



NT 20/1 ME Classic
NT 30/1 ME Classic
NT 38/1 ME Classic
Service Manual



1 Contents

1	Contents	2
2	Preface	3
3	Safety instructions	3
3.1	Hazard levels	3
4	Technical Features	3
4.1	General	3
4.2	Filter and vacuum system	3
4.3	Tools used	3
4.4	Field of application	3
4.5	Type plate	3
5	Parts of the system	4
5.1	Overview	4
5.2	View from the inside	5
5.3	Accessories	6
6	Basic settings and service procedures	7
6.1	Overview of the individual parts of the suction head	7
6.1.1	Cover	7
6.1.2	Turbine casing and suction turbine	8
6.2	Overview of the components of the container and the chassis	9
6.3	Remove the appliance cover	10
6.4	Electrical components of the appliance	10
6.5	Replace appliance switch	11
6.6	Replace de-interference capacitor	11
6.7	Replacing the suction turbine	12
6.7.1	Replace the glide contacts of the suction turbine	12
6.7.2	Float	13
6.7.3	Installing the suction turbine	14
6.8	Replacing the mains cable	15
6.9	Maintenance jobs on the container	16
6.9.1	Replacing the Me container	16
6.9.2	Replacing the steering roller	17
6.10	Replacing the container closure	17
7	Troubleshooting	18
7.1	Suction turbine does not run	18
7.2	Suction capacity decreases	18
7.3	Dust comes out while vacuuming	18
8	Technical Documentation	19
8.1	Technical specifications	19
8.2	Special tools	19
8.3	Torques	19
8.4	Circuit diagram	20

2 Preface

Good service work requires extensive and practice-oriented training as well as well-structured training materials.

Hence we offer regular basic and advanced training programmes covering the entire product range for all service engineers.

In addition to this, we also prepare service manuals for important appliances - these can be initially used as instruction guides and later on as reference guides.

Apart from this, we also regular information about product enhancements and their servicing.

If you should require supplements, have corrections or questions regarding this document, please address these citing the following subject to: international-service@de.kaercher.com

Subject: **Fall 116158**

The responsible product specialist will take care of your issue.

Copying and duplication of texts and diagrams as well as third-party access to this information is permitted only with the explicit permission of the company:

Alfred Kärcher GmbH & Co. KG
P O Box 160
D -71349 Winnenden
www.kaercher.com

3 Safety instructions

Service and maintenance tasks may only be performed by qualified and specially trained specialists.

⚠ Warning

The appliance is not suitable for vacuuming dust which endangers health.

3.1 Hazard levels

⚠ Danger

Immediate danger that can cause severe injury or even death.

⚠ Warning

Possible hazardous situation that could lead to severe injury or even death.

Caution

Possible hazardous situation that could lead to mild injury to persons or damage to property.

Note

indicates useful tips and important information.

4 Technical Features

4.1 General

- Wet / dry vacuum cleaner for cleaning floors and walls for commercial use.
- Container capacity: 38 litres

4.2 Filter and vacuum system

- Suction hose connection (DN 35) with bayonet system.
- Suction tube (two-parts, plastic)

4.3 Tools used

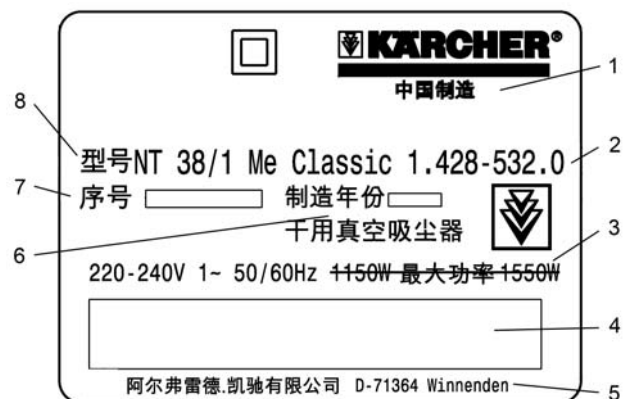
- Screwdriver T20
- Screwdriver T15
- Screwdriver for safety screws

4.4 Field of application

This service manual describes the appliances NT 20/1 Me, NT 30/1 Me and NT 38/1 Me Classic. The illustrations show the appliance NT 38/1. The appliances only differ in the container size (20 - 38 litres).

