

1



PROGRAM 1

Subfloor Treatment

USER INSTRUCTIONS

GRINDING MACHINES Columbus with accessories

- ▶ **MOD.145 SH** 1500W 112 560 000 - 230V
112 560 600 - 120V
- ▶ **MOD.155 S** 2000W 112 750 000 - 230V
112 750 600 - 120V



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Machines, Tools,
Work Clothing

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... offers the widest range of equipment for interior outfitters
flooring installers and floorcovering retailers

♦ **User Instructions**

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◆ **1 - ESSENTIAL**

SECURITY INSTRUCTIONS

◆ **1.1 Remarks of the user instructions to be followed**

- The knowledge of the essential security instructions is the basic prerequisite for the safe handling and trouble-free operation of these machines.
- These user instructions impart all important informations for a safe handling.
- All stated security informations have to be kept in when working with these machines.
- Furthermore the relevant regulations for the application areas as well as the accident control measures have to be kept in.

◆ **1.2 Commitment of the operator**

The operator commits himself that only qualified trained personnel is authorized to work with these machines

- in accordance with the relevant safety regulations of these user instructions.

The safety-conscious working of the personnel has to be checked regularly.

◆ **1.3 Commitment of the personnel**

Everybody who has to work with these machines commits himself

- to keep in all essential regulations and working advices of these user instructions.

◆ **1.4 Risks with the usage of these machines**

The COLUMBUS MACHINES are being built according to the state-of-art and relevant safety regulations. Nevertheless there might be risks to life and limb when using them or rather impairments of the machines or other real values.

These machines may only be used

- for applications as directed
- in a safe and perfect working condition

Malfunctions endangering the safety have to be eliminated immediately.

Only genuine spare parts may be used to guarantee a trouble-free functioning, long durability and accident control.

◆ **1.5 Application as directed**

- The application of the COLUMBUS MACHINES as directed is described in chapter 4.1.
- Any other application will be considered under non-warranty.
- The Janser Company takes no guarantee for all damages caused from this.
- Following all advices from the user instructions as well as meeting all inspections and maintenance works is part of the application as directed.

◆ **1.6 Warranty and liability**

Basically our General Sales and Delivery Conditions are effective which are available after conclusion of an agreement at the latest.

Guarantee or liability claims for personal injuries and material damages are excluded when caused from the following :

- unauthorized application of the machines
- inexpert assembling, operating, handling and maintaining of the machines
- using the machines with defective safety appliances or not properly mounted or non-operative
- protecting apparatuses or preventing devices
- non-compliance with the instructions of the user's manual concerning transport, storage, assembling, operating, handling, maintaining and set-up of the machines
- unauthorized structural alterations
- unauthorized changes of the technical details of the machines
- unsatisfactory control of the working parts
- inexpert repair works
- emergencies by foreign-object damages or force majeure

These user instructions are only for information and not object of the agreement.

All stated data are only nominal values.

The described equipment and options may differ according to the national standards.

Technical subjects to change

◆ **2.1 - Product Information**

TECHNICAL DESCRIPTION

- The machines are dustfree non-polluting for grinding all kinds of wash or asphalt floors and flat coated floors and are being used by the parquet layers for the intermediate grinding.

- For waxing with the hot wax unit, for shampooing of carpets and for the cleaning of floors with a motor power of 1100 and 1800 watts.

The picture on the right shows the connections of the hot wax unit HWG 80 and the suction units GK 400/500.



- With the wide range of accessories the Columbus machines are unsurpassed - and solutions even of intractable problems especially with the subsoil treatments can be offered - which will help you to save time and costs.

The picture on the right shows the solution tank with a capacity of 12 litres.

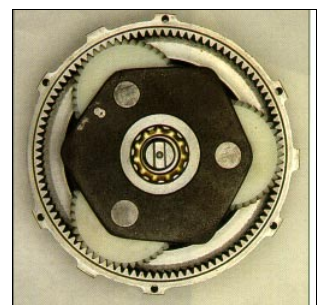


- New toothed gearing for strongest use.

- The robust design of the Columbus machines guarantees a long durability.

- In a matter of seconds plates, discs and brushes will be changed.

- The machines are being moved semicircular on the floor by lifting and lowering the guide bar thus eliminating unevenness and coating residues creating a plane even surface.

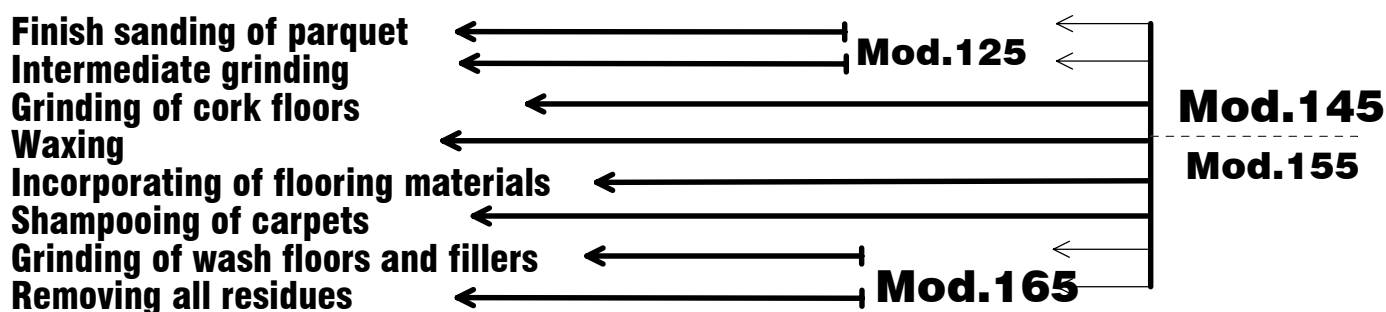


◆ **2.2 Product Information**

TECHNICAL DATA

	MOD.125	MOD.145	MOD.155	MOD.165
Voltage	230 V 50Hz	230V 50Hz	230 V 50Hz	230V 50 Hz
Nominal power	350 W	1800 W	2000 W	2000 W
Brush rotation	140 U/min.	140 U/min.	140 U/min.	294 U/min.
Working width	33 cm	37,5 cm	37,5 cm	43 cm
Working height (motor)	21 cm	25 cm	32,5 cm	32,5 cm
Access height	9 cm	13,5 cm	13,5 cm	13,5 cm
Access depth	9 cm	9,5 cm	9,5 cm	9,5 cm
Cable length 3x1,5 m²	12 m (ø7mm)	12 m (ø12mm)	12m (ø12mm)	12m (ø12mm)
Dimensions	34x55x107 cm	42x55x120 cm	42x55x120 cm	42x55x120 cm
Weight	20 kg	42 kg	50 kg	60 kg

