OIL- FREE

AIR FOR LIFE

DK50 DS

INSTRUCTIONS FOR USE

EN

CE 0434

ekom®

CONTENTS

1. GENERAL INFORMATION

PURPOSE

The EKOM DK50 DS is a medical air compressor that supplies clean, oil-free compressed air for use with medical ventilators.

OPERATOR'S RESPONSIBILITY FOR PATIENT SAFETY

The Installation, Operation and Maintenance Manual is an integral part of the equipment and must be kept with the compressor. Careful review of this manual will provide information necessary for correct operation of the equipment.

Rx only
US Federal law restricts the sale of this device by or on the order of a physician.

MARKINGS

Products marked with the CE mark of compliance meet the safety requirements of the European Union (93/42/EEC).

WARNINGS

- The safety of operating personnel and trouble-free operation of the equipment are ensured only if original parts are used. Only accessories and spare parts mentioned in the technical documentation or expressly approved by the manufacturer can be used.
- If any other accessories or consumable materials are used, the manufacturer cannot be held responsible for the safe operation and functionality of the equipment.
- The warranty does not cover damages resulting from the use of accessories or consumable materials other than those recommended by the manufacturer.
- The manufacturer assumes responsibility for the safety, reliability and function of the equipment only if:

  - Installation, calibration, amendments, extensions and repairs are performed by the manufacturer, one of its representatives or a service provider authorized by the manufacturer

  - The equipment is used in accordance with the Installation, Operation and Maintenance Manual
- The Installation, Operation and Maintenance Manual accurately describes the design of the compressor and its compliance with safety and technical standards. The manufacturer reserves all rights to its wiring diagrams, procedures and names.

General safety warnings

The equipment is designed to operate safely when used correctly. Please note the following safety measures to avoid injury or damage.

- Equipment operation must comply with all local codes and regulations.
- Original packaging should be kept for the possible return of the unit. Only original packaging ensures optimal protection of the equipment during transport. If it is necessary to return the equipment during the warranty period, the manufacturer is not liable for damages caused by incorrect packaging.
- The user must immediately notify the supplier if any problem occurs during the use of the equipment.
- This product is not intended for use in areas where there is a risk of an explosion. Do not operate the compressor in the presence of flammable anesthetics.
- Never feed oxygen or nitrous oxide into the compressor. Compressor components are not approved for oxygen or nitrous oxide use.

Electrical system safety warnings

- The equipment must be connected to ground. I order to assure proper grounding, connect the compressor to a receptacle marked "hospital grade."
- Before the compressor is plugged in, make sure that the voltage and frequency of the mains specified on the equipment are the same as the power mains.
- Before operating, check for possible damage to the equipment and any connections. Damaged pneumatic and electrical lines must be replaced immediately.
- If a technical failure occurs, immediately disconnect the equipment from the mains (pull out the main power plug).
- During repairs and maintenance, ensure that:
  - The main power plug is removed from the power socket
  - Compressed air lines are disconnected
  - All pressure has been released from the air tank
- Only a qualified technician can install this equipment.

WARNING NOTICES AND SYMBOLS

The following symbols are used for important information in the Installation, Operation and Maintenance Manual and on packaging and the product:


Attention, see instructions for use


Caution, risk of electric shock


Consult instructions for use


CE mark of compliance


Caution, hot surface


Handling mark on package – FRAGILE


Handling mark on package – THIS SIDE UP


Handling mark on package – KEEP DRY


Handling mark on package – TEMPERATURE LIMITATIONS


Handling mark on package – LIMITED STACKING


Mark on package – RECYCLABLE MATERIAL

Alternating current


Ground connection


Equipotentiality


Fuse


Condensate drain


Never dispose of the battery with common household waste.

USE

- The equipment can be installed and operated only in a dry, ventilated and dust-free area. Climatic conditions for operation - see Technical data.
- The compressor must stand on a flat and stable base.
- The compressor must not be exposed to rain. The equipment must not be used in humid or wet environments. Never use the compressor in the presence of flammable liquids or gases.
- Before connecting the compressor to respiration equipment, make sure that it meets the requirements of the respiration equipment. Refer to the Technical data for this purpose.
- Any use other than the compressor‘s intended use is not considered to be safe. The manufacturer is not responsible for any damages that result if the compressor is used for any other purpose. Risk is exclusively assumed by the operator/user.

STORAGE AND TRANSPORT

The compressor is shipped from the factory in transport packaging with the pump stabilized, protecting it from damage during transport.

For transport, always use the original packaging and secure the compressor in the upright position.

Protect the compressor from humidity, contamination and extreme temperatures during transport and storage. A compressor in its original packaging should be stored in a warm, dry and dust-free area.

Keep the packaging material, if possible. If not, dispose of the packaging material in an environmentally-friendly way. Cardboard can be recycled.

Before moving or transporting the compressor, the pressure in the air tank and hoses must be released and any condensed water must be drained. Secure the motor to prevent movement before shipping.

Prior to transport it is necessary to secure the motor inside the compressor (Chapter 5.)