4.5 Type plate

The type plate is located on the rear of the appliance.



- 1 Manufacturer
- 2 Part number
- 3 Specifications
- 4 Bar code. Contains part and serial number.
- 5 Address of manufacturer
- 6 Year of manufacture
- 7 Serial number
- 8 Appliance description

5 Parts of the system

5.1 Overview



- 1 Container 20/30/38 litres
- 2 Suction air guide
- 3 Power switch
- 4 Carrying handle
- 5 Cable hook
- 6 Container closure
- 7 Accessory storage container
- 8 Steering roller

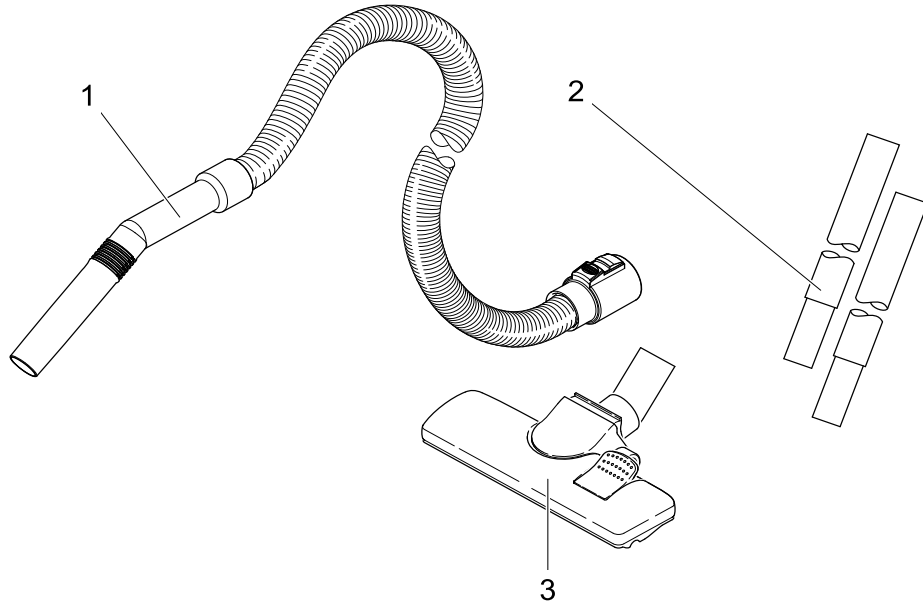
5.2 View from the inside



- 1 Container closure
- 2 Fleece filter
- 3 Filter basket

5.3 Accessories

The following accessories are enclosed in the device:



- 1 Suction hose with manifold
- 2 Suction tube, two-parts, plastic
- 3 Floor nozzle

