

# USE AND MAINTENANCE MANUAL



MEDIA 65BT-75BT-60SBT

ED. 06-2011

EN

ORIGINAL  
INSTRUCTIONS  
Doc. 10019988  
AC Version



---

The descriptions contained in this document are not binding.  
The company therefore reserves the right to make any modifications at any time to elements, details, or accessory supply, as considered necessary for reasons of improvement or manufacturing/commercial requirements.  
The reproduction, even partial, of the text and drawings contained in this document is prohibited by law.

---

The company reserves the right to make any technical and/or supply modifications. The images are for reference purposes only, and are not binding in terms of design and supply.

---

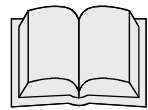
### Symbols used in the manual

---



Open book symbol with an "i"  
Indicates the need to consult the instruction manual

---



Open book symbol  
Used to tell the operator to read the manual before using the machine

---



Warning symbol  
Carefully read the sections marked with this symbol and observe the indications, for the safety of the operator and the machine

---



Warning symbol  
Indicates danger of gas exhalation and leakage of corrosive liquids

---



Warning symbol  
Indicates the danger of fire  
Do not go near with free flames

---



Warning symbol  
Indicates that the packed product should be handled with suitable lifting means that comply with the legal requirements

---



## CONTENTS

<b>ON CONSIGNMENT OF THE MACHINE</b> .....	5
<b>SERIAL NUMBER PLATE</b> .....	5
<b>INTRODUCTORY COMMENT</b> .....	5
<b>INTENDED USE</b> .....	5
<b>TECHNICAL DESCRIPTION</b> .....	6
<b>SYMBOLS USED ON THE MACHINE</b> .....	7
<b>GENERAL SAFETY REGULATIONS</b> .....	8
<b>MACHINE PREPARATION</b> .....	9
1. HANDLING OF THE PACKED MACHINE .....	9
2. HOW TO UNPACK THE MACHINE .....	9
3. HOW TO MOVE THE MACHINE .....	9
4. TYPE OF BATTERY .....	10
5. BATTERY MAINTENANCE AND DISPOSAL .....	10
6. INSERTING THE BATTERIES .....	10
7. CONNECTION OF THE BATTERIES .....	11
8. CONNECTION OF THE ELECTRICAL SYSTEM CONNECTOR .....	11
9. RECHARGING THE BATTERIES WITH AN EXTERNAL BATTERY CHARGER (VERSIONS WITHOUT BC) .....	11
10. RECHARGING THE BATTERIES WITH BUILT-IN BATTERY CHARGER (VERSIONS WITH BC) .....	12
11. BATTERY INDICATOR .....	14
12. INSTRUMENT PANEL COMPONENTS .....	14
13. REAR COMPONENTS .....	14
14. SIDE COMPONENTS .....	14
15. ASSEMBLING THE SQUEEGEE .....	15
16. ADJUSTING THE SQUEEGEE INCLINATION .....	15
17. ADJUSTING THE SQUEEGEE HEIGHT .....	15
18. RECOVERY TANK .....	16
19. SOLUTION TANK .....	16
20. DETERGENT SOLUTION (VERSIONS WITHOUT CDS) .....	16
21. DETERGENT SOLUTION (VERSIONS WITH CDS) .....	17
22. ASSEMBLING THE SPLASH GUARD RUBBERS (BRUSH HEADS WITH DISC BRUSHES) .....	18
23. ASSEMBLING THE BRUSH (BRUSH HEADS WITH DISC BRUSHES) .....	18
24. ASSEMBLING THE BRUSH (BRUSH HEADS WITH CYLINDRICAL BRUSHES) .....	19
25. REGULATING THE SOLUTION IN VERSIONS WITHOUT CDS .....	19
26. REGULATING THE DETERGENT WITH THE CDS SYSTEM .....	20
27. POTENTIOMETER ADJUSTMENT .....	20
28. REVERSE FUNCTION .....	21
29. DETERGENT PUMP PRIMING (VERSIONS WITH FSS) .....	21
<b>WORK</b> .....	22
1. PREPARING TO WORK .....	22
2. OVERFLOW DEVICE .....	23
<b>AT THE END OF THE WORK</b> .....	24
1. AT THE END OF WORK .....	24
2. STORING OF THE MACHINE .....	25
<b>DAILY MAINTENANCE</b> .....	26
1. CLEANING THE RECOVERY TANK .....	26
2. CLEANING THE SUCTION FILTER .....	26
3. CLEANING THE SUCTION TUBE FILTER .....	26
4. DISASSEMBLING AND CLEANING THE SQUEEGEE .....	27
5. DISASSEMBLING THE BRUSH .....	27
6. DISASSEMBLING THE BRUSH (BRUSH HEAD WITH CYLINDRICAL BRUSHES) .....	27
<b>WEEKLY MAINTENANCE</b> .....	29
1. CLEANING THE SQUEEGEE TUBE .....	29
2. CLEANING THE SQUEEGEE TUBE (MEDIA 60S) .....	29
3. CHECKING THE WHEEL BRAKE .....	30
4. CLEANING THE SOLUTION FILTER .....	30
5. CLEANING THE SOLUTION TANK .....	30
6. REPLACING THE BRUSH HEAD SPLASH GUARDS .....	30
7. REPLACING THE SQUEEGEE RUBBERS .....	31
<b>EXTRAORDINARY MAINTENANCE</b> .....	32
1. SCRUBBING OF DOSING SYSTEM (VERSIONS WITH FSS) .....	32
<b>TROUBLESHOOTING</b> .....	33
1. INSUFFICIENT WATER ON THE BRUSH .....	33
2. THE MACHINE DOES NOT CLEAN WELL .....	33
3. THE SQUEEGEE DOES NOT DRY PERFECTLY .....	33



4.EXCESSIVE FOAM PRODUCTION.....	33
5. ELECTRIC FUSES AND THERMAL CUT-OUTS .....	33
<b>DISPOSAL .....</b>	<b>34</b>
<b>CHOOSING AND USING THE BRUSHES.....</b>	<b>35</b>
<b>EC DECLARATION OF CONFORMITY .....</b>	<b>36</b>



---

### On consignment of the machine

---

When the machine is delivered to the customer, an immediate check must be performed to ensure all the material mentioned in the shipping documents has been received, and also to check the machine has not been damaged during transportation. If this is the case, the carrier must ascertain the extent of the damage at once, informing our customer service office. It is only by prompt action of this type that the missing material can be obtained, and compensation for damage successfully claimed.

---

### Introductory comment

---

MEDIA is a floor scrubbing machine which, via the mechanical action of the rotating brush and the chemical action of a water/detergent solution, can clean any type of flooring. As it advances, it also collects the dirt removed and the detergent solution not absorbed by the floor.

**The machine must be used only for this purpose.** Even the best machines will only work well if used correctly and kept in good working order. We therefore suggest you read this instruction booklet carefully and read it again whenever difficulties arise while using the machine. If necessary, remember that our assistance service (organised in collaboration with our dealers) is always available for advice or direct intervention.

---

### Intended use

---

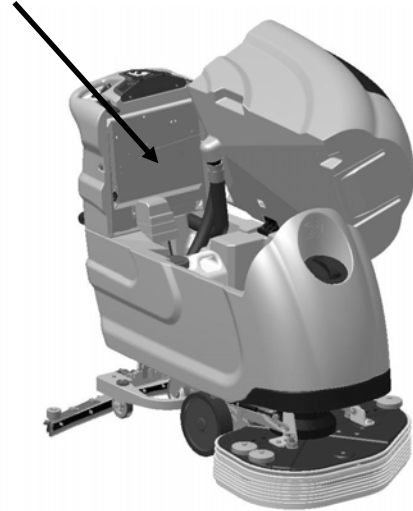
The scrubbing machine is designed exclusively for the professional cleaning of surfaces and floors in industrial, commercial and public environments. The machine is only suitable for use in closed (or at least covered) places.

The machine is not suitable for use in the rain, or under water jets. It is FORBIDDEN to use the machine in places with a potentially explosive atmosphere, for picking up dangerous dusts or inflammable liquids. In addition, it is not suitable as a means of transport for people or objects.

---

### Serial number plate

---





TECHNICAL DESCRIPTION	UM	MEDIA 65BT	MEDIA 75BT	MEDIA 60SBT
Rated power	W	1360	1360	1360
Working width	mm	660	760	610
Width of rear squeegee	mm	970	1085	970
Working capacity	m <sup>2</sup> /h	3300	3800	3050
Brushes (diameter or length)	∅ mm	340	390	150X610
Brush rotations	rpm	190	190	360
Pressure on the brushes	kg	30-50	30-50	30-50
Brush motor	V / W	24/560	24/560	24/560
Type of advance		autom	autom	autom
Maximum gradient	%	10%	10%	10%
Forward speed	km/h	0-5	0-5	0-5
Suction motor	V / W	24/330	24/330	24/330
Suction vacuum	mbar	90	90	90
Traction motor	V / W	24/250	24/250	24/250
Solution tank PE	l	85	85	85
Recovery tank PE	l	95	95	95
Gross weight of the machine ready for use	kg	335	335	335
Batteries	V / AhC5	6/200	6/200	6/200
Batteries weight	kg	176	176	176
Battery charger *	V/A	24/25	24/25	24/25
Battery compartment dimensions (Length / Height / Width)	mm / mm / mm	450x325x450	450x325x450	450x325x450
Machine dimensions (Length / Height / Width)	mm / mm / mm	1450x1065x695	1495x1065x800	1485x1065x715
Sound pressure level (in compliance with IEC 704/1)	dB (A)	75.1	75.1	75.1
Vibration level	m/s <sup>2</sup>	1.02	1.02	1.02

\* CB models with built-in battery charger



## SYMBOLS USED ON THE MACHINE



Tap symbol  
Used to indicate water regulation changes (CDS versions)



Detergent symbol  
Used to indicate detergent regulation changes (CDS versions)



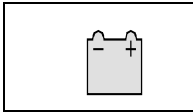
Indicator showing battery charge level on the upper line and hour meter on the lower line



Indicator showing the type of hour meter (total) on the upper line and the type of service (none) on the lower line



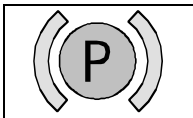
Indicator showing the type of technology of the batteries used (lead)



Battery symbol



Indicates the maximum temperature of the detergent solution  
Located near the solution tank inlet



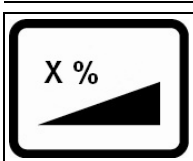
Symbol denoting brake  
Located above the emergency and parking brake lever



Indicates the risk of crushed hands



Indicates the instructions for measuring the detergent in the canister (machine version CDS only)



Indicates the maximum gradient



## GENERAL SAFETY REGULATIONS

The regulations below must be carefully followed in order to avoid harm to the operator and damage to the machine.

### WARNING:

- Read the labels on the machine carefully. Do not cover them for any reason and replace them immediately if they become damaged.
- The machine must be exclusively used by authorised, trained personnel.
- The machine is designed for dry use only.
- Do not use the machine on surfaces with an inclination greater than the one shown on the plate.
- The machine is not suitable for cleaning rough or uneven floors. Do not use the machine on slopes.
- Avoid damaging the power supply cable by crushing or bending it, or applying stress.
- If the power supply cable of the battery charger is damaged, contact an Authorised service centre immediately.
- Do not let the power cable come into contact with the rotating brush.
- In the event of danger, quickly intervene on the handle located on the battery connector.
- For all maintenance interventions, switch off the machine and disconnect the battery connector and/or the power supply cable.
- Children must be supervised to ensure they do not play with the device.
- During the working of the machine, pay attention to other people and especially to children.
- Only use the brushes supplied with the machine, or those specified in the "CHOOSING AND USING THE BRUSHES" paragraph of the instruction manual. The use of other brushes could compromise safety levels.

