

## **ASTAHLFEST**

Ride on Scrubber Dryer

# SF55-56SFS





ЕО декларация за съответствие

Prohlášení o shodě EU

EU-overensstemmelseserklæring

EG-Konformitätserklärung Δήλωση συμμόρφωσης ΕΚ

EU Declaration of Conformity

EÜ vastavusdeklaratsioon

Declaración de Conformidad UE

EU Vaatimustenmukaisuusvakuutus

Déclaration de conformité UE

EU izjava o sukladnosti

EK-megfelelőségi nyilatkozat Dichiarazione di Conformità UE

EK atbilstības deklarācija

EB attitikties deklaracija

EU-conformiteitsverklaring

EUkonformitetserklæringen

Deklaracji zgodności EU

Declaração de Conformidade da UE

Declarație de conformitate

Заявление о соответствии

стандартам ЕС

EU-konformitetsförklaringen

Izjava EU o skladnosti

ES vyhlásenie o zhode

AB Uygunluk Beyanı Izjava o usaglašenosti sa

standardima FU

Product:

Ride on Scrubber Dryer for commercial use

SF55-56SFS

Serial Number:

Refer to the rating label on the machine

Trademark:



## <u>ASTAHLFEST</u>

- ВС Декларираме, че посочените по-горе модели са произведени съгласно следните директиви и стандарти. При изменение на продукта, което не е съгласувано с нас, тази декларация губи своята валидност.
- Tímto prohlašujeme, že výše uvedené modely byly vyrobeny ve shodě s následujícími směrnicemi a normami. V případě změny výrobku, která nebyla námi odsouhlasena,ztrácí toto prohlášení svou platnost.
- DA Hermed erklærer vi, at ovenstående modeller er blevet fremstilliet i henhold til følgende retningslinjer og standarder. I tilfrælde af ændringer af produktet, som vi likke har godkendt, bortfalder gyldigheden af denne erklæring.
- DE Hiermit erklären wir, dass die oben erwähnten Modelle gemäß den folgenden Richtlinien und Normen hergesteilt wurden. Bei einer nicht mit uns abgestimmten Änderung des Produktes verliert diese Erklärung ihre Gültigkeit.
- ΕΙ Με την παρούσα δηλώνουμε ότι τα παραπτάνω αναφερόμενα μοντίλα έχουν κατισκευαστεί σύμφωνα με τις ακόλουθες Οθηγίες και τα ακόλουθα πρότιντα. Σε περίπτωση τροποποίησης του πρότιντος χωρίς τη συγκατάθεσή μος, η παρούσα δήλωση θα κατισταί άνωρη.
- Käesolevaga kinnitame, et ülalpool nimetatud mudelid on toodetud vastavuses järgmiste direktiivide ja standarditega. Käesolev kinnitus kaotab kehtivuse, kui toodet muudetakse meiega kooskõlastamata.
- We herewith declare that the aforementioned models were manufactured in accordance with the following guidelines and standards. In the event of a product amendment which was not cleared by us, this declaration shall no longer be
- Por la presente, declaramos que los modelos arriba indicados fueron fabricados conforme a las siguientes directivas y normas. En caso de realizar una modificación no autorizada por nosotros, esta declaración pierde su validez.
- Täten vakuutamme, että yllä mainitut mallit on valmistettu seuraavien direktiivien ja normien mukaisesti. Mikäli tuotetta muutetaan ilman meidän antamaa lupaa, tämä ilmoitus lakkaa olemasta voimassa.

- FR Nous déclarons par la présente que les modèles susmentionnés ont été fabriqués selon les directives et normes suivantes. Cette déclaration perd sa validité si le produit est modifié sans notre consentement.
- HR Ovime izjavljujemo da smo gore navedene modele proizveli prema sljedećim direktivama i normama. U slučaju neovlaštene izmjene proizvoda prestaje valjanost ove izjave.
- HU Ezennel kijelentjük, hogy a fent emillett modellek az alábbi előírásoknak és szabványoknak megfelelően készülnek. Amennyiben olyan módosítás lörfenik a terméken, amelyet előzetesen nem egyeztettek velünk, akkor a jelen nyilatkozat érvényet veszti.
- Con la presente dichiariamo che i modelli citati sopra sono stati realizzati conformemente alle seguenti norme e direttive. In caso di modifica del prodotto senza la nostra autorizzazione, questa dichiarazione non sarà bi
- LV Ar šo apliecinām, ka iepriekš minētie modeļi ir izgatavoti atbilstoši šādām direktīvām un normatīviem. Ja tiek veikta ar mums nesaskaņota izstrādējuma izmainīšana, šī deklarācija nav deriga.
- Pareiškiame, kad minėti modeliai buvo pagaminti vadovaujantis nurodytomis direktyvomis ir standartais. Ši deklaracija netenka galios, jei gaminys pakeičiamas nesuderinus jo pakeitimų su murnis.
- NL
  Hlermee verklaren we dat de hierboven vermelde modellen in overeenstemming met de volgende richtlijnen en normen worden verwaardigd. In geval van een niet met ons overeengekomen wijziging van het product, verliest deze verklaring haar geldigheid.
- NO Vi erklærer herved at de ovennevnte modellene er produsert iht. følgende retningslinjer og standarder. Ved endringer av produkter som ikke er godkjent fra oss, bortfaller denne erklæringen.
- PL Ninlejszym deklarujemy, że wyżej wymienione modele zostały wyprodukowane zgodnie z niżęż wymienionymi dyrektywami i normami. W przypadku dokonania nieuzgodnionych z nami zmian w produkcie ninlejsza deklaracja traci ważność.