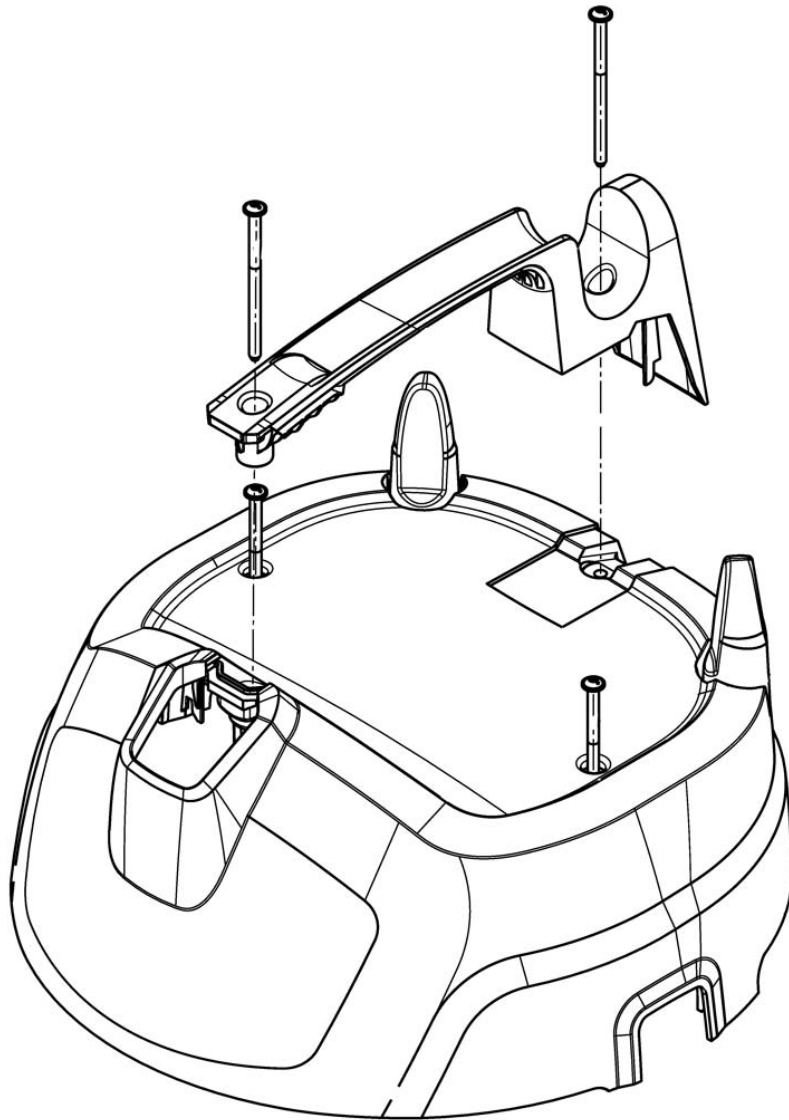
6 Basic settings and service procedures

⚠ Danger

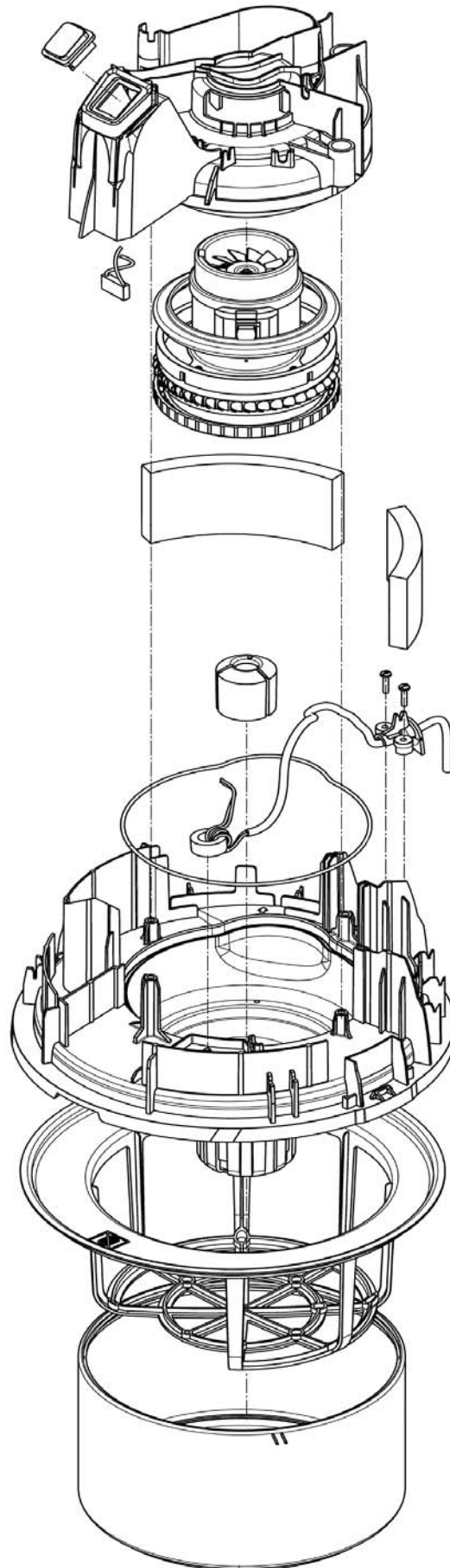
First pull out the plug from the mains before carrying out any tasks on the machine.