2. EQUIPMENT DESCRIPTION

1. Display – the primary display indicates outlet pressure
2. PRESSURE - alarm at low outlet pressure
3. TEMP - alarm at high operating temperature
4. DRYING – indicates drying level; yellow = unsatisfactory, green = satisfactory
5. MAINS – loss of power alarm
6. TIME – hours of operation are displayed when the button is pressed
7. BATTERY – low battery indication = yellow
8. POWER – device status indicator = green
9. OUT – compressor outlet air
10. WALL - inlet air coming from an outside compressed air source
11. Main inlet, power switch, primary fuses
12. Equipotential (ground) pin
13. Socket for the electrical cord
14. Condensate tank
15. Air intake filter
16. Compressor
17. Safety valve
18. Air tank

19. a. Filter (40 µm) and water trap
19. b. Filter (5 µm) and water trap

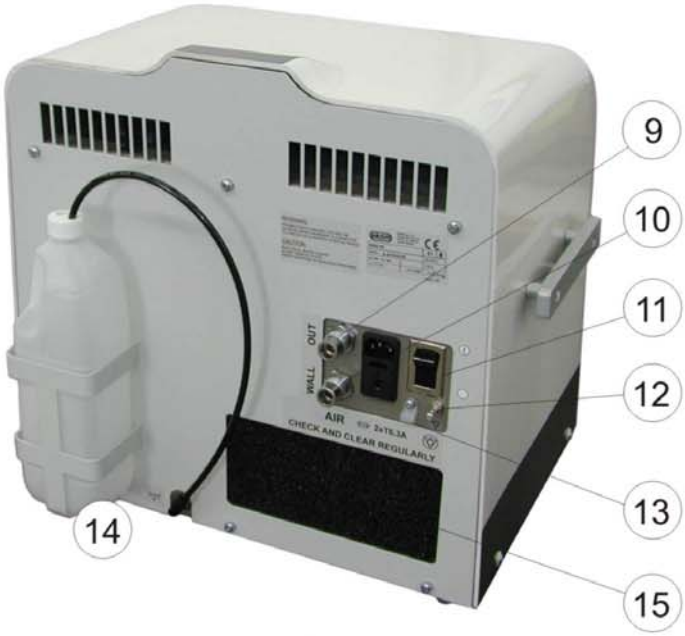
20. Pressure regulator
21. Intake filter
22. Control electronics
23. Cooler

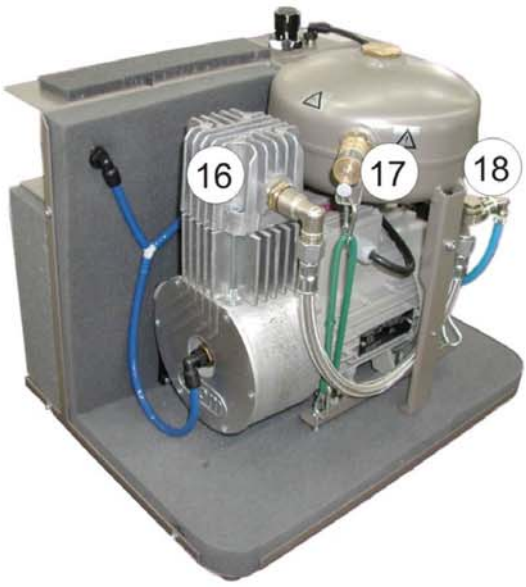
The compressor contains of an oil-free piston (16) driven by a low-maintenance single-phase electric motor. Compressed air is cooled in the cooler (23) where condensed water is separated into a separate tank (14). Incoming air passes through two filters (15, 21) undergoing double filtration as it passes through the system (19). The model with a membrane dryer is intended for applications that require a higher level of air dryness. Constant outlet pressure is maintained by pressure regulator (20). The built-in air tank (18) enables peak air consumption of 200 L/min.

The device may be used as a standby compressed air source. In this configuration, the respiratory equipment is supplied with compressed air from the central compressed air lines of the medical facility. Air pressure in the central compressed air line is monitored by a pressure sensor. If the pressure is sufficient, the compressor stays in STANDBY mode. If the pressure falls, the control unit automatically puts the compressor into operation.
When the compressor is used as the main source of air, the control unit determines its operation according to the current demand for air. If air consumption is zero, the device switches to STANDBY mode.

The compressor is equipped with indicators for outlet pressure (1), operating hours (6), power status (8), drying status (4) and battery condition (7). Acoustic and optical alarms activate to warn of high operating temperature (3), low outlet pressure (2) and loss of power (5).


1
2
3
4
5
6
7
8
PRESSURE
bar
psi
hrs
ALARM
PRESSURE
TEMP
MAINS
BATTERY
TIME
DRYING
POWER


9
10
11
12
13
14
15
OUT
WALL
AIR
CHECK AND CLEAR REGULARLY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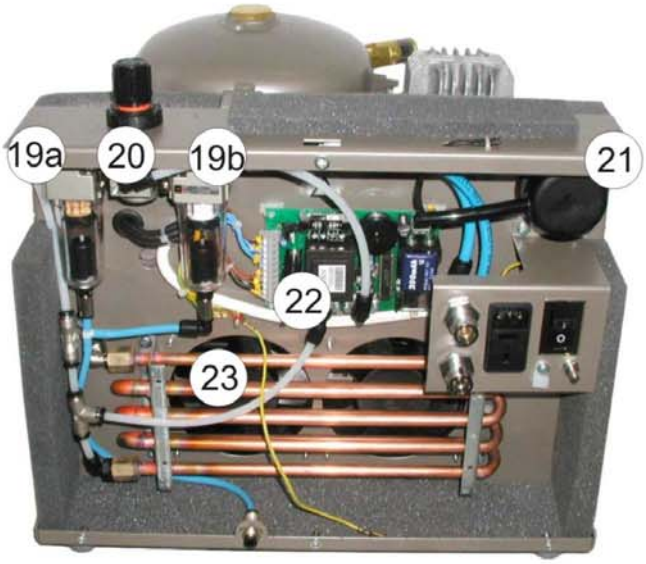