- PT Por este meio declaramos que os modelos acima mencionados foram fabricados de acordo com as seguintes directivas e normas. Em caso de uma alteração do produto que não tenha sido autorizada por nós, esta declaração perde a sua validade.
- RO

  Prin prezenta declarăm că modelele menţionate mai sus, sunt produse în conformitate cu următoarele directive şi norme. La o modificare a produsului care nu a fost aprobată de noi în prealabit, această declaraţie ţi pierde valabilitatea.
- RU Настоящим мы заявляем, что указанные выше модели изготовлены в соответствии с требованиями сладующих Директив и стандартов. В случае несогласованного с нами изменения изделия настоящее заявление становится недействтельным.
- SL Izjavljamo, da so bili zgoraj navedeni modeli izdelani v skladu z navedenimi smernicami in nomami. V primeru spremembe izdelka, ki ni bila potrjena z naše s strani, ta izjava ni več veljavna.
- SK Týmto vyhlasujeme, že uvedené modely boli vyrobené v zhode s nasledujúcimi smernicami a normami. V prípade zmeny výrobku, ktorá s nami nebola konzultovaná, stráca toto vyhlásenie svoju platnosť.
- SV Härmed förklarar vi att ovan nämnda modell uppfyller följande riktlinjer och normer. Vid av oss ej godkända ändringar på produkten upphör denna förklaring att gälla.
- TR Yukarıda belirlilen modellerin aşağıdaki yönergelere ve standartlara uygun, olduğunu beyan ederiz. Üründe yapılan herhangi bir değişiklik bu beyanı geçersiz kılar.
- YU Ovim putem izjavljujemo da su gore navedeni modeli proizvedeni u skladu sa sledećim smernicama i standardima. U slučaju izmena na proizvodu koje nisu dogovorene s nama, ova izjava ne važi.

#### Applicable EU Directives:

2014/30/EU Electomagnetic compatability (EMC) Directive 2014/35/EU Low Voltage (LVD) 2006/42/EC Machinery (MD)

#### Harmonised standards

EN 55014-1:2006+A1:2009+A2:2011, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 55014-2:1997+A1:2001+A2:2008, EN 60204-1:2006+A1:2009, EN ISO12100:2010

- ВС Предприети са вътрешни мерки, за да се гарантира, че продуктите винаги съответстват на изискваниятта на най-новите регламенти на ЕС и стандатите, които са действащи в момента
- GZ Byla přijata interní opatření, jejichž cílem je zabezpečit, aby výrobky vždy odpovídaly požadavkům nejnovějších pravidal EU a norem, které jsou v současnosti používány.
- DA Der skal træffes interne foranstaltninger for at sikre, at produktet altid lever op til kravene i de nyeste EU-direktiver og de gældende standarder.
- Es wurden interne Massnahmen ergriffen, um sicherzustellen, dass die Produkte in jedem Fall den Anforderungen der aktuellen EU-Vorschriften sowie den aktuell geltenden Normen entsprechen.
- Εχουν ληφθεί εσωτερικά μέτρα, προκειμένου να διασφαλιστεί ότι τα προϊόντα θα πληρούν πάντα τις απαιπήσεις των πιο πρόσφατων Κανονισμών της ΕΕ και των εφαρμοζόμενων προτύπων.
- Selleks, et alati tagada toodete vastavus uusimate ELi määruste ja praegu kehtivate standarditega, on võetud sisemeetmeid.
- EN Internal measures have been taken to ensure that the products always correspond to the requirements of the latest EU Regulations and the standards that are currently in use.
- ES Se han adoptado medidas internas para garantizar que los productos siempre cumplen con los requisitos de los últimos reglamentos de la UE y las normas que se aplican actualmente.
- Sisäisiä ohjeita ja toimenpiteitä on noudatettu sen varmistamiseksi, että tuote vastaa aina viimeisimpien EU-asetusten vaatimuksia ja voimassaolevia standardeja.

- Des mesures internes ont été prises pour garantir que les produits répondent toujours aux exigences des règlements les plus récents de l'UE et aux normes actuellement en vigueur.
- Poduzete su interne mjere koje osiguravaju da proizvodi uvijek ispunjavaju zahtjeve najnovijih propisa i trenutno važećih normi EU-a.
- HU
  A vállalaton belül megtettük a megfelelő
  intézkedéseket, hogy a termékek minden
  esetben megfeleljenek a legújabb uniós
  előírásoknak és az aktuálisan használatban lévő
  szabvánvoknak.
- Sono state prese misure interne per assicurare che i prodotti siano sempre conformi ai requisiti degli ultimi regolamenti UE e agli standard attualmente vigenti.
- LV Izstrādājumu pastāvīga atbilstība jaunāko EK normatīvu un spēkā esošo standartu prasībām tiek nodrošināta, veicot iekšējos pasākumus.
- LT Buvo imtasi vidaus priemonių siekiant užtikrinti, kad gaminiai visuomet altitiktų naujausių ES reglamentų ir šiuo metu taikomų standartų reikiajavimus
- NL Er werden interne maatregelen genomen om te verzekeren dat de producten steeds in overeenstemming zijn met de verelsten van de laatste EU-verordeningen en de normen die momenteel in detruik zijn.
- NO
  Det har blitt implementert interne tiltak for å sikre at produktet alltid er i samsvar med kravene til de nyèste EU-bestemmelsene og standardene som brukes til enhver tid.
- PL Podjęto wewnętrzne działania w celu zagwarantowania, że produkty będą zawsze spelniać wymagania aktualnie obowiązujących przepisów unijnych i norm.