6.1 Overview of the individual parts of the suction head

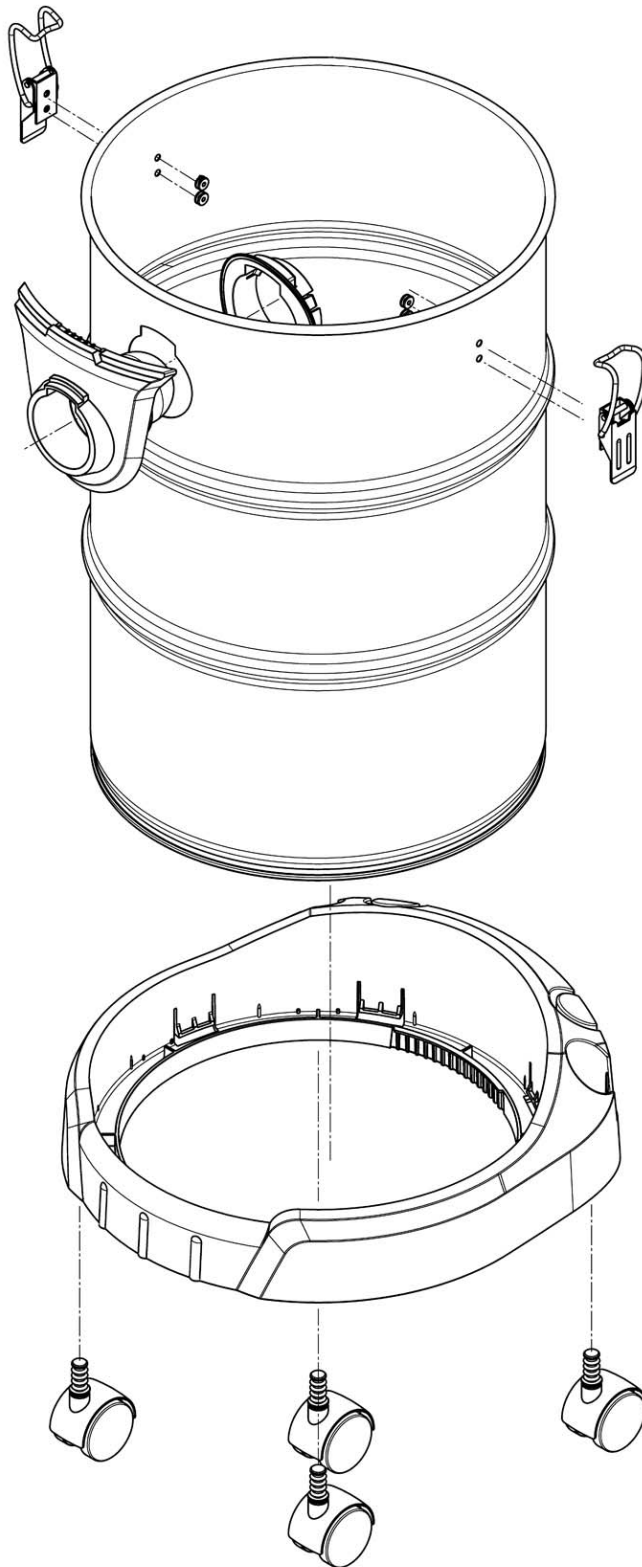
6.1.1 Cover



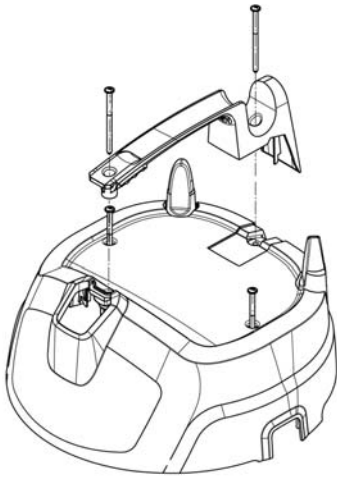
6.1.2 Turbine casing and suction turbine



6.2 Overview of the components of the container and the chassis



6.3 Remove the appliance cover



- Remove suction basket from the container.
- Unscrew the screws of the top part of the casing.
- Remove the top part of the casing.

6.4 Electrical components of the appliance



- 1 Ferrit ring (anti-interference ring)
- 2 Connection cable suction turbine
- 3 Power switch
- 4 Cover air duct suction turbine
- 5 Insulating mat
- 6 Suction turbine (M1)
- 7 Supply Cord

6.5 Replace appliance switch

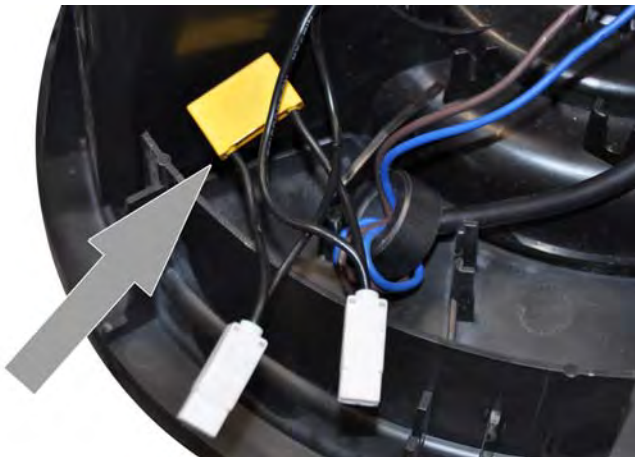


- Remove switch top.
- Lever the appliance switch out of the holder.
- Pull the connecting cable out on the appliance switch.



- 1 Connections suction turbine
