



User Manual

Floor stripper DTS100 EU (230V)



EC DECLARATION OF CONFORMITY



Translation of original user manual according to annex 1,
section 1.7.4. of Machinery Directive 2006/42/EC.

We, Dehaco B.V., hereby declare that the products listed below comply with the essential requirements of the above-mentioned European Directive and the following harmonised standards:

Product:	Floor stripper	
Brand:	Dehaco	
Type designation:	DTS100 (230V)	
Manufacturer:	Dehaco B.V. Kruisbaak 25 2165 AJ Lisserbroek - NL	
Directives:	Machinery Directive, Low Voltage Directive EMC Directive	2006/42/EG 2014/35/EU 2014/30/EU
Standard(s)	NEN-EN-ISO 12100	Risk Reduction
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Managing director:	Jeroen Korporaal	

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Dehaco B.V.
 Kruisbaak 25
 2165 AJ Lisserbroek - NL
 T +31 (0) 88 20 20 800
 E info@dehaco.nl
 I www.dehaco.nl

Dealer

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1. INTRODUCTION

Thank you for purchasing the DTS100 Floor stripper. You are now in the possession of a machine that, if used correctly, can be used without any malfunctions for many years to come.

The objective of this user manual is to make you familiar with the machine's operation, give instructions for working safely and provide guidelines for periodic maintenance.

The manual was drawn up for all persons involved with the machine's use, operation and maintenance.

These persons must:

- Have the level of know-how and qualifications required for their task.
- Have read and understood this user manual.
- Observe all indicated safety instructions.
- Have sufficient, suitable and good quality tools at their disposal, if necessary.

This user manual, the type plate and the safety stickers applied to the machine contain important safety information and as such are an integral part of the delivery.

Keep this manual in a safe place and pass it on to the new owner when the machine is sold on.

When this user manual, the type plate or the safety stickers are damaged, these should be applied or made available again.

These components can also be provided by your supplier afterwards.



▲ WARNING!

Make sure you are familiar with the content of this user manual before you start working with the machine, so you are able to use all its possibilities in an optimal and safe way!

At delivery, the DTS100 has been fully assembled and tested and is ready for use.

The delivery comprises:

- Floor stripper DTS100
- Case with accessories:
 - This manual,
 - Hearing protection, safety goggles, gloves
 - Strip blades
 - 6 and 8 mm socket head wrench
 - Extension cord

Immediately at delivery, check that the machine is complete and undamaged. In case of missing components or damage during transport, please immediately contact your supplier.

2. GENERAL DESCRIPTION

The DTS100 Floor stripper was developed by Dehaco for optimum use, great capacity and a long life span. This was achieved by applying available technical know-how to meet practical requirements.

A simple but constructively high quality Floor stripper was designed, extensively tested in practice and taken in production.

An -easily exchangeable- hard steel blade suspended in vibration rubbers is made to vibrate by means of a driven eccentric. By inserting this blade under the carpet, the glue layer is "cut through" by means of vibration. Depending on the carpet's weight and the glue used, the driving speed can be variably adjusted, so that the maximum capacity can be achieved for any situation.

In order to be able to turn around quickly, two freewheels have been mounted that are pressed on the floor by tilting the stripper, thus enabling the user to lift the driven wheels from the floor.

Characteristic features:

- Very easy to operate
- Quickly exchangeable hard steel blade Drive with maintenance free geared motor
- No lubrication points
- Removable extra counter-weight plates
- Low required power (220V – 16A)
- Extra freewheel set for quick turning, positioning and transporting.

3. MACHINE OVERVIEW



4. INTENDED USE

The DTS100 Floor stripper is intended for:

- easy removal of carpet tiles, carpet and glue residues,
- use with an accompanying hard steel blade,
- use on hardened floors indoors
- use by one person who is capable of doing this type of work.

▲ WARNING!

Any other use than described above shall exclude Dehaco from any responsibility!

Use for other purposes has not (yet) been investigated. For any other possible applications, please contact your supplier IN ADVANCE to consult whether the machine is suitable for such purpose.

