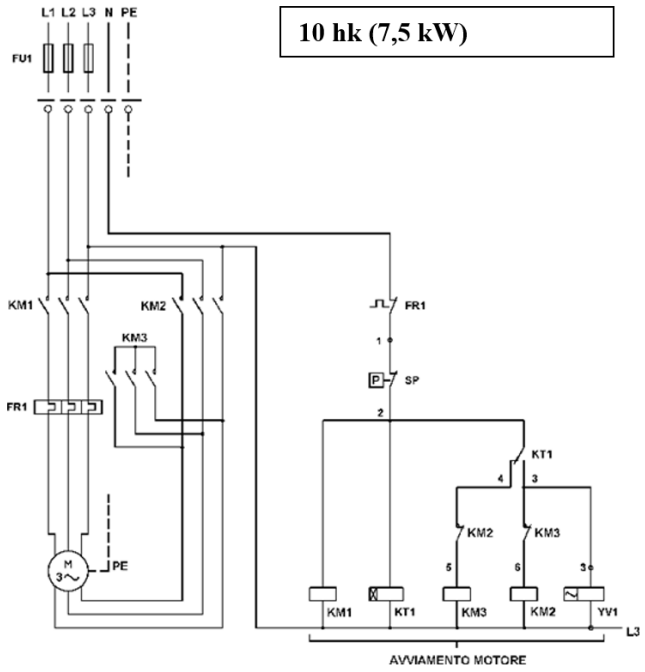
Wiring Diagram for Three-Phase Models (Overload protection or pressure switch)



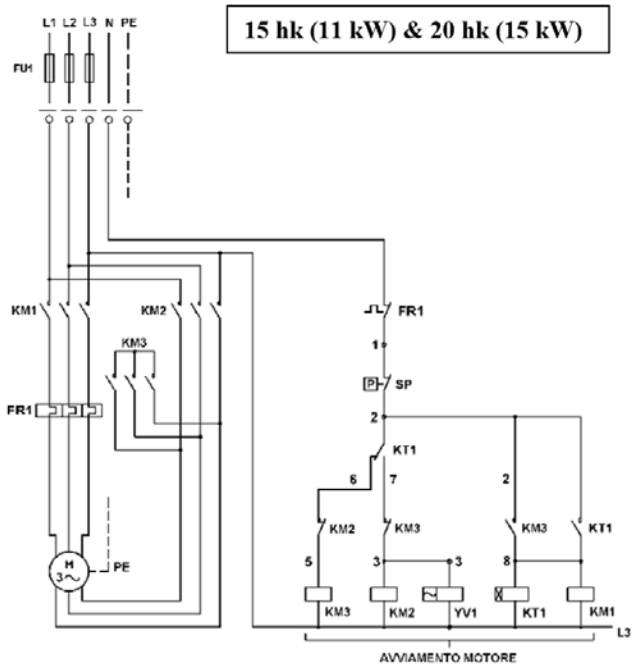
GM	Thermal breaker
SP	Air pressure switch
PE	Ground connector
SPK	Remote-controlled pressure switch

Wiring Diagram for Star/Delta Models

10 hk (7,5 kW)

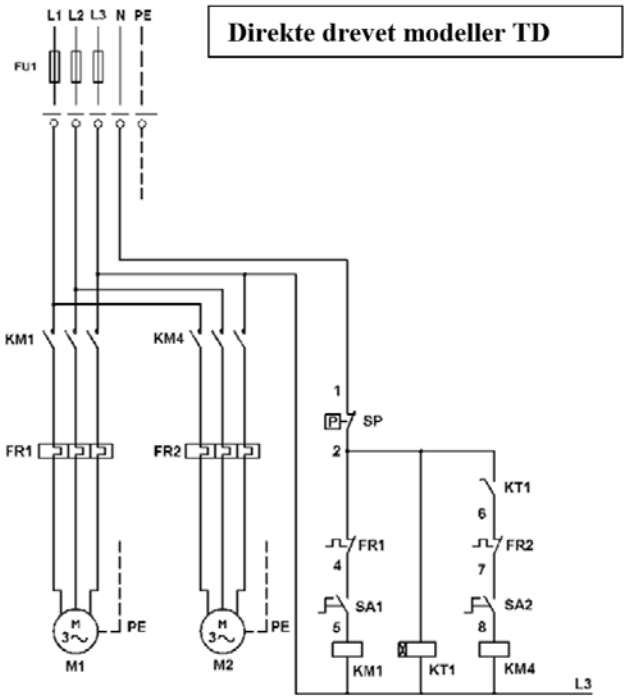


15 hk (11 kW) & 20 hk (15 kW)

