



# Clemas & Co Ltd

Industrial Cleaning Equipment  
Sales - Hire - Service

## CT 12 SCRUBBER DRYER OPERATOR MANUAL



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## **2. SAFETY PRECAUTIONS**

Read this manual carefully before using the floor cleaner. The machine must not be operated by untrained or unauthorized personnel.

Ensure that the power supply sockets are suitably earthed and that they are protected by magnetothermal and differential switches.

This automatic scrubber shall be grounded while in use to protect the operator from electric shock. The machine is provided with a three-conductor cord and a three-contact grounding type attachment plug to fit the proper grounding type receptacle. The green and yellow conductor in the cord is the grounding wire. Never connect this wire to other than the grounding pin of the attachment plug.

Look at the series plate to see the voltage for which it is built: if this machine is for use on a nominal 120-Volt circuit it has a grounding plug that resembles the plug illustrated in figure A. Make sure that the machine is connected to an outlet having the same configuration as the plug. No adapter should be used with this machine.

If this machine is provided with an attachment plug as shown in figure B, it is intended for use on a nominal 240 Volt circuit. No adapter is available for this plug.

Ensure that the electrical characteristics of the machine (voltage, frequency, power absorbed), shown on the rating plate (fig. 2, N° 6), correspond to those of the power distribution system.

Move the machine carefully on slopes and ramps. Do not reverse on slopes. Never park the machine on a slope.

The cleaner must not be used on public highways.

The machine can cause explosions if used in the vicinity of inflammable materials or vapours (fuel, solvents etc.). It must therefore not be used to suck up inflammable liquids, even if diluted.

Do not use in the presence of harmful dust.

Repairs must be carried out by specialist personnel only.

All maintenance operations must be carried out by specialist personnel only after disconnecting the machine from the mains (always unplug).

During use, avoid squashing or ripping the mains cable.

Periodically check the mains cable to ensure that it has not been damaged. If damaged, the machine cannot be used.

If you have to replace the cable, plug or terminals, secure the electrical connections and cable strap so that the cable cannot be ripped. Carefully refit the electrical boxes to ensure operator safety.

When using, be careful of other people and in particular children in the area. Do not leave the machine unattended with the plug connected.

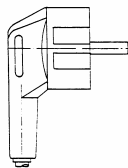
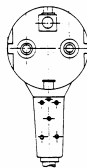
The pump that delivers the water and detergent solution to the brush must not operate dry: during use, always check the window (fig. 2, N° 18) to make sure that the tank is not empty and never leave the machine running with the attachment switch (fig. 3, N° 1) on.

To ensure correct operation of the machine, use non-foaming detergents.

This product is classified as RAEE type special waste and is covered by the requisites of the new environmental protection regulations (2002/96/CE RAEE). It must be disposed of separately from ordinary waste in compliance with current legislation and standards.



**Special waste. Do not dispose of with ordinary waste.**



### **3. GENERAL INFORMATION**

#### **3.1 Machine identification**

This operating and service manual applies to a model of cleaner with roller brush. The machine identification plate is affixed to the chassis in position N° 6, fig. 2, and specifies the electrical power characteristics.

#### **3.2 General description**

This floor cleaner has been designed to wash and dry smooth, even floors free from obstructions. It is available in cable-version.

The cleaner distributes a suitable amount of detergent over the floor and brushes it to remove the dirt. By using specific detergents or by fitting brushes made of different fibres, the machine can be adapted to a wide range of floor and dirt types both for cleaning and polishing.

A liquid suction system incorporated in the cleaner provides for perfect floor drying in both operating directions. The drying blade (fig. 2, N° 12) has a parabolic profile for efficient collection of the dirty water.

The main parts of the machine are as follows:

- the detergent solution tank (fig. 2, N° 5) which contains and transports the mixture of clean water and detergent;
- the recovery tank (fig. 2, N° 19), used to collect the dirty water sucked up from the floor during washing. It can be detached and used as a bucket for transport and emptying;
- the squeegees (fig. 2, N° 11, 12 and 13) which wipe and therefore dry the floor;
- the brush roller (fig. 2, N° 9).

#### **3.3 Applications**

Washing and drying of smooth and moderately rough floors.  
Polishing (with appropriate brush roller and suitable detergents).

## **4. PREPARING THE MACHINE**

### **4.1 Lifting and transporting the machine in its packaging**

The machine is packed in a cardboard box with handles to facilitate movement. Handle carefully, avoiding knocks, and do not overturn.

### **4.2 Checks on delivery**

When the transporter delivers the machine, carefully check the state of the packaging and ensure that the machine is intact. If it is damaged, inform the transporter but accept the delivery, reserving the right to submit a written claim for compensation for damages.

### **4.3 Unpacking**

Remove the machine from its packing as follows:

- cut and remove the adhesive tape;
- open the cardboard box;
- grip the machine by the handle (fig. 2, N° 2) and lift it out of the box;
- release the handle via the lever (fig. 2, N° 3) and set the handle to the vertical rest position R (see figure 1 and paragraph 5.2: adjusting the handgrip);
- take the envelope out of the dirty water tank (fig. 2, N° 19) and check the contents:
  - testing check-list;
  - warranty form;
  - operating and service manual;
- dispose of the box and packing material using differentiated waste bins if available.

