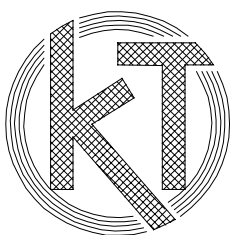
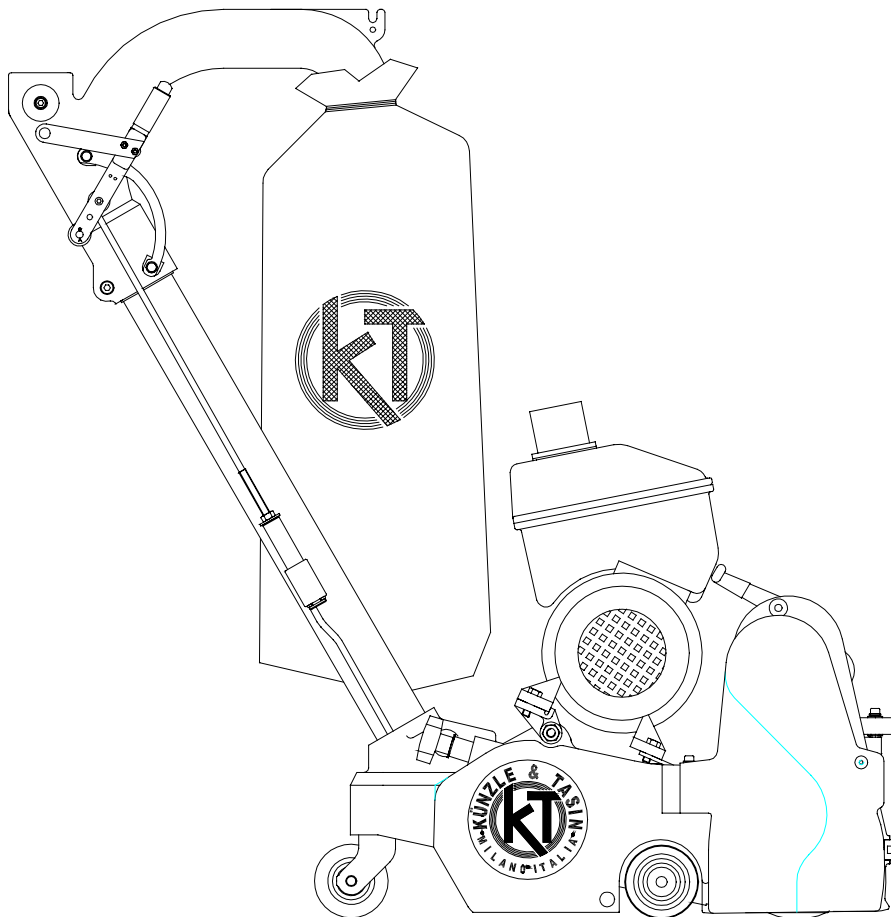


ARIES MACHINE USE AND MAINTENANCE HANDBOOK

This handbook contains important information regarding the safe use and operation of this machine. Failure to read this handbook before first time use, adjustment or maintenance may result in damage to the machine and/or personal injury. The user should be familiar with the machine and its operation before using it. Keep this handbook for future reference. For replacement handbooks, write to:

Künzle & Tasin S.p.a.

Marketing and production plant: Via Cajkovskij, 14 20092 Cinisello Balsamo - Milan - Italy



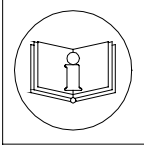
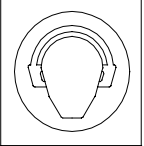
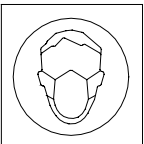
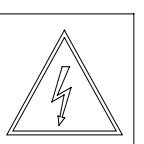
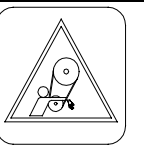
KÜNZLE & TASIN
Smerigliatrici e levigatrici dal 1946

DIREZIONE COMMERCIALE E STABILIMENTO
Via CAJKOVSKIJ,14 - 20092 CINISELLO BALSAMO - MILANO - ITALIA
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LISTED SYMBOLS

	READ THE INSTRUCTIONS IN HANDBOOK BEFORE USING MACHINERY
	NOISE HAZARD
	BREATHING HAZARD
	ELECTRICAL HAZARD
	DANGER MOVING PARTS

DANGER:	means	Serious injury or death may result if users or others fail to observe the DANGER signs on the machine or in this handbook. Read and respect all DANGER signs on the machine or in the handbook.
WARNING:	means	Injury may result if users or others fail to observe the WARNINGS on the machine or in this handbook. Read and respect all WARNINGS on the machine or in the handbook
CAUTION:	means	Damage may result if users or others fail to observe the CAUTION signs on the machine. Read and respect all CAUTION signs on the machine

DANGER:
Failure to read the **ARIES** machine handbook prior to first time use, adjustment or maintenance of the machine may result in damage to the machine and/or personal injury. The user must be familiar with the machine before using it.