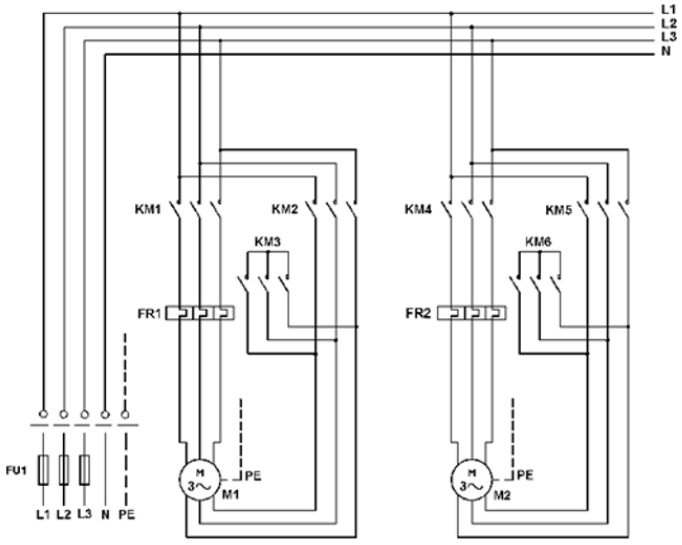


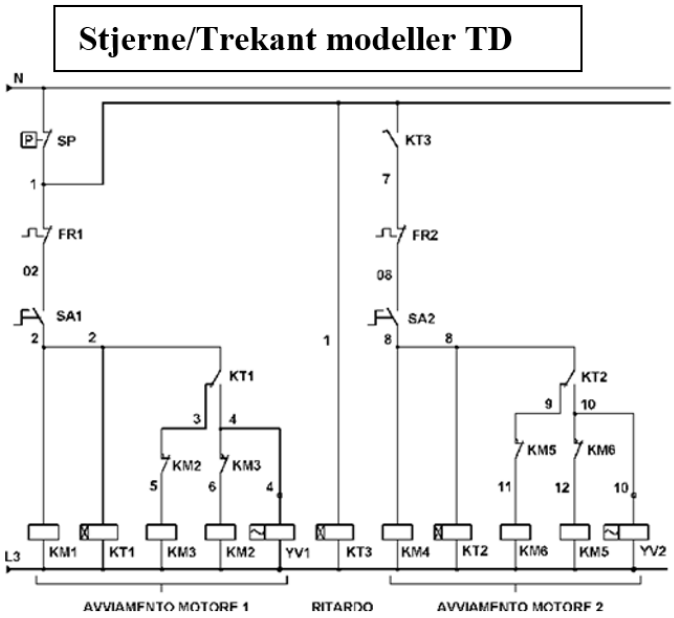
FR1	Thermal relay
YV1	Electronic valve
SP	Pressure switch
KT1	Timer
PR	Ground
KM1	Phase connector
KM2	Delta connector
KM3	Star connector
FU1	Fuses

Wiring Diagram for TD Models



SA	Selector switch
FR	Thermal relay
YV	Electronic valve
SP	Pressure switch
KT	Timer
PE	Ground (Earth)
KM1/4	Phase connector
KM2/5	Delta connector
KM3/6	Star connector
M1	Motor 1
M2	Motor 2
FU1	Fuses





INSTALLATION

Unloading the Compressor

Given their relatively low weight, the compressors can be lifted manually and then moved using the wheels with which they are equipped.
If the wheels are not mounted, follow the diagram in Fig. 3.