### ATTENTION:

- The machine is not suitable for use by children and persons with reduced physical, mental and sensory capabilities, or people who lack experience and knowledge.
- The machine must not be used or stored outdoors, in damp conditions or directly exposed to rain.
- The storage temperature must be between -25°C and +55°C; do not store outdoors in damp conditions.
- Conditions of use: room temperature between 0°C and 40°C with relative humidity between 30 and 95%
- The socket for the machine's power cable (electric version) or for the battery charger power cable (battery version) must be correctly earthed.
- Adapt the speed to the adhesion conditions.
- Do not use the machine as a means of transport.
- The machine does not cause harmful vibrations.
- Do not use the machine in an explosive atmosphere.
- Do not vacuum inflammable liquids.
- Do not use the device to collect dangerous powders.
- Do not mix different types of detergent as this may produce harmful gases.
- The machine is not suitable for cleaning carpets.
- Do not place any liquid containers on the machine.
- Avoid working with the brushes when the machine is standing still, so as not to damage the floor.
- In the event of a fire, use a powder extinguisher. Do not use water.
- Do not knock against shelving or scaffolding, where there is a danger of falling objects. The operator must always be equipped with the appropriate safety devices (gloves, shoes, helmet, goggles, etc.).
- The machine is designed to simultaneously carry out the washing and drying operations. Different operations should only be carried out in areas where the passage of unauthorised persons is prohibited. Signal the presence of damp floors with suitable signs.
- If the machine does not work properly, check this is not caused by failure to carry out routine maintenance. Otherwise, ask for intervention of the authorised technical assistance centre.
- If you need to replace any components, request the ORIGINAL spare parts from an Authorised dealer and/or Retailer.
- Restore all electrical connections after any maintenance interventions.
- Before using the machine, check that all the hatches and covers are positioned as shown in this Use and Maintenance Manual.
- Do not remove any protection devices which require the use of tools in order to be removed.
- Do not wash the machine with direct water jets or with pressurised water, nor with corrosive substances.
- To prevent scaling in the solution tank filter, do not fill the tank with detergent solution many hours before using the machine.
- Do not use acid or basic solutions that could damage the machine and/or harm people.
- Have the machine checked by an authorised technical assistance centre every year.
- When disposing of consumption materials, comply with currently effective laws and regulations.
- When your machine has reached the end of its long working life, dispose of the materials it contains (especially oils, batteries and electronic components) in an appropriate manner, taking into account that the machine itself was constructed using 100% recyclable materials.
- The batteries must be removed from the machine before its disposal. The batteries must be disposed of in a safe manner, fully observing the laws and regulations in force.



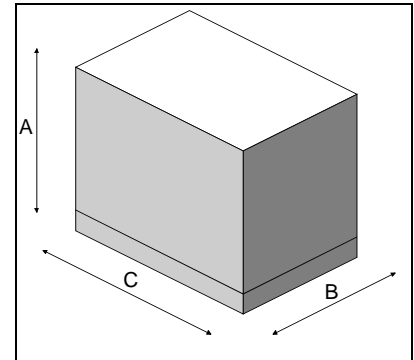


## MACHINE PREPARATION

### 1. HANDLING OF THE PACKED MACHINE

The machine is contained in specific packaging.  
It is not possible to place more than two packages on top of each other.  
The overall dimensions of the package are:

	MEDIA 65BT	MEDIA 75BT	MEDIA 60BS
A	1230	1230	1230
B	740	960	740
C	1490	1690	1490

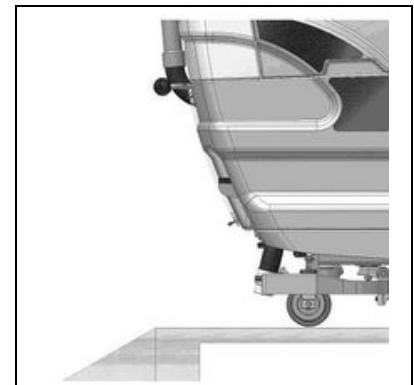
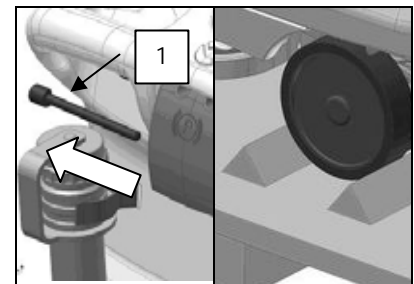


### 2. HOW TO UNPACK THE MACHINE

1. Remove the outer package.
2. Release the parking brake by removing the blocking pin (1).
3. The machine is fixed to the pallet with wedges which block the wheels.
4. Remove these wedges.
4. Use a chute to get the machine down from the pallet, pushing it backwards. Do not assemble the rear squeegee before unloading the machine, and avoid violently jolting the brush head. To assemble the squeegee, read the "ASSEMBLING THE SQUEEGEE" paragraph.
5. Keep the pallet for any future transport needs.

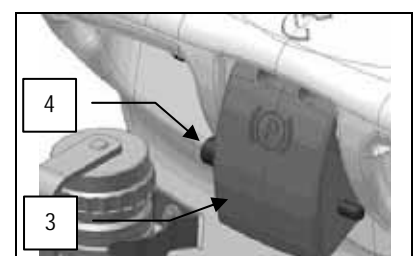
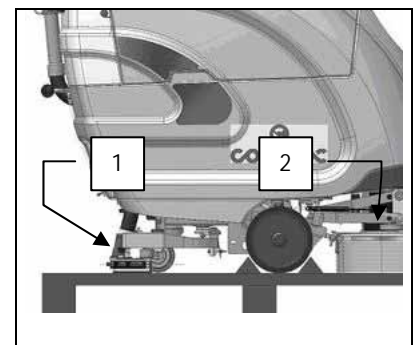


**ATTENTION:** if the product is delivered in cardboard containers, handle the packed product with suitable lifting means that comply with the legal requirements.



### 3. HOW TO MOVE THE MACHINE

1. To safely move the machine, you should use a pallet to support it (positioning wooden wedges to block the wheels, as shown in the previous paragraph).
2. Lower the squeegee (1) by means of the lever or the key (AU version).
3. Use the lever or key (AU version) to lower the brush head (2) until the brushes are resting on the floor.
4. Pull the brake lever (3) and block the machine using the pin (4).





## MACHINE PREPARATION

### 4. TYPE OF BATTERY

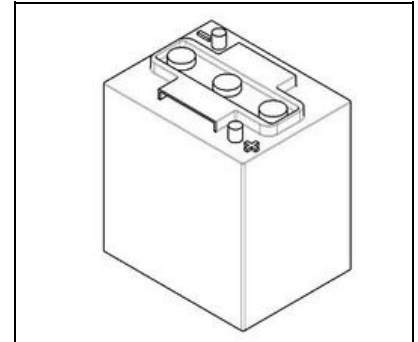
To power the machine it is necessary to use:

- liquidelectrolyte lead traction batteries
- sealed traction batteries with gasrecombination or gel technology

OTHER TYPES MUST NOT BE USED.

The batteries must meet the requisites laid out in standards CEI EN 60254-1:2005-12 (CEI 21-5) + CEI EN 60254-2:2008-06 (CEI 21-7).

Every battery consists of DIN-type elements connected in series and providing the clamps with a power of 6 V. You are advised to use batteries with an electric capacity of 200 Ah (C5)



### 5. BATTERY MAINTENANCE AND DISPOSAL

For maintenance and recharging, respect the instructions provided by the battery manufacturer.

Particular attention must be paid when choosing the battery charger, if not supplied, since there are different kinds according to the type and capacity of the battery.

Proceed as follows when the battery is dead:

1. Open the hinge blocking the recovery tank.
2. Open the battery compartment and disconnect the connector.
3. Remove the battery by using suitable devices, lifting it with the provided handles.

EXHAUSTED BATTERIES ARE CLASSIFIED AS DANGEROUS WASTE AND MUST BE CONSIGNED TO THE AUTHORISED BODIES FOR CORRECT DISPOSAL.



**ATTENTION:** you are advised to always wear protective gloves, to avoid the risk of serious injury to your hands



**ATTENTION:** You are advised to only lift and move the batteries with lifting and transportation means suitable for the specific weight and size

### 6. INSERTING THE BATTERIES

The machine may be supplied with batteries and a built-in battery charger.

If batteries other than those supplied with the machine are used, have the battery charger and battery control card configuration checked by a qualified, COMAC-trained technician.

Perform a battery charging cycle before using the machine.

The batteries must be housed in the appropriate compartment beneath the recovery tank, and must satisfy the requisites of Standard CEI 21-5.

To insert the batteries you must:

1. Make sure the recovery tank is empty, otherwise empty it completely
2. Make sure that the key switch in the "0" position
3. Lower the squeegee and brush head (see the appropriate chapters)
4. open the rear hinge that closes the upper tank
5. Rotate the tank as far as it will go, using the side handle



**ATTENTION:** Before fitting the batteries, lift in the backing and connect the traction connector.  
this process must be carried out by qualified personnel. An incorrect connection of the connector may cause problems with machine functioning.

This operation is only possible for machines with automatic traction



## MACHINE PREPARATION

- Lift the batteries by means of the grips on the upper part
- house the batteries in the compartment, positioning the poles "+" and "-" opposite each other



**WARNING:** you are advised to use airtight batteries only, to avoid the leakage of acids!



**ATTENTION:** you are advised to always wear protective gloves, to avoid the risk of serious injury to your hands



**ATTENTION:** You are advised to only lift and move the batteries with lifting and transportation means suitable for the specific weight and size

### 7. CONNECTION OF THE BATTERIES

To connect the batteries:

- connect the batteries in series - using the jumper cables supplied (3) - to the poles "+" and "-"
- connect the battery connector cable (4) to the terminal poles "+" and "-" to obtain a voltage of 24V on the clamps



**ATTENTION:** you are advised to use airtight batteries only, to avoid the leakage of acids!

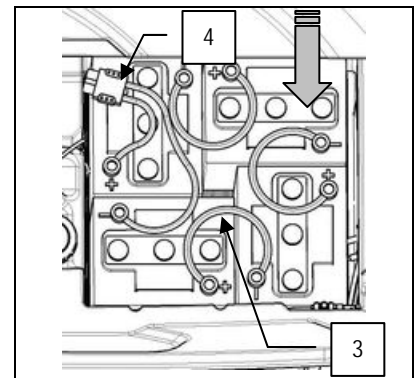
**ATTENTION:** you are advised to have the electric connections made by a qualified, COMAC-trained technician



**ATTENTION:** you are advised to always wear protective gloves, to avoid the risk of serious injury to your hands

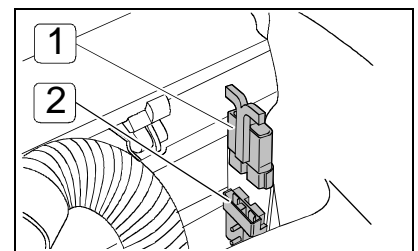


**ATTENTION:** you are advised to only lift and move the batteries with lifting and transportation means suitable for the specific weight and size



### 8. CONNECTION OF THE ELECTRICAL SYSTEM CONNECTOR

Beneath the recovery tank there is the battery connector (2), in which the electrical system connector (1) must be inserted.



### 9. RECHARGING THE BATTERIES WITH AN EXTERNAL BATTERY CHARGER (VERSIONS WITHOUT BC)

In order not to cause permanent damage to the batteries it is essential to avoid their complete discharge: arrange the recharge within a few minutes of the switching on of the flashing "discharged batteries" signal.



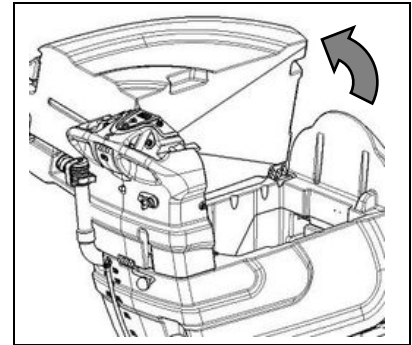
**ATTENTION:** never leave the batteries completely discharged, even if the machine is not being used. Check the battery charger is suitable for the batteries installed, in terms of both capacity and type.



## MACHINE PREPARATION

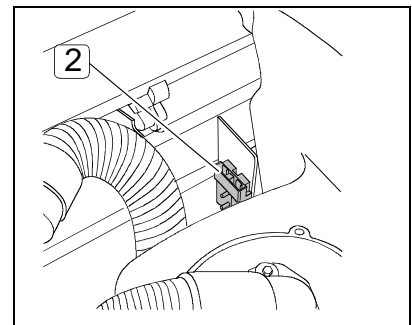
To connect the batteries you must:

1. Make sure the recovery tank is empty, otherwise empty it completely
2. Make sure that the key switch in the "0" position
3. Move the machine near to the battery charger
4. Engage the parking brake
5. Open the rear hinges that close the upper tank
6. Rotate the tank as far as it will go, using the side handle



7. Disconnect the electrical system connector from the battery connector (2)
8. Connect the battery charger cable connector

The coupling connector of the battery charger is consigned inside the bag containing this instruction booklet, and must be assembled on the cables of the battery charger as indicated in the instructions.



**ATTENTION:** this process must be carried out by qualified personnel. An incorrect connection of the connector may cause problems with machine functioning.

