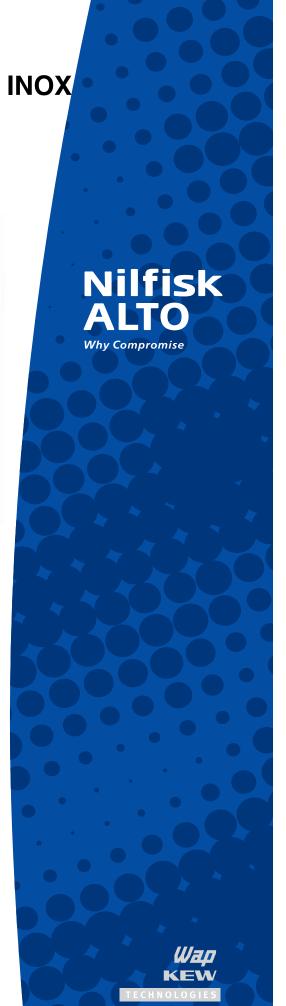
ATTIX BASIC-ATTIX 30- 01 PC
ATTIX 30-11 PC-ATTIX 30-21 PC
ATTIX 40-01 PC INOX-ATTIX 40-21 PC INOX
ATTIX 50- 01 PC- ATTIX 50-21 PC





Repair manual



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Nilfisk ALTO

Preface



In this manual you will find the essentials you need to know when repairing wet and dry cleaners of the Attix series.

When carrying out repairs, make sure you have a suitable workbench or the like with the necessary power supply available.

If you determine an error in operation, be sure to refer the customer to the user manual.

A fault in the equipment can have a number of causes. Chapter E Troubleshooting will help you here.

Use the illustrated spare parts lists for your repairs. These show you the location of the individual parts and the sequence in which they are assembled.

Read the technical information sheets. These will tell you about any technical modifications made after publication of this repair manual.

Technical information sheets are a supplement to the spare parts list until a follow-on publication.

Repair manuals and technical information sheets should be available at the site where repairs are carried out. Further repair manuals of the Attix series may be necessary for repairs to the equipment.

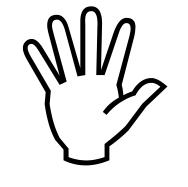
It is not permitted to give them to third parties.

Use original Nilfisk ALTO spare parts only!

Symbols used to mark instructions



Safety instructions marked with this symbol in this manual must be observed to prevent danger to persons.



This symbol is used to mark safety instructions that must be observed to prevent damage to the equipment and degradation of performance.



This symbol indicates tips and instructions to simplify work and to ensure safe operation



Safety Issues.



For your own safety.



Repairs should only be made by someone who has received proper instructions for the job or who is a qualified electrician. Observe national safety directives and regulations for the electrical engineering trade, in particular:

IEC 60335-2-69 EN 60335-2-69

DIN VDE 105 part 1: operation of electrical power installations.

DIN VDE 0701/0702: repair, modification and testing of electrical installations.

Before starting the equipment, be sure to read the accompanying service manual, and keep it close as ready reference.

The equipment should only be used by persons who have been instructed in its use and are authorized to do so.

ESD (electrostatic discharge)

Observe the following ESD precautions before any repair of or near electronic parts:

- Touch the protective conductor to discharge your own body.
- Possibly wear an anti-static wrist strap.
- Use a conducting floor or tabletop.
- Never touch a circuit board or electronic components, always hold them by the plastic or insulation.
- Transport electronic parts in conductive packaging (e.g. special ESD packages).

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Technical Data.