### **4.4 Electrical and earth connection**

The rating plate (fig. 2, N° 6) gives the electrical characteristics of the machine.

Ensure that the frequency and power correspond to those of the power distribution system. As regards voltage, the models with rating plate indicating 230 V can be used for voltages of 220, 230 or 240 V. The same applies to the models with 115 V rating: they can be used at 110, 115 and 120 V. The frequency specified on the plate must, however, always be identical to the mains frequency.

Check that the electrical system is provided with a suitable earth line and that it is protected by adequate magnetothermal and differential switches. Also check that the sockets (and any adapters used) do not interrupt the earth leads.

**FAILURE TO OBSERVE THESE DIRECTIONS CAN RESULT IN SERIOUS DAMAGE TO PERSONS AND THINGS AND LAPSE OF THE WARRANTY.**

## **5. USING THE MACHINE**

**CAUTION: SWITCH OFF THE VACUUM MOTOR IMMEDIATELY IF THE FLOATING VALVE IS RELEASED.**

### **5.1 Description of the controls**

Electrical controls and indicator lights on the control panel:

- a. power indicator light (fig. 3, N° 6): white light indicating that the machine cable is connected to the mains;
- b. power supply master switch (fig. 3, N° 7): enables or disables all the electrical equipment;
- c. illuminated suction switch (fig. 3, N° 2): switches the suction motor on and off;
- d. detergent solution pump illuminated switch (fig. 3, N° 3): enables or disables the pump that supplies the brush with detergent solution;
- e. detergent solution pump illuminated switch for attachment function (fig. 3, N° 1): to be used only when the Combi attachment is fitted. It drives the pump that supplies the attachment with detergent solution.

**(CAUTION:** when using this control, ensure that the water and detergent solution pump never operates dry. Consult the paragraph giving instructions for use of the Combi attachment);

- f. roller and solution pump control trigger (fig. 3, N° 4):
  - when completely released, the brush roller and solution pump are at a standstill;
  - in the middle position, only the brush roller will start up;
  - with the trigger fully pressed, both the brush roller and solution pump will operate simultaneously (if enabled by push-button 3) and pilot light 5 will come on;
- g. detergent solution pilot light (fig. 3, N° 5): indicates that the pump is operating (trigger 4 fully pressed or key 1 in position I);
- h. squeegee pressure adjustment handle (fig. 2, N° 17): turn clockwise to increase the pressure between the squeegees and the floor;
- i. solution window (fig. 2, N° 18): provides a visual control of the flow of detergent solution to the brush roller.

### **5.2 Adjusting the handgrip**

The machine is provided with an adjustable handgrip (fig. 2, N° 2) for practical use and transport. To change from one position to another, release the handgrip by means of the lever (fig. 2, N° 3). Referring to fig. 1, the handgrip positions are the following:

**T:** transport. With the handle in this position the floor cleaner can be easily loaded into the boot of a car;

**RT:** rest. A foot lifts the front part to prevent permanent deformation of the brush roller and squeegee blades;

**R:** this is for resting and moving the machine from one place to another. Here again, a foot lifts the front part to prevent permanent deformation of the brush roller and squeegee blades, which would affect drying quality;

**L:** working position with fixed angle;

from **L** to **LA**: for working under tables, low furniture etc.. The handgrip can be released from the work position **L** and tilted to the angle required as far as point **LA**.

## **ENGLISH**

### **Caution:**

In positions **T**, **RT** and **R**, an automatic mechanism lifts the brush roller and squeegees from the ground to avoid damage. At the end of work, therefore, the machine must always be put away with the handle in position **T**, **R** or **RT**.

### **5.3 Moving the machine**

To move the machine:

- set the handgrip (fig. 2, N° 2) to position R (see figure 1);
- raise the front part of the machine by pressing down on the handgrip;
- push forward.

### **5.4 Emptying the dirty water**

To empty the tank:

- remove the dirty water tank lid (fig. 2, N° 20);
- raise the tank (fig. 2, N° 1) holding it by the handle and, using it as a bucket, empty it;
- refit the tank on the machine;
- position the lid on the tank with the front part tilted downwards towards the gasket. Press the back of the lid down so that it fits onto the tank and check that it is perfectly closed.

**CAUTION: SWITCH OFF THE VACUUM MOTOR IMMEDIATELY IF THE FLOATING VALVE IS RELEASED.**

### **5.5 Emptying the clean water**

To empty the clean water from the tank:

- pull the pipe out (fig. 2, N° 8);
- remove the clean water tank lid (fig. 2, N° 4);
- remove the plug (fig. 2, N° 7);
- refit the plugs and lid and replace the pipe.

### **5.6 Fitting and changing the brush roller**

To fit the brush roller:

- unplug the machine;
- kneel down beside the front right side;
- raise the front part of the machine with one hand;
- with the other hand, slide the brush into position (fig. 2, N° 9) and press upwards until it clicks into place;
- lower the floor cleaner.