9. Connect the recently wired cable to the external battery charger



**ATTENTION:** Carefully read the use and maintenance instructions of the battery charger that is used for charging.



**ATTENTION:** Keep the recovery tank open for the duration of the battery recharging cycle to allow gas fumes to escape

10. After the charging cycle is complete, the battery connector (2) must be connected to the electrical system connector



**ATTENTION:** danger of gas exhalation and leakage of corrosive liquids



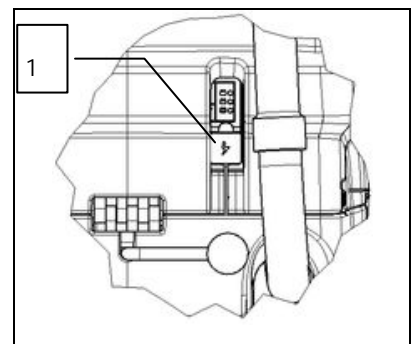
**ATTENTION:** danger of fire: do not go near with free flames

### 10. RECHARGING THE BATTERIES WITH BUILT-IN BATTERY CHARGER (VERSIONS WITH BC)

The machine is shipped with the battery connector (if supplied) disconnected, connect the battery connector to the machine connector (see previous paragraph).

To charge the gel battery proceed as follows:

1. Engage the parking brake.
2. Check that the machine's master switch is in the "0" position.
3. Lift the battery charger socket guard (1) on the back of the machine.
4. Plug the battery charger cable into the electrical system of the machine.
5. Plug the power supply cable of the charger into the mains socket.

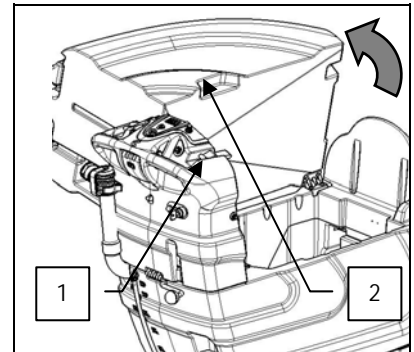




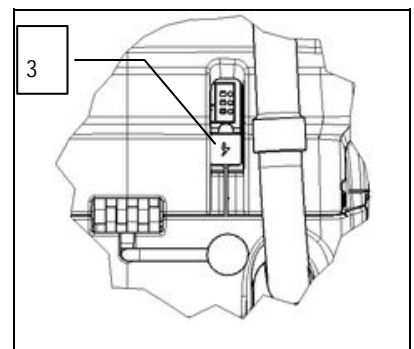
## MACHINE PREPARATION

To charge the lead acid batteries proceed as follows:

1. Engage the parking brake.
2. Check that the machine's master switch is in the "0" position.
3. Lower the brush head by means of the pedal on the back of the machine
4. Lower the squeegee by means of the lever on the back of the machine.
5. Check the recovery tank is empty, otherwise empty it (see the appropriate chapter).
6. release the hinges (1) on the handlebars
7. Rotate the tank as far as it will go, using the side handle (2)



8. Lift the battery charger socket guard (3) on the back of the machine.
9. Plug the battery charger cable into the electrical system of the machine.
10. Plug the power supply cable of the charger into the mains socket.



When replacing the battery, be sure to use batteries suitable for the battery charger installed.



**ATTENTION:** the machine is equipped with an automatic system that disconnects the power supply from the electrical system while the batteries are being recharged



**ATTENTION:** in order not to cause permanent damage to the batteries it is essential to avoid their complete discharge: arrange the recharge within a few minutes of the switching on of the flashing "discharged batteries" signal

**ATTENTION:** never leave the batteries completely discharged, even if the machine is not being used



**ATTENTION:** for the daily recharging of the batteries, you must fully respect the indications provided by the manufacturer or retailer. All installation and maintenance operations must be carried out by expert personnel, trained at the COMAC assistance centre

**WARNING** Make sure that the battery charger green LED is on before using the machine again



**ATTENTION:** danger of gas exhalation and leakage of corrosive liquids



**ATTENTION:** danger of fire: do not go near with free flames



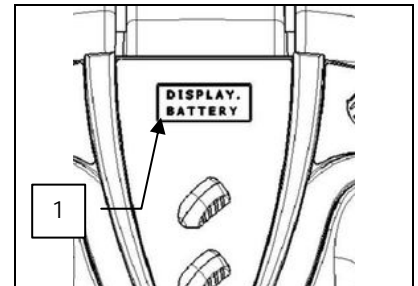
## MACHINE PREPARATION

### 11. BATTERY INDICATOR

On the instrument panel of the machine there is a monitor (1) indicating (amongst other things) the battery charge status. If the upper line contains 8 light indicators, the battery charge level is 100%. If the edges of the indicators are flashing, this means the batteries are run down.



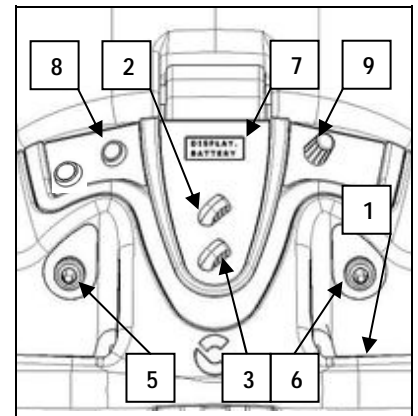
**ATTENTION:** a few seconds after the last indicator on the monitor has flashed, the brush motor will automatically switch off. With the remaining charge it is possible to complete the drying process before recharging



### 12. INSTRUMENT PANEL COMPONENTS

The instrument panel components are identified as follows:

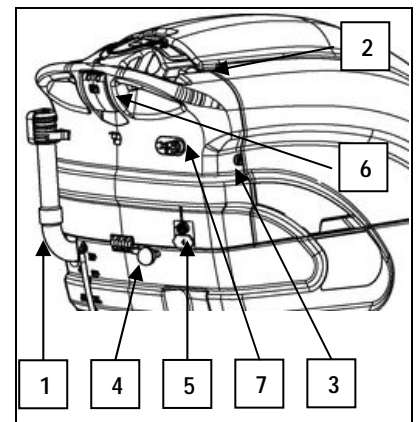
1. Levers to activate brushes/traction (located beneath the grip)
2. Water outlet regulation switch (CDS versions)
3. Detergent outlet regulation switch (CDS versions)
4. Automatic squeegee command lever (automatic version)
5. Automatic brush head command lever (automatic version)
6. Battery level / hour meter display
7. Battery level hour-counter display command button
8. Speed level key



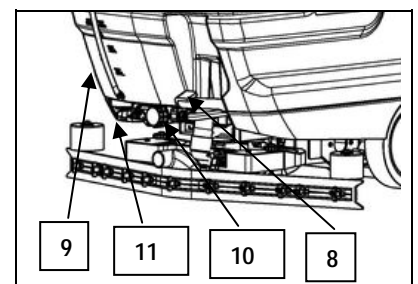
### 13. REAR COMPONENTS

The rear components are identified as follows:

1. Discharge pipe with recovery tank cap
2. Tank closure hinges
3. Handlebar fastening screws
4. Lever to raise the squeegee (manual version only)
5. Battery charge socket cover (available in the BC version only)
6. Brake lever
7. Key switch and circuit breakers



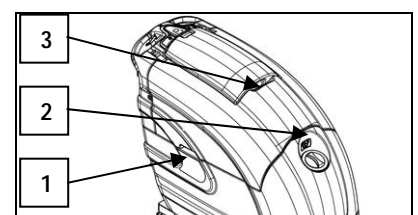
8. Brush lifting pedal
9. Water level tube
10. Solution filter
11. Solution tank drainage cap



### 14. SIDE COMPONENTS

The side components are identified as follows:

1. Solution water filler cap
2. Recovery tank lifting handle
3. Suction unit lifting handle





## MACHINE PREPARATION

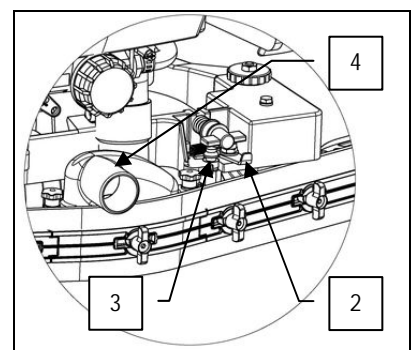
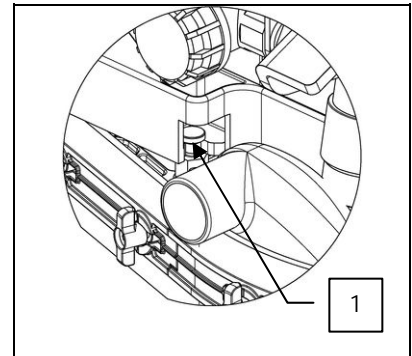
### 15. ASSEMBLING THE SQUEEGEE

For packaging reasons, the squeegee is supplied disassembled from the machine, and must be assembled on the machine connection. You must raise the squeegee connection using the lever or key (AU version), then:

1. raise the squeegee and insert the small left-hand column (1) in the connection hole
2. push the connection lever (2) to the left
3. Raise the squeegee and insert the small right-hand column (3) in the connection hole
4. release the connection lever (2) so it is blocked in the flat housing of the small column
5. Insert the suction tube in the appropriate squeegee sleeve (4), ensuring that the tube lies to the right of the lifting cable

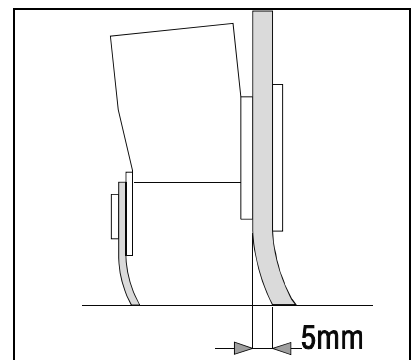


**ATTENTION:** these operations must be carried out using protective gloves to avoid any possible contact with the edges or tips of metal objects



### 16. ADJUSTING THE SQUEEGEE INCLINATION

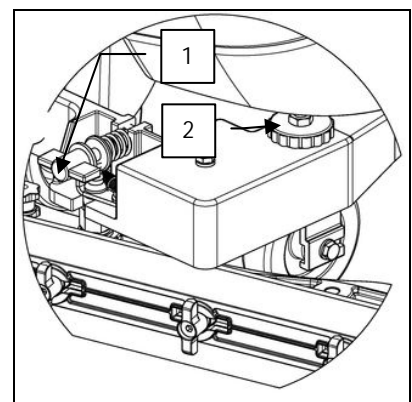
During working operation, the rear rubber is tilted slightly backwards (by about 5mm) in a uniform way for its whole length. If it is necessary to increase the bend of the rubber in the central part, you must tilt the squeegee backwards, rotating the adjuster (1) anticlockwise. To increase the bend of the rubber at the sides of the squeegee, rotate the set screw clockwise.



### 17. ADJUSTING THE SQUEEGEE HEIGHT

The height of the squeegee must be adjusted on the basis of the state of wear and tear of the rubber. To do this, turn the knob (2) anticlockwise to raise the squeegee, and clockwise to lower it.

**Remarks:** the right and left wheels must be adjusted to the same level, so the squeegee can work parallel to the floor.





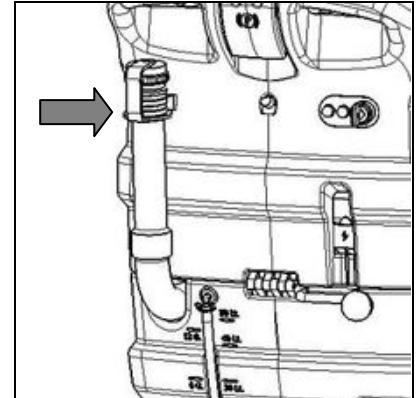
## MACHINE PREPARATION

### 18. RECOVERY TANK

Make sure the recovery tank is empty, otherwise empty it completely.  
Check the cap of the drainage tube (on the rear of the machine) is correctly closed.



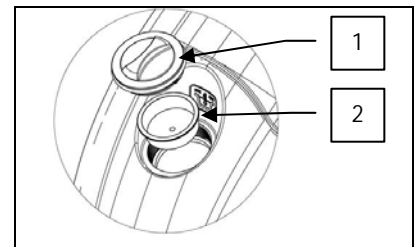
**ATTENTION:** To avoid foam production, put a minimum quantity of antifoam liquid in the recovery tank before starting to clean



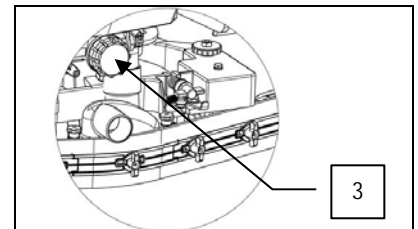
### 19. SOLUTION TANK

The recovery tank must be completely empty each time the solution tank is filled.

Remove the front-mounted hopper (1) and check the solution filter (2) is correctly assembled.

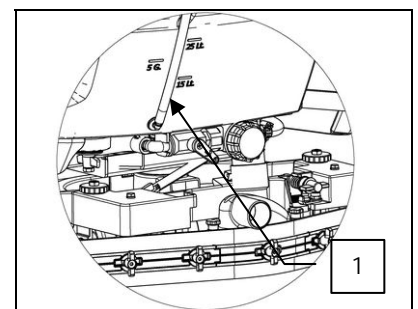


Check that the detergent solution filter cap (3), located at the rear of the solution tank, is properly closed.