STORAGE

We recommend storing the machine without removing it from its original packaging to allow up to a maximum of two packages to be stacked one on top of the other.

If the machine is removed from its original packaging and not used for long periods the wheels and the roller must be raised from the ground. Set the machine on two blocks at least 50 cm high, making sure the base is supported by them.

Store the machine in a dry place. Storage in damp conditions will result in damage to the machine.

Storage temperature -20°C to 50°C.

TRANSPORTING AND HANDLING THE MACHINE

WARNING: Since the machine is heavy, remove the motor before transport. Ask for help lifting the machine and motor.

TRANSPORT BY ONE PERSON

To facilitate transport, the machine can be disassembled into three parts:

- motor
- suction pipe and handle group
- base with roller

proceed as follows:

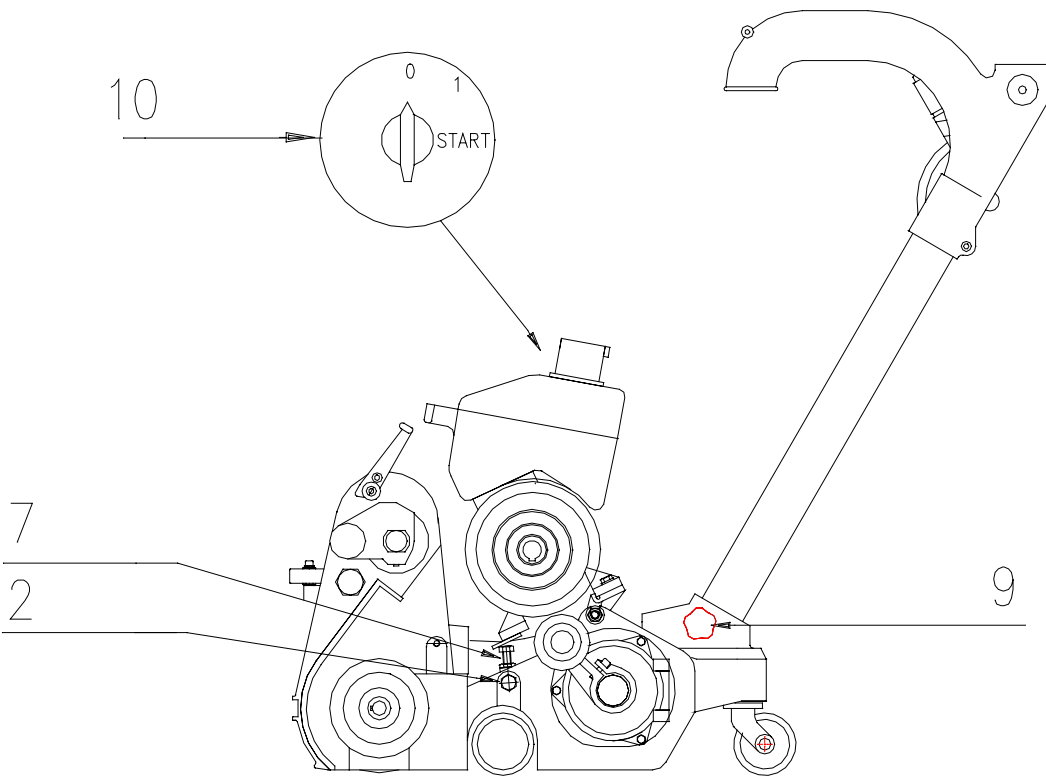