To remove the brush:

- unplug the machine;
- set the handle to the rest position R (see figure 1);
- press down with your foot on the brush pin (fig. 2, N° 9) and at the same time push the handgrip back to raise the front part of the machine;
- the brush roller will fall to the ground;
- move the machine away and collect the brush roller.

## **ENGLISH**

### **5.7 Adjusting the squeegees**

The squeegees (fig. 2 N° 11, 12 and 13) are the prime drying agents. The machine is provided with two squeegees for washing and drying when working both forwards and backwards. The squeegees can be pressure-adjusted to suit all surface types.

To adjust, rotate the knob (fig. 2, N° 17):

- clockwise to increase the pressure;
- anticlockwise to reduce the pressure.

### **5.8 Preparing the machine for work**

- Lift and remove the tank lids (fig. 2, N° 4 and 20);
- empty the recovery tank (fig. 2, N° 19) if necessary, following the procedure already described (paragraph 5.4);
- clean the detergent solution tank (fig. 2, N° 5) if necessary and the filter inside;
- fill the solution tank with an appropriate mixture of water and detergent (**caution**: check that the recovery tank has been completely emptied: if not, you may damage the suction motor);
- close the two tanks with their lids ensuring that the recovery tank lid (fig. 2, N° 20) fits perfectly.

### **5.9 Work**

Once you have prepared the machine with all the switches set to position O (off), the mains cable connected to the power socket, the detergent solution tank (fig. 2, N° 5) full and the brush roller fitted (fig. 2, N° 9):

- set the handgrip to the work position (L fig. 1);
- switch on the power supply, suction and water switches (fig. 3, N° 2, 3 and 7);
- press the trigger (fig. 3, N° 4); the brush roller will start up and the detergent solution will flow through the machine to the floor;
- if necessary, adjust the squeegee pressure via the appropriate knob (fig. 2, N° 17);
- during use, check the flow of detergent solution via the window (fig. 2, N° 18).

If the solution does not flow when the trigger is pressed and the enable switch is on, it means that the tank is empty.

In this case you should empty the dirty water tank and fill the detergent tank. If, however, you wish to continue washing, exclude the pump by turning the switch off (fig. 3, N° 3) to prevent it operating dry.

**(Caution:** failure to observe this precaution can result in damage to the pump).

### **5.10 Using the Combi attachment**

The Combi attachment allows you to clean places which would normally be inaccessible such as corners, stairs and obstructed floor areas.

To use the attachment, proceed as follows:

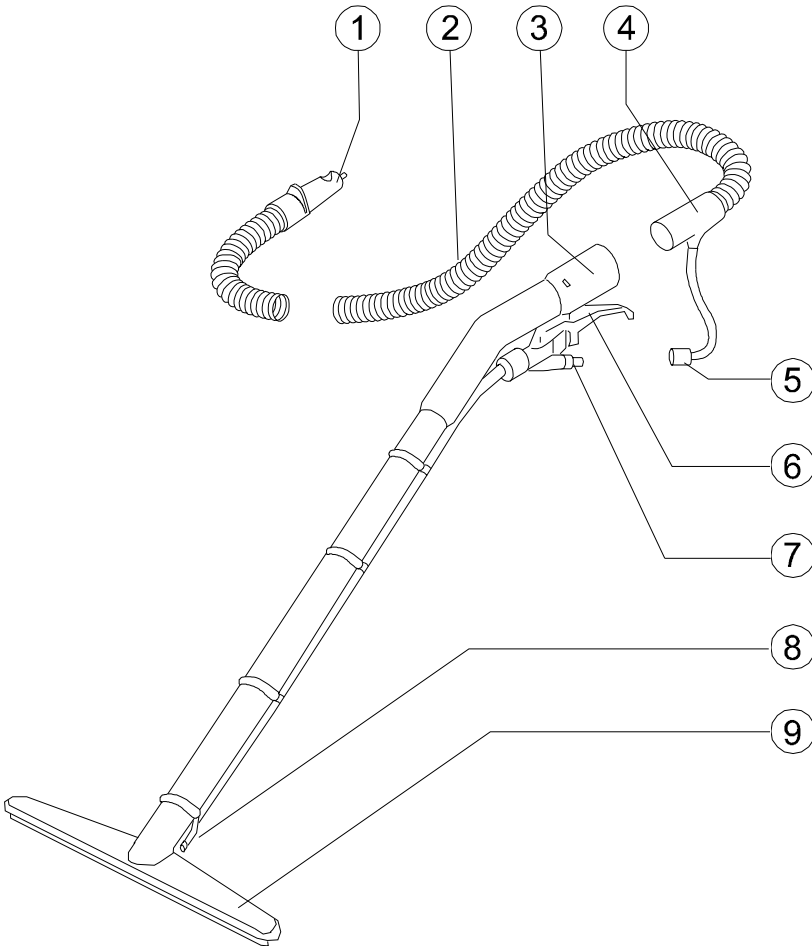
- set the handgrip (fig. 2, N° 2) to the vertical position (R);
- switch the suction unit off (key 2, fig. 3);
- raise the lid (fig. 2, N° 16) and insert the Combi fitting with the hole facing upwards (fig. 2, N° 14) into position (fig. 2, N° 15);
- close the lid on the Combi fitting to lock it in position;
- check that the water and detergent solution tank (fig. 2, N° 5) is not empty;
- switch the switch for attachment function on (key 1, fig. 3);
- holding the attachment, spray the detergent solution by means of the lever 6 in figure 4 and guide the bristles over the floor (fig. 4, N° 9) to remove the dirt;