### 20. DETERGENT SOLUTION ( VERSIONS WITHOUT CDS )

Fill with clean water, at a temperature not exceeding 50°C. It is possible to see the quantity in the tank through the rear pipe. The solution tank has a maximum capacity of about 85 litres. Add the liquid detergent to the tank in the concentration and manner indicated on the detergent manufacturer's label. The formation of excess foam could damage the suction motor, so use only the minimum amount of detergent necessary.



**ATTENTION:** always use detergents whose manufacturer's label indicates their suitability for scrubbing machines. Do not use acid or alkaline products or solvents without this indication.

In addition, you are advised to always use low foam detergents.  
Do not use pure acids



**ATTENTION:** put on protective gloves before handling acid/alkaline detergents or solutions, to avoid the risk of burning your hands





## MACHINE PREPARATION



**ATTENTION:** always use low foam detergent. To avoid the production of foam, before starting to clean, put a minimum quantity of antifoam liquid into the recovery tank. Do not use pure acids.

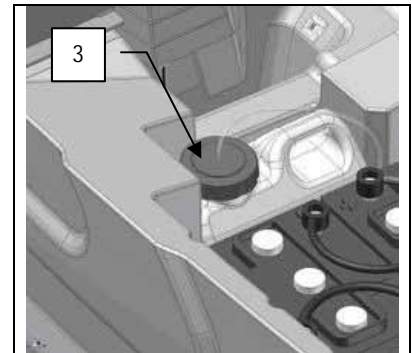
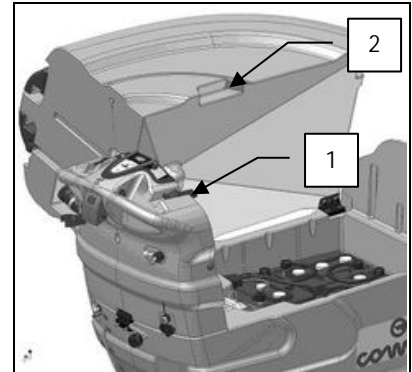
### 21. DETERGENT SOLUTION (VERSIONS WITH CDS)

Remove the front-mounted hopper and check the solution filter is correctly fitted. Verify that the filter cap (beneath the tank) is correctly closed.

Fill with clean water, at a temperature not exceeding 50°C. It is possible to see the quantity in the tank through the rear pipe. The solution tank has a maximum capacity of about 85 litres.

Insert the detergent as follows:

1. Check the switch key is on "OFF".
  2. Make sure the recovery tank is empty, otherwise empty it completely.
  3. Apply the parking brake by pulling the lever and blocking the handle with the pin.
  4. Release the hinges (1) on the handlebars.
  5. Rotate the recovery tank as far as it will go, using the side handle (2).
- 
6. Unscrew the cap (3) of the canister in the compartment (behind the batteries) and fill it with liquid detergent in the manner indicated on the label supplied with the machine. Check the screw cap is well closed, to avoid any liquid leaking out while the machine is being used.
  7. Close the recovery tank, rotating it by hand. Only hold the recovery tank by the handle (2), to avoid crushing your hands.



**ATTENTION:** always use low foam detergent. To avoid the production of foam, before starting to clean, put a minimum quantity of antifoam liquid into the recovery tank. Do not use pure acids.

8. To regulate the water/detergent mixture, carefully read the "REGULATING THE DETERGENT WITH THE CDS SYSTEM" paragraph.



**ATTENTION:** always use detergents whose manufacturer's label indicates their suitability for scrubbing machines. Do not use acid or alkaline products or solvents without this indication.

In addition, you are advised to always use low foam detergents. Do not use pure acids or detergents with a stronger gradation than that indicated on the label supplied.



**ATTENTION:** Put on protective gloves before handling acid/alkaline detergents or solutions, to avoid the risk of burning your hands

5 lL Detergente standard Standard detergent	H <sub>2</sub> O 4 lL + 1lL Detergente concentrato Concentrated detergent
0,5%	0,1%
1%	0,2%
1,5%	0,3%
2%	0,4%
2,5%	0,5%
3%	0,6%
3,5%	0,7%

**MODALITÀ D'USO:**  
Inserire la tanica 5 litri e versare direttamente il detergente nella tanica da 5 litri in diluizione.  
Selezionare, tramite il selettore sul cruscotto, la % diluizione detergente desiderata tra i valori indicati nella tabella.

**MODALITÀ D'USO:**  
Versare il litro di detergente concentrato e riempire completamente di acqua la tanica da 5 litri in diluizione.  
Selezionare, tramite il selettore sul cruscotto, la % diluizione detergente desiderata tra i valori indicati nella tabella.

**INSTRUCTIONS:**  
Insert the 5 liter can or pour directly the detergent into the 5 liter can.  
Select with the knob on the instrument panel the dilution % you need among the values indicated in the table.

**INSTRUCTIONS:**  
Pour 1 liter concentrated detergent and fill completely the equipped 5 liter can with water.  
Select with the knob on the instrument panel the dilution % you need among the values indicated in the table.



## MACHINE PREPARATION



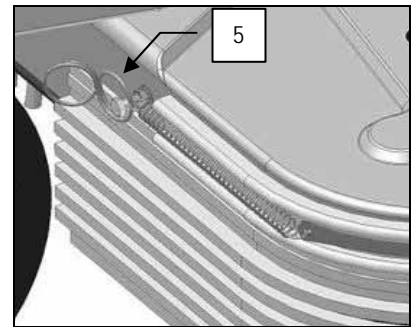
**WARNING:** The dosing system is suitable for frequent maintenance cleaning. Acid or alkaline maintenance detergent tank be used with pH values between 4 and 10 and that do not contain: oxidising agents, chlorine or bromine, formaldehyde, mineral solvents.

The detergents used must be suitable for use with scrubbing machines. Wash the circuit with water after use if the system is not used daily. The system is excludable. In case of sporadic use of detergents with pH between 1-3 or 11-14, use the scrubbing machine in the traditional way by adding the detergent in the clean water tank and excluding the dosing circuit.

**pH**  
min 4  
max 10

### 22. ASSEMBLING THE SPLASH GUARD RUBBERS (BRUSH HEADS WITH DISC BRUSHES)

For packaging reasons, the splash guard rubbers are supplied disassembled from the machine. Use the parking brake handle (1) to stop the machine. Unthread the pin (3) from its seat on the handlebars, and insert it in the holes of the handle (2) to prevent the lever slipping. Raise the brush head by means of the pedal or key (AU version). Turn the key anticlockwise (to "OFF") and remove it from the start-up switch (4). To connect the rubber, remove the rubber-pressing blades and unthread the spring hook (5) from the connection screw. Wind the rubber all around the brush head, inserting the brush head fixing screw in the central hole. Reattach the blades, starting from the centre of the brush head. Be careful not to invert the right blade with the left one, as they are not the same.



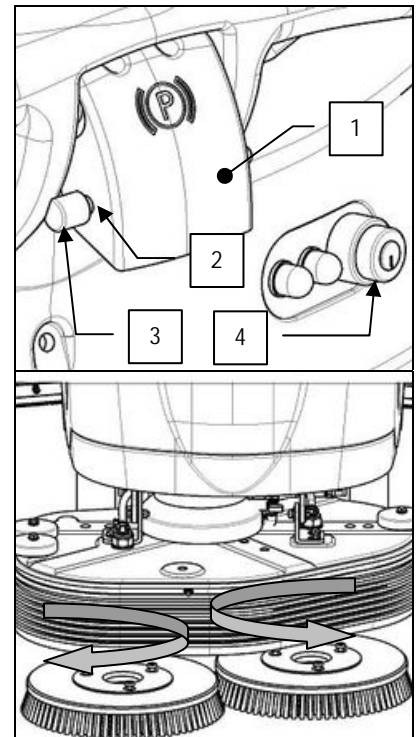
### 23. ASSEMBLING THE BRUSH (BRUSH HEADS WITH DISC BRUSHES)

1. Use the parking brake handle (1) to stop the machine. Unthread the pin (3) from its seat on the handlebars, and insert it in the holes of the handle (2) to prevent the lever slipping.
2. Raise the brush head by means of the pedal or key (AU version).
3. Turn the key anticlockwise (to "OFF") and remove it from the start-up switch (4).
4. With the brush head up, place the brushes into the plate housing beneath the brush head, turning the brushes until the three pins enter the niches in the plate itself; turn until the pin is pushed towards the coupling spring and is locked into place. The figure shows the rotation direction for coupling the right-hand brush; for the left-hand one, rotate in the opposite direction.

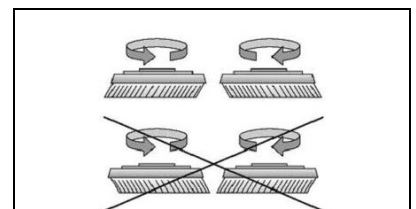


**ATTENTION:** during this operation, check there are no people or objects near the brushes

**ATTENTION:** this operation must be carried out wearing gloves to protect your hands



You are advised to invert the right and left-hand brushes every day. If the brushes are not new however, and have deformed bristles, it is better to reassemble them in the same position (the right-hand one on the right, and the left-hand one on the left), to prevent the different inclination of the bristles producing an overload on the brush motor as well as excessive vibrations.





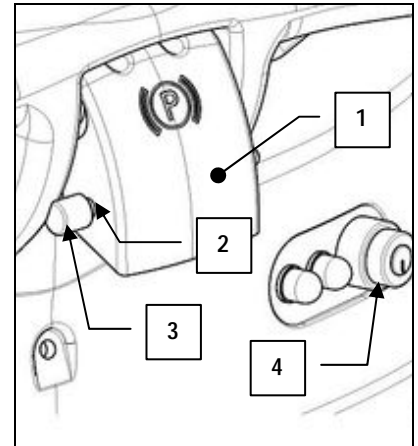
## MACHINE PREPARATION

### 24. ASSEMBLING THE BRUSH (BRUSH HEADS WITH CYLINDRICAL BRUSHES)

1. Use the parking brake handle (1) to stop the machine. Unthread the pin (3) from its seat on the handlebars, and insert it in the holes of the handle (2) to prevent the lever slipping.
2. Raise the brush head by means of the appropriate pedal.
3. Turn the key anticlockwise (to "OFF") and remove it from the start-up switch (4).



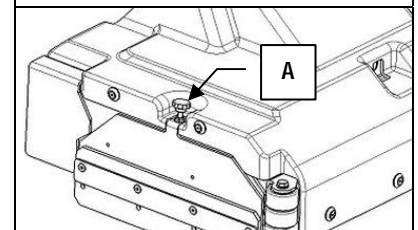
**ATTENTION:** the following operations must be carried out using protective gloves



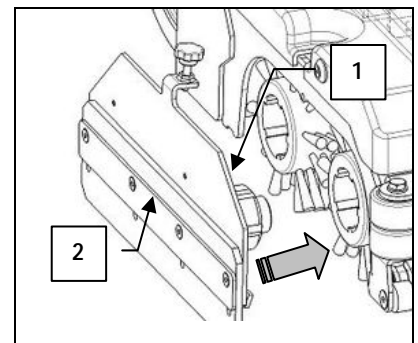
4. Remove the right-side splash guard by loosening the knob (A)



**ATTENTION:** during this operation, check there are no people or objects near the brushes



5. Insert the brush (the side with 5 teeth) in the tunnel until it couples with the drive hub on the opposite side of the tunnel.
6. Insert the idle hub (1) of the mobile support in the brush (the side with 5 teeth).
7. Repeat the operation for the second brush.
8. Reassemble the side splash guard (2), tightening the knob (A).



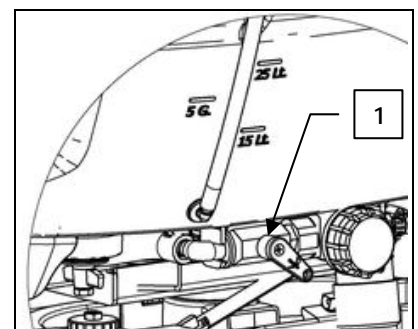
Take care how the brushes are mounted, the assembly is correct if the direction of the bristles form an X looking from above.



**ATTENTION:** you are advised to always wear protective gloves, to avoid the risk of serious injury to your hands

### 25. REGULATING THE SOLUTION IN VERSIONS WITHOUT CDS

First of all, turn the tap in the rear part of the machine fully on, by turning its lever anticlockwise. Press the dead man's levers to activate the brushes and begin moving the machine. In the first few metres, check that the quantity of solution is sufficient to wet the floor, but not too much that it exits the splash guard. The amount of detergent can be regulated by turning the lever (1) clockwise to increase the flow or anticlockwise to reduce the flow. If turned fully to the left the flow of detergent is closed. Bear in mind that the correct amount of solution is always depends on the nature of the floor, the degree of dirt and the forward speed.