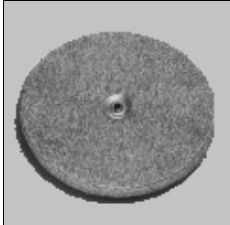
RANGE OF APPLICATION



◆ **2.3 - Product Information**

DRIVING DISCS+ACCESSORIES

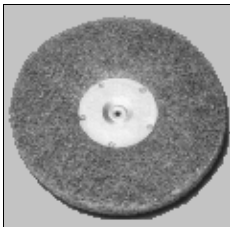
GRINDING DISC WITH FELT



to fix grinding paper and roughen the floor materials.

- 112 200 001 grinding disc with felt for mod.125
- 112 300 001 grinding disc with felt for mod.145+155
- 112 801 000 grinding disc with felt for mod.165

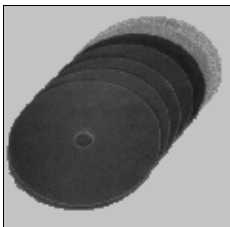
DRIVING DISC STANDARD



to fix grinding paper, grids, mats and pads

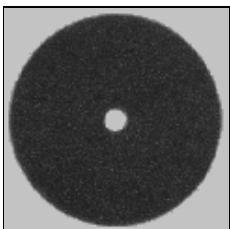
- 112 234 000 driving disc standard for mod.125
- 112 334 000 driving disc standard for mod.145 + 155
- 112 809 000 driving disc standard for mod.165

ABRASIVE PAPER DOUBLE SIDED



MOD.125			MOD.145+155			MOD.165		
112 211 000	coarse	16	112 311 000	coarse	16	112 611 000	coarse	16
112 212 000	coarse	24	112 312 000	coarse	24	112 612 000	coarse	24
112 213 000	coarse	30	112 313 000	coarse	30	112 613 000	coarse	30
112 214 000	coarse	40	112 314 000	coarse	40	112 614 000	coarse	40
112 215 000	coarse	60	112 315 000	coarse	60	112 615 000	coarse	60
112 216 000	coarse	80	112 316 000	coarse	80	112 616 000	coarse	80
112 217 000	coarse	100	112 317 000	coarse	100	112 617 000	coarse	100

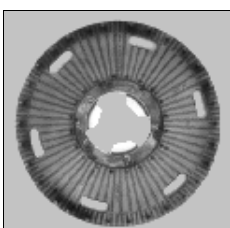
ABRASIVE PAPER DOUBLE SIDED



full resin bonded - red

MOD.145+155		MOD.165	
112 310 000	coarse 16	112 610 000	coarse 16

DRIVING DISC FOR PADS



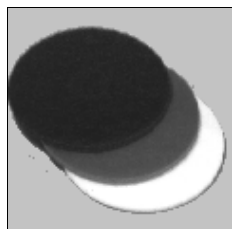
to fix pads, grids and mats

- 782 000 200 driving disc for pads for mod.125
- 783 000 040 driving disc for pads for mod.145 + 155
- 112 807 000 driving disc for pads for mod.165

Product Information

DRIVING DISCS+ACCESSORIES

POLYESTER-PADS



THICK **brown** : for extreme soiled floors
 red : for spray cleaning
 white : for polishing
thin **black** : to fix the grids and for cleaning
 brown : for hot waxing and cleaning
 green : for stripping dirt

MOD.125 - Ø 300 MM

782 000 010 pad-brown thick
 782 000 030 pad-red
 782 000 040 pad-white
 782 000 070 pad-black
 782 000 090 pad-brown thin
 782 000 080 pad-green

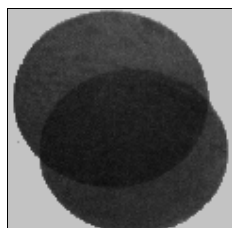
MOD.145+155 - Ø 410 MM

783 000 023 pad-brown thick
 783 000 025 pad-red
 783 000 026 pad-white
 783 000 015 pad-black
 783 000 016 pad-brown thin
 783 000 017 pad-green

MOD.165 - Ø 430 MM

112 807 023 pad-brown thick
 112 807 025 pad-red
 112 807 026 pad-white
 112 807 015 pad-black

GRINDING GRIDS



Coarse
60 for stripping old sealed parquet, floors
 varnish and weather-beaten surfaces
80+100+120 for start grinding
150+180 for grinding cork, parquet and
 finish sanding

MOD.125 - Ø 300 MM

782 000 045 coarse 60
 782 000 047 coarse 80
 782 000 050 coarse 100
 782 000 055 coarse 120
 782 000 057 coarse 150
 782 000 060 coarse 180

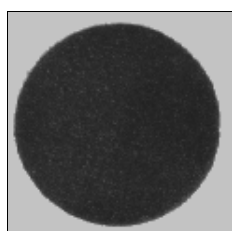
MOD.145+155 - Ø 410 MM

783 000 045 coarse 60
 783 000 047 coarse 80
 783 000 050 coarse 100
 783 000 055 coarse 120
 783 000 057 coarse 150
 783 000 060 coarse 180

MOD.165 - Ø 430 MM

112 807 045 coarse 60
 112 807 047 coarse 80
 112 807 050 coarse 100
 112 807 055 coarse 120
 112 807 057 coarse 150
 112 807 060 coarse 180

GRINDING MATS



coarse 40 rough -for wood smoothing and grinding
coarse 80 medium -for intermediate grinding
coarse 280 fine -for dulling sealed floors

MOD.145 + 155

783 000 140 coarse 40
 783 000 180 coarse 80
 783 000 280 coarse 280

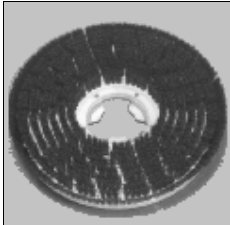
MOD.165

112 807 140 coarse 40
 112 807 180 coarse 80
 112 807 280 coarse 280

◆ **2.3 Product Information**

BRUSHES

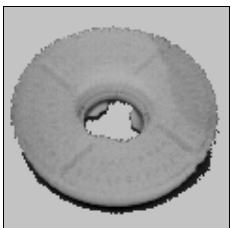
SHAMPOOING BRUSH



to clean carpets and carpeted floors

782 000 002 shampooing brush for mod. 125
783 000 011 shampooing brush for mod. 145+155
112 813 000 shampooing brush for mod. 165