- Foram tomadas medidas internas para assegurar que os produtos cumprem sempre os requisitos dos mais recentes regulamentos da UE e os padrões actualmente em vigor.
- S-au luat măsuri interne pentru a asigura faptul că produsele corespund întotdeauna cerințelor ultimelor directive UE și normelor în vigoare.
- RU Внутренние меры приняты с целью обеспечения постоянного соответствия изделий требованиям последних директив ЕС и применяющихся в настоящее время стандартов.
- S sprejetimi notranjimi ukrepi zagotavljamo, da so izdelki vedno v skladu s predpisi EU in trenutno veljavnimi standardi.
- SK Prijali sa interné opatrenia, ktorých cieľom je zabezpečíť, aby výrobky vždy zodpovedali požiadavkám najnovších pravidiel EÚ a noriem používaných v súčasnosti.
- SV Interna åtgärder har vidtagits för att försäkra att produkterna alltid uppfyller kraven i de senaste EU-bestämmelserna och de aktuella standardmåtten.
- TR Ürünün daima son AB Yönergeleri ve yürürlükteki standartların gerekliliklerine uygun olması için dahili önlemler alınmıştır.
- YU Preduzete su interne mere da se obezbedi da proizvodi uvek odgovaraju zahtevima najnovijih propisa EU i standardima koji su trenutno u unotrebi

### Translation of the original instructions of use



### CAUTION!

Always read the instructions of use and the safety instructions before using the machine for the first time.

The instructions of use must be kept in a safe and well accessible place so that you can refer to them at any time.

### Legend:



### Caution:

This sign designates important information. Failure to follow these instructions may result in danger to persons and/or extensive damage to property!



#### Attention:

This sign designates important information. Failure to follow these instructions may result in faults and damage to property!



### Notice:

This sign designates important information regarding the efficient use of the product. Failure to follow these instructions may result in faults!

## It includes instructions for the work steps that you must carry out in order.

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#### Intended use

The machine is intended for commercial use (e.g. in hotels, schools, hospitals, factories, shopping centers, offices, etc.). Subject to the strict compliance with the instructions of use, these machines are used for the wet cleaning of hard flooring. These machines are exclusively designed for use in interior zones.



### Attention:

The machine must not be used for polishing, oiling, the application of wax, carpet cleaning or dust removal. The wet cleaning of parquet and laminate flooring with this machine is at your own risk.



### Caution:

Changes to the machine that have not been authorized by Diversey will lead to the expiry of safety marks and CE conformity. Using the machine for purposes other than the intended purpose can cause injuries to persons, and damage to the machine and the working environment. Such cases will usually result in the termination of any warranty and possible guarantee claims.

### Safety instructions

Due to their design and construction, KREMER machines comply with the relevant essential health and safety requirements of the EC directives; they therefore have the CE sign.



### Caution:

The machine may only be used by persons who are adequately trained for the use of the machine or who have provided proof of their skills regarding the use of the machine and who are explicitly commissioned to use the machine.



### Caution:

The machine must not be used by people with reduced physical, sensory or mental capacities, including children or people who lack experience or knowledge. Children must be supervised to ensure that they do not play with the machine.



### Caution:

Do not use the machine in rooms where explosive or highly combustible substances (e.g. gas, solvents, heating fuel, dust, etc.) are stored or processed.

These substances could be ignited by the electricalor mechanical components of the machine.



### Caution:

Do not use the machine for the vacuum cleaning of poisonous, harmful, caustic or irritating substances (e.g. dangerous dust, etc.). The filter system does not adequately filter out these kinds of substances. Possible impacts on the health of the user or third persons cannot be ruled out.



### Attention:

The machine must be protected against unauthorized use. Therefore, keep the machine in a locked room before leaving it.



### Attention:

Operate and keep the machine in a dry and low-dust environment at temperatures between +10 and +35 degrees only.



### Caution:

Pay attention to the local situation as well as to third persons and children! In the vicinity of blind spots such as doors or curves in particular, it is important to reduce speed.



#### Attention:

Only authorized experts who are familiar with all safety instructions relevant for this machine are allowed to repair mechanical or electrical machine parts.



#### Caution:

Do not transport other persons and objects with this machine.



### Attention:

Only tools (brushes, pads or similar) that are specified in these instructions of use under accessories, or which have been recommended by a KREMER consultant, may be used. Any other brushes might impair the safety and functions of the ma-chine.



### Caution:

In case of malfunction or defect or after collisions or toppling over, the machine must be inspected by an authorized expert before restarting. The same applies if the machine was left outdoors, immersed in water or subjected to moisture.



### Attention:

National regulations for personal protection and accident prevention as well as the manufacturer's instructions for the use of cleaning solutions must be consistently observed.



### Caution:

The machine must be stopped immediately in case of damage to safety relevant parts such as brush covers, main cords or covers that enable access to live parts.



### Attention:

It is forbidden to plug in or unplug the main power supply cord with wet hands!



### Caution:

The machine must not be stopped, parked or stored on slopes.



### Attention:

Make sure that the rated voltage stated on the machine label is the same as the voltage rating of the plug socket!



### Caution:

The machine must be switched off for any work carried out on the machine.