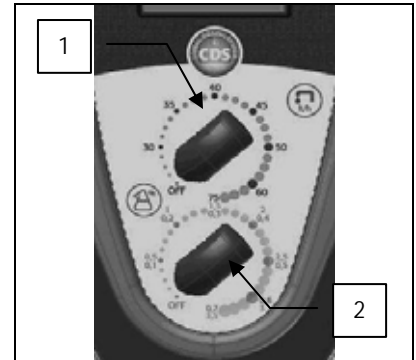




## MACHINE PREPARATION

### 26. REGULATING THE DETERGENT WITH THE CDS SYSTEM

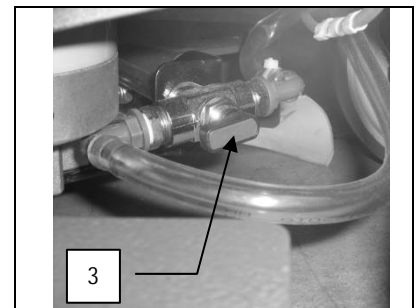
1. Regulate the flow of detergent solution to the brushes by rotating the upper knob (1) clockwise. The quantity of solution varies from a minimum of 30 litres/hour to a maximum of 75 litres/hour, with 7 set measurement points. The right solution flow should be proportional to the degree of dirt on the floor. In addition, remember that the time available for continuous working depends on the quantity of water in the tank: for example, work autonomy with a full tank (about 85 litres) and the selector (1) on 30 is about 3 hours.
2. Regulate the percentage of liquid detergent in the solution by rotating the lower knob (2) clockwise. The lower value is equal to 0.5% (for standard detergents) or 0.1% (for a concentrated detergent, diluted as indicated on the label supplied with the machine), while the higher value is equal to 3.5% or 0.7%, with 7 set points. Use high detergent percentages to remove very greasy dirt from the floor.



**ATTENTION:** In case of failure of the CDS system, or if you want to work without this device, you can act on the tap (3) mounted on the brush head near the motor.

**ATTENTION:** before regulating the solution, check there is detergent in the inner can, and that the side water tap is turned on. To avoid any tampering with the set regulation, you can remove the two rubber knobs that command the two switches and cover the two holes with the plastic caps supplied with the machine.

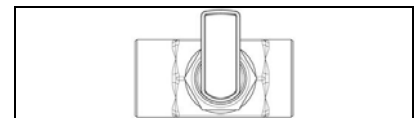
To resolve any malfunctioning of the CDS system, contact the COMAC assistance centre.



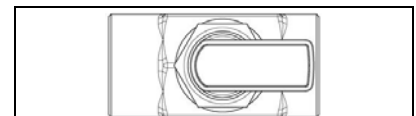
**ATTENTION:** Placing the tap lever in this way, the FSS dosing system is excluded and the detergent solution will be expelled and fall on the brushes. Rotate the knobs (2) and (3) anticlockwise, to the "0" position.



**ATTENTION:** Placing the tap lever in this way there will be no leakage of detergent solution on the brushes. Rotate the knobs (2) and (3) anticlockwise, to the "0" position.



**ATTENTION:** Placing the tap lever in this way the FSS dosing system is active.



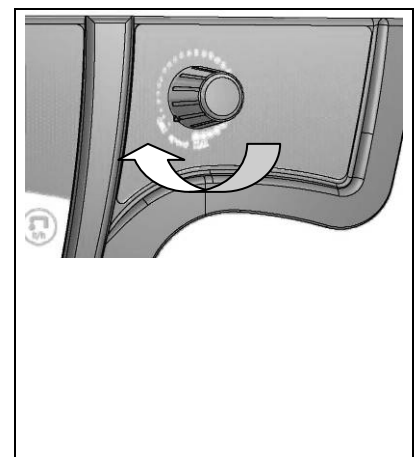
### 27. POTENTIOMETER ADJUSTMENT

Proceed as follows to adjust the forward speed with the potentiometer:

1. Check that the potentiometer knob is placed on minimum.
2. Check that the brush head and squeegee are lifted off the ground
3. Turn the key operated master switch to "ON".
4. Engage the dead man's levers on the handlebars, so the machine starts to move
5. Adjust the desired forward speed by turning the knob gradually clockwise



**WARNING!** The reverse speed was reduced compared to that of forward speed in order to comply with existing safety at work standards. If the potentiometer is adjusted while reversing, the adjustment of the forward speed will be automatically changed.





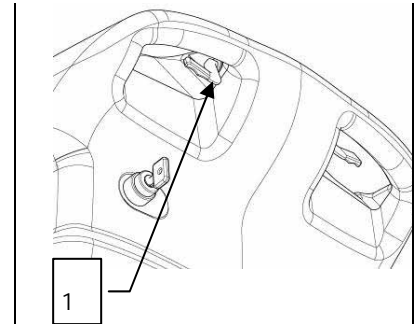
## MACHINE PREPARATION

### 28. REVERSE FUNCTION

To activate the reverse direction, just push the command levers (1) downwards.



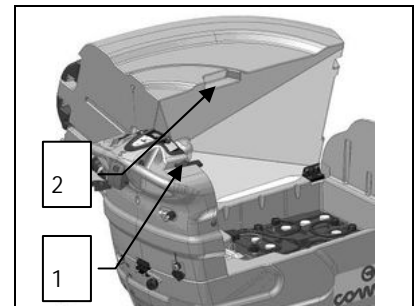
**ATTENTION:** When moving backwards even for brief moments, check that squeegee is raised, and check the brush head is also raised when the machine is not working.



### 29. DETERGENT PUMP PRIMING (VERSIONS WITH FSS)

Before starting work the detergent pump must be primed, to do so proceed as follows:

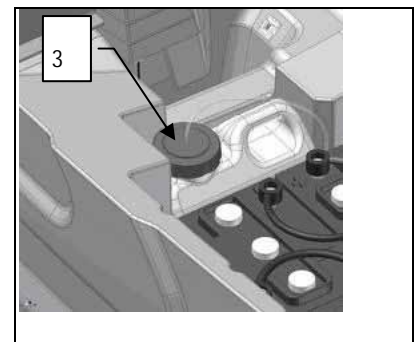
1. Check that the main switch is in the "Off - 0" position
2. Check that the battery connector is disconnected from the machine connector
3. Check the parking brake is correctly engaged
4. Make sure the recovery tank is empty, otherwise empty it completely
5. Disconnect the tank closure hinge (1) By gripping the handle (2) on the left side of the machine, turn the recovery tank



6. Unscrew the cap of the detergent canister (3) and fill it with the desired product

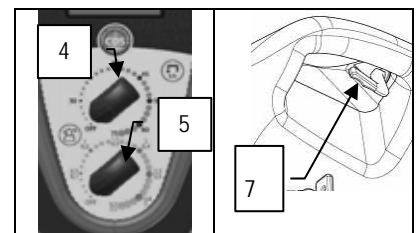


**ATTENTION:** always use low foam detergent. To avoid the production of foam, before starting to clean, put a minimum quantity of antifoam liquid into the recovery tank. Do not use pure acids.



7. Close the lid of the detergent tank, taking care that the suction filter is positioned at the bottom of the tank
8. Check there is clean water in the solution tank

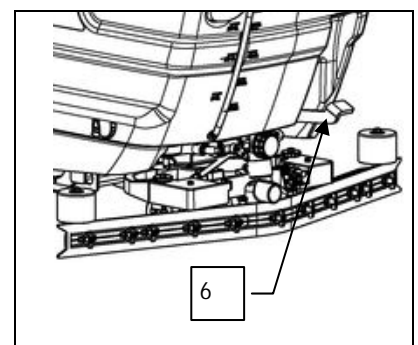
9. Check that the tap lever is fully opened, the lever is positioned at the rear of the machine.
10. Check that the by-pass tap is in the "dosing system" position
11. Turn the water flow rate adjustment knob (4) to the maximum position
12. Turn the detergent percentage adjustment knob (5) to the maximum position
13. Insert the battery connector into the machine connector.
14. Place the main switch in position "ON - I"
15. Disengage the parking brake



16. Lower the brush head body by means of the pedal (6)
17. Activate the dead man's levers (7) to allow the operation of the brush head and the dosing system
18. Wait a few moments keeping the dead man's levers pressed (normally 20 to 40 seconds) to allow the insertion of the system
19. Proceed with the desired adjustment for normal cleaning



**WARNING:** The machine will deliver solution during this operation





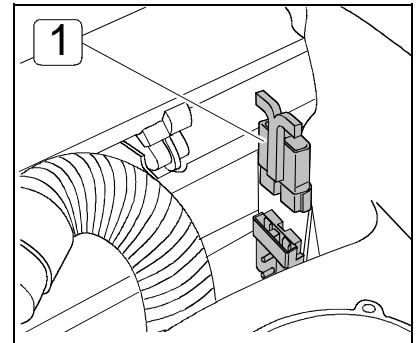
## WORK

### 1. PREPARING TO WORK

1. Check the recovery tank is empty and the main machine switch is on the "0" position.
2. Connect the connector (1) to the batteries (versions without a built-in battery charger).



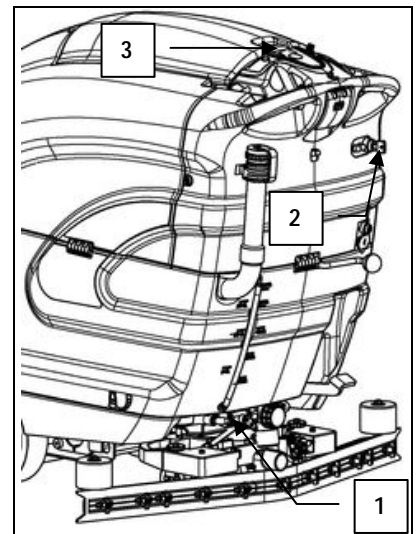
**ATTENTION:** before using the machine, the operators must be suitable trained. We therefore suggest you read this instruction booklet carefully and read it again whenever difficulties arise while using the machine



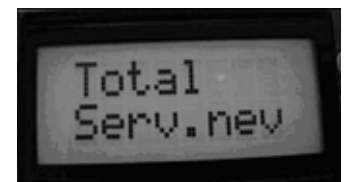
2. Version without FSS: Turn on the water tap (1) (the water falls automatically while the brushes are turning).
3. Version with FSS: Open the water tap (1) fully and adjust the amount of solution and the percentage of detergent in the solution using the knobs on the instrument panel.
4. Turn the key (2) of the main switch to position "1" (clockwise). The monitor (3) on the instrument panel will immediately come on.



**ATTENTION:** if the machine is used in places where there is a risk of falling objects, the operator must be provided with all the appropriate protection devices as laid out in the legal requirements



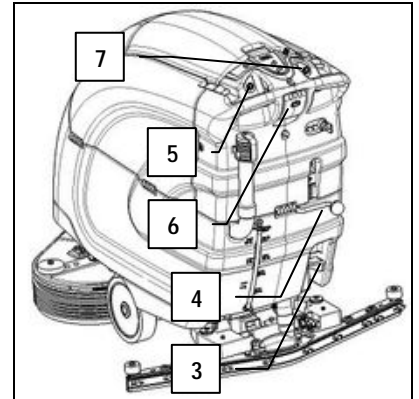
5. With switch-on, three consecutive screens are visualised on the monitor. The first screen shows (on the top line) what type of hour meter has been set; in this case it's a total hour-counter (to visualise a different type - for instance partial - contact the qualified, COMAC-trained personnel). The bottom line shows the "service" setting (in this case there is no setting).
6. The second screen visualises what battery technology has been set for machine operation; in this case it's lead batteries (to set another type of battery - for instance gel - contact the qualified, COMAC-trained personnel).
7. The third and last screen (known as "work") visualises the battery charge status and the total functioning time. When the batteries supplied are fully charged, the upper line contains 8 light indicators that represent a battery. As the batteries gradually run down, the indicators go out and, with the batteries completely run down, only the battery outline flashes. The bottom line indicates the hours and minutes of functioning. The flashing ":" symbol indicates that the hour meter is counting the machine functioning time.



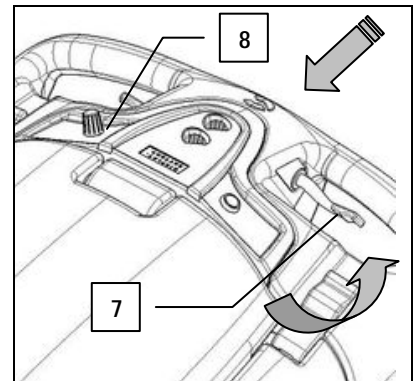


## WORK

8. Release the lever (3) and lower the brush head. In the case of an automatic machine, lower the key (7).
9. Lower the squeegee, rotating the lever (4) anticlockwise. If the machine is automatic, use the key (5); when you have turned it as far as it will go, the suction motor will switch on. To switch off the suction motor, turn the key to position "0" once the work is finished.
10. Check the brake (6) is off.