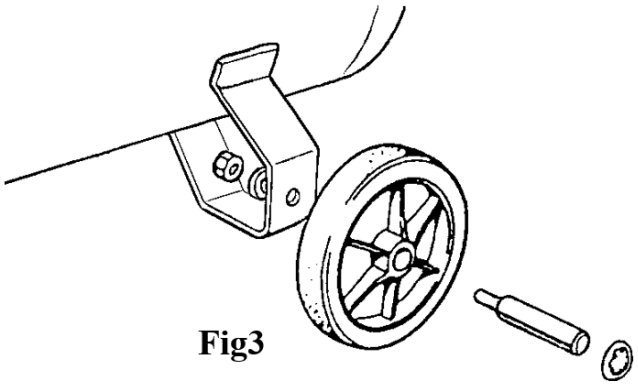


Fig3

For compressors with fixed feet, they are delivered on a base suitable for transport by forklift or pallet jack (Fig. 4).

The weight of the unit can be found in the technical data table, depending on the model.

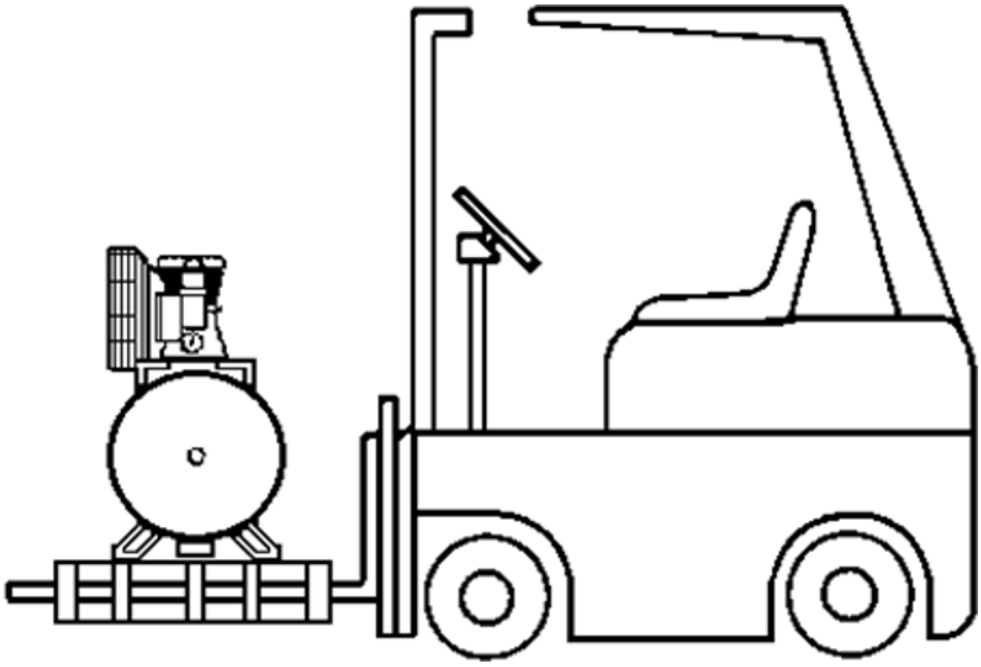


Fig4

Placing the compressor

The compressor must be placed on a sufficiently thick and level floor.
If the compressor has fixed feet, rubber pads should be placed between the feet and the floor to absorb vibrations.
If you need to install the compressor at a higher position (e.g., on a shelf or bracket), don’t forget to factor in the additional weight of possible condensate in the tank, in addition to the compressor’s own weight (see the table), which corresponds to the volume of the tank.

The compressor must be installed with a minimum clearance of 500 mm around all sides and at least 1,000 mm of free space above it.

USING THE COMPRESSOR

Before using the compressor, a few initial inspections are necessary:

- Install the intake filter on the compressor if it is not already installed.
- Install the valves and safety valve by simply screwing them into place. (Remember to use thread tape, if needed.)
- Check the oil level through the transparent inspection glass or using the dipstick.
- Ensure that the mains voltage matches the value shown on the nameplate (Fig. 1); the acceptable tolerance is ±5%.
- If the compressor does not come with an electrical plug, connect a suitable plug to the cable extending from the pressure switch. It must be appropriate and proportional to the motor's power consumption according to the table.
- Any extension cord must have a cross-section proportional to its length, with a maximum length of 20 m. See the table for reference.