19a
20
19b
21
22
23

3. TECHNICAL DATA

TYPE			DK50 DS		
VERSION			basic	standard	advanced
Outlet flow at pressure 3.5 bar (51 psig)	Liters/min		40	50	60
Peak flow			200* L/min (7 Cft/min)		
Voltage / Frequency / Nominal current	V/Hz/A		230/50 / 2.8 230/60 / 2.8 120/60 / 5.6 120/60 / 5.6 UL model** 100/50-60 / 5.6	230/50 / 2.8 230/60 / 2.8 120/60 / 5.6 100/50-60 / 5.6	230/50 / 3.3 230/60 / 3.9 120/60 / 6 100/50-60 / 6
Air filtration	µm		5		
Pressure dew point at 40 L/min (1.4 Cft/min), 3 bar(43.5 psig), 20°C (68°F)			5°C (9°F) below the ambient temperature 10°C (18°F) with membrane dryer (optional)		
Outlet connection			DISS 1160-A (3/4"-16 UNF) optional NIST (EN 739)		
Sound level	dB(A)	50 Hz 60 Hz	50 51	50 51	51 52
Mode of operation			Continuous - S1		
Separation of condensed water			Automatic		
Indication of drying			Yellow (working pressure < 4 bar (58 psig))		
			Green (working pressure ≥ 4 bar (58 psig))		
Low pressure alarm			Decrease in outlet pressure under 2.1 bar (30.5 psig)		
Cooling failure alarm			Increase in internal temperature above 80°C (176°F)		
Outlet pressure			3.0 bar (43 psig) Adjustable to max. 3.5 bar (51 psig)		
Automatic start up pressure (backup)			Decrease in pressure in the central air line under 2.8 bar (40.6 psig)		
Air tank capacity			2 L (0.61gall UK)		
Pressure range			5 bar (72.5 psig) – 6.5 bar (94 psig)		
Operating pressure of safety valve			7 bar (101.5 psig)		
Adjustment of outlet air pressure			Pressure regulator		
Dimensions of compressor	w x d x h		445 x 355 x 440 mm (17.5 x 14 x 17 in)		
Dimensions of compressor with weels	w x d x h		470 x 380 x 520 mm (18.5 x 15x 20.5 in)		
Dimensions of compressor with trolley	w x d x h		535 x 575 x 1054 mm (21 x 22,5 x 41.5 in)		
Dimensions of packaging	w x d x h		510 x 480 x 470 mm (20 x 19 x 18.5 in)		
Dimensions of packaging			560 x 630 x 760 mm (22 x 25 x 30 in)		
Net weight			34 kg (75 lbs)		
Net weight of compressor with weels			36 kg (80 lbs)		
Net weight of compressor with trolley			45 kg (99 lbs)		
Gross weight			41 kg (91 lbs)		
Gross weight of compressor with weels			43 kg (95 lbs)		
Gross weight of compressor with trolley			60 kg (132 lbs)		
Implementation according to EN 60601-1, EN 12021 ** UL Model – UL 60601-1, CAN/UCSA.C22.2 601.1-M90			Type B class I.		
Classification acc. to MDD 93/42 EEC, 2007/47 EC			II b		

* With 0.6 bar pressure drop (8.7 psig)

Climatic conditions for storage and transport
Temperature –25°C to +55°C (-13°F to +131°F), 24 hrs +70°C (+158°F)
Relative air humidity 10% to 90 % (no condensation)
Relative air humidity for seaworthy packing 10% to 100% (with condensation)

Climatic conditions for operation
Temperature +15°C to +40°C (+59°F to +104°F)
Relative air humidity up to +95%
IPX0 Rating

FAD efficiency correction for differences in elevation

FAD correction table

Elevation [mamsl]	0 - 1500	1501 - 2500	2501 - 3500	3501 - 4500
FAD [l/min]	FAD x 1	FAD x 0.8	FAD x 0.71	FAD x 0.60

FAD efficiency refers to conditions at an elevation of 0 mamsl:

Temperature: 20°C
Atmospheric pressure: 101325 Pa
Relative humidity: 0%

4. OPERATION

INSTALLATION AND FIRST OPERATION

Do not use the compressor immediately after unpacking as it will not adjust to the ambient temperature.

Only qualified personnel can install the compressor and put it into operation for the first time. The installer shall train the operating personnel in the use and routine maintenance of the equipment. Installation and training of personnel should be acknowledged by the installer‘s signature on the installation certificate.

Prior to start-up, the four screws for transport stabilization must be removed. If the compressor is switched on without removing the stabilizers, the compressor could be permanently damaged.

The compressor does not contain a backup power supply.