11. Turn the speed control knob (8) to set the working speed. If the speed is inadequate, the adjustment knob can be turned even with the machine in motion.
12. Press the dead man's levers (7) to activate the brushes; the machine will begin to move. During the first metres, check there is sufficient solution and that the squeegee dries perfectly.
13. The machine will now begin to work efficiently until the battery is flat or the detergent solution finishes.

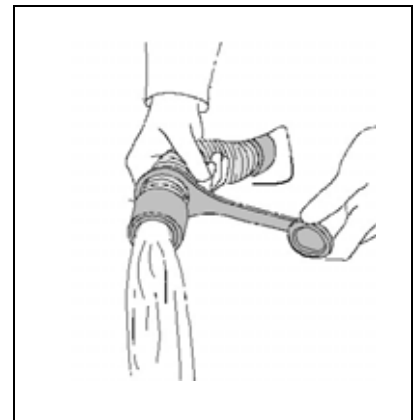


## 2 . OVERFLOW DEVICE

The machine is fitted with a float which intervenes when the recovery tank is full, causing the suction tube to close. In this case, it is necessary to empty the recovery tank, removing the cap of the rear drainage hose.



**ATTENTION:** this operation must be carried out using gloves to protect against contact with dangerous solutions



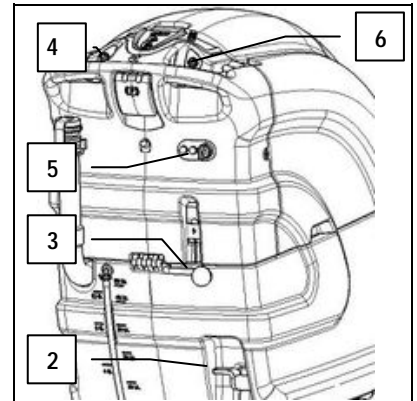


## AT THE END OF THE WORK

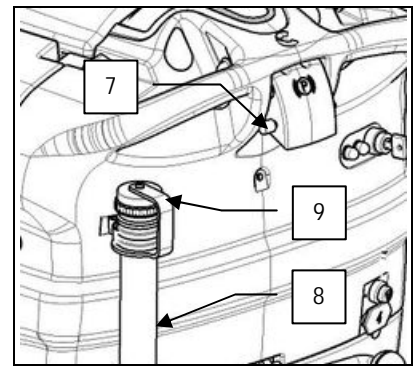
### 1 . AT THE END OF WORK

At the end of the work, and before carrying out any type of maintenance:

1. raise the brush head by means of the pedal (2) or the key (6) (automatic version)
2. Raise the squeegee by means of the lever (3) or the key (4) (automatic version). When the squeegee is up, the suction motor switches off automatically
3. bring the machine to the place provided for draining the water
4. Turn the key switch (5) anticlockwise to '0' to switch off the machine, then remove the key from the block before starting any maintenance or cleaning operation



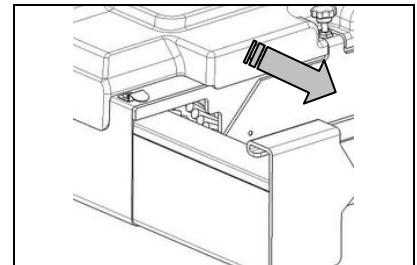
5. pull the brake lever and block it with the pin (7)
6. Remove the drainage hose (8) from its compartment, unscrew the drainage cap (9) and empty the recovery tank
7. the squeegee must be raised when the machine is not operating in order to avoid deforming the rubber blades
8. disassemble the brushes and clean them with a jet of water (to disassemble the brushes, see "DISASSEMBLING THE BRUSHES" below)



9. Remove the debris hopper and clean it carefully with a water jet (MEDIA 60BS)



**ATTENTION:** These operations must be carried out using gloves to protect against contact with dangerous solutions

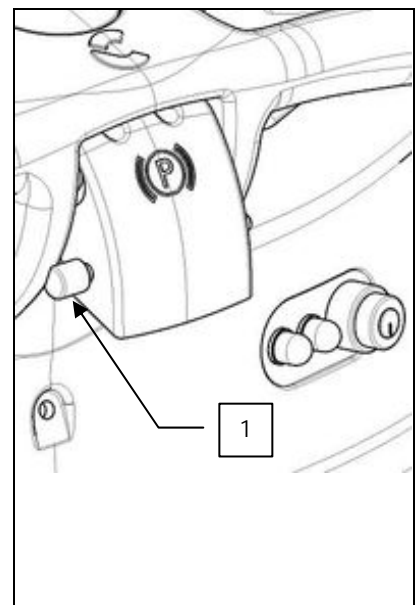


10. At the end of the work, park the machine in a closed place. Raise the squeegee and brush head using the reference lever or the specific key (AU version), then turn the key switch anticlockwise and take out the command key. Apply the parking brake and block the handle with the pin (1), inserting it in the lever holes. After inserting the pin (1), ensure the flat surface of the pin is resting on the surface of the handlebars.

Do not leave the squeegee and brush head resting on the floor for a long time.



**ATTENTION:** do not leave the machine unattended without first removing the start-up switch key and applying the parking brake. In addition, do not park the machine in open places or on sloping floors







---

## AT THE END OF THE WORK

### 2. STORING OF THE MACHINE

Proceed as follows to store the machine at the end of work:

1. Place the machine in a place where it can not cause damage or injury
2. Position the machine where the accidental fall of objects do not cause damage
3. Engage the parking brake
4. Turn the key switch to the "0" position
5. Disconnect the machine connector
6. Lift the brush head and squeegee



## DAILY MAINTENANCE

### PERFORM ALL MAINTENANCE OPERATIONS IN SEQUENCE

#### 1. CLEANING THE RECOVERY TANK

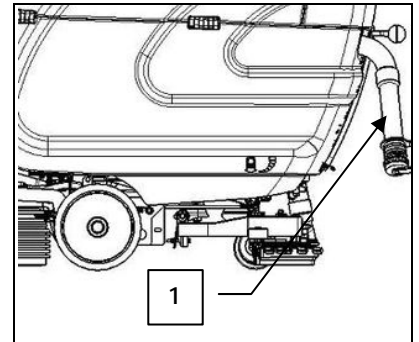
1. Disconnect the tube (1) from its seat, unscrew the drainage cap and empty the recovery tank.



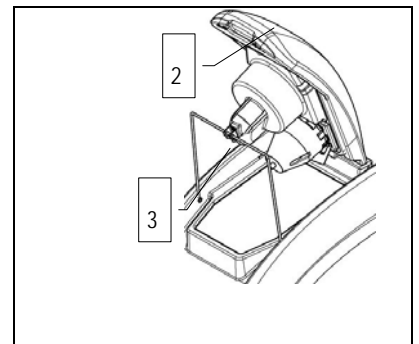
**ATTENTION:** Before performing any maintenance, remove the keys from the panel and disconnect the battery connector of the machine.



**WARNING:** this operation must be carried out wearing gloves to protect against contact with dangerous solutions.



2. Engage the parking brake.
3. Lift the brush head body and the squeegee body off the ground.
4. Raise the cap (2) until the hook is secured to the prop (3) of the recovery tank.
5. Clean and rinse the recovery tank and the suction pipe (connecting pipe between the squeegee and the tank).
6. Reposition the cap on the drainage tube and lower the suction cap. To lock the prop (3) just slightly raise the cap, release the prop (3) and lower the cap up to close it.



#### 2. CLEANING THE SUCTION FILTER

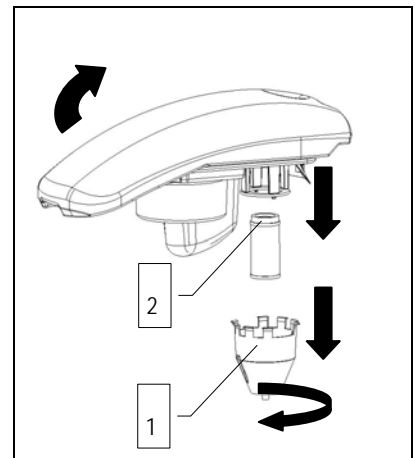
1. Raise the cover.
2. Remove the suction filter protection (1) by rotating it clockwise
3. Pull the filter (2) to unthread it
4. Use a jet of water to clean the walls and brush head of the filter. Carry out the cleaning operations carefully
5. reassemble all the elements



**WARNING:** Before carrying out any type of maintenance, disconnect the machine's battery connector.



**WARNING:** this operation must be carried out by using gloves in order to protect against contact with dangerous solutions



#### 3. CLEANING THE SUCTION TUBE FILTER

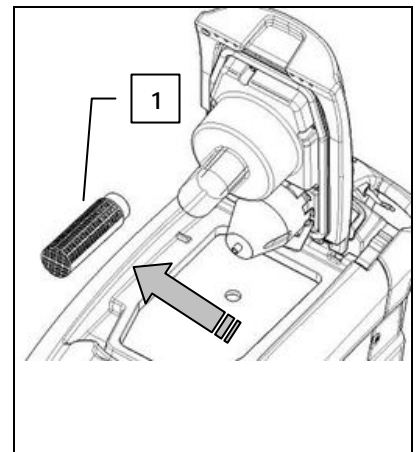
1. Raise the suction cover and block it as indicated in the previous paragraph
2. Rotate the inner filter (1) and remove it
3. Carry out the cleaning operations carefully
4. Reassemble all the elements



**ATTENTION:** These operations must be carried out using gloves to protect against contact with dangerous solutions



**ATTENTION:** Before performing any maintenance, remove the keys from the panel and disconnect the battery connector of the machine.





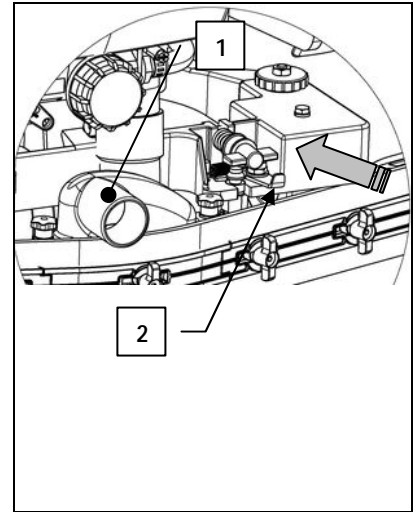
## DAILY MAINTENANCE

### 4. DISASSEMBLING AND CLEANING THE SQUEEGEE

Check the squeegee is always clean, for better drying results.

To clean it you must:

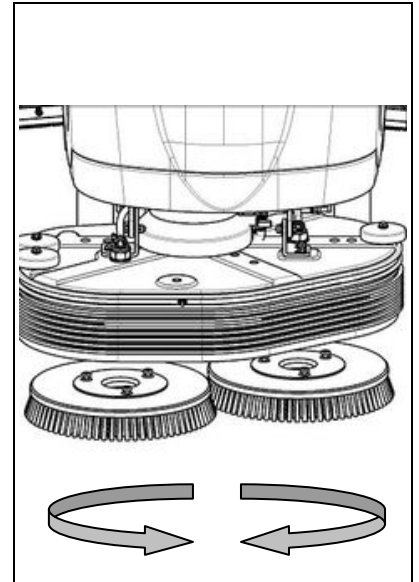
1. remove the tube (1) from the squeegee
2. remove the squeegee, pushing the plate (2) to the left in order to release the squeegee small column from its seat
3. pull the squeegee to the right until the left-hand small column is released from its seat
4. carefully clean the inside of the squeegee and its suction nozzle
5. carefully clean the squeegee rubbers
6. reassemble all the elements



**ATTENTION:** Before performing any maintenance, remove the keys from the panel and disconnect the battery connector of the machine.

### 5. DISASSEMBLING THE BRUSH

1. Turn the key anticlockwise to "OFF"
2. Raise the brush head, using the lever
3. With the brush head up, rotate the brush until it comes out of the brush-holder plate seat, as shown in the figure. The figure shows the rotation direction to uncouple the right-hand brush; for the left-hand one, rotate in the opposite direction
4. Always check the bristles for signs of wear. You are advised to replace the brushes when the bristles are less than 15mm long



**ATTENTION:** this operation must be carried out using gloves to protect against contact with dangerous solutions



**ATTENTION:** Before performing any maintenance, remove the keys from the panel and disconnect the battery connector of the machine.