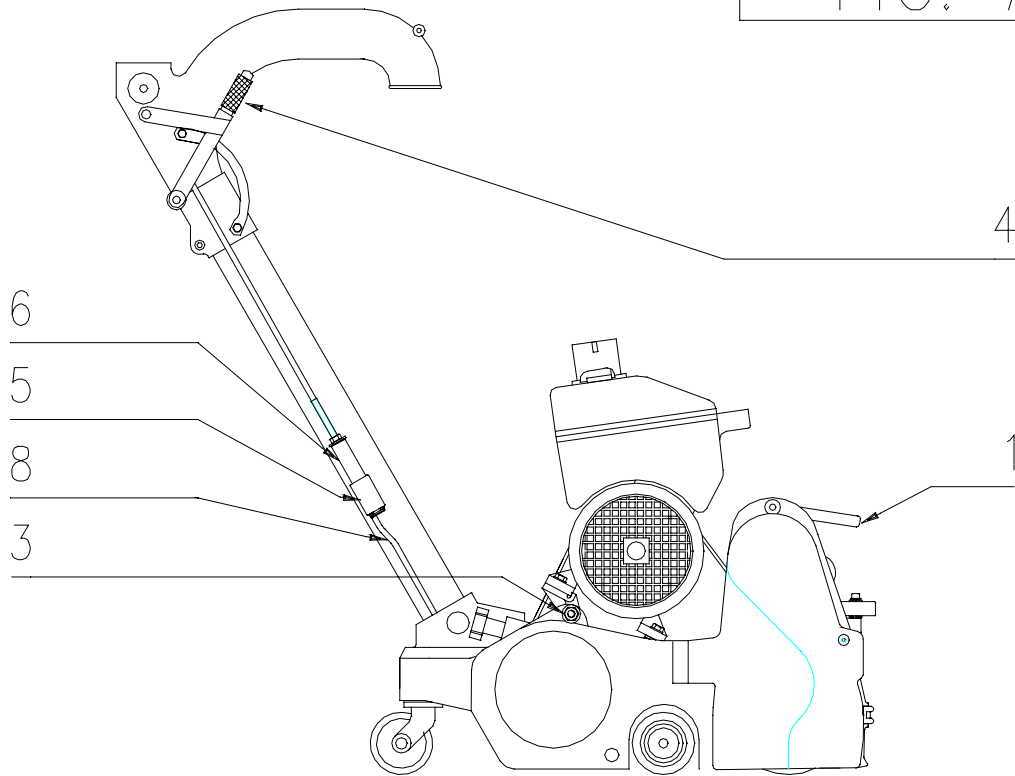
1. Check that the mains lead is disconnected from the mains supply and the machine.
2. Open the belt guard after removing the fastening screws using the screwdriver provided.
3. Loosen the belt tensioner using the lever (**pos. 2 fig. A**) and remove the belts.
4. Loosen the hex screw (**pos. 3 fig. A**) until the washers on the motor bearing shaft drop out of their seats in the bearings.
5. Remove the motor and transport it to the workplace.
6. After having lowered the lever (**pos. 4 fig. A**) lift the pipe (**pos. 5**) and free the rod (**pos. 8**) from the tube (**pos. 6**).
7. Loosen the handle (**pos. 9 fig. A**) and slide the pipe out of its seat. Transport it to the workplace.
8. Lift the base using the front and back as grip points. Lift the belt guards to chest height and transport to the workplace.

TRANSPORT BY TWO PERSONS

With two people to move the machine, proceed as follows:

1. One person lifting by the grips on the handle.
2. The second lifting the machine by the handle (**pos. 1 fig. A**).

FIG. A



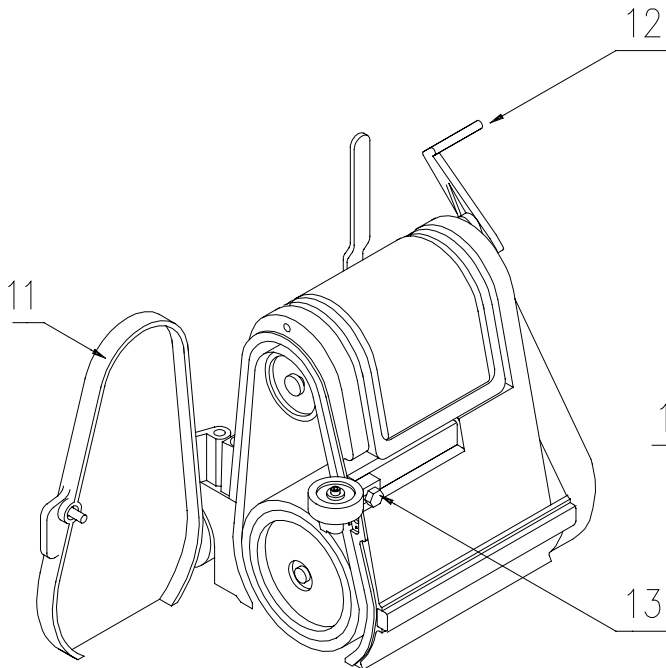


FIG. B

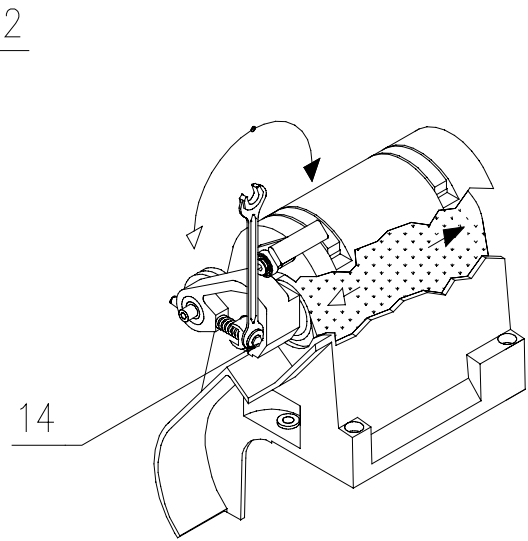


FIG. C

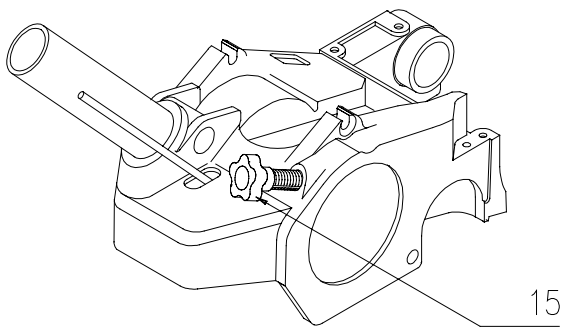


FIG. D

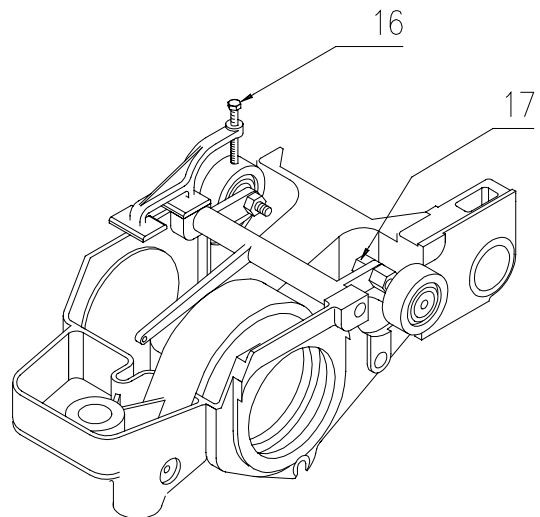


FIG. E

BEFORE STARTING

ASSEMBLY INSTRUCTIONS (AFTER TRANSPORT)

To reassemble the machine after transport proceed as follows:

1. Open the belt guards.
2. Fit the motor into its mounting points and tighten the hex nut (**pos. 3 fig. A**).
3. Fit the belts, tighten them and close the belt guards, tightening the relative screw.

CAUTION: **The bearings will wear prematurely if the belts are too tight.**
The roller belt must have around 8 mm play with a load at centre of 30 ±3 N.
Belt tension can be adjusted by means of the screw (pos. 7 fig. A)
The suction drive belt must have 8 mm play with a load at centre of 18 ±2 N.
Belt tension can be adjusted by means of the relative belt tensioner.

DANGER: Using the machine when not fully assembled may result in damage and/or personal injury. Do not use the machine if incompletely assembled. Keep all guards closed. Keep machine adjusted as specified.

4. Fit the suction pipe and the roller control rod.
5. Raise the roller with the lever (**pos. 4 fig. A**).
6. Connect the mains lead to the machine and to the mains supply.

ELECTRICAL CONNECTIONS

CAUTION: The machine is designed to operate exclusively at the voltage and frequency indicated on the machine information plate. Check that the power supply corresponds to these values before connecting the mains lead.

WARNING: Exposing the machine to water or rain constitutes a risk of electric shock. Use and store the machine in a dry place.