### Attention:

Take care not to damage the power supply cord by rotating tools (brushes, pads or similar), crimping, tearing or damaging the power supply cord through heat, oil, or sharp objects!



### Caution:

Do not use the machine in rooms with high electromagnetic interference (electric smog).



### Attention:

In case of foam or liquid leakage from the machine, the suction unit must be switched off immediately.



### Caution:

The machine must not be used on slopes > 2%.

Sharp cornering on slopes can affect the stability of the machine and is therefore prohibited. Danger of accident.



#### Attention:

KREMER machines and devices are de- signed such that health risks caused by noise emissions or vibrations can be ruled out according to the current state of science.

See the Technical Information on page 7.

### Cleaning products

### Notice:



KREMER machines are designed in such a way that optimal cleaning results can be achieved if KREMER cleaning products are used.

Other cleaning products may cause malfunctions and damage to the machine or the environment.

Therefore, we recommend the exclusive use of KREMER cleaning products.

Faults caused by inappropriate cleaning products are not covered by the guarantee.

For further details, please contact your KREMER service partner.

### **Further documents**

### Notice:



The electric diagram of this machine is provided in the spare parts list.
Please contact your customer service for further information.

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### On consignment of machine

When the machine is consigned 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 suffered damage 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

FR70 is a floor scrubbing machine which, by means of 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 any removed dirt as well as the detergent solution not absorbed by the floor. The machine must only be used 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 customer 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 - locations.

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

TECHNICAL DESCRIPTION	U.	M*R
Working width	mm	560
Squeegee width	mm	800
Working capacity, up to	m²/ h	3500
Disc brush	No. / Ø mm	1 / 560
Disc brush rotations	RPM	200
Brush motor	V/W	24/550
Maximum pressure on the brushes	KG	23
Traction motor	V/W	24/500
Traction wheel (number / diameter / width)	No. / (Ømm / mm)	2 / (225 / 64)
Maximum forward speed	km/h	0-5.5
Maximum gradient with full load	%	10
Suction vacuum	No. /(V/W)	1 / (24 / 500)
Solution tank	Mbar	700
Front elastic wheel (diameter / width)	Ømm / mm	175/60
Solution tank	L	70
Recovery tank	L	70
Steering diameter	mm	1980
Machine length	mm	1265
Machine length with optional item-holder tray	mm	1320
Machine height	mm	1030
Machine height with optional blinking light kit	mm	1230
Machine width (without squeegee)	mm	600
Machine width (without squeegee) with optional	mm	630
Battery compartment(L*W*H)	mm	362x354x290
Rated battery voltage	V/Ah	12/100
Battery weight (max)	KG	80
Machine weight (empty and without batteries)	KG	110
Gross weight in running order (machine + batteries +	KG	220
water + operator)		
pressure level	dB (A)	65

### SYMBOLS USED ON THE MACHINE



Main switch or key switch symbol

Used on the instrument panel, to indicate the key switch for machine operation on (ON-I) or off (OFF-0)



Symbol denoting acoustic alarm

Used to indicate the acoustic alarm button



Symbol of the reverse movement selector

Used to indicate the button for engaging the reverse gear



Brush coupling/uncoupling symbol

Used to indicate the button that couples or uncouples the brush



Symbol indicating the maximum temperature of the water used to fill the solution tank



Symbol indicating the position of the solution tank drain pipe



Symbol indicating the position of the recovery tank drain pipe



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.
- 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.
- If the power supply cable of the battery charger is damaged, contact an Authorised service centre immediately.
- In the event of danger, quickly press the emergency button on the command panel.
- 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.

### WARNING

- 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℃ and +55 ℃; do not store outdoors in damp conditions
- Conditions of use: room temperature between 0 <sup>∞</sup> and 40 <sup>∞</sup> 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 carry out the scrubbing and drying operations simultaneously. 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 the guards that can only be removed with the aid of tools, except for maintenance work (see the relevant paragraphs)
- 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.
- $\bullet \quad \text{Have the machine checked by an authorised technical assistance centre every year. } \\$
- When disposing of consumable materials, observe the laws and regulations in force.
- 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 THE PACKAGED MACHINE

The machine is contained in specific packaging with a pallet for the handling with fork trucks. The packages cannot be placed on top of each other.

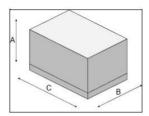
The total weight of the machine and packaging is 220 kg

The dimensions of the packaging is as follows: FR70

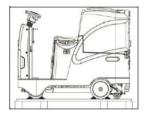
A: 1230 mm

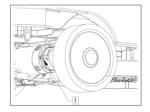
B: 630 mm

C: 1320 mm



- 1.Remove the outer package
- The machine is fixed to the pallet with wedges which block the wheels
- 3.Disengage the electronic brake, turn the lever (1) (on the rear right-hand side of the machine) clockwise
- 4.Remove the wedges
- 5.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 "SSEMBLING THE SQUEEGEE" aragraph
- 6. 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



**WARNING**: During this operation, check there are no people or objects near the machine



- 1. Check the solution tank and recovery tank are empty; if necessary, empty them
- 2. Check that the brush head and squeegee are in the raised position
- 3. Place it on a pallet using a chute
- 4. Check that the key switch is in the "0" position and remove the key
- 5. Secure the machine to the pallet using wooden wedges
- 6. Engage the electronic brake

### **3.INSTERUMENT PANEL LWELEMENTS**

The instrument panel components are identified as follows:

- 1. Level indicator for battery/hour meter
- 2. Horn button
- 3. Forward or back
- 4. Automatic install the brush or remove the brush
- 5. Control water size
- 6. AUTO automatic mode
- 7. ECO energy saving mode