**ENGLISH**

- always keep an eye on the clean water tank to check that it has not emptied: running the pump without water can permanently damage it;
- switch the suction unit on (key 2, fig. 3) and suck up the dirty water, running the squeegee (fig. 4, N° 9) over the floor using the rubber part;
- at the end of cleaning with the attachment, always switch the suction unit and detergent solution pump off.

Never leave the machine unattended with the pump and/or suction unit running.

- Remove the Combi from its fitting.



**Figure 4**

## ENGLISH

### 5.11 Carpetcleaning tool

The carpet cleaning tool is made up of two squeegees **A** and **B** (Fig. 5a) that enable to wash and dry any kind of carpet.

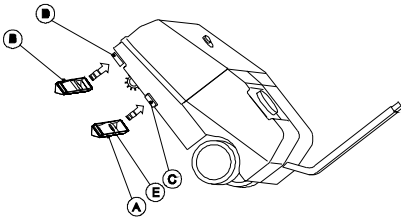


Fig 5a

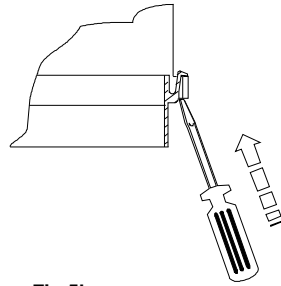


Fig 5b

#### Fitting

To fit the two squeegees, carry out the following operations (Fig. 5a):

- be sure that the plug is disconnected from the socket;
- leave the dirty water tank (following the instruction in the instruction book);
- empty the clean water tank till the half of its capacity (following the instruction in the instruction book);
- tilt the machine raising the front part to the vertical position;
- remove the two squeegees placed in position **C** and **D**, unscrewing the screws;
- the carpet tool **A**, provided with a hole **E** on the top must be applied in the position **C** instead of the squeegee and it is used to dry working forward. For the coupling of the fittings use a screwdriver (Fig. 5b);
- the carpet tool **B**, without hole on the top, must be applied in the position **D** instead of the squeegee and serves as support for the machine.

In case you want to dry backward, invert the position of the carpet tools.

### 5.12 End of work

At the end of washing and drying:

- let the vacuum motor work for 2 minutes with the tank cover open to be sure the vacuum motor itself is well dry;
- set all the switches to position O (off);
- empty and clean the recovery tank (fig. 2, N° 19);
- put the machine away with the handgrip in the rest position R (or T or RT: see fig. 1), ensuring that the brush roller and squeegees are not touching the floor;
- unplug the machine.

### 5.13 How to get the most out of your floor cleaner

When removing particularly stubborn dirt, washing and drying can be performed in two separate stages.

- **Prewashing:** set the power supply and water switches (fig. 3, N° 7 and 3) to position "I" (on), switch the suction unit switch (fig. 3, N° 2) off and press the trigger, going over the dirtiest points several times. When a sufficient amount of detergent solution has been spread over the floor, switch the water switch off (fig. 3, N° 3) and continue brushing. This gives the detergent time to act and the brush time to perform efficiently.

## **ENGLISH**

- Drying: turn the suction unit switch on (fig. 3, N° 2) and go over the same area again.

To wash and dry at the same time, simultaneously operate the brush, the water and the suction motor.

Do not stop with the brush operating.

To finish drying, use the brush and suction unit, switching the pump off (switch 4, fig. 3).

For easy use and maximum efficiency, you are advised to work in straight lines as far as possible, going over any areas that cannot be reached with the cleaner at the end, using a mop or cloth or, even better, the Combi.

### **5.14 Periods of inactivity**

When the machine is at rest, the squeegee and roller must be raised to avoid deformation of the drying blades and bristles. For this purpose, simply set the handle to the vertical position or fold it over completely to the front: a mechanism will raise the machine.

For long periods of inactivity, see the chapter on maintenance, paragraph 6.8.

## **6. ORDINARY MAINTENANCE**

### **6.1 General**

To avoid damage to persons and the cleaner itself, always disconnect the power supply cable before carrying out any maintenance operations.

Maintenance operations concerning the electrical system and any operations not described here must be carried out by specialist personnel only.

### **6.2 General cleaning**

When cleaning the machine, always bear the following in mind:

- avoid using hydrocleaners: water could seep into the electrical boxes or motors, consequently damaging them or causing a short circuit;
- do not use steam as the heat will deform the plastic parts (casings and tanks) and make the nylon wheel bearings unserviceable;
- do not use solvents or hydrocarbons: you could damage the casings or rubber parts.