SCRUBBING BRUSH



**to clean hard floors
(PVC, linoleum and tiles)**

782 000 003 scrubbing brush for mod. 125
783 000 012 scrubbing brush for mod. 145 + 155
112 814 000 scrubbing brush for mod. 165

POLISHING BRUSH



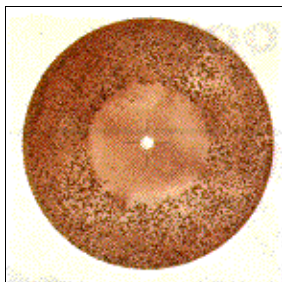
**to polish hard floors
(PVC, linoleum and tiles)**

112 220 000 polishing brush for mod. 125
112 320 000 polishing brush for mod. 145 + 155
112 812 000 polishing brush for mod. 165

◆ **2.3 Product Information**

DRIVING DISCS+ACCESSORIES

METAL GRINDING PLATE



**with hard metal chips coarse 14 - open sprinkled
to roughen anhydrite floors and for levelling**

112 308 000 grinding plate metall coarse 14 for mod.145 + 155
112 815 000 grinding plate metall coarse 14 for mod.165

GRINDING PLATE WITH SIX REPLACEABLE GRINDSTONES



**75 x 90 mm coarse 20
to grind floors and hard fillers
to remove reliefs, paint and plaster residues
as sharp-edged good working surface**

112 332 000 grinding plate for mod.145 + 155
112 810 000 grinding plate for mod.165
161 515 003 replacement grindstone coarse 20 with tap hole

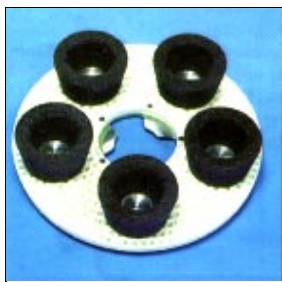
STONE GRINDING PLATE COARSE 30



to grind floors and fillers

112 330 030 stone grinding plate coarse 30 for mod.145 + 155
112 341 041 stone grinding plate coarse 30 to be glued on for mod.145 + 155
112 350 000 special glue and hardener for glueing grinding plates

GRINDING PLATE WITH FIVE ROUND STONES COARSE 16



**to grind floors, hard fillers, poured asphalt and concrete
good working surface with the sharp-edged cone-shaped stones
to remove reliefs, soft places, paint and plaster residues**

112 346 000 grinding plate coarse 16 for mod.145 + 155
112 803 000 grinding plate coarse 16 for mod.165
112 346 001 replacement grindstone

◆ **2.3 Product Information**

DRIVING DISCS+ACCESSORIES

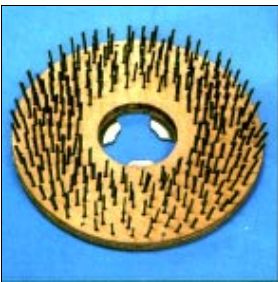
CUP BRUSH PLATE WITH SIX CUP BRUSHES



to remove the sinter coat remaining from the anhydrite and magnesite floors, to remove foam residues, mortar droppings, paint and felt residues

- 112 322 000 cup brush plate for mod.145 + 155
- 112 802 000 cup brush plate for mod.165
- 112 321 003 cup brush

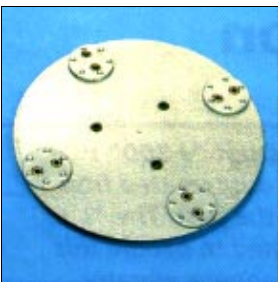
STEEL WIRE BRUSH



wire length 45 mm
to remove foam, felt and jute residues
to clean industrial floors

- 112 319 000 steel wire brush for mod.145 + 155
- 112 806 000 steel wire brush for mod.165

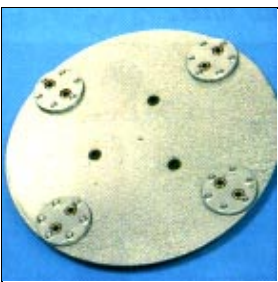
ROUGHING PLATE WITH 24 CARBIDE TIPPED SPIKES - REPLACEABLE



to mill off small reliefs on the floor
to break up wash floor raisings when preparing subsoils

- 112 345 000 roughing plate for mod.145 + 155
- 112 811 000 roughing plate for mod.165
- 112 345 001 carbide tipped spikes replacement kit
1 kit = 24 spikes

ROUGHING PLATE WITH FULL CARBIDE TIPPED SPIKES - REPACEABLE



to remove lacquer and plastic sealings
to remove felt, cork and glue residues
to roughen industrial floors
to remove felt-cardboard

- 112 344 000 roughing plate for mod.145 + 155
- 112 808 000 roughing plate for mod.165
- 112 344 001 full carbide tipped spikes replacement kit
1 kit = 4 pieces

◆ **2.3 Product Information**

DRIVING DISCS + ACCESSORIES

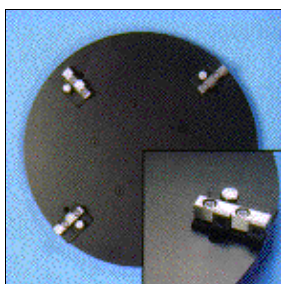
ROUGHING PLATE WITH 4 HM-SEGMENTS



**to remove glue (moisten with water for cooling,
no lubricating effect), lacquer, paint, insulating varnish residues
to roughen industrial and hardened anhydrite floors**

112 336 000	roughing plate coarse 10 for mod.145 +155	112 342 000	roughing plate coarse 30 for mod.145 +155
112 805 000	roughing plate coarse 10 for mod.165	112 804 000	roughing plate coarse 30 for mod.165
112 336 010	HM-segments retrofit kit coarse 10 1 kit = 4 pieces	112 342 010	HM-segments retrofit kit coarse 30 1 kit = 4 pieces

MILLING PLATE WITH 8 CARBIDE TIPPED INSERTS - TITANITE COATED



**each insert is fourfold usable
to remove glue (also bituminous mastic)
or other surface residues**

112 343 000	milling plate for mod.145 + 155
112 816 000	milling plate for mod.165
112 343 001	carbide tipped inserts - titanite coated 1 kit = 8 pieces

◆ **2.4 Product Information**

SUCTION UNITS GK

◆ **Usage**

- GK 250 ▶ for single disc machine model 125
- GK 400 ▶ for single disc machines model 145 and model 155
- GK 500 ▶ for single disc machine model 165

The suction ring lies on the floor thus a nearly dustfree grinding is possible, vacuuming the fine dust already during grinding.