Never block the air intake filter on the backside or the vent outlets on the top of the equipment.

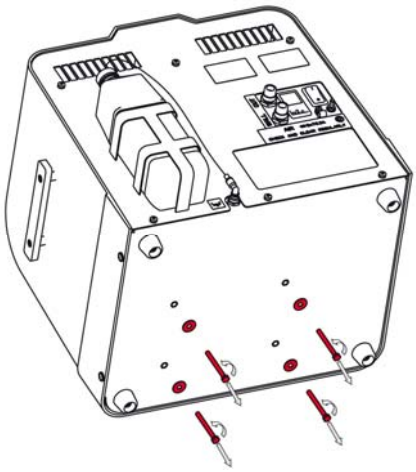
If the compressor is equipped with a main source of air, the standby air source must be available.

ANY MODIFICATION OF THIS EQUIPMENT IS FORBIDDEN!

If this equipment is used nearby other instruments, the equipment must be observed in order to verify normal operations in the configuration it will be used.
Instruments may be affected electro-magnetically!

BEFORE FIRST USE REMOVE PROTECTIVE COVER OF THE SWITCH!

Removal of transport stabilizers

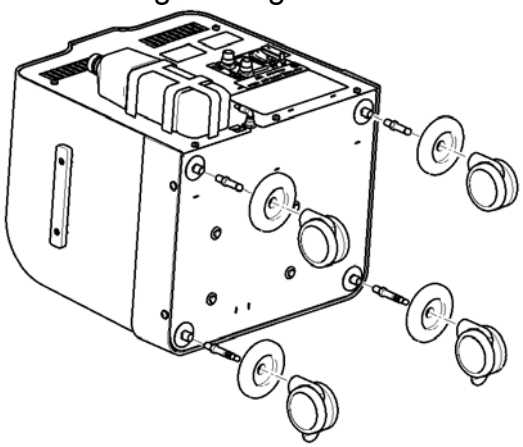


On the bottom of the unit are four M6 stabilizing screws that must be removed before start-up. They are marked with a red warning washer.

Please retain the stabilizing screws for future transport of the compressor.

Wheel installation

Wheels must be installed following the figure below for versions of the compressor with wheels.



Compressed air connection

The medical compressor is equipped with quick couplings **WALL** (10) and **OUT** (9) on the rear of the cabinet.

Connect the pressure hose from the given equipment/respiration equipment to the quick coupling **OUT** (9) -outlet compressed air.

Connect the compressed air line from the central distribution line o the quick coupling **WALL** (10) -inlet compressed air. Air from the distribution system is automatically connected through the compressor to the OUT outlet port. In this configuration, the compressor serves as a backup source of compressed air. If the air pressure from the central distribution system is reduced, the compressor automatically switches on and there is no interruption in the supply of continuously pressurized air at the outlet of the compressor.

⚠ **Please note that the air supply from the central distribution line entering the compressor must be medical grade air (particulate size, humidity.) The compressor does not modify the air from the central distribution line.**

⚠ **The hose connecting the compressor to the respiration equipment must not pass through a cold environment i.e. placed on the ground. It should be as short as possible with no kinks (this may cause water to condense inside the hose).**

OPERATION

Electrical connection

The compressor comes with a plug containing an appropriate protective contact (ground.) Adhere to local electrical regulations. The voltage and frequency of the mains must comply with the specifications on the data label.

The electrical cord must not be stressed or have any tension exerted upon it, and must always be free.

- The socket must be accessible for safety reasons so that the equipment can be safely disconnected from the power supply in case of an emergency.
- The relevant current circuit must be protected.
- Connection of the ground connection (12) to other equipment must adhere to local electrical regulations.
- Fasten the electrical cord through the holder (13).

First operation

- Make sure that the stabilizing screws used during transport were removed.
- Check that the connection to the compressed air supply is correct.
- Check for proper connection to the main power supply.
- Switch on the pressure switch (11) to position “I”.

After the compressor is put into operation, it shall work in one of the following modes depending upon the pressure level in the central distribution and upon air consumption.

- STANDBY – When there is sufficient pressure in the central air distribution line, the main switch is on and the POWER (8) indicator is on, the compressor is idle. The device operates as a standby source of air as it checks the pressure in the central air distribution line and, if the pressure falls, the compressor switches on.
- When pressure is low in the central air distribution line, or if the device is not connected to the central distribution line, the compressor is running. If there is no air consumption at the outlet, the device switches to STANDBY mode. When air consumption resumes, the compressor automatically switches on.
- The working pressure in the air tank when the compressor is running is maintained between the high and low pressure limits by the control unit. After the high working pressure limit is reached, the compressor output is connected to the exhaust (bypass) and the compressor stops supplying compressed air to the air tank until as long as the pressure in the tank does not drop below the low pressure limit.

During operation, the device drains the trapped condensed water from pneumatic circuits via automatic filter separators into a separate tank.

Important note:

If compressor equipped with set of membrane dryer (art. nr.: 603021320) and compressor **is not** connected to WALL (central air supply), the compressor does not switch into STAND BY. In order to maintain the membrane dryer unit active the dryer unit requires a small constant flow of compressed air. Compressor works in RUN mode only. The compressor stops and starts only when it is switched off and on manually by power switch.