- 2 Connections power cable

6.6 Replace de-interference capacitor



Note

The anti-interference capacitor is firmly connected with the connection cable of the suction turbine.

- Remove the connection cable from the appliance switch and the suction turbine and replace it.

6.7 Replacing the suction turbine



- Remove the appliance switch as described in the chapter "Replacing the appliance switch".
- Remove the inner cover from the base support of the suction basket.



- 1 Connecting cable, suction turbine (M1)
- 2 Sealing ring of upper motor bearing
- 3 Glide contacts (carbon brushes).

- Remove the connecting cable.
- Replace the suction turbine.
- Check sealing ring for damage.
- Replace damaged sealing ring.
- Align the suction turbine in the turbine holder by means of the cone during installation.

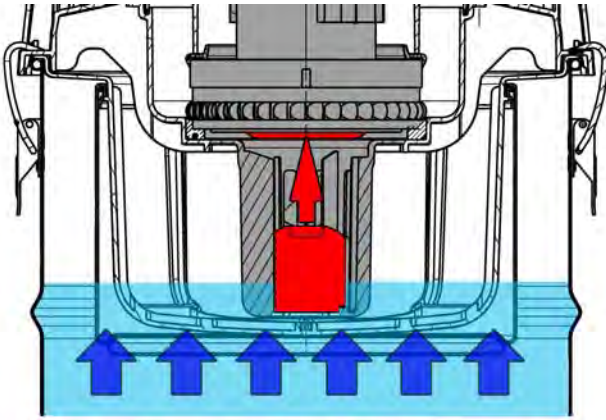
6.7.1 Replace the glide contacts of the suction turbine.