### **6.3 Replacing the squeegee blades**

The job of the squeegee blades is to scrape the film of water and detergent from the floor thus permitting perfect drying. With use, continuous friction will blunt and crack the sharp edge in contact with the floor, affecting drying efficiency and thus requiring replacement of the blade.

Replacing the blades:

- remove the squeegee (fig. 2, N° 13) from its support, unscrewing the screws;
- turn the squeegee over;
- remove the worn blades (fig. 2, N° 11 and 12) and replace them with the new ones, inserting the protruding tooth into position;
- if necessary, dust the blades with talcum powder to facilitate this operation;
- refit the squeegee on its support.

## **ENGLISH**

### **6.4 Periodical lubrication**

This cleaner does not require any periodical lubrication.

### **6.5 Routine maintenance: daily operations**

Every day, at the end of work, carry out the following operations:

- check that both tanks are perfectly clean before putting the machine away;
- check that the filter inside the solution tank is clean. If necessary, remove it by pulling it upwards, clean it and refit;
- clean the squeegee blades (fig. 2, N° 11 and 12) checking that they are not excessively worn and that they have not been torn. For maximum drying efficiency, the blades must be sharp in order to break the film of water that forms on the floor.

### **6.6 Routine maintenance: weekly operations**

- Check that the squeegee suction hole (fig. 2, N° 13) is not clogged; remove any encrusted dirt if necessary;
- wash the squeegees.

### **6.7 Routine maintenance: six-monthly operations**

- Have the electrical system checked by qualified personnel;
- completely wash the tanks and filter, then pour 2 litres of water containing a 10% solution of water softener into the clean water tank (fig. 2, N° 5) and run the pump until the tank empties;
- rinse the tank; pour in one litre of water and operate the pump again until the tank empties.

### **6.8 Preparing for prolonged periods of inactivity**

If the machine is not going to be used for a long period, proceed as follows:

- dismantle the squeegees (fig. 2, N° 13), wash them and pack in a plastic envelope or sheet;
- remove the brush roller;
- empty and thoroughly clean both tanks (fig. 2, N° 5 and 19);
- store the machine in a dry place, protecting it from dust.

## **7. HOW TO ORDER SPARE PARTS**

To enable our servicing department to correctly identify the spare parts required, and therefore to provide an efficient service at all times, the following information must ALWAYS be provided:

- machine model;
- serial number (see rating plate 6, fig. 2);
- spare parts table showing the part and reference number;
- part code;
- quantity required.

For replacement under warranty, a brief description of the fault must also be enclosed with the order.

## 8. TROUBLESHOOTING

Fault	Cause	Remedy
The solution does not flow out	* The solution tank is empty	* Fill it
	* The pump switch is off	* Turn the pump switch on
	* The control trigger has not been correctly operated	* Press the control trigger right in
	* You are using the Combi with the switch off	* Set switch 1 in fig. 3 to the correct (I) position
	* The solution filter or pipes are clogged	* Clean the filter and remove the obstruction to free the pipes obstruction to free the pipes. Flush through if necessary with a water softening solution as described in the routine maintenance instructions
	* The pump thermal protection has cut in	* Leave the pump to cool for at least 15'
	* When the Combi was removed the detergent deviator valve remained under pressure	* Turn off all the switches and insert the Combi quick fitting (fig. 2, N° 14) into position (fig. 2, N° 15) again. Remove the quick fitting and try using the machine again
	* The pump is damaged	* Repair or replace the pump
The squeegee does not suck up the dirt	* The switch is off	* Turn the suction switch on
	* The suction unit lid off the dirty water tank is not correctly positioned	* Position the tank lid according to the instructions and check that it is perfectly closed
	* There is an obstruction in the suction pipe	* Unclog the pipe
	* The suction motor does not work	* Have the motor connections checked and replace the motor if necessary
The squeegee leaves traces of dirty water on the floor	* The squeegee is not correctly pressure adjusted	* Adjust the squeegee following the instructions
	*The blade edge in contact with the floor is worn	* Replace the blades
	*The squeegee or pipe is clogged or damaged	* Unclog and repair the damage

**ENGLISH**

<b>Fault</b>	<b>Cause</b>	<b>Remedy</b>
The machine does not clean evenly	* The roller is worn	* Replace the brush roller
The brush roller does not work	* The master switch is off	* Switch it on
	* The control trigger has not been fully pulled	* Operate the control correctly
	*An electrical or mechanical problem has occurred	* Have the motor, the capacitor and trasmission belt checked

**SPECIFICATIES**  
**TECHNISCHE GEGEVENS**  
**CARACTERISTIQUES TECHNIQUES**  
**CARACTERISTICAS TECNICAS**  
**TECHNISCHE KENMERKEN**  
**DATI TECNICI**  
**TEKNISKE EGENSKAPER**  
**TEKNISKA SPECIFIKATIONER**  
**ТЕХНИЧЕСКИЕ ДАННЫЕ**  
**CARACTERÍSTICAS TÉCNICAS**