If compressor equipped with set of membrane dryer (art. nr.: 603021320) and compressor **is** connected to WALL (central air supply), the compressor works in complete mode operation, including STAND BY mode.

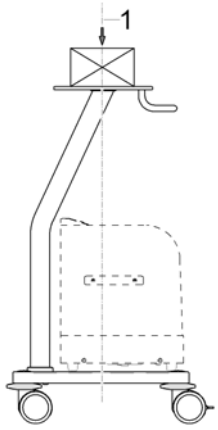
Accessories

Trolley SD 30 (24)

The trolley accommodates the compressor, a fan and a humidifier. Large casters allow for mobility and braking, guided by means of an ergonomic handle. A wide base ensures the stability of the entire assembly.

Specifications

Supply No.: 602021222-000
Dimensions: 535x575x1070



<u>Maximal load-carrying capacity with load in the upper plate axis (1):</u>

Trolley without compressor - 25kg
Trolley with compressor - 30kg

The manufacturer is not liable for any damage resulting from excessive loads on the equipment!
The supplier is obliged to ensure the acceptability of a load delivered by a supplied accessory.
It is forbidden to lean or press against an installed accessory for support!
The equipment must be lifted when travelling over an obstacle!
Supporting equipment must be disassemble before transport!

The maximum load on the upper trolley plate is 30 kg!

Humidifier holder (25)

This clamp is used to attach the Fischer & Paykel humidifier to the trolley in its proper position.

Supply No. 604031175-000

OPERATION

PERSONNEL

In case of emergency, switch the equipment off at the switch and pull out the main power plug.

Switching the compressor on

The compressor is switched on at the main power switch (11) by putting it in position "I". Switching on is signaled by the green indicator (8).

Running the compressor

The green indicator POWER (8) is lit up during operation. The display shows the value of outlet pressure with accuracy ± 5% in BAR or PSI units. An indicator is lit on the display next to the relevant unit. Ask the service staff member to change the units that are shown if necessary.
115V version -
After pressing the TIME (6) button, the display shows the number of hours in operation.
230V version -
After pressing the TIME (6) button, the display shows the number of hours in operation. The compressor operating hours since the last service work are displayed by pressing the button for about 2 seconds.
The calculated running interval is set to a coefficient of 1.0 if the compressor is supplying compressed air to the air tank. The calculated coefficient is 0.3 in “BYPASS” mode. The DRYING (4) indicator displays the drying status. Green indicates satisfactory drying; yellow indicates unsatisfactory drying. If the yellow indicator DRYING (4) stays on, make sure that air consumption from the compressor does not exceed outlet flow according to specification. If air consumption is within normal parameters, contact a service centre.

A decrease in outlet pressure is indicated by the alarm PRESSURE (2) which sounds an alarm and illuminates the yellow indicator. The alarm is activated if the outlet pressure does not reach the required level and in the interval after the compressor is turned on until it reaches the required pressure. If the alarm stays on, make sure that the air consumption does not exceed outlet flow according to specification. If air consumption is within normal parameters, contact a service centre.

A cooling failure is indicated by the alarm TEMP (3) which sounds an alarm and illuminates the yellow indicator. The device must be immediately disconnected from the electrical mains and cooled down. Cooling failure activation may indicate that the vent holes were covered, the filter in the bottom part of the compressor is contaminated or the compressor is in environment with higher temperature. If none of these circumstances apply, a malfunction has occurred and service is required.

The alarm MAINS (5) is activated upon the interruption in the power supply to the compressor.
Illumination of the yellow indicator BATTERY (7) indicates a low battery. The battery is charged automatically during equipment operation. If the yellow control light does not turn off after 24 hours of the equipment operation, it is

necessary to change the battery. The battery powers the MAINS (5) alarm and has no impact on other functions of the device. Entrust an authorized service provider with its replacement. Replace the battery with an identical replacement - NiMH 9V 200mAh.

Used batteries cannot be disposed of as household waste, they must be collected separately.

The condensed liquid drains into a separate tank (14) at the back of the equipment. When the tank fills up, it must be emptied.

Close the plug located on the neck of the vessel before moving any vessel containing a liquid!

Cleaning and replacing the filters

At least once a week take out and clean the suction filter (15) located on the back side. Wash the filter in warm soapy water, rinse thoroughly and allow it to dry. Insert the clean filters so that the intake openings are completely covered by the filters.

Cleaning the compressor

To clean the compressor, use a detergent that contains no abrasives, chemical solvents or other corrosive agents.

5. MAINTENANCE

REPAIRS AND SERVICE

Warranty and extended warranty repairs are to be completed by the manufacturer or a service provider authorized by the manufacturer.

The manufacturer reserves the right to modify the equipment in any way that will not alter the function or the operation of the equipment.

Only a qualified technician or the Customer Service Department of the manufacturer may perform repairs that go beyond routine maintenance. Use only spare parts and accessories approved by the manufacturer.

Prior to any maintenance or repairs, switch off the compressor and disconnect it from the mains (pull out the main power plug).

Cover removal

- Unscrew the 6 screws from the rear cover
- Disconnect the grounding wire
- Remove the rear cover
- Disconnect the wiring connector for the display and pull the wiring out from the opening in the frame

- Unscrew the 4 screws from the rear of the main cover and 2 screws from the rear part of the rail
- Disconnect the grounding wire
- Remove the main cover
- Reassemble using the opposite order

MAINTENANCE SCHEDULE

Notice!