DANGER: Incorrect connection to the mains supply constitutes a risk of electric shock. To prevent electric shock always use a three pole mains supply connected to a suitable electrical earth. For maximum shock protection use a mains supply fitted with a differential cut-out switch.

DANGER: Tampering in any way with the earth pin may cause electric shock. Do not cut, remove or break the earth wire. Do not try to fit a three-pin plug into anything other than a three-pin socket. If the plug doesn't fit the socket, contact an authorised electrician.

DANGER: Using the machine with a damaged plug or mains lead constitutes a risk of electric shock. If leads or plugs are worn or damaged in any way, have them replaced by the manufacturer, a K&T authorised dealer or qualified personnel to minimise risk.

MAINS LEADS, EXTENSIONS AND PLUGS

Use only approved three-ply cable with live, neutral and earth.
Maximum recommended mains lead length 10 m. For lengths over **10 m** use heavier cable section

DANGER: Using mains leads with inadequate section and/or of excessive length may result in damage and/or personal injury

SINGLE PHASE MOTOR MACHINE 230 V~ 50/60 Hz

For Europe the mains lead must be HAR approved type **HO5VV-3x2.5 mm²** and the plug must be approved type 2P+T 16A 200-250V.

For non European versions talk to an authorised K&T dealer

INSTRUCTIONS FOR REMOVING THE SAWDUST PRODUCED DURING WORK

DANGER: Sawdust is inflammable and may ignite spontaneously causing injury or damage. Sawdust must be correctly disposed of. Always empty sawdust into metal containers situated in the open air

DANGER: Sawdust is inflammable and may ignite spontaneously causing injury or damage. Empty the dust bag when it is 1/3 full. Empty the dust bag every time you finish using the machine. Do not abandon dust bags full of sawdust. Do not empty the contents of the dust bag over a fire.

USER SAFETY RECOMMENDATIONS

PERSONAL SAFETY

WARNING: Sawdust may leak into the air and be breathed in when using the machine. Always wear a dust filter face mask when using the sander.

WARNING: Failure to wear eye protection and protective clothing may result in injury while sanding. Always wear safety goggles, protective clothing and face mask when using the machine.

WARNING Long exposure to the high noise level produced by the machine in operation may cause ear damage. Always wear ear plugs when using the sander.

COMPLIANCE WITH SAFETY STANDARDS

DANGER: Using the machine if not fully assembled may result in damage and/or personal injury. Do not use the machine if incompletely assembled. Keep all guards closed. Maintain machine adjustment as specified

DANGER: Damage or injury may result if the sander is used without guards and covers in place. Always check that all guards and covers are in place and well fastened.

DANGER: Sanding wooden floors may generate an explosive environment. Cigarettes, cigars, lighters, pilot lights and any other naked light may trigger an explosion if used when sanding. Do not use naked lights in the working area.

DANGER: Poorly ventilated working areas may generate an explosive environment in the presence of volatile materials such as solvents, alcohol, fuel, certain paints, sawdust and other flammable materials. Floor sanding machines can ignite flammable materials and fumes. Read the instructions on any chemical products used to determine their flammability. Keep the working area well ventilated.

- DANGER:** Contact with nails when sanding may generate sparks and cause fire. Always flatten or remove all nails before sanding the floor.
- DANGER:** Electric shock may result if the power supply cuts out repeatedly due to overload. Have fuses, overload cut-out and mains circuit checked by an authorised electrician.
- DANGER:** Electric shock may result if maintenance and/or repairs are carried out on the machine while it is connected to the mains supply. Disconnect the mains before carrying out any form of maintenance and/or repairs.
- DANGER:** Using the machine with an unearthed mains supply may result in electric shock. Never disconnect or disable the earth circuit. Consult an electrician if no earth circuit is present or if the circuit is thought to be inadequately earthed.
- DANGER:** Using the machine with a damaged mains lead may result in electric shock. Do not use the machine if the mains lead is damaged. Do not pull the machine by the mains lead.
- DANGER:** Injury or death by electric shock may result if the sander passes over the mains lead or damages it. Keep the mains lead away from the lower part of the machine to avoid contact with the abrasive. Always keep the mains lead above the machine.
- DANGER:** Moving parts may cause damage and/or serious injury. Keep hands, feet and loose clothing away from all moving parts of the sander.
- DANGER:** Carrying out maintenance or emptying the dust bag may result in injury to the user and any others present if the machine is connected to the mains supply.
- WARNING:** Failure to follow all the instructions contained in this handbook may result in serious injury and/or damage. Read and observe all safety instructions. Check that all information plates, warning and cautions labels and instructions are present on the machine. For new plates contact your authorised **K&T** dealer.
- CAUTION:** Maintenance and repairs carried out by unauthorised persons may result in damage and/or personal injury.
- CAUTION:** Storing the machine in a damp environment will result in damage. Store the machine in a dry place.