Scrubbing width Schrubbreite Largeur de lavage Anchura de trabajo Breedte gereinigde baan Larghezza pista pulita Vaskebredde Rengöringsbar bredd Ширина мойки Largura da faixa limpa	mm	350
Squeegee width Saugfußbreite Largeur suceur Anchura boquilla de secado Breedte zuigrubber Larghezza tergipavimento oscillante Bredden på sugenal Svängande golvskrapans bredd Ширина скребка Largura do rodo oscilante	mm	420
Cleaning speed Reinigungsleistung Vitesse de lavage Caudal litros horas Rendement per uur Rendimento orario Ytelse per time Prestation per timma Часовая производительность Largura do rodo oscilante	m <sup>2</sup> /h	300/700
Brush number Bürsten Brosses Numero cepillos Aantal borstels Numero spazzole Antall børster Antal borstar Количество щеток Número de escovas	N	1
Roller diameter Walzendurchmesser Diamtre brosse Diametro cepillo Doorsnee cilindrische borstel Diametro rullo spazzola Diameter børsterull Borstrullens diameter Диаметр роликовой щетки Diâmetro do rolo da escova	mm	100
Brush pressure Bürstendruck Pression brosse Presión cepillo Druk op borstel Carico sul rullo Trykk på børsterullen Belastning på rullen Нагрузка на ролик Carga no rolo	daN(Kg)	16

Brush rpm Höchstgeschwindigkeit Vitesse rotation brosse R.P.M. cepillo Draaisnelheid borstel Velocità di rotazione spazzola Børstens rotasjons hastighet Borstens rotationshastighet Скорость вращения щетки Velocidade de rotação da escova	g/min	790
Brush motor Bürstemotoren Moteur brosse Potencia nominal motor cepillo Nominaal vermogen borstel motor Potenza nominale motore spazzola Nominell kraft børstemotor Borstmotorns nominella effekt Номинальная мощность мотора щетки Potência nominal do motor da escova	W	375
Vacuum motor Saugmotor Moteur aspiration Potencia nominal motor aspiração Nominaal vermogen zuigmotor Potenza nominale motore aspirazione Nominell kraft sugemotor Sugmotorns nominella effekt Номинальная мощность мотора всасывания Potência nominal do motor de aspiração	W	1000
Depression max. Depression Depression max. Depresión Max. onderdruk zuiging Depressione max. Aspirazione Maks undertrykk med oppsuging Lågtryck på sugsidan Макс. разряжение всасывания Descida máx. da pressão de aspiração	mm H <sub>2</sub> O	2250
Solution tank Lösungsmittel tank Reservoir solution Capacidad tanque solución Inhoud tank reinigingsoplossing Capacità serbatoio soluzione detergente Kapasitet for rentvannstank Lösningssmedeltankens kapacitet Емкость бака для моющего раствора Capacidade do depósito de solução detergente	l	12
Recovery tank Schmutzwassertank Reservoir recuperation Capacidad tanque agua sucia Inhoud vuilwatertank Capacità serbatoio recupero acqua sporca Kapasitet skittenvannstank Återvinningstankens kapacitet Емкость бака для возврата грязной воды Capacidade do depósito de recolha de água suja	l	13
Fixed wheels Festsehende Räder Roues fixes Ruedas fijas Doorsnee draagwielen Diametro ruote portanti Bærehjul diameter Stødhjulens diameter Диаметр несущих колес Diâmetro das rodas transportadoras	mm	150
Weight Nettogewicht Poids Peso a seco Droog gewicht Peso a secco Tørrvekt: Tomvikt Сухой вес Peso seco	Kg	29.5

Height, width, length Höhe, Breite, Länge Hauteur, largeur, longueur Anchura, longitud, altura Breedte, lengte, hoogte Larghezza, lunghezza, altezza Bredde, lengde, høyde Bredd, längd, höjd Ширина, длина, высота Comprimento, largura, altura	mm	See table Abm. Sehen tab. Dim. Voir tab. Dim. Vease tab. Dim. Zie tabel Afm. Vedi tabella Dim. Se dimensjonstabell. Se tabellen Dim. См. таблицу разм. Ver tabela de dimensões
Weight with packaging Gewicht Pois avec emballage Peso con embalaje Gewicht met verpakking Peso con imballo Vekt med emballasje Vikt med förpackning Вес с упаковкой Peso com embalagem	Kg	40
Sound Pressure Schalldruck Pression Sonore Presion Sonora Pressione Sonora Geluidsdruk Lydtrykk Ljudtryck Pressão sonora Звуковое давление	LpA [dB]	76
Vibrazioni mano Hand vibration Vibrations mains Handvibrationen Vibraciones mano Trillingen op handen Handvibrationer Vibrasjon hånd Vibrações na mão Вибрация, оказываемая на руки.	HAV [m/sec <sup>2</sup> ]	0,4
(incertezze della misura) k (measurement uncertainty) k (incertitude de mesure) k (Unsicherheiten der Messung) k (incertidumbre de las medidas) k (meetonzekerheden) k (mätosäkerhet) k (usikker måling) k (incertezas de medição) k (погрешность измерений) k	[m/sec <sup>2</sup> ]	0,2
Packaging dimensions (height, width, length) Abmessugen mit Verpack (Höhe, Breite, Länge) Dimensions avec pallet (haut., larg., long.) Dimensiones embalajes con pallet (anch., long, alt.) Afmetingen verpakking met pallet (breedte, lengte, hoogte) Dimensioni imballo con pallet (largh., lun., alt.) Størrelse emballasje med pall (lengde, bredde, høyde) Emballagets dimensioner med lastpall (längd, bredd, höjd) Размер упаковки с поддоном (шир., дл., выс.) Dimensões da embalagem com palete (comprimento, largura, altura)	mm	460x840x565