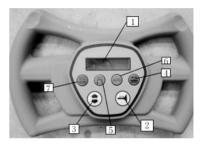
### 4. STEERING COLUMN ELEMENTS

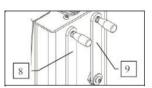
The elements on the left side of the steering column are:

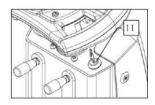
- 8. Squeegee body lifting lever
- 9. Brush head body lifting lever

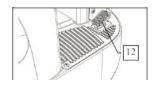












### 5. FOOTBOARD ELEMENTS

The components on the front right part of the foot board are:

12. Drive pedal

- 13. Emergency button
- 14. Detergent solution level tube
- 15. Recovery tank release button

### 6. SIDE MACHINE ELEMENTS

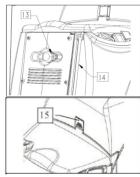
The elements on the left-hand side of the machine are:

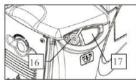
- 16. Fast filler clean water
- 17. Water-detergent filler cap

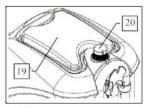
### 7. REAR MACHINE ELEMENTS

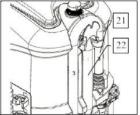
The elements on the rear of the machine are:

- 19. .Recovery tank cover
- 20. Blinking light (optional)
- 21. Recovery tank drain pipe
- 22. Squeegee suction tube





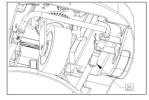




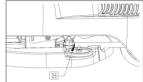
### 8. FRONT MACHINE ELEMENTS

The elements on the front of the machine are:

25. Detergent solution filter



26. Detergent tank drainage tap



### 9. TYPE OF BATTER

To power the machine it is necessary to use:

- liquid-electrolyte lead traction batteries
- sealed traction batteries with gas recombination or gel technology.

OTHER TYPES MUST NOT BE USED.

The batteries must meet the requirements laid out in the norms: CEI EN 60254-1:2005-12 (CEI 21-5) + CEI

EN 60254-2:2008-06 (CEI 21-7)

For a good operating performance, we suggest the use of four 12V - 100 Ah/C5 battery cases



### 10. 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.

When the battery reaches the end of its working life, it must be disconnected by expert, trained personnel then removed from the battery compartment with the aid of suitable lifting devices. DEAD BATTERIES ARE CLASSIFIED AS DANGEROUS WASTE AND MUST BE DELIVERED TO THE AUTHORISED BODIES FOR CORRECT DISPOSAL.



**WARNING**: You are advised to always wear protective gloves, to avoid the risk of serious injury to your hands.



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

### 11.HANDLING - INSERTING BATTERIES

The batteries must be housed in the special compartment beneath the seat carter. They should be handled using lifting equipment that is suitable in terms of both weight and coupling system. They must also satisfy the requirements of the CEI 21-5 Standard. The dimensions of the battery compartment are: 362mm x 354mm x H290mm.



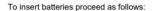
WARNING:For battery maintenance and daily recharging, you must carefully follow the instructions provided by the manufacturer or retailer. All installation and maintenance operations must be carried out by specialised personnel.



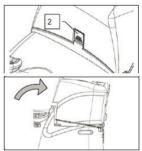
WARNING: You are advised to use airtight batteries only, to avoid the leakage of acids!



WARNING: You are advised to always wear protective gloves, to avoid the risk of serious injury to your hands.



- 1.Lock the machine by activating the electronic brake, then turn the lever (1) (on the rear right-hand side of the machine) anticlockwise
- 2. Make sure the recovery tank is empty, otherwise empty it completely
- 3. Press the button (2) to release and rotate the recovery tank



"-" opposite each other

4. Grip the recovery tank and rotate it as far as it will go



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

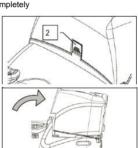
5. House the batteries in the compartment, positioning the poles "+" and

### 12.BATTERY CONNECTION AND BATTERY CONNECTORS

- 1.Connect the batteries in series to the "+" and "-" poles using the supplied jumper cable
- 2. Connect the battery connector cable to the "+" and "-" poles in order to obtain the terminal voltage of

24V

3. Connect the battery connector cable (2) to the machine connector (1)



4. Rotate the seat support until it is in the working position



WARNING: All installation and maintenance operations must be carried out by expert personnel, trained at the specialized assistance centre

### 13.BATTERY CHARGER CONNECTION

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 "discharged batteries" blinking light.



WARNING: 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.



To connect the battery charger you must:

- 1. Move the machine near to the battery charger
- 2. Make sure the recovery tank is empty, otherwise empty it completely
- 3. Check the key switch is on "0": if this is not the case, turn the key of the main switch anticlockwise to "0"
- 4.Press the button (1) to release and rotate the recovery tank
- 5. Grip the recovery tank and rotate it as far as it will go

The coupling connector of the battery charger is supplied inside the bag containing this instruction booklet, and must be fitted to the battery charger cables as shown in the instructions.



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



- 7. Connect the battery charger cable to the battery connector
- 8. Connect the recently wired cable to the external battery charger



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



WARNING: 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 must be connected to the machine connector





WARNING: Danger of gas exhalation and leakage of corrosive liquids.



WARNING: Danger of fire: do not go near with free flames

### 14.FORWARD WORK SPEED

This machine is equipped with electronic traction control. To move the machine, turn the key to "ON – I" then press the drive pedal (1), adjusting the speed by altering the degree of pressure on the pedal.