▲ WARNING!

The DTS100 Floor stripper does NOT comply with the ATEX Directive and should therefore NOT be used on locations with an increased fire/explosion hazard!



5. SPECIFICATIONS

5.1 General

Weight:	100 kg
Supply voltage:	230V / 50 Hz (check the type plate!)
Plug:	CEE 3-pole, 16A
Frequency:	50 Hz
Strip blade motor:	0.55 kW
Drive motor:	0.25 kW
IP class:	IP 54
Blade width:	flat blade: 25 cm V blade: 29 cm

5.2 Wear parts

SWear parts are components in the machine that do not fall under the warranty conditions, due to additional contact with the product.

The wear parts of this machine include:

- The strip blade.
- The clamping plate.
- The blade holder.

5.3 Noise emission

The noise level in the direct vicinity of the DTS100 at a test setup is approx. 76 dB. Due to additional amplification depending on the subfloor and the room in which the work is performed, wearing hearing protection is expressly recommended. This is to prevent hearing damage when used for a long period of time!

Ear muffs are provided in the accessories case! USE THEM!



5.4 Vibration hand arm system

The measured value of the vibrations: 4,6 m/s².

The deviation on this measurement is: 0.5 m/s².

Usage time per day:

Limit value 2.5m/s ²	2.5 hours
Limit value 5.0 m/s ²	9 hours

These are values measured with a new machine and depend on factors such as accessories, maintenance, the surface to be treated and ambient temperature.

Measures in case of values above 2.5 m/s²:

- Switch off the vibration motor when reversing.
- Use anti-vibration work gloves
- Take breaks, switch between jobs
- Ensure warm hands
- Keep the blade sharp!
- Ensure proper maintenance
- Periodically replace the vibration rubbers.



6. SAFETY



Carefully read the user manual prior to starting the machine!

▲ WARNING!

Almost all accidents are the result of: lower concentration, negligence, inattentiveness or incorrect assessments! Work steadily and stay concentrated: You have been warned!

Always ensure sufficient lighting of the workplace, if necessary place additional (building) lighting to maintain sufficient overview.

All persons involved with assembly, commissioning, operation, maintenance and repair must:

- Have the level of know-how and qualifications required for their task.
- Have read and understood this user manual.
- Observe all indicated safety instructions.
- Have sufficient, suitable and good quality tools at their disposal, if necessary.

▲ WARNING!

There is an immediate hazard of physical injury, damage to machines and the environment in case of inexperienced and inexpert use: Keep bystanders at a safe distance from the work !

- Keep children and other persons at a distance when using the machine. If you are distracted, you could lose control of the tool.
- Stay alert, know what you are doing and use common sense when using the machine. Do not work with machines when you are tired or under the influence of drugs, alcohol or medication. A moment of inattentiveness when using the tool could lead to serious injuries and damage to the machine and the surrounding area.
- Remove all loose tools before switching on the machine.
- Prevent an unbalanced body posture. Make sure you are standing firmly and always maintain your balance. In this way you are better able to control the machine during unexpected situations.

- Wear suitable clothes. Do not wear loose-hanging clothes or jewellery. Keep hairs, clothes and gloves away from moving parts. Loose-hanging clothes, long hair and jewellery could be taken along by moving parts.
- Switch off the machine and disconnect the power cord when adjusting the machine, exchanging accessories or finishing the work. This precaution will prevent the machine from being started unintentionally.
- Repair damaged parts prior to use or have them repaired. Many accidents are caused by poor maintenance.
- Keep cutting tool inserts sharp and clean. Carefully maintained cutting tool inserts with sharp cutting edges are less prone to getting stuck and are easier to guide.
- In addition to the above-mentioned rules, you should also familiarise yourself with local working conditions and health and safety rules.

▲ CAUTION:

Structural preventive maintenance reduces the risk of malfunctions during work!

▲ WARNING!

Use personal protective equipment as obliged nationally, locally and/or at the building site, but at least use the following: safety helmet, hearing protection, safety goggles, gloves, safety shoes.