**We reserve the right to modify specificatiior without notice or obligation.**

**Unter Vorbehalt des Rechtes, die Angaben ohne vorgehende bekanntgabe zu aendern.**

**Les caractéristiques techniques peuvent etre changées sans préavis.**

**Datos sujetos a variaciones sin previo aviso.**

**Gegevens kunnen zonder voorafgaande kennisgeving gewijzigd worden.**

**Dati soggetti a variazioni senza preavviso.**

**Subjektive data som kan endres uten forvarsel.**

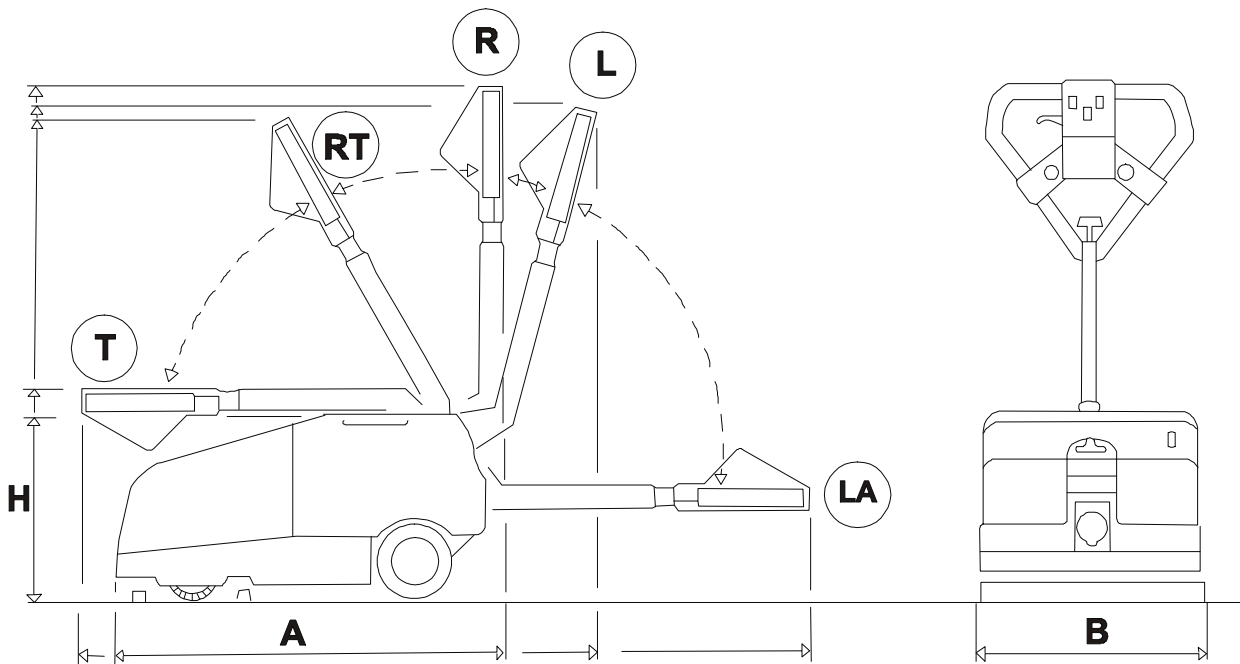
**Datan kan ändras utan en föregående underrättelse.**

**Данные могут быть изменены без предварительного уведомления.**

**Dados sujeitos a alterações sem aviso prévio.**

**DIMENSIONS**  
**ABMESSUNGEN**  
**DIMENSIONS**  
**DIMENSIONES**  
**AFMETINGEN**  
**DIMENSIONI**  
**DIMENSJONER**  
**DIMENSIONER**  
**РАЗМЕРЫ**  
**DIMENSÕES**