		Attix 30-01 Ba- sic	Attix 30-01 PC	Attix 30-11 PC	Attix 30-01 Attix 30-11 Attix 30-21 Attix 40-01 Attix 40-21 Attix 50-01 Attix 50-21 PC PC PC PC PC PC	Attix 40-01 PC	Attix 40-21 PC	Attix 50-01 PC	Attix 50-21 PC
ational Variants					EU				
oltage	^				230				
ednency	ZΗ				20/09	0			
sing	Α				16				
wer consumption PIEC	Μ				1200	(
onnected load for applica- ons socket	M			2400	2400		2400		2400
otal connected load	Μ	1200)	98	3600	1200	3600	1200	3600
wer cord lenght	ш				7,5				
ower cord type		H05RR-F2X0,75X8,05	,75X8,05			H05RR-F 30	H05RR-F 3G1,5X8,2 EU		
otection class		П							
otection category					IPX4	_			
FI suppression					EN 55014-1	14-1			
r volume flow (max)	l/min				3700	(
atic wate lift (max)	mbar				250				
ound pressure level at 1m, V 60704-1					62				
oise level in working dis- nce	dB(A)				29				

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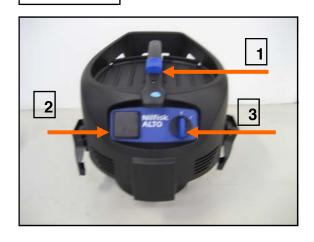
Construction.



Attix 30-01 Basic Attix 30-01 PC Attix 40-01 PC Attix 50-01 PC



Attix 30-11 PC Attix 30-21 PC Attix 40-21 PC Attix 50-21 PC 1.Push and clean bottom.2.Outlet socket.3.On / Of switch



Attix 50



Attix 30



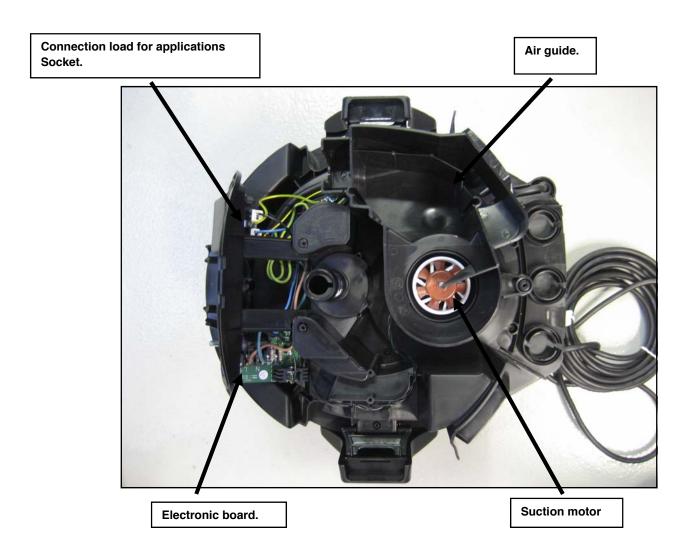
Attix 40 Inox

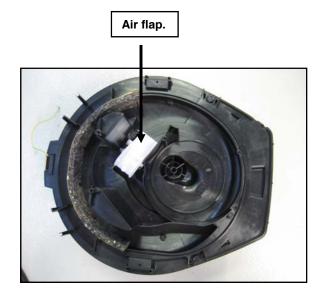


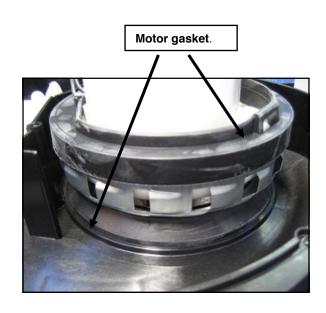
Nilfisk ALTO

Construction.









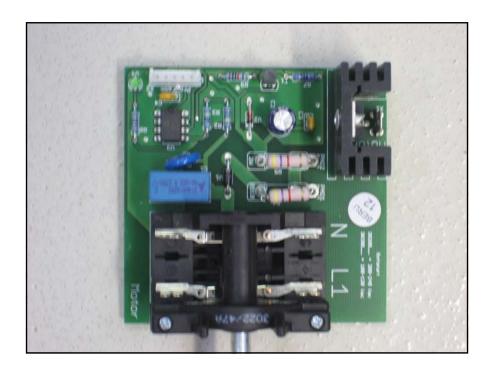
ALTO

Construction.