7. TRANSPORT & STORAGE

7.1 Transport

▲ CAUTION!

- Remove the blade from the stripper prior to transport! Think of your safety.
 - Due to the compact dimensions and low own weight, it is possible to use a car trailer or van to supply and remove the Floor stripper.
 - Loading and unloading can be performed with a ramp and the machine's own drive.
 - A crane hook has been provided for using lifting tools.
 - In order to save space, it is possible to remove the handle (tiller head). Use the provided 8mm socket head wrench for this.

7.2 Opslag

When decommissioning the DTS100 Floor stripper for a longer period of time, it is recommended to perform the following actions:

▲ STORAGE!

- Do NOT clean the Floor stripper with a high-pressure cleaner! Cleaning with compressed air!
 - Neatly clean the machine.
 - Perform maintenance, see section 9.
 - Store the machine in a dry, preferably frost-free room.
 - Cover the machine, if possible.

8. GET STARTED!

▲ CAUTION!

Check in advance that there are NO bolts, screws or threaded ends protruding from the floor. This could damage the strip mechanism.

8.1 Get started

▲ CAUTION!

- Before you connect a power cord, you must first check it for damages!

▲ CAUTION!

- The Floor stripper can be moved manually by tilting the machine backwards, so that it is supported by the transport wheels.

▲ CAUTION!

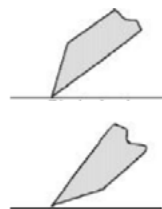
- The hard steel blades are very sharp!!
- Proceed carefully when installing and removing the blade!

▲ CAUTION!

- Check that the power supply and converter are suitable for the machine!
 - Check that the tiller and the plug of the tiller head cord are properly fastened.
 - Mount the counter-weight plates and fasten them properly. The bolt heads should go in the blind holes, so they do not protrude! Use the provided 8 mm socket head wrench for this.
 - Carefully select a strip blade type: see box to the left. The correct strip blade that is suitable for the work will save you a lot of time and ensure a better end result!!
 - Place a blade in the blade holder and properly fasten the clamping plate using the 6 mm socket head wrench.
 - Insert the power cord in the counter plug on the stripper.

The Floor stripper is now ready for use.

Guidelines for selecting the correct strip blade:



- In case of a concrete floor, keep the bevelled side of the blade at the top.
- In case of a wooden (soft) subfloor, it may be better to turn the blade around, due to the adapted cutting angle.
- In case of a soft subfloor, select a blade with a 15° angle
- In case of hard material, select a narrower blade
- In case of carpet, for instance, select a U blade to cut loose strips of material
- Use your experience and/or consult with your supplier to determine which blade model is most suitable for your application.

8.2 Start working

⚠ CAUTION!

- Prior to pressing the “on/reset” button, ALWAYS first set the strip motor to “0” to prevent overload due to the starting current!
 - First set the strip motor to “0/OFF”.
 - Set the rotary button for drive speed fully to the left, to the zero position.
 - Check that the emergency stop button is not pressed in.
 - Press the green “ON” button: the led in the button should light now.
 - Set the strip motor to “I / ON”.
 - Operate the drive motor forwards or backwards using the green thumb buttons on the handle.
 - Use the potentiometer on the tiller head to set the forward drive speed, the reverse speed is always maximum.
 - Work in long lanes, do not repeatedly reverse.
 - Turning around is easy by tilting the stripper backwards and using the freewheels for turning around.

⚠ CAUTION!

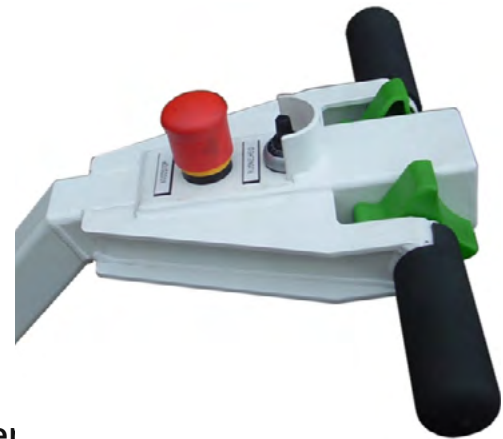
- Do NOT stand on the stripper for extra weight!
 - Also during the work, regularly check that all bolts are still properly fastened.
 - Do not drive against walls or fixed objects. Make sure there are no bolts, screws or threaded ends protruding from the floor. This could damage the strip mechanism.
 - Regularly remove stripped carpet from the front of the machine.
 - Do watch out for the power cords, to prevent accidents.