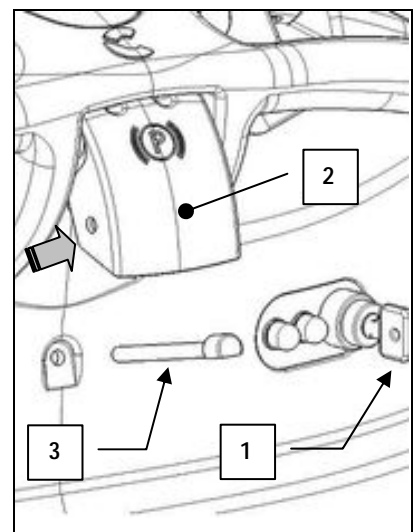
### 6. DISASSEMBLING THE BRUSH (BRUSH HEAD WITH CYLINDRICAL BRUSHES)

To remove the brushes:

1. Turn the key anticlockwise to "0" (1)
2. stop the machine moving by applying the brake lever (2)
3. insert the blocking pin (3) in the holes of the brake handle to prevent the lever slipping



**ATTENTION:** do not leave the machine on sloping or wet floors, and check the parking brake is correctly applied

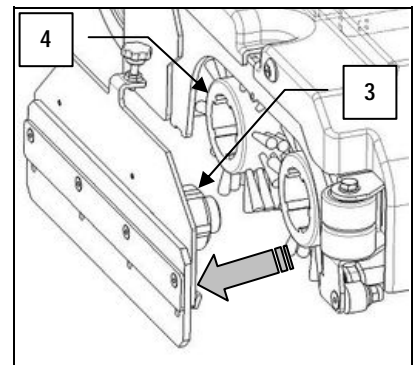
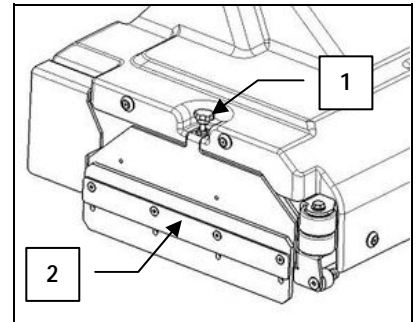




## DAILY MAINTENANCE

Clean the hopper as described in the "AT THE END OF THE WORK" paragraph

4. Check there are no wires, bits of plastic or anything else at the ends of the brushes; these objects could stop the brushes from rotating freely. If the brushes are not clean:
5. Loosen the knob (1)
6. release the plate (2)
  
7. remove the plate (2) with the brush support hubs (3)
8. remove the brushes (4), clean them with a jet of water, then reassemble them. Check the bristles are not worn; in the event of excessive wear, replace the brushes (the bristles should be at least 10mm long)
9. reassemble the plate (2), inserting first the hubs (3) in the toothed seat of the brushes and tightening the knob (1)



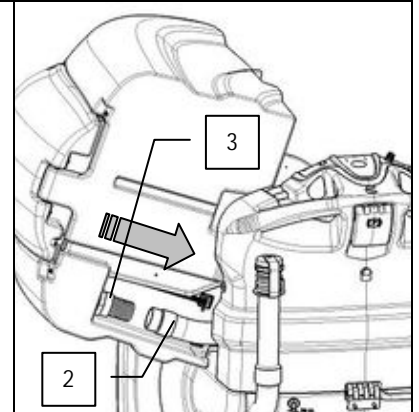


## WEEKLY MAINTENANCE

### 1. CLEANING THE SQUEEGEE TUBE

Every week, or whenever suction seems to be unsatisfactory, check the squeegee tube is not obstructed. To clean it, proceed as follows:

1. Engage the parking brake
2. Turn the key switch to the "0" position
3. Remove the tube from the squeegee suction nozzle
4. open the recovery tank
5. remove the other end of the tube (2) from the rubber-holder connector (3) of the recovery tank
6. wash the inside of the tube with a jet of water (from the tank side)
7. Reassemble the tube
8. Close the recovery tank
9. Insert the tube in the squeegee suction nozzle



**ATTENTION:** Adopt safety measures to prevent damage to the limbs.

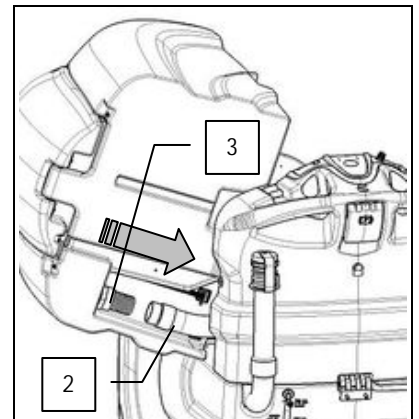


**WARNING:** this operation must be carried out wearing gloves to protect against contact with dangerous solutions.

### 2. CLEANING THE SQUEEGEE TUBE (MEDIA 60S)

Every week, or whenever suction seems to be unsatisfactory, check the squeegee tube is not obstructed. To clean it, proceed as follows:

1. Engage the parking brake
2. Turn the key switch to the "0" position
3. Remove the debris hopper from the brush head
4. Remove the tube from the squeegee suction nozzle
5. open the recovery tank
6. remove the other end of the tube (2) from the rubber-holder connector (3) of the recovery tank
7. wash the inside of the tube with a jet of water (from the tank side)
8. Reassemble the tube
9. Close the recovery tank
10. Insert the tube in the squeegee suction nozzle
11. Reassemble the debris hopper in the brush head



**ATTENTION:** Adopt safety measures to prevent damage to the limbs.



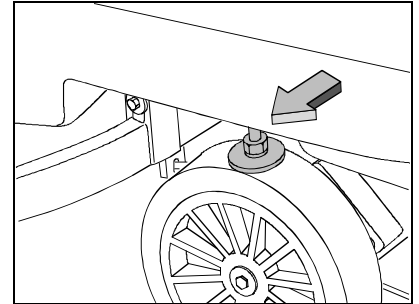
**WARNING:** this operation must be carried out wearing gloves to protect against contact with dangerous solutions.



## WEEKLY MAINTENANCE

### 3. CHECKING THE WHEEL BRAKE

Every week, check the distance between the work brake pads and the wheels. If necessary, adjust them by means of the nuts, so they are at a distance of 3mm when homed.

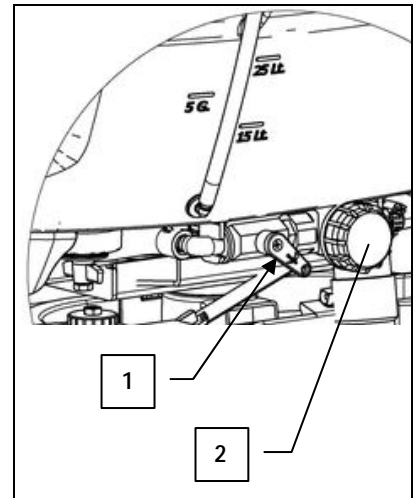


### 4. CLEANING THE SOLUTION FILTER

1. Turn off the tap by means of the lever (1)
2. Loosen the cap (2) of the solution filter
3. Remove the filter and rinse with a jet of water
4. Reassemble the filter and tighten the cap
5. Turn on the tap beneath the symbol (1)



**ATTENTION:** These operations must be carried out using gloves to protect against contact with dangerous solutions

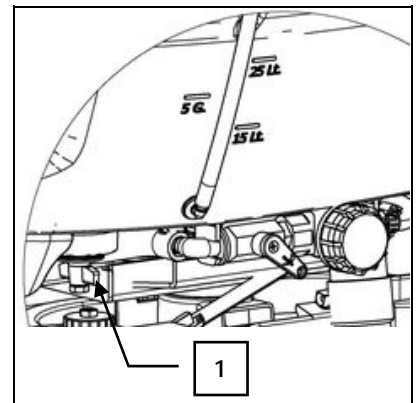


### 5. CLEANING THE SOLUTION TANK

6. Loosen the front cap of the solution tank
7. Loosen the wing nut of the drainage cap (1) to the left of the tank, and remove the cap
8. Rinse the inside of the tank with a jet of water
9. Insert the cap in the tank, and retighten the wing nut (1)



**ATTENTION:** These operations must be carried out using gloves to protect against contact with dangerous solutions



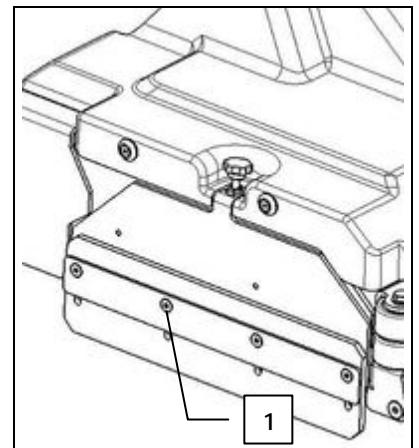
### 6. REPLACING THE BRUSH HEAD SPLASH GUARDS

To ensure the water is collected efficiently while the machine is working, you should periodically check the state of wear and tear of the side splash guards. When you need to replace them, proceed as follows:

1. with the brush head up, loosen the screws (1) that fix the blocking blade of the splash guard rubber
2. unthread the splash guard rubber and rotate it by 180° in order to replace the worn part with a new one. If the splash guards are worn on both sides, replace them with new rubbers (contact the COMAC assistance centre)
3. reassemble everything, carrying out the above-mentioned operations in the reverse order



**ATTENTION:** this operation must be carried out using gloves to protect against contact with dangerous solutions



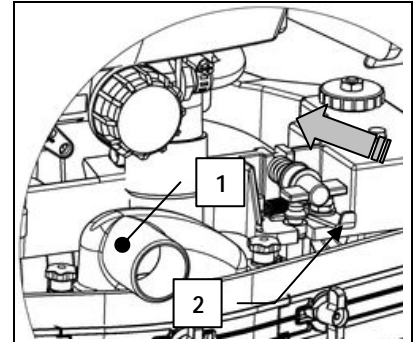


## WEEKLY MAINTENANCE

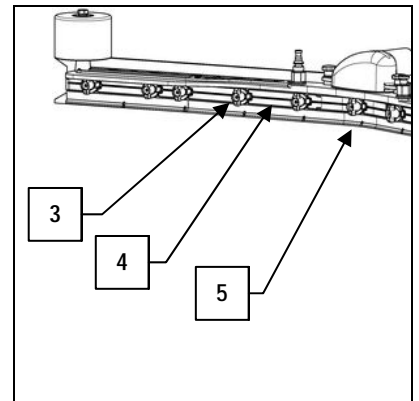
### 7. REPLACING THE SQUEEGEE RUBBERS

Suction will be poor and the machine will not dry perfectly if the front squeegee rubber is worn. Proceed as follows to replace:

1. remove the tube (1) from the squeegee
2. remove the squeegee, pushing the plate (2) to the left in order to release the squeegee small column from its seat
3. pull the squeegee to the right until the left-hand small column is released from its seat



4. Turn the wing nuts (3) in the horizontal position
5. Remove the front rubber-pressing blades (4).
6. Remove the rubber (5) and replace it
7. Proceed in reverse to replace the rubber



**ATTENTION:** Before performing any type of maintenance, turn the main switch to "OFF" and disconnect the battery connector of the machine.

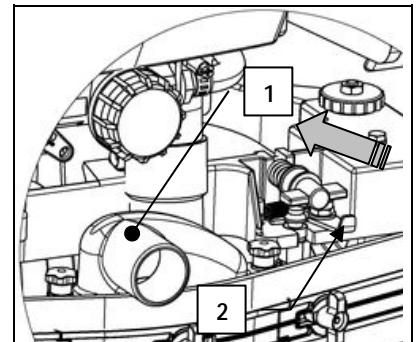


**ATTENTION:** These operations must be carried out using gloves to protect against contact with dangerous solutions

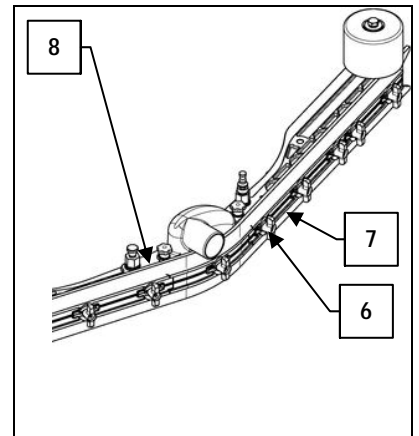
If the squeegee rear rubber is worn and does not dry well, it is possible to change the drying edge using one of the 4 edges of the rubber.

This operation can be done both with a squeegee fitted or removed as follows:

1. remove the tube (1) from the squeegee
2. remove the squeegee, pushing the plate (2) to the left in order to release the squeegee small column from its seat
3. pull the squeegee to the right until the left-hand small column is released from its seat



4. Turn the wing nuts (6) in the horizontal position
5. Remove the rear rubber-pressing blades (7).
6. Remove the rubber (8) and replace it
7. adjust the height of the squeegee depending on the rubber (see "ADJUSTING THE HEIGHT OF THE SQUEEGEE SUPPORT")



**ATTENTION:** Before performing any type of maintenance, turn the main switch to "OFF" and disconnect the battery connector of the machine.