◆ **Accessories**

- unit with dust bag special
- suction ring
- connecting piece

◆ **Technical Data**

GK 400 + GK 500

voltage	230 V / 50 Hz
nominal power	1000 W
air volume max.	29 ltr /s
depression max.	140 mbar
dust bag capacity max.	16 ltr
dimensions	29x23,5x68 cm
weight	7 kg



◆ **Article Numbers**

	Suction Unit
114 000 000	GK 250 for mod.125
113 000 000	GK 400 for mod.145+155
113 500 000	GK 500 for mod.165

◆ **2.5 Product Information**

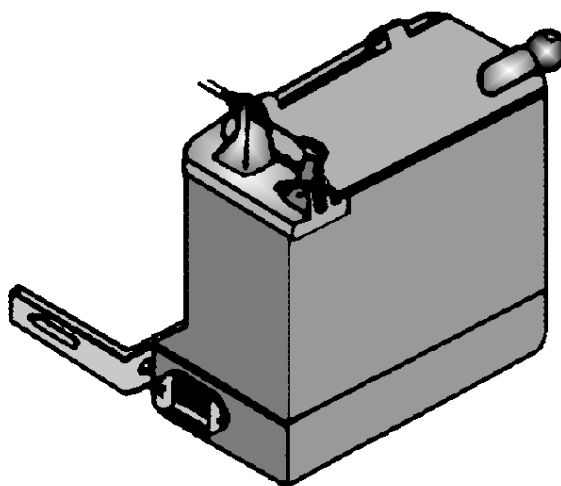
HOT WAX UNIT HWG 80

{ the hot wax unit HWG 80 is suitable to be fitted to the columbus grinding machines.

- ◆ for the purpose of distributing bio-wax which is being heated in the unit.
- ◆ for waxing and stripping the standard pad has to be fitted to the columbus grinding machines.
- ◆ for subsequently polishing the polyester pads as well as the polishing brush are especially suitable.

◆ **TECHNICAL DATA** **HWG 80**

voltage	230 V / 50 Hz
nominal power	500 W
capacity	1 ltr.
dimensions	11x20x15 cm
weight	4 kg
temperature	80 °C



◆ **Article Number**

112 225 000 hot wax unit HWG 80
for mod.125 + 145 + 155 + 165

◆ **3 - EG - Richtlinie Maschinen**

CERTIFICATE OF CONFORMITY

◆ **MASCHINENBAUART**

Fabrikat : Einscheibenschleifmaschine / Sauggerät / Heißwachsgerät
Typ : MOD.125,145,155,165 / GK 250,400,500 / HWG 80
Serie :
Baujahr : 2000

Die Machines entsprechen folgenden einschlägigen Bestimmungen :
EG-Maschinenrichtlinie 89 / 392 / EWG i.d Folge gültige
EG-Niederspannungsrichtlinie 73 / 23 / EWG i.d.Folge gültige

◆ **ENDHERSTELLER**

Firma Janser GmbH - Maschinen und Gerätebau
Böblinger Straße 91
71139 Ehningen

◆ **HARMONISIERENDE NORMEN**

DIN EN 292 : Sicherheit von Machines, Geräten und Anlagen.
DIN EN 60 204.1 : elektrische Ausrüstung für Industriemaschinen.

◆ **NATIONALE TECHNISCHE NORMEN UND SPEZIFIKATIONEN**

DIN VDE 0700 Teil 1 / 2.81 und Teil 205/12.81 (mod.125)
DIN VDE 0700 Teil 1/04.88 und Teil 205/02.87 (mod.145,155,165)

◆ **TECHNISCHE DOKUMENTATION**

Eine Technische Dokumentation ist vollständig vorhanden.

◆ **BETRIEBSANLEITUNG**

Die zur Maschine gehörende Betriebsanleitung liegt vor.

Originalfassung : Deutsch
Landessprache des Anwenders : Englisch

◆ **VERANTWORTLICHER UNTERZEICHNER**

Angaben zum Unterzeichner : Kaufmännische Geschäftsleitung Prokurist
Technische Geschäftsleitung Handlungsbevollmächtigter

	 ppa. W.Müller	 i.V. H.Serediuk
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◆ **3 - EG - Richtlinie Maschinen**

CERTIFICATE OF CONFORMITY

◆ **Deutsch - Konformitätserklärung**

Wir erklären in alleiniger Verantwortung, daß dieses Produkt mit den folgenden Normen übereinstimmt: EN 292 gemäß den Bestimmungen der Richtlinien 89/392/EWG.

◆ **English - Declaration of conformity**

We declare under our sole responsibility that this product is in conformity with the following standards. EN 292 in accordance with the regulations 89/392/EEC.

◆ **Français - Déclaration de conformité**

Nous déclarons sous notre propre responsabilité que ce produit est en conformité avec les normes suivant. EN 292 conforme aux réglementations 89/392/CEE.

◆ **Italiano - Dichiarazione di conformità**

Dichiariamo, assumendo la piena responsabilità di tale dichiarazione, che il prodotto è conforme alle seguenti normative: EN 292 in base alle prescrizioni delle direttive CEE 89/392.

◆ **Español - Declaracion de conformidad**

Declaramos bajo nuestra sola responsabilidad que este producto está en conformidad con las normas siguientes. EN 292 de acuerdo con las regulaciones 89/392/CEE.

◆ **Portugues- Declaração de confirmidade**

Declaramos sob nossa exclusiva responsabilidade que este producto cumpre as seguintes normas: EN 292 conforme as disposições das directivas 89/392/CEE.

◆ **Nederlands - Konformiteitsverklaring**

Wij verklaren dat dit produkt voldoet aan de volgende normen: EN 292 overeenkomstig de bepalingen van de richtlijnen 89/392/EEG.

◆ **Svensk - Försäkran**

Vi intygar och ansvarar för, att denna produkt överensstämmer med följande norm EN 292 enl. bestämmelser och riktlinjerna 89/392/EWG.