8.3 Completing the work

- Set the strip motor switch to “0/OFF”.
- Remove the plug from the socket.

8.4 Preparing for transport

- Remove the plug from the socket.
- ALWAYS remove the blade prior to transport!
- Before departure, check that all tools, components and PPE have been returned to the provided case.
- Insert the plug in the socket again.
- Drive the DTS100 to the transport device by means of its own power, or manually by means of the freewheels.
- Store the power cords.



8.5 Replacing a blade

⚠ WARNING!

The strip blades are hardened and very sharp, ALWAYS wear gloves when placing and replacing a strip blade!

- Place a block under the blade holder, so that the Floor stripper is somewhat tilted backwards.
- Loosen the four bolts of the blade holder by a few turns.
- Take the blunt blade from the blade holder, store it so that no-one can injure themselves with it.
- Slide the required strip blade between the lower and upper piece of the blade holder, making sure the recesses fall over the bolts.
- Properly tighten the blade holder bolts again, replace the screws when they show signs of wear!
- The Floor stripper is now ready for use again!



9. MAINTENANCE

▲ WARNING!

Always first remove the plug from the socket before performing inspection, maintenance or repairs!

The DTS100 Floor stripper is a simple, reliable machine. Regularly maintenance is needed however, to keep the machine in a good condition for optimum results.

The indicated intervals are a guideline for normal use, in case of more or less intensive use, these actions can be performed more or less frequently!

The geared motor of the travel drive is maintenance free!

9.1 Daily maintenance

- Regularly check the machine -visually- for leaks and damages, this certainly also applies to the power cord(s)!
- Repair damages immediately or have them repaired. This also applies to minor damages. This is for the benefit of your safety and the life span of your machine.
- Remove all loose material from the stripper mechanism.
- Keep the machine clean! This reduces the risk of accidents and makes your work easier. convenient!
- Check that all bolts are properly fastened.
- Replace the bolts of the blade holder when the heads show signs of wear.

▲ CAUTION!

- **Clean carefully! Do not spray clean with a high-pressure cleaner!**

9.2 Aanhaalmomenten

For 8.8 hexagon bolts, the following torques can be observed. (Wurth):

M6x1,0-8.8	10 Nm.
M8x1,25-8.8	25 Nm.
M10x 1,5-8.8	50 Nm.

10. MALFUNCTIONS

This section provides general guidelines for troubleshooting at the machine, it is not a step-by-step search diagram.

The Floor stripper DTS100 is solidly built and will function free from failures for a long period of time, if used carefully within the stated standards of use.

▲ WARNING!

Only have electrical failures repaired by qualified and skilled personnel and only use original replacement parts.

FIRST:

- Disconnect all other machines from the same power group.
- Try the machine without extension cords, near the power supply.

10.1 Green led does not light up

Error in the power supply, check the following:

- Is the emergency stop button not pressed down?
- Are the plugs inserted properly?
- Have any fuses blown? No fuse has been included in the DTS100 itself.
- Is the extension cord not damaged / broken?

10.2 The driving components do not function properly

- Has the cord for the tiller head been connected (properly)?
- Check the power cord, does the led in the reset button light up??
- Check the tiller head cord for damages.
- Check that the wheel motor is working.
 - Reset the frequency controller:
 - Pull the power cord out of the stripper.
 - Wait 30 seconds (=reset controller)
 - Place the power cord back in the counter plug.
 - Restart the machine.

10.3 Stripper does not function properly

- Is the blade sufficiently sharp?
- Has the driving speed been adjusted to the blade load?
- Check the power cord, does the led in the reset button light up?
- Is the blade still properly fastened in the blade holder?
- Has a vibration rubber been torn?
- Is there a defective bearing (house)?