**ATTENTION:** These operations must be carried out using gloves to protect against contact with dangerous solutions

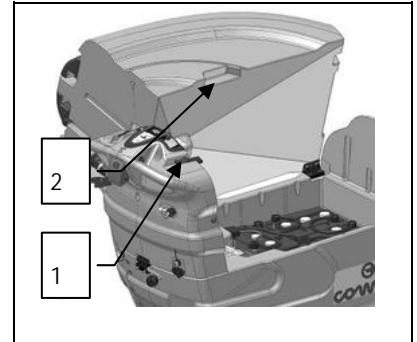


## EXTRAORDINARY MAINTENANCE

### 1. SCRUBBING OF DOSING SYSTEM (VERSIONS WITH FSS)

The dosing system should be cleaned when the machine is not used for a long period (more than 48 hours): to do so, proceed as follows:

1. Check that the main switch is in the "Off - 0" position
2. Check that the battery connector is disconnected from the machine connector
3. Check the parking brake is correctly engaged
4. Make sure the recovery tank is empty, otherwise empty it completely
5. Disconnect the tank closure hinge (1) By gripping the handle (2) on the left side of the machine, turn the recovery tank

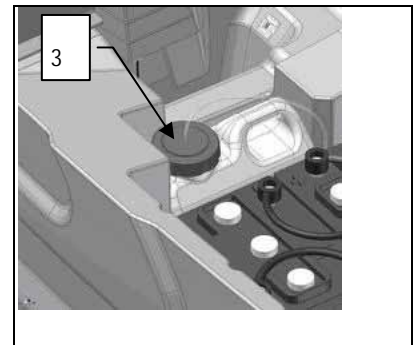


6. Unscrew the cap of the detergent canister (3) and fill it with clean water

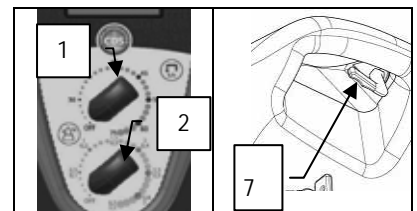


**ATTENTION:** always use low foam detergent. To avoid the production of foam, before starting to clean, put a minimum quantity of antifoam liquid into the recovery tank. Do not use pure acids.

7. Close the lid of the detergent tank, taking care that the suction filter is positioned at the bottom of the tank
8. Check there is clean water in the solution tank



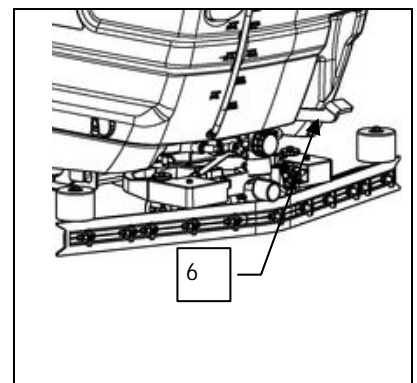
9. Check that the tap lever is fully opened, the lever is positioned at the rear of the machine.
10. Check that the by-pass tap is in the "dosing system" position
11. Turn the water flow rate adjustment knob (4) to the maximum position
12. Turn the detergent percentage adjustment knob (5) to the maximum position
13. Insert the battery connector into the machine connector.
14. Place the main switch in position "ON - I"
15. Disengage the parking brake



16. Lower the brush head body by means of the pedal (6)
17. Activate the dead man's levers (7) to allow the operation of the brush head and the dosing system
18. Wait a few minutes keeping the dead man's levers pressed (normally 2 to 4 minutes) to allow the cleaning of the dosing system
19. Completely empty the solution tank and the detergent canister
20. Park the machine in a safe manner



**WARNING:** The machine will deliver solution during this operation



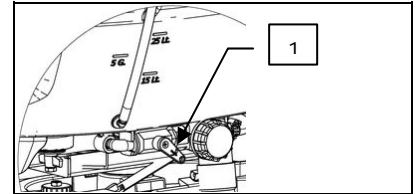




## TROUBLESHOOTING

### 1. INSUFFICIENT WATER ON THE BRUSH

1. Check the tap beneath the symbol (1) is turned on.
2. Check there is water in the solution tank.
3. Check the solution tank filter cap is not obstructed.



### 2. THE MACHINE DOES NOT CLEAN WELL

1. Check the state of wear and tear of the brush and, if necessary, replace it (the brush must be replaced when the bristles are about 15mm long).
2. Use a different kind of brush to the one fitted as standard. For cleaning floors where the dirt is particularly resistant, we recommend the use of special brushes supplied upon request and according to needs (see "CHOOSING AND USING THE BRUSHES").

### 3. THE SQUEEGEE DOES NOT DRY PERFECTLY

1. Check the squeegee rubbers are clean.
2. Adjust the inclination and height of the squeegee (see the "ADJUSTING THE SQUEEGEE INCLINATION AND HEIGHT" paragraph).
3. Check the suction tube is correctly inserted in its housing on the recovery tank.
4. Check the inner filter of the recovery tank is not dirty and, if necessary, clean it thoroughly.

### 4. EXCESSIVE FOAM PRODUCTION

Check that a low foam detergent has been used. If necessary, add a small quantity of antifoam liquid to the recovery tank.

Remember that, when the floor is not very dirty, more foam is generated. In this case the detergent solution should be more diluted.

### 5. ELECTRIC FUSES AND THERMAL CUT-OUTS

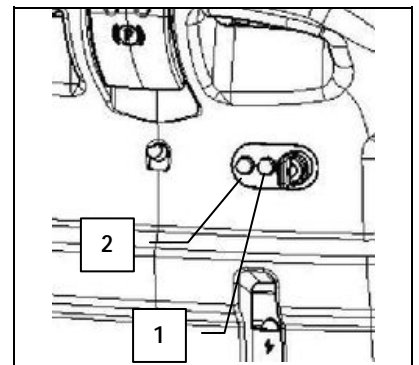
The machine is fitted with the following electrical protection systems:

Power fuses arranged in the electrical box, to protect against short-circuiting

thermal trip units arranged on the outside of the handlebars, to protect the following motors:

1. 30A trip unit (1) for the brush head motor
2. 20A trip unit (2) for the suction motor
3. 50A trip unit (1) for brush head motor (MEDIA 60S)

In the event of malfunctioning, check a thermal cut-out has not intervened. If the motor overheats, its thermal cut-out intervenes to block the electricity supply. Wait a few minutes until it has cooled down, then press the specific trip unit button to reactivate the power supply and motor operation.





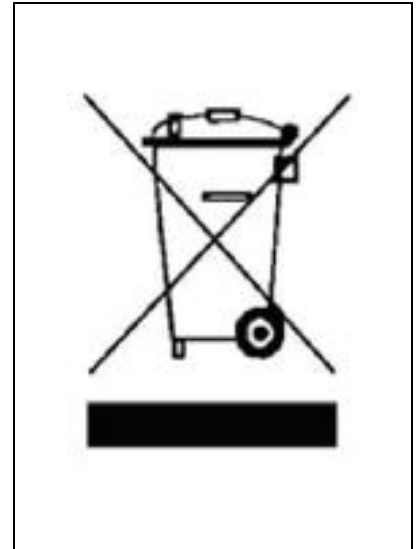
## DISPOSAL

To dispose of the machine, take it to a demolition centre or an authorised collection centre.

Before scrapping the machine it is necessary to remove and separate the following materials and send them to the appropriate collection centres in accordance with the environmental hygiene regulations currently in force:

- brushes
- filter
- electric and electronic parts\*
- batteries
- plastic parts (tanks and handlebars)
- metal parts (levers and frame)

(\*) In particular, to scrap the electric and electronic parts, contact your area distributor





## CHOOSING AND USING THE BRUSHES

### POLYPROPYLENE BRUSH (PPL)

Used on all types of floors. Good resistance to wear and tear, and hot water (no greater than 60°C). The Polypropylene brush is non-hygroscopic and therefore retains its characteristics even when working in wet conditions.

### ABRASIVE BRUSH

The bristles of this type of brush are charged with highly aggressive abrasives. It is used to clean very dirty floors. To avoid floor damage, work only with the pressure strictly necessary.

### THICKNESS OF THE BRISTLES

Thicker bristles are more rigid and are therefore used on smooth floors or floors with small joints.

On uneven floors or those with deep joints, it is advisable to use softer bristles which can enter the gaps more easily.

Remember that when the bristles are worn and therefore too short, they will become rigid and are no longer able to penetrate and clean deep down. In this case, like with over-large bristles, the brush tends to jump.

### PAD HOLDER

The pad holder is recommended for cleaning shiny surfaces.

There are two types of pad holder:

1. the traditional pad holder is fitted with a series of anchor points that allow the abrasive floor pad to be held and dragged while working
2. the CENTRE LOCK type pad holder not only has anchor points, but also a snap-type central locking system in plastic that allows the abrasive floor pad to be perfectly centred and held without any risk of it becoming detached. This type of pad holder is recommended above all for machines with more than one brush, where the centring of the abrasive discs is difficult

TABLE FOR CHOOSING THE BRUSHES

Machine	No. of brushes	Code	Type of bristles	Ø Bristle	Ø Brush	Length	Notes
MEDIA65 BT	2	422189 422971 422972 422981 422973	PPL PPL PPL ABRASIVE PAD HOLDER	0.3 0.6 0.9	340 340 340 340 340		LIGHT BLUE WHITE BLACK GREY CENTER LOCK
MEDIA75 BT	2	427715 427716 427717 427719 427718	PPL PPL PPL ABRASIVE PAD HOLDER	0.3 0.6 0.9	390 390 390 390 390		LIGHT BLUE WHITE BLACK GREY CENTER LOCK
MEDIA60 BST	2	425810 425854 425853 427714	WAVY PPL - IN PEAKS WAVY PPL - IN PEAKS WAVY PPL - IN PEAKS WAVY ABRASIVE - IN PEAKS	0.4 0.6 0.8 0.9	150 150 150 150	618 618 618 618	GREEN WHITE YELLOW GREY



## EC DECLARATION OF CONFORMITY

The undersigned manufacturer:  
**COMAC S.p.A.**  
Via Maestri del Lavoro, 13  
37059 Santa Maria di Zevio (VR)  
declares under its sole responsibility that the products

### FLOOR SCRUBBING MACHINES mod. MEDIA65 BT – MEDIA75 BT – MEDIA60 BST

comply with the requirements of the following Directives:

- 2006/42/EC: Machinery Directive
- 2006/95/EC: Low Voltage Directive
- 2004/108/EC: Electromagnetic Compatibility Directive

They also comply with the following standards:

- EN 60335-1: Household and similar electrical appliances - Safety. Part 1: Generic standards
- EN 60335-2-72: Household and similar electrical appliances. Part 2: Generic standards for automatic machines for floor treatment for commercial and industrial use
- EN 60335-2-29: Household and similar electrical appliances. Part 2: Special standards for battery chargers.
- EN 12100-1: Machine safety - Fundamental concepts, fundamental principles of design - Part 1: Basic terminology and methodology
- EN 12100-2: Machine safety - Fundamental concepts, fundamental principles of design - Part 2: Technical principles
- EN 61000-6-2: Electromagnetic compatibility (EMC) - Part 6-2: Generic standards – Immunity for industrial environments.
- EN 61000-6-3: Electromagnetic compatibility (EMC) - Part 6-3: Generic standards — Standard emission for residential, commercial and light-industrial environments.
- EN 61000-3-2: Electromagnetic compatibility (EMC) - Part 3-2: Limits – Limits for harmonic current emissions (Equipment with input current  $\leq 16$  A per phase).
- EN 61000-3-3: Electromagnetic compatibility (EMC) - Part 3-3: Limits – Restriction of voltage variations and flicker in low voltage power supply systems for devices with a rated current  $\leq 16$  A.
- EN 55014-1: Electromagnetic compatibility - Regulations for household appliances, electrical devices and similar equipment. Part 1: Emission - Regulation for product family.
- EN 55014-2: Electromagnetic compatibility - Regulations for household appliances, electrical devices and similar equipment. Part 2: Immunity - Regulation for product family.
- EN 62233: Household and similar electrical appliances - Electromagnetic fields Methods for evaluation and measurement

The person authorised to compile the technical file:

Sig. Giancarlo Ruffo  
Via Maestri del Lavoro, 13  
37059 Santa Maria di Zevio (VR) - ITALY

Santa Maria di Zevio (VR), 01/07/2010

COMAC S.p.A.  
Legal representative  
Giancarlo Ruffo

COMAC spa  
Via Maestri del Lavoro, 13 – 37059 Santa Maria di Zevio – Verona – ITALY  
Tel. +39 045 8774222 – Fax +39 045 8750303 - E-mail: [com@comac.it](mailto:com@comac.it) o [info@comac.it](mailto:info@comac.it) - [www.comac.it](http://www.comac.it)