- Unscrew the screws of the contact part.
- Pull contact part with sliding contact out of the suction turbine casing.
- Install a new glide contact; no adjustments necessary.
- Always replace both glide contacts at once.



6.7.2 Float



The vacuum channel is equipped with a float. If the maximum admissible wastewater level in the container is reached, the float seals against the cone of the suction turbine and the intake flow is interrupted in order to protect the suction turbine against moisture.

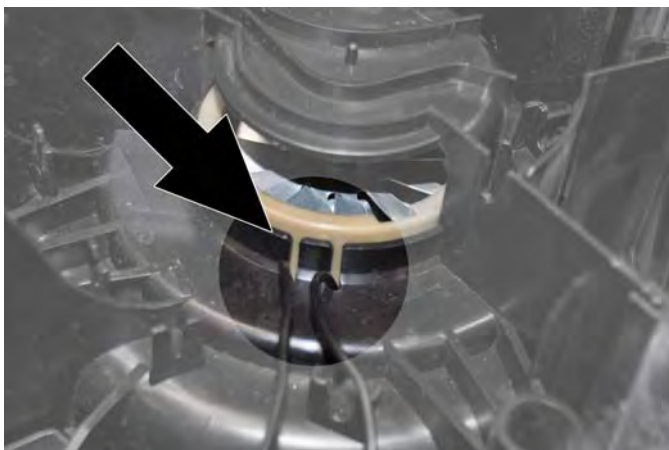


- Remove the suction turbine.
- Remove the float from the intake port.



- A Top, points towards the turbine
- B Bottom, points towards the container / filter
- Pay attention to the correct alignment during installation.

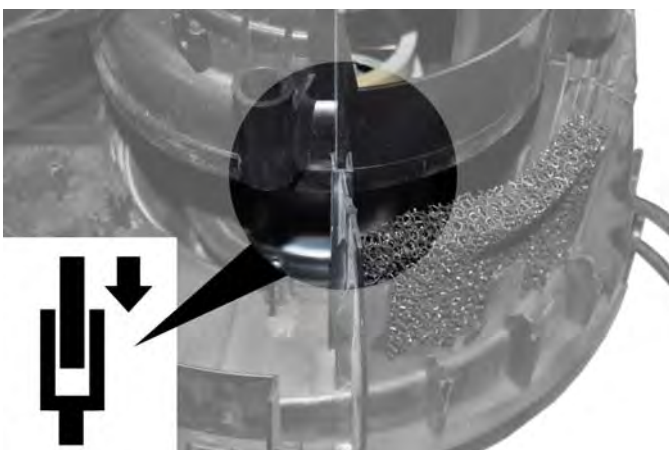
6.7.3 Installing the suction turbine



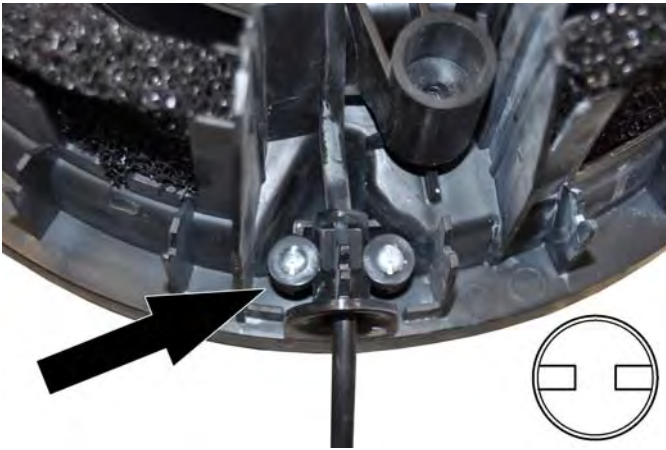
- Align the suction turbine in the turbine holder by means of the outer cone during installation.
- Loosely apply the inside cover.
- During application, ensure that the guides engage with each other.
- Route the cable through the opening and place it in the retainer.
- Firmly press on the inside cover.