10.4 Error code in the frequency controller

The DTS100 stripper has been provided with a Bonfiglioli S2U frequency controller. In case of a frequency controller error, a code is shown in the display. These codes can be seen in the next pages and have been taken from the English S2U manual:

Faults which can not be recovered manually			
Display	content	Cause	Corrective action
-oV- -oU-	Voltage too high when stopped	Detection circuit malfunction	Consult with the supplier
-LV-			
-LU-	Voltage too low when stopped	1. Power voltage too low 2. Blown fuse 3. Detection circuit malfunction	1. Check if the power voltage is correct 2. Check fuse 3. Consult with the supplier
-oH-			
-oH-	The inverter is overheated when stopped	1. Ambient temperature too high or bad ventilation 2. Detection circuit malfunction	1. Improve the ventilation Conditions 2. Consult with the supplier
-oHC-			
-oHC-	The inverter is overheated while running	1. Ambient temperature too high or bad ventilation 2. Detection circuit malfunction	1. Improve the ventilation Conditions 2. Consult with the supplier
CtEr			
CtEr	Current Sensor detection error	Current sensor error or circuit malfunction	Consult with the supplier
EPr	EEPROM problem	Faulty EEPROM	Consult with the supplier
EPr	Communication error	Communications disruption	Check the wiring
Cot			
Cot	Faults which can be recovered manually and automatically		
Display	content	Cause	Corrective action
oC-A	Over-current at acceleration	1. Acceleration time too short 2. The capacity of the motor exceeds the capacity of the inverter 3. Short circuit between the motor coil and the case 4. Short circuit between motor wiring and ground 5. IGBT module damaged	1. Set a longer acceleration time 2. Replace inverter with one that has the same rating as that of the motor 3. Check the motor 4. Check the wiring 5. Consult with the supplier
oC-A			
oC-C	Over-current at fixed speed	1. Transient load change 2. Transient power change	1. Increase the capacity of the inverter 2. Install inductor on the power supply input side
oC-C			
oC-d	Over-current at deceleration	The preset deceleration time is too short.	Set a longer deceleration time



oC-S	Over current at start	1. Short circuit between the motor coil and the case 2. Short circuit between motor coil and ground 3. IGBT module damaged	1. Inspect the motor 2. Inspect the wiring 3. Consult with the supplier
oC-5			
oV-C	Excessive Voltage during operation/ deceleration	1. Deceleration time setting too short or excessive load inertia 2. Power voltage varies widely (fluctuates)	1. Set a longer deceleration time 2. Consider use of a reactor at the power input side
oU-C			
PF	Input phase Loss	Abnormal fluctuations in the main circuit voltage	1. Check the main circuit power supply wiring. 2. Check the power supply voltage
PF			
Faults which can be recovered manually but not automatically			
Display	content	Cause	Corrective action
oC	Over-current during stop	Detection circuit malfunction	Consult with the supplier
oC			
oL1	Motor overload	loading too large	Consider increasing the Motor capacity
oL1			
oL2	Inverter overload	Excessive Load	Consider increasing the inverter capacity
oL2			
LV-C	Voltage too low during operation	1. Power voltage too low 2. Power voltage varies widely (fluctuates)	1. Improve power quality 2. Consider adding a reactor at the power input side
LV-C			
Display	content	Cause	Corrective action
LoC	1. Parameter already locked 2. Motor direction locked 3. Parameter password (13-07) enabled	1. Attempt to modify frequency parameter while 13-06 > 0. 2. Attempt to reverse direction when 11-00 = 1. 3. Parameter (13-07) enabled, set the correct password will show LOC.	1. Adjust 13-06 2. Adjust 11-00
LoC			
Err1	Keypad operation error	1. Press ▲ or ▼ while 00-05 / 00-06 > 0 or running at preset speed. 2. Attempt to modify the Parameter. Can not be modified during operation (refer to the parameter list)	1. The ▲ or ▼ is available for modifying the parameter only when 00-05 / 00-06 = 0 2. Modify the parameter in STOP mode.
Err1			
Err2	Parameter setting error	1. 00-13 is within the range of (11-08 ± 11-11) or (11-09 ± 11-11) or (11-10 ± 11-11) 2. 00-12 ≤ 00-13	1. Modify 11-08 ~ 11-10 or 11-11. Set 00-12 > 00-13
Err2			
Err5	Modification of parameter is not available in communication	1. Control command sent during communication. 2. Attempt to modify the function 09-02 ~ 09-05 during communication	1. Issue enable command before communication 2. Set parameters 09-02 ~ 09-05 function before communication
Err5			
Err6	Communication failed	1. Wiring error 2. Communication parameter setting error. 3. Incorrect communication protocol	1. Check hardware and wiring 2. Check Functions (09-00 ~ 09-05).
Err6			
Err7	Parameter conflict	1. Attempt to modify the function 13-00/13-08. 2. Voltage and current detection circuit is abnormal.	If reset is not possible, please consult with the supplier.
Err7			