◆ **Dansk - Konformitetserklæring**

Vi erklærer under almindeligt ansvar, at dette produkt er i overensstemmelse med følgende normer EN 292 i henhold til bestemmelserne i direktiverne 89/392/EØF.

◆ **Suomeksi - Todistus standardinmukaisuudesta**

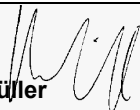
Todistamme täten ja vastaamme yksin siitä, että tämä tuote on allalueteltujen standardien vaatimusten mukainen EN 292 seuraavien sääntöjen mukaisesti: 89/392/EWG.

◆ **Norsk - Erklæring av ansvarsforhold**

Vi erklærer at det er under vårt ansvar at dette produkt er i overensstemmelse med følgende standarder. EN 292 i samsvar med reguleringer 89/392/EWG.



ppa. W.Müller



i.V. H.Serediuk



◆ **4 - IMPORTANT**

SECURITY INSTRUCTIONS

◆ **4.1 DETERMINED APPLICATION**

- ! all columbus single disc floor cleaning machines may only be used indoors for scrubbing, polishing, shampooing of floor coverings
- ! certain models - see range of applications - may also be used indoors for grinding, roughing and milling all kind of subsoils
- ! the suction units (GK) are being used for vacuuming polishing and grinding dusts
- ! the units may not be used for vacuuming hazardous dusts

◆ **4.2 ELECTRIC SUPPLY**

- ! before usage it has to be taken care that the connected load corresponds to the marking on the rating plate
- ! unplug machine before carrying out maintenance or repair works or changing accessories
- ! the main cable may not be damaged by passing over, pinching, wrenching, chafing or similar
- ! the main cable and couplers to the suction or hot wax unit have to be checked regularly for possible damages, uninsulated or scorching spots
- ! machines may only be used with perfect cables
- ! when replacing cables, plugs, couplings, fuses or sockets take care the same comply with the the specifications stated by the manufacturer and genuine spare parts are being used.

◆ **4.3 MEASURES OF PRECAUTION**

- ! the machines may never be transported with the guide bar in its upright position
- ! when transporting in elevators the relevant user instructions and safety measures especially the carrying capacity have to be kept in
- ! drive carefully over sills and steps to avoid damages at the edges respectively brushes or pads
- ! the machine is only suitable to be used on plain areas with a miximum gradient up to 2%
- ! after stoppage the machine has immediately to be switched off to avoid damages on floors

◆ **4.4 ACCIDENT CONTROL MEASURES**

- ! never switch on machine when in upright position only when tilting back to working position
- ! take care not to cross the cable
- ! only splash-proof couplings may be used for the main cable or extension cords
- ! the working field must be always behind the machine at the guide bar
- ! IN CASE OF EMERGENCY - UNPLUG MACHINE

◆ **4.5 Emissions**

- ! the equivalent A-weighted continuous sound level of these machines without suction unit lies under 70 dB (A) and with suction unit under 81 dB (A)

◆ **4.6 SIGN READING**



This sign gives important information for the appropriate usage of the machine
FAILURE TO COMPLY WITH THESE INSTRUCTIONS
MAY RESULT IN TROUBLES WITH THE MACHINE OR AMBIENCE



This sign indicates a possible dangerous situation
FAILURE TO COMPLY WITH THESE INSTRUCTIONS
MAY RESULT IN INJURIES OR DAMAGES

◆ **5 - User Instructions**

GRINDING MACHINES

◆ **5.1 - INITIAL OPERATION**

Assembling the guide bar

- a. First of all the guide bar has to be fitted to the body with the four fixing nuts which have to be tightened with a 13 mm fork wrench.
- b. Then plug the cable of the guide bar on to the machine body.
- c. Unlock the guide bar by pulling the lower lever on the right, tilt the machine slightly forward into the upright position until it locks.
- d. With a tipping chassis tilt the machine slightly forward and step on the wheel frame until it locks.

◆ **5.2 - INSTALLING AND CHANGING ACCESSORIES**

Manual

- a. Unplug the machine.
- b. Tilt the machine back until the guide bar lies on the floor.
- c. Install the accessory with a slight left-hand movement to the fixing device.
- d. To remove it turn the same jerkily to the right.

by machine

- a. Connect the main cable.
- b. Put the accessory on the floor in front of the machine.
- c. Tilt the guide bar into the convenient working position by pulling the lower lever on the right and lock it.
- d. Tilt the machine slightly back and move it over the accessory.
- e. With a tipping chassis push the pedal of the wheel frame to move it up.
- f. Switch on the machine shortly and the accessory locks in.

◆ **5 - User Instructions**

GRINDING MACHINES

◆ **5.3 STARTING THE MACHINE**

- a. Connect main cable.



WHEN PLUGGING THE MACHINE AND WORKING WITH THE SAME HOLD THE GUIDE BAR WITH BOTH HANDS FIRM AND SAFE AND NOT CLENCHED!

- b. By pulling the lower lever on the right tilt the guide bar back into the convenient working position and lock it. Release lever.
- c. Push the key button on the back of the switch box. Manipulate switch lever. (Security against unintended turn-on)
- d. Release key button, machine is turned on.
- e. Release of switch levers turns off machine.
- f. For switching on and working with the machine it is sufficient to manipulate one of the two switch levers.

◆ **5.4 OPERATION**

- a. The grinding machines are self-runners, that is to say by slightly pushing or pulling the guide bar the machines move to the left or right.



**movement to the left ► pushing guide bar slightly !
movement to the right ► pulling guide bar slightly !**











TO AVOID CROSSING THE CABLE WHEN WORKING PUT THE SAME OVER THE SHOULDER !

◆ **5.5 TRANSPORT OF THE MACHINE**

- a. For transporting the machine tip the same slightly back and move the guide bar into the upright position.
- b. Then the machine can easily be tilted backwards and being transported without problems.