Note

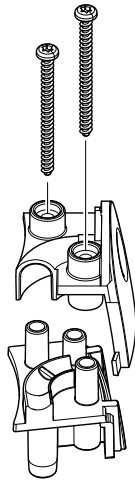
During installation, ensure that the connection cables of the suction turbine are not pinched.



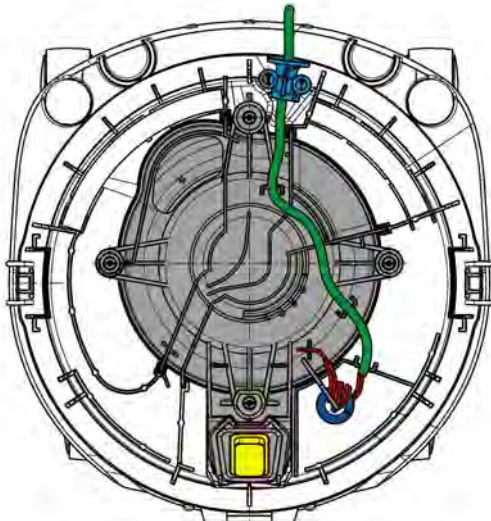
6.8 Replacing the mains cable



- Unscrew the safety screws of the pull relief.
- Open pull relief so that the mains cable can be pulled out.
- Remove the ferrite core from the holder, for this purpose slightly twist the holder.
- Unplug the connection plug of the mains cable at the appliance switch.



- Thread the power cable through the ferrite core as shown.
- Connect the mains cable to the appliance switch.
- Snap the ferrite core in place in the holder.
- During installation, ensure that the power cable is correctly placed in the guides and is not pinched.



6.9 Maintenance jobs on the container

6.9.1 Replacing the Me container



Note

The container is engaged in the bumper (chassis). All snap-in noses must be released for disassembly. In the event that snap-in noses break off during disassembly, the bumper must also be replaced.

- ➔ Unhook the snap-in nose on the bumper.
- ➔ Secure the snap-in nose against snapping back in place by means of a wedge.
- ➔ Remove container.



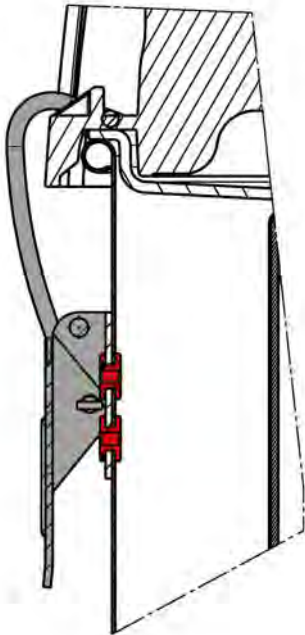
- ➔ Release the snap-in noses at the suction air duct.
- ➔ Remove the suction air guidance toward the front.
- ➔ Install the suction air duct in the new container.
- ➔ Snap the new container in place in the bumper.

6.9.2 Replacing the steering roller



→ Pull the steering roller out of the container and replace it.

6.10 Replacing the container closure



→ Drill out rivets.

→ Replace and rivet the container closure.

Note

When installing the container closure, ensure that the container is not damaged during riveting. The closure clamp cannot be replaced individually.

7 Troubleshooting

⚠ Danger

First pull out the plug from the mains before carrying out any tasks on the machine.

7.1 Suction turbine does not run

- Turn on the appliance.
- Check cables, plugs and mains supply.
- Check/replace the appliance switch.
- Check/replace the suction turbine.

7.2 Suction capacity decreases

- Remove clogging from suction nozzle, suction pipe, suction hose or filter.
- Check suction system to see if there are any leaks/repair leaks.

7.3 Dust comes out while vacuuming

- Check the correct positioning of the suction basket.