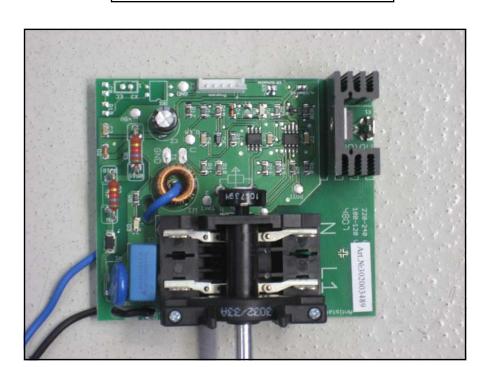
Electrical components.

Attix 30-01 Basic - Attix 30-01 PC -Attix 40-01 PC - Attix 50-01 PC With soft start.



Attix 30-21 PC - Attix 40-21 PC- Attix 50-21 PC

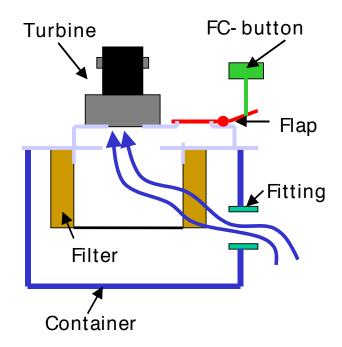
With soft start and aut. start / stop for tools.



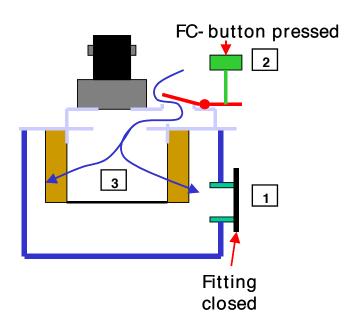
Function.



Vacuuming



Cleaning the filter push &



By sealing the suction opening (1) a high negative pressure is generated inside the dirt tank when the motor is running which keeps this under tension.

By actuating the cleaning button (2) on the suction head, an air flap is opened in the carrier plate, which allows air to flow into the inside of the filter (3). The air flows through the filter fleece from the inside to the outside.

The negative pressure inside the dirt tank is reduced very quickly and the tank wall relieved of pressure.

Cleaning is always carried out for a short time, mainly by relieving the tank wall in short bursts.

The dirt adhered to the filter is blown and shaken off, causing it to fall back into the tank.

To optimise the cleaning effect, we recommend that you actuate the cleaning button briefly a number of times.



Function.



Technical description of automatic starter with speed control

- --Several functions are integrated on this printed circuit board.
- Main switch with positions
- -"Man-0-Auto"
- Radio interference suppression
- Speed control
- Soft start
- Automatic starter for electric tools

Speed control:

Speed control has been integrated into the manual and automatic modes. Settings on the switch range are possible from 45° to 135°.

Advantages:

- Optimum adjustment of the suction power to suit the application.
- Increase in the ser vice life of the turbine
- Reduction in noise emission
- Energy savings

Automatic starter

Work with an electric tool (grinder, etc.) can be optimised by using the automatic starter.

The main switch is set to the "AUTO" position and the electric tool connected to the socket of the cleaner.

The suction motor is switched off. When the electric tool is now switched on, the automatic starter detects.

The flow through the connected machine and switches the suction motor on.

When work with the electric tool is stopped, the suction motor switches off after a delay of approx. 3 seconds. The cleaner now stays in the standby mode until the electric tool is switched on again.

Soft start:

In cleaners fitted with the electronics mentioned above, the motor is always started with a soft start.

Advantages:

The gentle start up of the motor reduces the starting currents so that the mains fuse does not blow during start up. In addition, soft start greatly reduces the load on the turbine
When it starts up. This results in a considerable increase in the service life of the turbine.

Main switch:

Two modes can be selected with the main switch.

Man: The turbine starts immediately.

Auto: The turbine waits for an electric tool to be switched on at the socket.