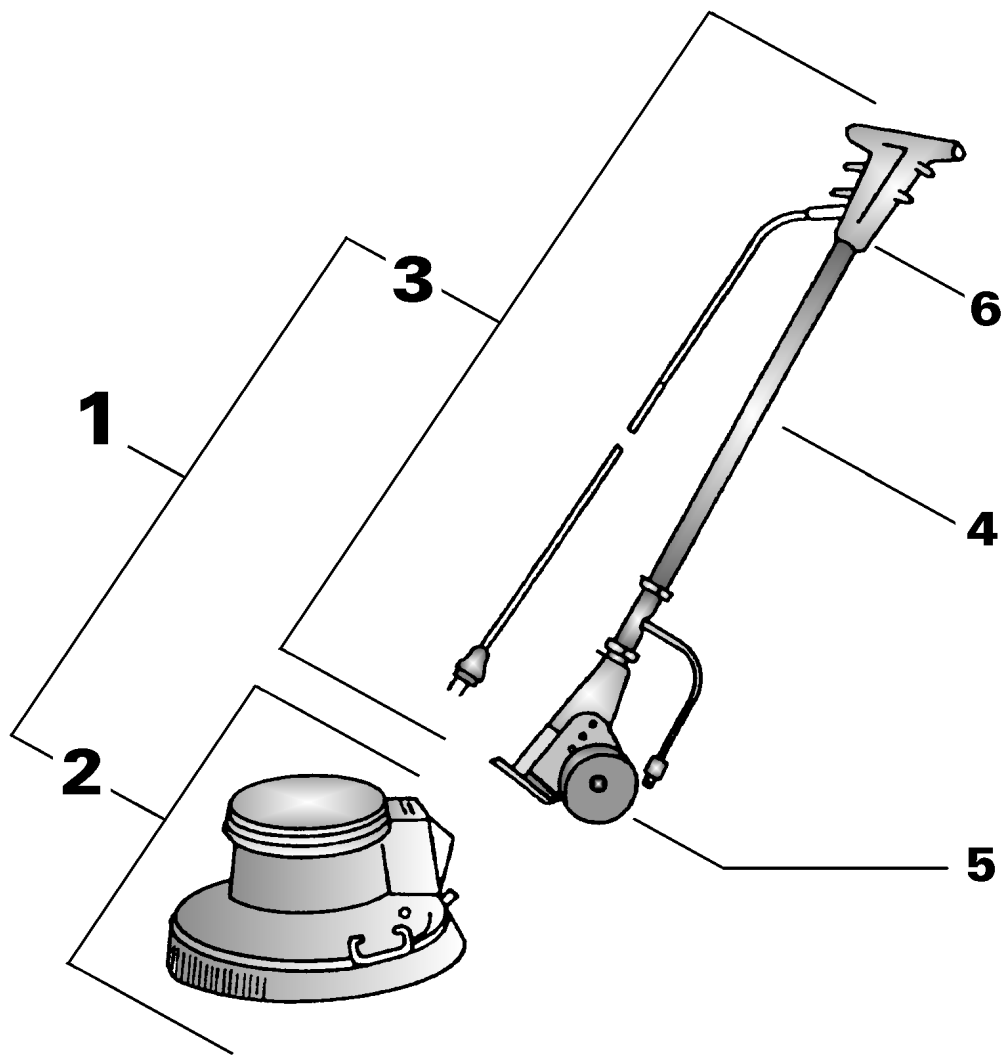
◆ **6 - IMPORTANT INSTRUCTIONS**

MAINTENANCE

- ◆ **6.1**  *Machines and appliances have to be kept dry and to be protected against frost and heat.*
- ◆ **6.2**  *Motor and gear of the machines are maintenance-free, only the dirt residues under the motor cover have to be removed regularly thus guaranteeing a good cooling of the motor.*
- ◆ **6.3**  **Machines and appliances may only be cleaned with a dry or with a gentle detergent slightly moistured cloth. No wet cleaning otherwise endangering the electrical safety.**
- ◆ **6.4**  *When the suction efficiency is decreasing the cloth filter cartridge in the suction unit GK has to be cleaned. The filter cap has only to be batted. If necessary the filter plate beneath (fleece) has to be replaced.*
- ◆ **6.5**  *When extremely soiled dust bag and motor filter may be washed in lukewarm water with gentle washing-powder. However both may only be fitted again after complete drying.*
- ◆ **6.6**  **Maintenance inspection and repair work (including change of the main cable and carbon brushes of the motor) may only be carried out by authorized service centers or qualified trained personnel.**
- ◆ **6.7**  *After approximately 600 working hours the carbon brushes of the motor have to be replaced.*
- ◆ **6.8**  **When using extension cords or replacing main cables it has to be taken care that the same comply with our specifications PVC sheated cables H05W-F in accordance with DIN 57281/VDE 0281. The plugs have to be # of rubber or PVC and the outlet direction of the cable has to correspond with the direction of the plug pins. When changing the main cable the under chapter 4 stated relevant safety regulations have to be kept to.**