To move the machine backwards, press the button (2) on the instrument panel, then immediately press the pedal (1). Adjust the speed by altering the degree of pressure on the pedal.



**WARNING!**The reverse speed is lower than the forward speed to comply with current health and safety standards.

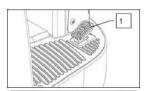
### 15. SOLUTION TANK

The recovery tank must be completely empty each time the solution tank is filled. Remove the inlet cap (1) located on the left side of the machine.



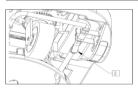
**WARNING**: The recovery tank must be completely empty each time the solution tank is filled.

Check that the solution filter cap (2), under the solution tank in the front right of the machine, is properly closed.









Check that the solution tank drainage tap (3) (under the solution tank in the right part of the brush head body) is well closed.

### 16.FILLING THE SOLUTION TANK

The solution tank can be filled in two different ways:

1.removing the inlet cap (1) and filling with the aid of a rubber tube

2.using the rubber cap (2); this supports the water hose on its own, but be sure to remove the inlet cap (1) to allow the proper vent of air.

Remove the inlet cap (1) and fill with clean water at a temperature of not more than 50°C. The amount inside the tank can be seen by means of the level pipe on the front left of the seat. The solution tank has a maximum capacity of about 65 liters. 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 that is necessary.



WARNING: 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. Acid or alkaline maintenance detergents can be used, as long as they have pH values between four and ten, and do not contain oxidising agents, chlorine or bromine formaldehyde. mineral solvents.



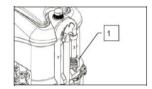
WARNING: Protective gloves should always be worn before handling detergents or acidic or alkaline solutions to avoid serious injury to hands.



**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.

### 17. RECOVERY TANK

Make sure the recovery tank is empty, otherwise empty it completely. Check the cap of the drainage tube (1) (on the rear of the machine) is correctly closed.



### 18.ASSEMBLING THE SQUEEGEE

The squeegee, that for reasons of packaging comes disassembled from the machine, must be assembled while assembling the machine. Proceed as follows for

assembly:

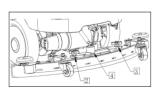
- 1.Lift the squeegee, turning the left-hand lever (1) to move it clockwise
- 2.Turn the main switch key anticlockwise to the "0" position
- 3. Remove the key from the instrument panel
- 4.Loosen the knobs (2) and (3) in the squeegee pre-assembly
- 5.(2), making sure the washer and spring adhere in the upper part of the squeegee support

6.knob (3), making sure the washer and spring adhere in the upper part of the squeegee support

7.Insert the suction hose (4) in the squeegee sleeve

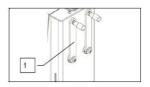


**ATTENTION**: these operations must be carried out using protective gloves to avoid any possible contact with the edges or tips of metal objects.



### 19. ADJUSTING THE SQUEEGEE INCLINATION

the squeegee body as follows:



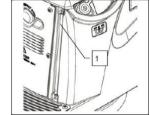
- 1.Loosen the lock nut (1)
- 2.Turn the screw (2) clockwise to increase the bend of the rubber in the
- 3. When fully adjusted, fix the lock nut (1)

central part of the squeegee.



### 20.EMPTY SOLUTION TANK DEVICE

To check the quantity of water in the solution tank there is a suitable level indicator tube (1) placed in front of the driver seat.



### WORK

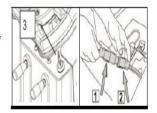
### **21.WORK**

Before beginning to work, it is necessary to:

1.make sure the recovery tank is empty, otherwise empty it completely 2.check the key switch (3) is on "0"; if this is not the case, turn the key of the main switch anticlockwise to "0"

3.connect the battery connector (2) to the electric system connector (1) 4.check the electronic brake (4) is engaged

5.sit on the driver's seat



6. Turn the key of the main switch a quarter of a rotation clockwise (to position ON). The display on the instrument panel will immediately come on.

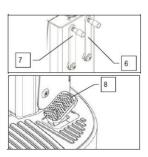
11.Lower the brush head by turning the right level(6)clockwise, then lower the squeegee turning the left lever (7) anticlockwise.



WARNING: As soon as the forward movement pedal is activated with the brush head in its work position, the solenoid valve will start working and will begin dispensing detergent solution. As soon as the squeegee is in its work position, the vacuum motor will switch on and being working.

12. Press the accelerator pedal (8) to start moving the machine

WARNING: To stop the machine, remove your foot from the



accelerator (8). The machine will begin to stop.

13.To make a reverse movement, press the reverse button nthe steering wheel simultaneously with the pedal (8).

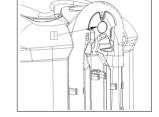


**WARNING**: During reverse movements, the squeegee must be lifted off the floor. To do this, turn the lever (7) clockwise.

During the first metres, check there is sufficient solution and that the squeegee dries perfectly. The machine will now begin to work with full efficiency until the battery is flat or until the detergent solution has finished.

### 22.OVERFLOW DEVICE

The machine is NOT equipped with an overflow device, because the capacity of the recovery tank is greater than the capacity of the solution tank. In extraordinary cases, there is a mechanical device (float) on the lid that, when the recovery tank is full, shuts off the air to the suction motor intake to protect it; the sound of the vacuum motor will then be deeper. In this case, raise the brush head and squeegee off the floor by means of the respective knobs on the steering column. After about 15-25 seconds, the vacuum

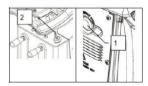


motor will switch off. Then empty the recovery tank via the drainage hose (1).