Motor Power hp (kW)	Bar	Max Load (A)	Cable Size (mm²)	Fuse Rating (A)
4,0 hk (3,0 kW)	10	6,2 A	4x2,5 mm²	16 A
5,5 hk (4,0 kW)	10	8,5 A	4x2,5 mm²	20 A
5,5 hk (4,0 kW)	15	7,5 A	4x2,5 mm²	15 A
7,5 hk (5,5 kW)	10	11,7 A	4x2,5 mm²	20 A
10 hk (7,5 kW)	10	15 A	4x2,5 mm²	35 A
10 hk (7,5 kW)	15	15 A	4x2,5 mm²	35 A

Starting and stopping the compressor

Lower the pressure switch button to the "Off" position (Fig5), insert the plug into the socket (Fig6), and start the compressor by lifting the pressure switch button to the "AUTO" position (Fig5).

The first time a 3-phase compressor is turned on, you must check its direction of rotation by looking at the arrow on the motor cooling flywheel (Fig6). If this is not the case, you must reverse the phases. You do this by unplugging the unit and turning the contact in the CE plug a 1/2 turn using a screwdriver (Fig6).

The fan operates fully automatically: it is controlled by the pressure switch, which stops it when the pressure inside the tank has reached its max. level and starts it again when it falls below the min. level.

Before you begin working, let the compressor warm up for a few minutes with the air valve fully open: this will allow good distribution of lubrication.
During the first 5 working hours, check whether the main screw is tight.

To stop the compressor, turn the pressure switch button to the "OFF" position.

Fig5

Fig6

Adjustment of the compressed air regulator

It is not permitted to adjust the factory-set regulator, but it is possible to purchase a regulator by which the pressure can be reduced if using tools that operate at lower pressure than 10 Bar.

MAINTENANCE

The compressor in its standard version is equipped with all mechanical and electrical guards to ensure operator safety. In particular, it is fitted with a safety valve that releases excess air in the tank in the event of unauthorized tampering with the pressure switch. For outputs above 4 HP, the motor is protected by a thermomagnetic overload switch.

Draining condensation water

Drain the condensation water from the tank at least once a week by opening the drain valve (Fig7) under the tank. Bradbury by Stenhøj compressor systems with 2 x 90-liter tanks are supplied as standard with an automatic water drain.

We strongly recommend purchasing and installing an automatic water drain on models that do not have this as standard (Item no. 740111)

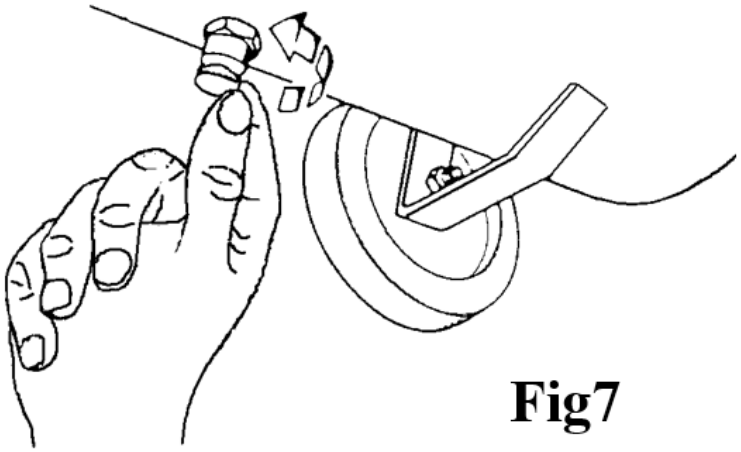


Fig7

Maintenance of the air filter

Every 50 working hours, remove the intake filter and clean the filter element by blowing compressed air in the opposite direction to the normal intake flow (from the inside of the element outwards). The filter should be replaced every 500 working hours (Item no. 0531671, 2 pcs. required).