◆ **7 - Spare Parts**

SUBASSEMBLY SURVEY



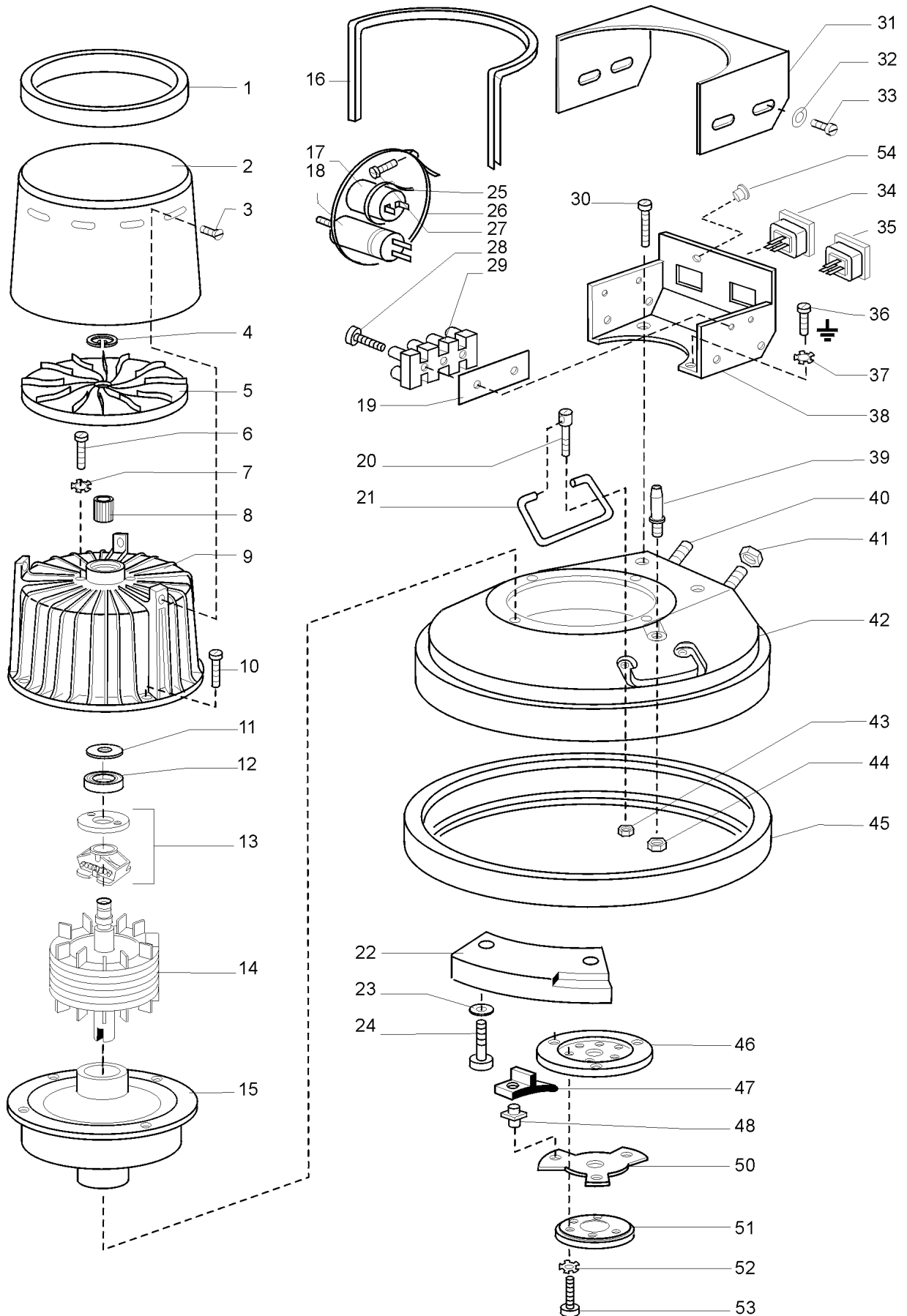
MODELS	125S	145SH	155S	165S
1 grinding machine complete	112 250 000	112 560 000	112 750 000	112 850 000
2 machine body	112 250 001	112 560 001	112 750 001	112 850 001
3 guide bar complete	112 200 029	112 700 024	112 700 024	112 700 024
4 guide tube complete	112 200 030	112 700 040	112 700 040	112 700 040
5 frame with wheels co.	112 200 024	112 700 133	112 700 133	112 700 133
6 switch box complete	112 200 040	112 700 045	112 700 045	112 700 045

**Columbus
Model 145 SH**

230 Volt - 112 560 000
120 Volt - 112 560 600



2 Machine body 230 Volt - 112 560 001
120 Volt - 112 560 601



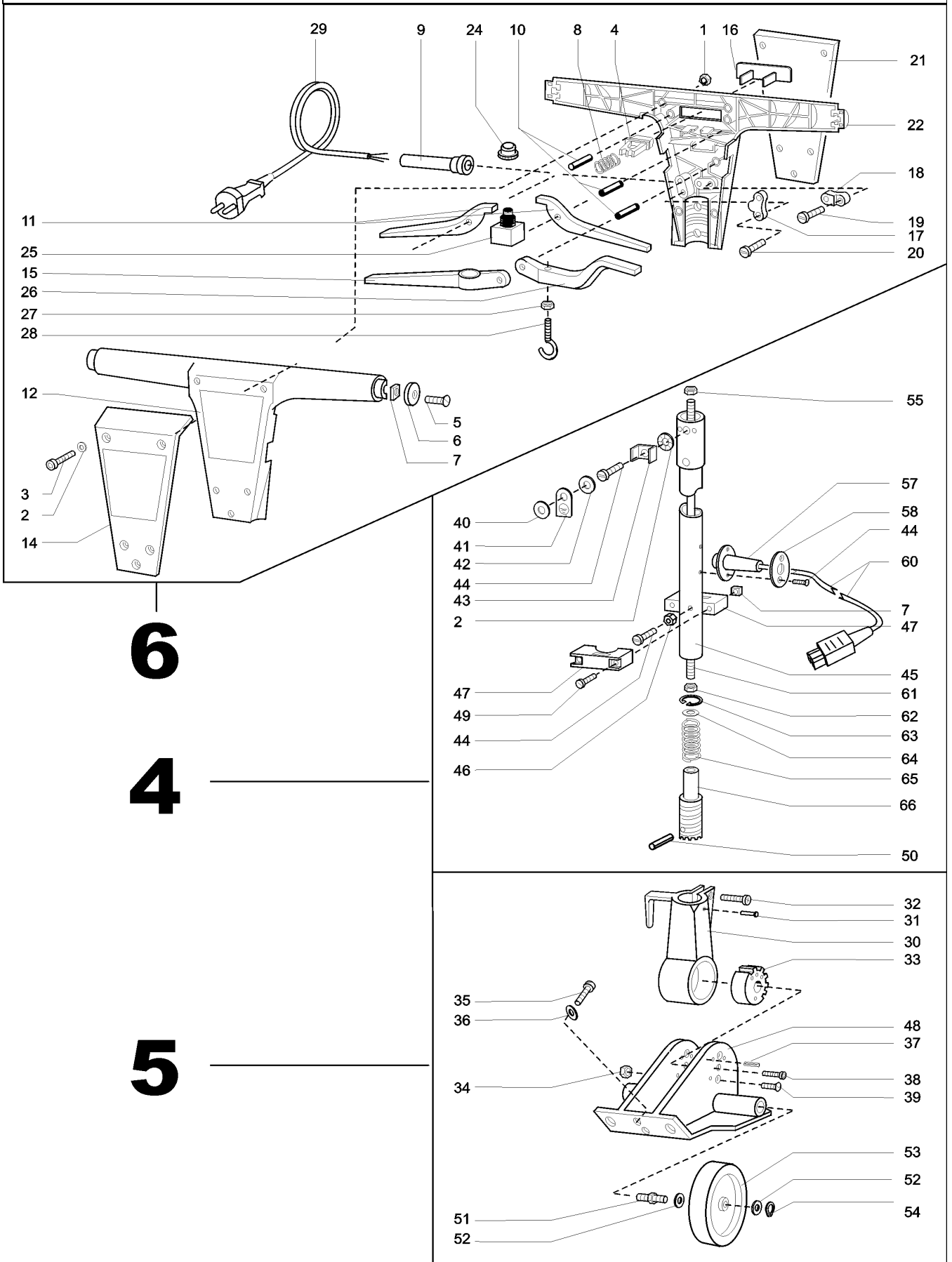
**Columbus
Model 145 SH****230 Volt - 112 560 000
120 Volt - 112 560 600****2 Machine body****230 Volt - 112 560 001
120 Volt - 112 560 601**