8 Technical Documentation

Appliance type	Appliance no.:	Circuit diagram	Operating instructions	Spare parts list
NT 38/1 Me Classic *EU	1.428-530.0	0.089-441.0	5.964-393.0	5.971-469.0
NT 38/1 Me Classic *CN	1.428-532.0	0.089-441.0	5.964-393.0	5.971-469.0
NT 38/1 Me Classic *SEA	1.428-534.0	0.089-441.0	5.964-393.0	5.971-469.0
NT 38/1 Me Classic *AU	1.428-536.0	0.089-441.0	5.964-393.0	5.971-469.0

8.1 Technical specifications

		NT 38/1 Me Classic
Mains voltage	V	220-240
Frequency	Hz	50
Max. performance	W	1200
Rated power	W	1050
Container capacity	l	36
Filling quantity (liquid)	l	18
Air volume (max.)	l/s	57
Negative pressure (max.)	kPa (mbar)	23,1 (231)
Type of protection	--	IP X4
Protective class	--	II
Suction hose connection (C-DN/C-ID)	mm	35
Length x width x height	mm	375 x 360 x 735
Typical operating weight	kg	8,6
Max. ambient temperature	°C	+40
Values determined to EN 60335-2-69		
Sound pressure level L_{pA}	dB(A)	78
Uncertainty K_{pA}	dB(A)	1
Hand-arm vibration value	m/s ²	<2,5
Uncertainty K	m/s ²	1

Power cord	H05VV-F 2x1,0 mm ²	
	Part no.:	Cable length
EU/SEA	9.770-?	7.5 m
AU	9.770-?	7.5 m
CN	9.770-636.0	6.5 m

8.2 Special tools

There are no special tools necessary.

8.3 Torques

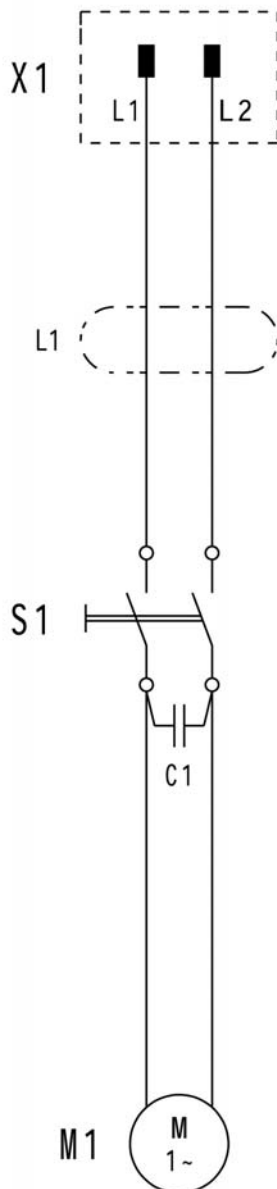
No data.

8.4 Circuit diagram

The status of the attached circuit diagram represents the creation date of the service manual. This circuit diagram is not updated. When working on the device,

please always use the current circuit diagram in DI-SIS.

127V	1~ 60Hz
220-240V	1~ 50/60Hz



D	<p>C1 ENTSTÖRKONDENSATOR L1 FERRIT M1 SAUGTURBINE S1 HAUPTSCHALTER X1 NETZSTECKER</p>
GB	<p>C1 SUPPRESSION CAPACITOR L1 FERRITE M1 VACUUM MOTOR S1 MAINSWITCH X1 POWER SUPPLY PLUG</p>
F	<p>C1 CONDENSATEUR DE DÉPARASITAGE L1 FERRITE M1 TURBINE D'ASPIRATION S1 INTERRUPTEUR PRINCIPAL X1 PRISE D'ALIMENTATION D'ÉNERGIE</p>
E	<p>C1 CONDENSADOR DESPARASITAJE L1 FERRITA M1 TURBINA DE ASPIRACIÓN S1 INTERRUPTOR PRINCIPAL X1 ENCHUFE DE SUMINISTRO DE ENERGIA</p>