The operating entity is obliged to ensure that all tests of the equipment are carried out repeatedly at least once within every 24 months (EN 62353) or in intervals as specified by the applicable national legal regulations. A report must be prepared on the results of the tests (e.g.: according to EN 62353, Annex G), including the measurement methods used.

Maintenance	Page	Time interval	To be performed by
Clean air intake filter	13	At least once a week	Staff
Safety valve check	15	Once per year	Qualified expert
Replace filters in filter	16	Every 4000 hours	Qualified expert
Test the tightness of joints and inspect the equipment	15	After two years	Qualified expert
Replace piston complete with piston rings, O-rings and bearing	Service documentation	Every 8000 hours	Qualified expert
Replace suction filter	17	Every 8000 hours	Qualified expert
Perform “Repeated Test” according to EN 62353	14	1 x 2 years	Qualified expert

Service interval signalization

Once 4000 operating hours have been reached, the value “4000” starts to appear as the outlet pressure from the equipment, alternating with the actual outlet pressure value. They alternate about every 2 seconds. Once this information appears, the operator is obliged to secure service work for the equipment.

Safety valve check

The safety valve is adjusted to 7 bar by the manufacturer, then tested and marked. It must not be readjusted.

- Only allow the safety valve freely puff **for a short period of time**.

Never use the safety valve to release pressure in the air tank. This could damage the safety valve.

Check tightness of joints and inspect the equipment

Test for leakage:

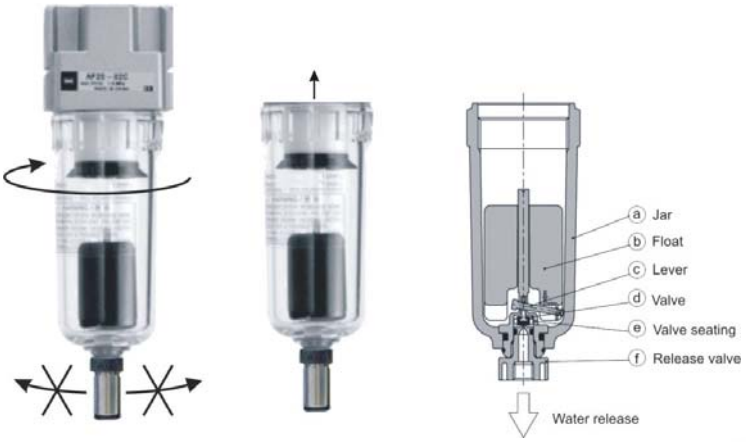
- Disconnect the outlet hose from the quick coupling OUT (9); compressed air consumption will stop.
- Pressurize the air tank by releasing some air via a connected device.
- With the compressor off, wait at least 10 minutes before checking the pressure level.
- If the pressure has dropped, use soapy water to find the leaky joint. Start with the joints outside the case, and then test the ones inside the case after removing the covers.
- Tighten or re-seal joints as necessary.

Inspect the equipment:

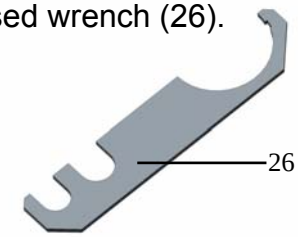
- Check the status of the compressor motor for balanced operation or noise.
- Check the condition of the hangers above the pump.
- Check fan functionality.
- Check the condition of the filter. With regular operation, condensate from the filter (19) drains automatically. Verify this function by comparing the level of condensate in the bottle to the scale line indicating the maximum level. If the level of condensate is above the scale line, replace the faulty parts.
- Examine the pump for:
  - Defects in the crankcase
  - Free movement of the crank shaft
- If necessary, replace any faulty parts.

Replacing filters elements

Before beginning, evacuate all compressed air from the tank, reducing the tank pressure to zero and disconnect the equipment from the power mains.



- Unscrew the cover and pull it out using the enclosed wrench (26).
- Unscrew the filter holder.
- Replace the filter and screw the filter holder into place.
- Screw the cover back in place.

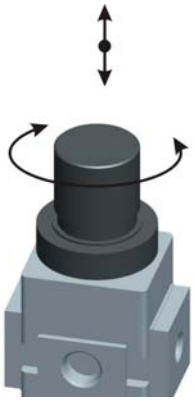


Spare filtration pads:

Bronze (40 µm) (19a) AF20P-060S-7-40B	Item 025200142-000
Plastic (5 µm) (19b) AF20P-060S	Item 025200113-000

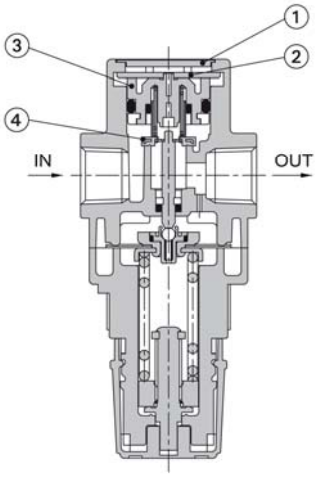
If the water release system becomes clogged, disassemble the release valve (f), clean the outlet, remove the float (b) with a lever mechanism (c, d, and e) from the tank, clean all components with a soap solution and then reassemble.