It is good practice when restoring the level of the solution tank, to empty the recovery tank through the special drainage pipe (1).

### 23.EMERGENCY BUTTON

If there are any problems while you are working, press the emergency button (1) beneath the seat. This command interrupts the electric circuit between the batteries and the machine system, so the machine stops and the electric brake is triggered. To resume work (after resolving the problem), switch off the key (2), move the button (1) to its standard position, then switch the key (2) back on again.

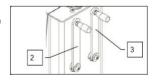


### AT THE END OF WORK

### 24. AT THE END OF WORK

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

1.Lift the brush head by turning the right lever (2) anticlockwise, then lift the squeegee turning the left



lever (3) clockwise. The vacuum motor switches off after a few seconds.

- 2.Bring the machine to the place provided for draining the water
- 3.Turn the machine off by turning the key one quarter turn anticlockwise and remove it from the panel.



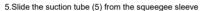
**WARNING**: Before performing any maintenance, remove the keys from the panel and disconnect the battery connector of the machine.



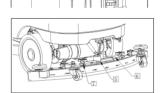
4.Disconnect the tube (4) from its seat, unscrew the drainage cap and empty the recovery tank.



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



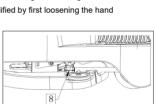
- 6.Remove the squeegee from the support arm (6) by unscrewing the hand wheels (7).
- 7.Clean well both the squeegee and the rubbers with a jet of water.



8.After cleaning the squeegee and rubbers, replace the squeegee on the initial support, firstly inserting the left pin of the squeegee in the left slot of the arm, then the right pin in the right slot, being careful to keep the spring and washer on the plate of the arm. This can be simplified by first loosening the hand wheel on the pin. Tighten the hand wheel to lock the squeegee in

place.

- 9. Finally insert the squeegee tube in the special sleeve.
- 10. If you need to empty the solution tank, move the knob downwards
- 11. Lower the brush head body by means of the relevant lever on the steering column
- 12. Move the tap (8) outside the brush head body
- 13. Rotate the tap (8) anticlockwise and wait until the solution tank is empty
- 14. Close the tap (8) and reposition it on the brush head body
- 15. Raise the brush head body by means of the relevant lever on the steering column
- 16.Sit on the driveri s seat
- 17. Insert the key into the ignition switch and turn it a quarter turn clockwise (to position ON)
- 18.Park the machine in a closed place, in an area where it cannot cause damage to people or other property, but also be protected from an accidental fall of objects.
- 19. Turn the ignition key a quarter turn anticlockwise (OFF position) and remove the key



20.Lift the recovery tank and disconnect the battery connector



**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.

### DAILY MAINTENANCE

### PERFORM ALL MAINTENANCEOPERATIONS IN SEQUENCE

### 25.CLEANING THE RECOVERY TANK

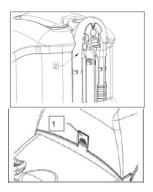
- 1. Disconnect the tube (1) from its seat, unscrew the drainage cap and empty the recovery tank.
- 2. Press the button (1) to release and rotate the recovery tank



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



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



- 3. Grip the recovery tank and rotate it until the gas spring is resting on the solution tank
- 4.Remove the vacuum cover and place it in the rear part of the machine
- 5.Clean and rinse the recovery tank.
- 6.Replace the cap on the drainage hose, then replace the vacuum cover.
- 7.Rotate the recovery tank to its standard position



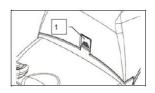
**WARNING:** Be careful not to hit the recovery tank float directly, as this would enable water to enter the vacuum motor connected to it.

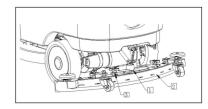
### 26.CLEANING THE RECOVERY TANK FLOAT

- 1.Press the button (1) to release and rotate the recovery tank
- 2.Grip the recovery tank and rotate it until the gas spring is resting on the solution tank
- 3. Remove the vacuum cover and place it in the rear part of the machine
- Wash the recovery tank.

### 27.CLEANING THE SQUEEGEE

The careful cleaning of the whole vacuum unit ensures better drying





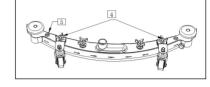
and cleaning of the floor as well as greater duration of the suction motor. Proceed as follows for cleaning:

- 1.Slide the suction tube (1) from the squeegee sleeve.
- 2.Remove the squeegee (2) from the support arm by unscrewing the hand wheel (3).
- 3.Use a damp cloth to clean the front and rear rubbers, and also clean the vacuum chamber of the squeegee body



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

Check the rubber edge, if the rubber edge is severely damaged, you can replace a rubber surface. If the rubber is completely worn, it needs to be replaced. First unscrew the



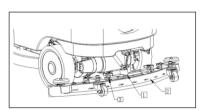
nut (4), remove the suction cover (5) and then remove the rubber for replacement.