SAFETY

Oil Change and Refill

After the first 50 working hours, the oil must be completely replaced.
Thereafter, every 200 hours or annually, whichever comes first.
Drain the oil and refill with Stenhøj Compressor Oil VG 68 - Summit PS200 950ml (Item no. 341246).

Pour the oil through the filler on the lid until the level indicated below is reached.

The oil level must not be below the minimum and must not exceed the maximum. Check the oil level weekly and refill if necessary.

Tensioning the V-belt

The belt drive requires thorough cleaning and precise tensioning.
If the tension is too low, the belt slips on the pulley, which heats up and reduces the compressor's productivity.
If it is too high, the load on the bearings becomes excessive, reducing their lifespan and causing the motor to overheat.

The tension can be considered correct if pressing a finger on the midsection gives a deflection of approx. 0.8 – 1.0 cm (Fig8).

Once a month, it is necessary to check whether the belt is correctly tensioned. If adjustment is needed, proceed as follows (Fig9):

- Unlock the safety guard by pressing the plastic stoppers (1)
- Remove the movable safety guard (2)
- Loosen the motor mounting screws (3)
- Push the motor until the correct tension is achieved
- Tighten the motor mounting screws (3)

Fig8

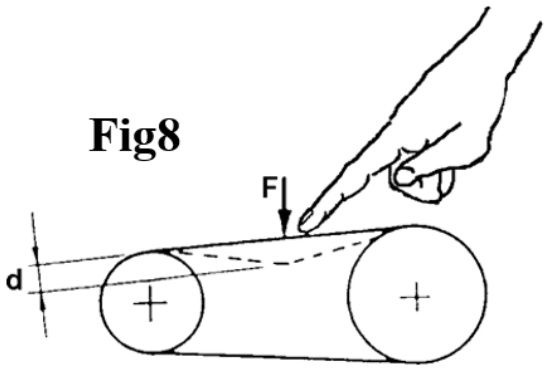
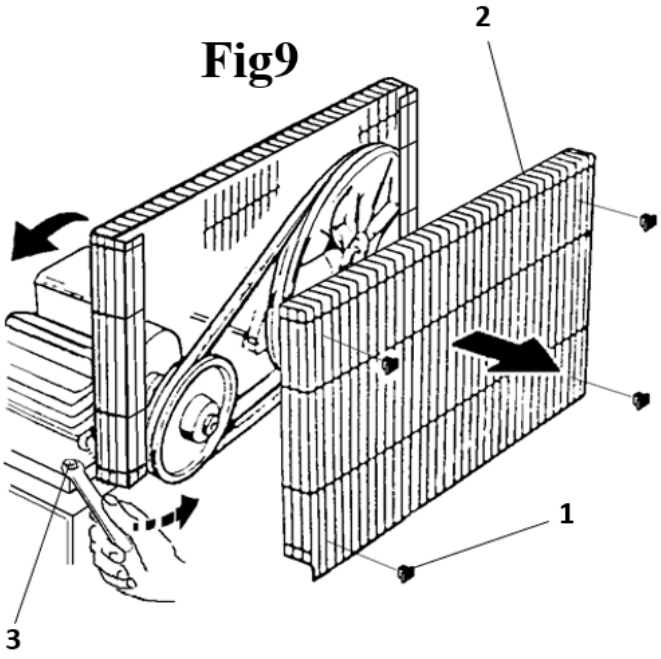


Fig9



Reattach the movable safety guard (2) properly (Fig. 7-5)
— this step is essential for the operator's safety.

Special precautions

If the compressor is not used for more than a few days, the tank must be drained of condensation water.
Do not transport the tank while it is under pressure.

Maintenance summary

The following table summarizes all the cleaning, inspection, and maintenance operations that must be carried out to ensure a longer service life for the compressor.
The periodic intervals refer to average heavy-duty environmental working conditions.