Display	Fault	Description
StP0 STP0	Zero speed at stop	Occurs when preset frequency < 0.1Hz
StP1 STP1	Fail to start directly On power up.	<ol style="list-style-type: none"> 1. If the inverter is set for external terminal control mode (00-02 / 00-03 = 1) and direct start is disabled (07-04 = 1) 2. The inverter cannot be started and will flash STP1. 3. The run input is active at power-up, refer to descriptions of (07-04).
StP2 STP2	Keypad Stop Operated when inverter in external Control mode.	<ol style="list-style-type: none"> 1. If the Stop key is pressed while the inverter is set to external control mode (00-02 / 00-03 = 1) then "STP2" flashes after stop. 2. Release and re-activate the run contact to restart the inverter.
E.S. E.S.	External Rapid stop	When external rapid stop input is activated the inverter will decelerate to stop and the display will flash with E.S. message.
b.b. b.b.	External base block	When external base block input is activated the inverter stops immediately and then the display will flash with b.b. message.
PdEr PdEr	PID feedback loss	PID feedback loss is detected.

11. WARRANTY CONDITIONS

A six month warranty period applies to this machine, after delivery in accordance with the Metaalunie conditions.

This means that within this period, only material and manufacturing defects are repaired free from costs, AFTER ASSESSMENT BY DEHACO. Transport and/or travelling expenses must be paid by the customer. NO WARRANTY is provided for defects that have been caused when:

- it can be proven that the machine has been overloaded.
- the machine has been used for purposes for which it has not been built.
- it can be proven that maintenance performed has been poor.
- the information in this manual has not been observed properly.
- the machine has been used by unauthorised persons.
- the machine has been repaired with non-original parts.
- the machine has been adapted without written permission from Dehaco.

NO WARRANTY is provided for wear parts, as stated in section 5.

12. REPAIR

Dehaco expressly recommends that repairs are only performed by skilled and experienced personnel. No extensive repair descriptions have been included in the manual, but you can always contact Dehaco if you have any questions.

13. END OF LIFE SPAN

You must always meet the currently and locally applicable requirements and directives for working safely and responsible disposal!

If after being used for a long period of time, the machine has reached its technical end, please proceed as follows for responsible processing:

- Clean the machine.
- Disassemble the electronic components. These can be disposed of separately.
- Disassemble the plastic parts, these can be disposed of separately.
- The remaining components are made of steel and can be scrapped.

14. PARTS

The parts list is provided as a separate document. The machine is developed and built using partly custom-made parts and partly standard components. The standard components can be delivered in a short period of time.

Please contact your supplier to place your order and ask for the delivery time!!



Dehaco B.V

Dehaco Lisserbroek

Kruisbaak 25, 2165 AJ
Lisserbroek, The Netherlands

Dehaco Raamsdonksveer

Steurweg 1, 4941 VP
Raamsdonksveer, The Netherlands

Phone +31 (0)88 20 20 600

E-mail info@dehaco.nl

www.dehaco.nl