6.Reassemble the vacuum nozzle on the squeegee body

7.After cleaning, replace the squeegee (2) on the initial support, firstly inserting the left pin of the squeegee in the left slot of the arm, then the right pin in the right slot, being careful to keep the spring

and washer on the plate of the arm. This can be simplified by first loosening the hand wheel (3) on the pin. Then tighten the Hand wheel (3) to lock the squeegee in place

8. Insert the squeegee tube in the appropriate sleeve (1).



### 28.CLEANING THE SOLUTION TANK FILTER

Careful cleaning of the detergent/water solution filter ensures a better working capacity. Proceed as follows for cleaning:

- 1. Check the main switch is on "0" (turn it to this position if necessary)
- 2.Open the filler cap (1)

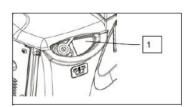


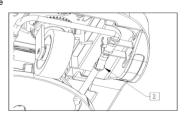
WARNING: before performing any maintenance, remove the keys from the panel and disconnect the battery connector



**WARNING:** these operations must be carried out using gloves to protect against contact with dangerous solutions.

3.Close the water tap by shifting the relevant knob (on the left part of





the steering column) upwards

- 4.Loosen the filter cap (2) on the front of the machine
- 5. Remove the internal filter cartridge and rinse everything thoroughly with running water
- 6.Reassemble all the elements

### **WEEKLY MAINTENANCE**

### 29.CLEANING THE SUCTION HOSE

Whenever suction seems to be unsatisfactory, check that the suction tube is not obstructed. If necessary clean with a jet of water as follows:

- 1.Make sure the recovery tank is empty, otherwise empty it completely
- 2.Check the main switch is on "0" (turn it to this position if necessary)
- 3.Disconnect the suction hose from the squeegee nozzle (1)



#### VARNING

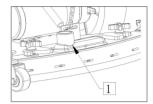
This operation must be carried out using gloves to protect against contact with dangerous solutions.

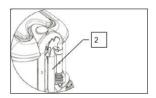
- 4.Detach the aspiration tube from the seat on the recuperation tank (2)
- Clean it with a water jet introduced from the side where it is connected to the tank
- 6.Reassemble all the elements



Thorough cleaning of the brush will guarantee a better working capacity. Proceed as follows for cleaning:

- 1. Check the main switch is on "1" (turn it to this position if necessary)
- 2.Raise the brush head by turning the right-hand lever (1) anticlockwise









- 3. Press the brush release button (2) on the steering wheel
- 4.As soon as the button is pressed, you will see the question "RELEASE" on the screen
- 5. Press the brush release button (2) on the steering wheel again, to confirm



**WARNING**: During this operation, check there are no people or objects near the brush.

- 6. Take the brush and clean it under a flowing jet of water
- 7.Reassemble it on the brush head body

### **EXTRAORDINARY MAINTENANCE**

#### connector

- 1. Turn the wing nuts (2) in the horizontal position
- 2.Remove the front rubber-pressing blades (3)
- 3.Remove the rubber (4) and replace it
- 4.To replace the rubber, proceed in reverse order



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

### TROUBLESHOOTING

### 31.THE MACHINE DOES NOT START

- 1. Check that batteries are charged
- 2.Make sure the electric system connector is connected to the battery connector
- 3.Check the key switch is ON/I

### 32.INSUFFICIENT WATER ON THE BRUSHES

- 1. Check there is water in the solution tank
- ${\bf 2. Check\ that\ the\ water/detergent\ solution\ release\ adjustment\ knob}$
- (1) is open
- 3.Clean the solution filter (2) located at the front of the machine

### 33. THE SQUEEGEE DOES NOT DRY PERFECTLY

- 1.Check the squeegee is clean
- 2.Check the squeegee settings (see "MACHINE PREPARATION")
- 3.Clean the entire vacuum unit (see"WEEKLY MAINTENANCE")
- 4. Replace the rubbers, if worn

### 34.THE MACHINE DOES NOT CLEAN WELL

- 1.Check the state of wear and tear of the brushes and, if necessary, replace them. The brushes should be changed when the bristles are about 15 mm long. To replace them, see "REPLACING THE BRUSHES", or "DISASSEMBLING THE BRUSHES" and "ASSEMBLING THE BRUSHES". Working with over-worn brushes may cause damage to the floor.
- 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").

### 35.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

### **36.THE SUCTION MOTOR DOES NOT FUNCTION**

- 1. Check whether the recovery tank is full and, if necessary, empty it
- 2.Check the float switch on the suction cap (see also "CLEANING THE RECOVERY TANK" in the paragraph "DAILY MAINTENANCE")

### 37.THE BRUSH MOTOR DOES NOT WORK

WARNING: To avoid damaging the floor, the motor only starts up when the machine is moved forwards

- 1. Check that the base is lowered during start-up
- 2. The operator must be properly seated in the driving position
- 3. Check no thermal protection device has intervened.
- 4. Check the correct connection of the motor to the terminal under the footboards.

### 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  $60^\circ$ C. The Polypropylene brush is non-hygroscopic and therefore retains its characteristics even when working in wet conditions.

### **NYLON BRUSH**

Used on all types of floors. Excellent resistance to wear and tear, and hot water (even over  $60^{\circ}$ C). The nylon is hygroscopic and so tends to lose its characteristics over time 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 gentre 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 holder is especially suitable for machines with several bruses, where the centring of the abrasive floor pads is difficult.

### TABLE FOR CHOOSING THE BRUSHES

Machine	No. of	Code	Type of bristles	Ø BristleS	Ø BrusH	Length	Notes
	D. GOLIGO		5	5	D. u.o		
FR70	1	436232	PPL	0.3	560		LIGHT BLUE BRUSH
		436233	PPL	0.6			WHITE BRUSH
		436234	PPL	0.9			BLACK BRUSH
		436235	ABRASIVE	0.9			BRUSH
		436236	_		535		PAD HOLDER