Setting outlet air pressure



To unlock the control button of the regulator (20), raise it slightly and rotate it to set the demand outlet pressure. After setting the pressure, lock the control button of the regulator by pushing it down.

Cleaning the pressure regulator



- Set the pressure to the minimum position
- Remove the plug (1)
- Rotate and remove the latch (2)
- Remove the line from the valve (3) and the valve (4), then clean the valve seat and the o-ring
- Re-install the components in the following order: (4), (3), (2) and (1)

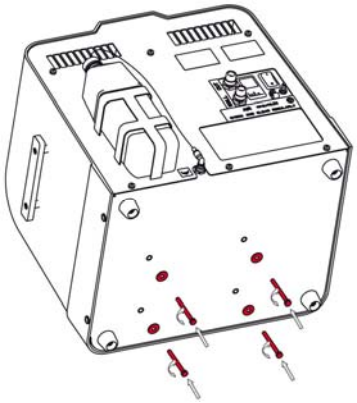
Replacing the inlet filter (21)

- Unlock the cover and pull it out.
- Replace the filter
- Lock the cover

Spare part:
Intake filter 05W POLYESTER, Item 025200194-000

Stabilizing the compressor before shipping

Before shipping, the compressor must be stabilized to prevent movement. Prior to fixation, it is necessary to disassemble the plastic cover. The air pump must be fixed to the base using the four original M6 screws (see picture). Assemble the plastic cover.



SHUT-DOWN

If the compressor is not going to be used for a long period of time, disconnected it from the main power supply and release the pressure in the air tank.

EQUIPMENT DISPOSAL

- Disconnect the equipment from the main power supply.
- Release the pressure in the air tank.
- Dispose of the equipment according to local regulations.
- Parts used in this product have no negative impact on the environment when disposed of properly.

BATTERY DISPOSAL

No battery may be disposed with common household waste. Dispose of non-functional batteries at suitable collection sites.

6. TROUBLESHOOTING

Prior to servicing the equipment, reduce the pressure in the air tank to zero and disconnect the equipment from the main power supply.

Only trained service personnel can perform the activities listed in the troubleshooting guide.

PROBLEM	POTENTIAL CAUSE	SOLVING COMMON PROBLEMS
Compressor does not start	There is pressure in the air tank	In STANDBY mode, the compressor starts when pressure decreases
	No main power voltage	Switched off main breaker in distribution system
		Check supply
		Replace a defective fuse
		Loose wire terminal – tighten
		Power cord defective – replace
	Interrupted winding of motor, damaged thermal protection	Replace motor
	Defective capacitor	Replace capacitor
	Jammed piston or other part	Replace damaged parts
DRYING indicator lights yellow permanently	Leakage of air from pneumatic distribution system	Inspect pneumatic distribution system – seal loose connection
	Large consumption of compressed air	Do not exceed max. flow (see Technical data)
	Worn out piston rings	Replace worn out piston rings
	Dirty air suction filter	Replace the dirty air suction filter
	Dirty air intake filter	Clean or replace the dirty air intake filter
PRESSURE alarm is activated permanently	Leakage of air from pneumatic distribution system	Inspect the pneumatic distribution system – seal loose connection
	Large consumption of compressed air	Do not exceed max. flow (see Technical data)
	Worn out piston rings	Replace worn out piston rings
	Dirty air suction filter	Replace the dirty air suction filter
	Dirty air intake filter	Clean or replace the dirty air intake filter
	Dirty filter inserts of filter	Replace the dirty inserts
TEMP alarm is activated	Dirty air blow down filter	Clean or replace the dirty air blow down filter
	Covered vent holes	Uncover vent holes
	Cooling fans don’t work	Replace fans
	Unit is hot, unventilated area	Relocate unit
Compressor is noisy (knocking, metal noises)	Damaged piston bearing or bearing in motor	Replace damaged bearing
	Loose (cracked) belt of the air pump hanger	Replace damaged hanger
Water coming out of outlets	Dirty water trap in filter and filter regulator	Clean or replace the water trap
Compressor malfunction	Failure of control unit	Adjust using service software