Cleaning	**50 Hours**	**250 Hours**	**500 Hours**	**1000 Hours**
Intake filter	√			
General cleaning				√
Inspection / Check	**50 Hours**	**250 Hours**	**500 Hours**	**1000 Hours**
Oil level	√			
V-belt tension		√		
Oil leakage		√		
Adjustment		√		
Retightening of pipes			√	
Electrical connections				√
Safety valve				√
Replacement	**50 Hours**	**250 Hours**	**500 Hours**	**1000 Hours**
Intake filter			√	
Drain valve	√			
Oil replacement			√	

OPERATING DISTURBANCES

Each compressor is assembled and carefully tested at the factory before shipment, but in rare cases, faults may occur or the unit may experience operational disturbances or failures. In any case, the following table shows the main causes of possible problems and the means of finding a solution.

Fault	Possible Cause	Solution
Incorrect direction of rotation	Phase wiring is reversed	Swap two phases in the power plug
The compressor starts or stops during operation without an obvious reason	• Voltage too low • Thermal fuse has tripped	• Check the plug • Check if the compressor is locked and then press the reset button • Call an electrician
Compressor motor is overheating	• Incorrect rotation direction • Insufficient cooling	• See above • Clean the cooling air ducts and improve ambient conditions
Frequent starts. Drop in productivity.	• Excessive air consumption • Air filters are clogged • Leaks in seals • V-belt slipping • Valve failure	• Reduce air consumption • Clean the intake filter • Tighten or replace the V-belt • Call a technician
Air leakage from the pressure switch or solenoid valve	Non-return valve is worn or membrane is dirty and leaking	Unscrew the hexagonal head (A). Clean or replace the rubber disc (B). Carefully reassemble (Fig10)
Compressor keeps drawing air but pressure does not increase	The pipe connecting the valve to the pressure switch overheats and comes loose	Call a technician

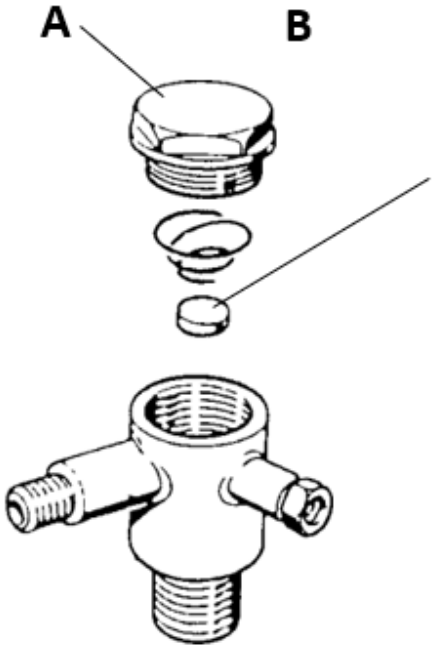


Fig10

Contact for service technician:

Nexion Northern Europe A/S
Barrit Langgade 188-190
7150 Barrit
Phone: +45 76 82 12 22 (Press 2 for the service)
Email: servicedanmark@stenhoj.dk

SPAREPARTS

Follow the instructions below carefully to ensure fast dispatch of spare parts:

1. Provide the compressor's serial number (must be read on the identification plate)
2. Specify the part number referring to the desired spare parts
3. State the required quantity
4. Specify the shipping method
5. Provide your exact address

Nr	Description	Item no.	Description
1	Oil sight glass	0531440	Sight glass with O-ring
2	Oil filling	0531370 0531400	Filling plug O-ring for filling plug
3	Oil drainage	0531240	Drain plug
4	Drive belt	0531673 0531674 0531675	A48 for 90/40SW and 90/55SW A56 for 90+90/55SW A57 for 90+90/75SW
5	Air filter	0531670 0531671	Air filter housing incl. filter element (1 pc.) Air filter element (1 pc.)
6	Non-return valve	332135 0531672	Non-return valve 1" x 1" Piston for non-return valve 1"
7	Safety valve	214792 332126	3/8" for 90/40SW and 90/55SW 1/4" for 90+90/55SW and 90+90/75SW

by STENHØJ BRADBURY

The manufacturer reserves the right to modify the products without prior notice to the buyer.