HANDGRIP POSITION GRIFFPPOSITION POSITION POIGNEE POSICIÓN EMPUÑADURA STAND HANDGREEP POSIZIONE IMPUGNATURA POSISJON HÅNDTAK GREPPETS POSITION ПОЛОЖЕНИЕ РУЧКИ POSIÇÃO DA PEGA	WIDTH BREITE LARGEUR ANCHURA BREEDETE LARGHEZZA BREDDE BREDD ШИРИНА LARGURA	LENGTH LÄNGE LONGUEUR LONGITUD LENGTE LUNGHEZZA LENGDE LÄNGD ДЛИНА COMPRIMENTO	HEIGHT HÖHE HAUTEUR ALTURA HOOGTE ALTEZZA HØYDE HÖJD ВЫСОТА ALTURA
<b>T</b>	<b>420</b>	<b>800</b>	<b>420</b>
<b>R</b>	<b>420</b>	<b>700</b>	<b>1010</b>
<b>L</b>	<b>420</b>	<b>960</b>	<b>920</b>
<b>LA</b>	<b>420</b>	<b>1320</b>	<b>380</b>



**Fig. 1**  
**Abbildung 1**  
**Рис. 1**

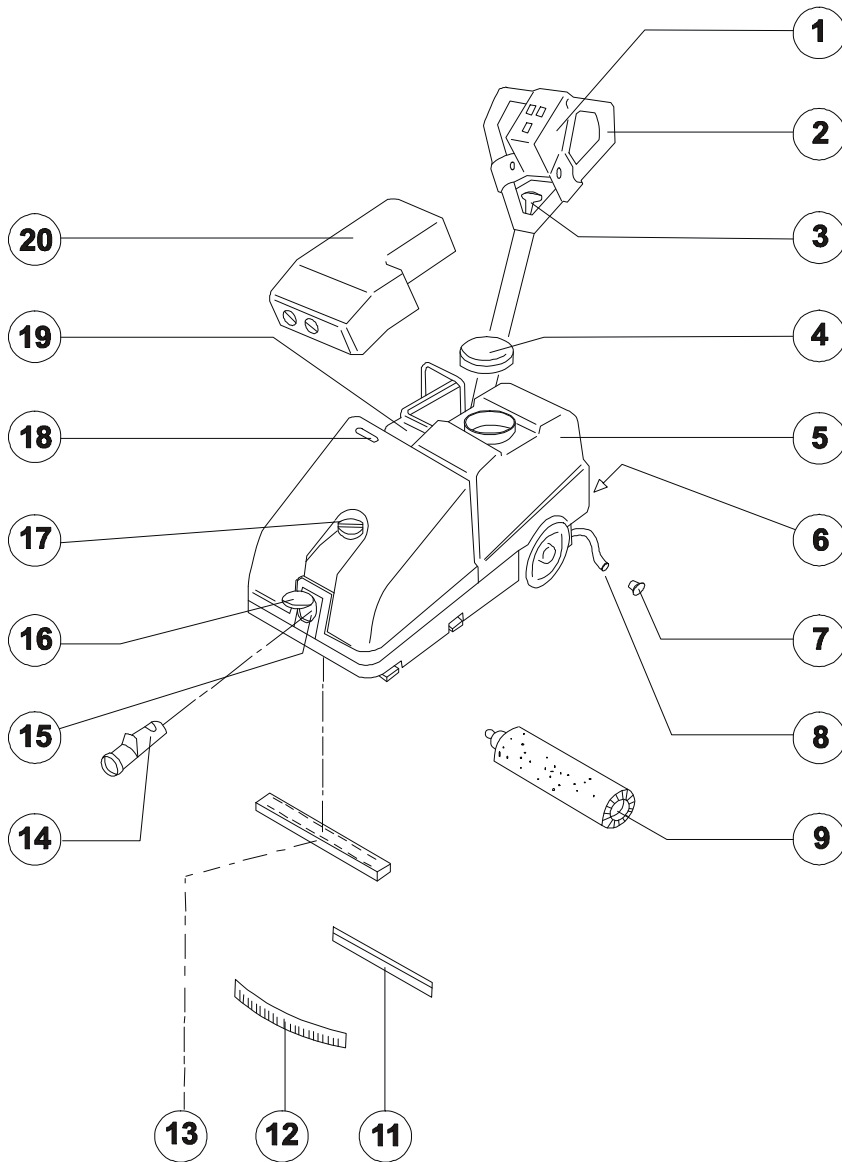


Fig. 2  
Рис. 2

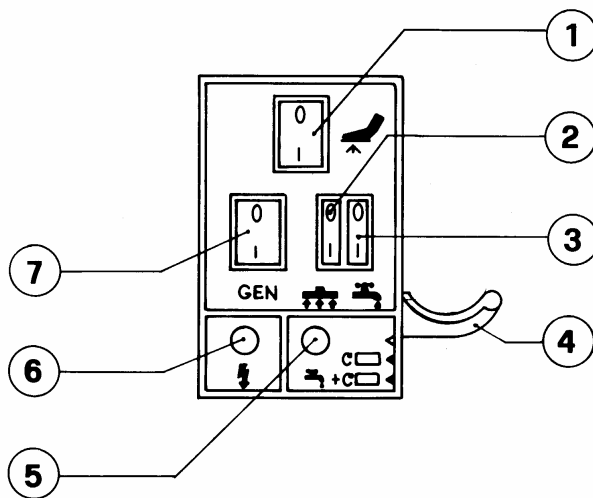


Fig. 3  
Рис. 3