Pos	Order-No	Description	Pcs
1	112 400 001	Safety ring	1
2	112 560 004	Safety cover, silver	1
3	006 805 010	Screw M5x10	3
4	017 000 101	Safety ring I 10x1	1
5	112 550 151	Cooling fan	1
6	000 304 016	Screw M4x16	2
7	017 410 004	Lock washer J4,3	2
8	112 550 062	Ring BN12x12	1
9		Motor housing with stator	1
	112 560 060	230V/50Hz	
	112 560 660	120V/60Hz	
10	000 305 035	Screw M5x35	4
11	112 400 140	Washer	1
12	050 204 008	Bearing 6001 2RS	1
13	112 700 008	Centrifugal switch	1
14	112 550 061	Rotor	1
15	112 560 050	Planetary gear 3PL	1
16	112 750 017	Gasket	1
17		Capacitor	1
	112 700 020	230V/50Hz - 30 μ F	
	112 500 607	120V/60Hz - 100 μ F	
18		Starting condenser	1
	112 500 030	230V/50Hz - 120 μ F	
	112 500 700	120V/60Hz - 500 μ F	
19	112 750 016	Terminal isolation	1
20	112 400 065	Bolt for handle	2
21	112 400 064	Carrying handle	2
22	112 400 133	Counterweight	1
23	014 600 061	Washer A 6,4	2
24	004 006 025	Screw M6x25	2
25	112 700 013	Cable strip	1
26	112 750 022	Strip	1
27	006 804 008	Screw M4x8	1
28	006 803 016	Screw M3x16	2
29	112 500 013	Terminal 4-pol	1
30	006 805 010	Screw CM5x10	2
31	112 750 005	Switch box, upper part, blue	1
32	014 600 041	Washer A 4,3	4
33	006 804 008	Screw M4x8	4
34	112 550 004	Socket 10A	1
35	112 550 012	Plug	1
36	006 804 006	Screw M4x6	1
37	017 410 004	Lock washer J4,3	1
38	112 750 006	Switch box, lower part, blue	1
39	112 400 067	Hose sleeve	1
40	004 608 050	Screw M8x50	2
41	013 700 008	Hex. nut M8	2
42	112 400 056	Housing	1
43	012 300 006	Hex. nut M6 STOPP	4
44	112 400 068	Hex. nut M12x1	1
45	112 400 030	Bumper	1
46	112 400 046	Intermediate ring	1
47	112 300 021	Rubber piece	3
48	112 400 069	Catch bolt	3
50	112 200 014	Segment ring	1
51	112 300 022	Centring ring	1
52	017 410 006	Lock washer J6,4	3
53	006 706 020	Screw M6x20	3
54	112 500 011	Closure	1

MODELS 145SH/155S/165S

3 Handle with support complete

112 700 024



MODELS 145SH/155S/165S
3 Handle with support complete
112 700 024

Pos	Bestell-Nr.	Bezeichnung	Stk.						
01	011 500 006	Hex. nut M6	6						
02	112 400 008	Safety ring M6	7						
03	006 706 040	Screw M6x40	6						
04	112 400 119	Push button	1						
05	005 505 012	Screw M5x12	2						
06	112 400 054	Cover lid	2						
07	010 800 005	Square nut M5	6						
08	112 400 121	Tension spring	1						
09	112 400 057	Cable sleeve	1						
10	020 106 036	Pin 6M6x36	3						
11	112 400 004	Connection lever	2						
12	112 400 024	Handle Upper	1						
14	112 700 030	Tin plate, upper part	1						
15	112 400 006	Position lever	1						
16	112 400 118	Pression plate	1						
17	112 700 032	Clamp	1						
18	112 400 148	Clamp	1						
19	006 405 005	Tin screw Bz 4,2x16	2						
20	006 405 006	tin screw Bz 4,2x19	2						
21	112 700 031	Tin plate	1						
22	112 400 025	Handle lower	1						
24	112 400 120	Rubber cap for switch	1						
25	112 200 038	Switch	1						
26	112 400 005	Water lever	1						
27	011 700 004	Hex. nut M4	1						
28	002 304 015	Ring screw M4x15	1						
29	112 400 038	Power cable	1						
30	112 400 029	Catch	1						
31	006 805 012	Screw M5x12	1						
32	006 706 030	Screw M6x30	1						
33	112 400 091	Gear	1						
34	013 700 008	Hex. nut M8	2						
35	004 008 025	Screw M8x25	2						
36	017 410 008	Lock washer J8,4	2						
37	022 006 036	Clamp sleeve 6x36	3						
38	006 708 055	Screw M8x55	1						
39	007 208 025	Screw M8x25	2						
40	014 600 061	Washer A 6,4	1						
41	112 700 029	Earth plate	1						
42	017 410 004	Lock washer J4,3	1						
43	112 400 108	Clamp	1						
44	006 804 010	Screw M4x10	6						
45	112 400 099	Tube	1						
46	011 700 004	hex. nut M4 flat	2						
47	112 400 040	Tank holder	4						
48	112 700 100	Catch	1						
49	004 005 045	Screw M5x45	4						
50	022 004 020	Sleeve 4x20	1						
51	112 400 088	Bolt for roller wheel	2						
51a	112 400 022	Catch for roller wheel	1						
52	015 501 204	Washer 12x18x0,5	4						
53	112 700 105	Roller wheel D125	2						
54	016 900 121	Safety ring 12x1	2						
55	012 300 005	Hex. nut M5	1						
57	112 400 058	Cable sleeve	1						
58	112 200 039	Flangle	1						
60	112 700 124	Connecting cable 1,25m	1						
61	112 400 101	Bar	1						
62	011 500 005	Hex. nut M5	1						
63	017 000 261	Safety ring A26x1,2	1						
64	112 400 104	Washer 15x25x1	1						
65	112 200 018	Tension spring	1						
66	112 700 028	Catch	1						