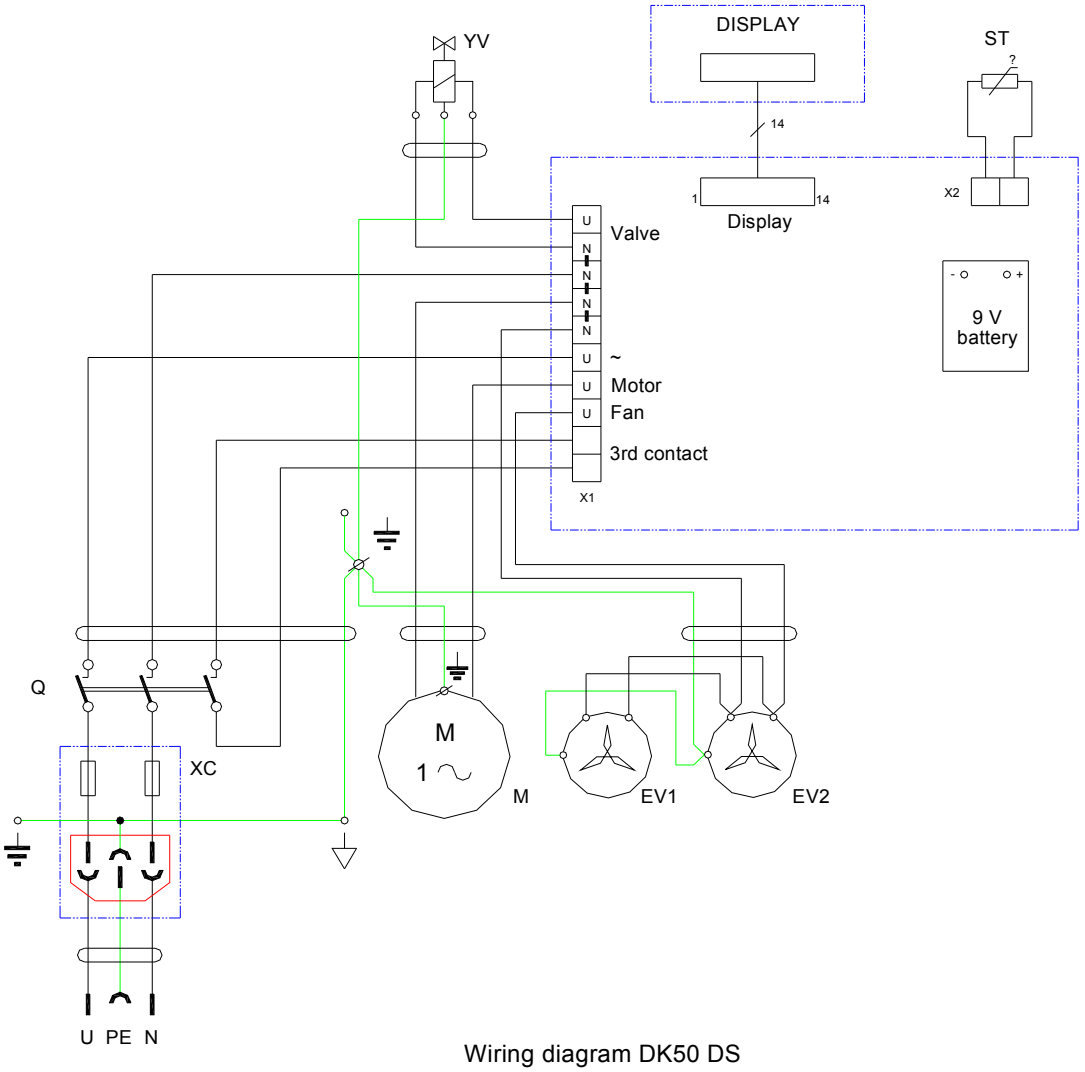
7. SPARE PARTS

• Air intake filter (15)			025000018-000
• Filtration inserts (19a)			025200142-000
• Filtration inserts (19b)			025200113-000
• Fuse			
version	230V	T6.3A	038100004-000
	100V, 120V	T10A	038100005-000
• Insertion	DISS	1160-A	024000261-000
• Suction filter	05W POLYESTER		025200194-000

8. ELECTRIC AND PNEUMATIC DIAGRAMS

WIRING DIAGRAM

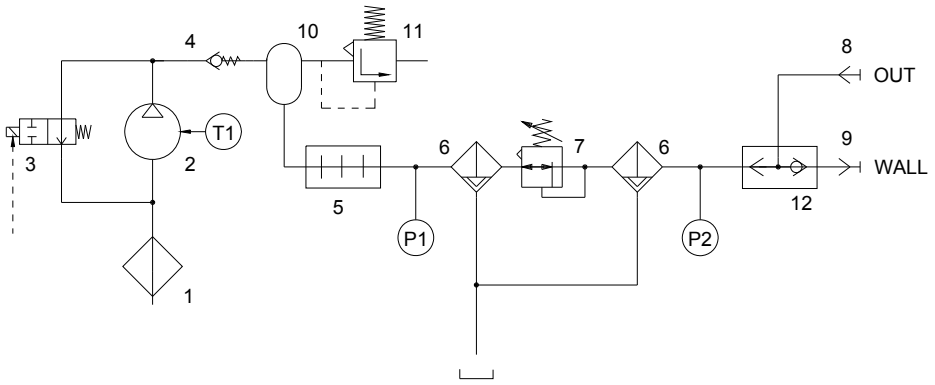
1/N/PE ~ 230/120/100 V 50..60 Hz
ELECTRIC OBJECT OF 1st CAT.
B TYPE



Wiring diagram DK50 DS

Mark	Name	Mark	Name
X1, X2	Sockets on PCB	M	Electric motor
EV1, EV2	Fan	ST	Thermal sensor
YV	Solenoid valve	XC	Socket with fuses
Q	Switch		

PNEUMATIC DIAGRAM



1. Intake filter
2. Compressor
3. Solenoid valve
4. Return valve
5. Cooler
6. Filter with water trap
7. Pressure regulator
8. Air outlet
9. Air intake
10. Air tank
11. Safety valve
12. Shuttle valve

DK50 DS

PRODUCENT:
ПРОИЗВОДИТЕЛЬ:
HERSTELLER:
FABRICANT:

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