INSTRUCTIONS FOR CORRECT USE

The appliance is suitable for commercial use, for example in hotels, schools, hospitals, offices, factories and shops.

The information that follows highlights potentially hazardous conditions for the user and/or the machine itself. Read the handbook carefully to get to know the machine and recognise when such conditions may arise. Use all safety systems provided on the machine. Personnel must be trained before using the machine. Immediately report any damage to the machine or maloperation.

1. Keep hands and clothing away from moving parts.
2. Keep hands on the handle while the motor is running.
3. Do not abandon the machine with the motor running
4. Do not use the machine with drive belt guards or sanding belt covers open.
5. Always use the machine with the dust bag correctly fitted.

6. Do not remove the dust bag with the motor running.
7. Always disconnect the machine from the mains before carrying out maintenance.
8. Given the weight of individual machine components, always use caution during transport.
9. Only use the machine in well ventilated areas.
10. Always use the dust bag as instructed (see page 8).
11. Always use the sanding belts provided with the machine or of the type specified in the handbook.
12. Lower the roller using the lever (pos. 4 fig A) only with the motor running and raise it before switching the motor off.

MACHINE SPECIFICATIONS

SANDING BELT SIZE	750 X 200 mm
ROLLER WIDTH	200 mm
ROLLER DIAMETER	150 mm
ROLLER SPEED AT 50 Hz AT 60 Hz	2400 rpm 2500 rpm
MOTOR (A15) EUROPE and UK (A14) USA	230-240Vac, 50 Hz 2,2 kW 220Vac, 60 Hz 2,2 kW
CONTROL LEVER	ON HANDLE
LEVEL CONTROL	CAM ON WHEEL
MOTOR PROTECTION	THERMAL (A15) EUROPE and UK AFTER POWER FAILURE THE MOTOR DOES NOT RESTART AUTOMATICALLY
WHEELS	Φ 80 mm REPLACEABLE
BEARINGS	PERMANENT LUBE RADIAL BALL
ROLLER PRESSURE ADJUSTMENT	INFINITE ADJUSTMENT
NOISE (continuous weighted A sound pressure measure at 0.4 m from grip and 1.5 m from floor level)	86 dB (A)
MACHINE DIMENSIONS	960 x 310 x 980 mm
NET WEIGHT	60 kg
PACKAGE DIMENSIONS	2 boxes 680 x 370 x 640 mm e 960 x 430 x 220 mm
GROSS WEIGHT	0 kg + 8.5 kg
STANDARD EQUIPMENT	DUST BAG, PLUG, SPANNER, USE AND MAINTENANCE HANDBOOK

INSTRUCTIONS FOR USE

INCORRECT USE

CAUTION: Using the machine to push other objects or on an incline may result in damage and/or personal injury. The machine must be used exclusively to sand dry wooden floors that are flat or with a maximum incline of 2%. Do not use the machine to sand steps or furniture. Do not ride the machine

CAUTION: Allowing the machine to remain stationary in one point with the roller running will result in serious damage to the floor being sanded. To prevent damage to the floor always approach the stopping point gently. Do not pause when raising or lowering the roller, but always advance at a constant speed.

STARTING THE MACHINE

To start the machine proceed as follows:

1. Get to know the machine and read all instructions regarding potential dangers, warnings and precautions. Make sure that all users have read this handbook.
2. Fit the dust bag on the tube bend and secure by tying the wire above the flange.
3. Locate the mains supply. The socket must be compatible with the plug. To prevent electrical hazards the socket must be earthed and fitted with a 20A fuse.
4. Wind the lead onto the supports provided. Keep the lead out of the way of the machine.
5. Open the side guard **fig. B pos. 11**.
6. Lower the tension roller by turning the lever (**pos. 12 fig. B**) clockwise.
7. Fit the sanding belt, allowing it to protrude sideways by about 2 centimetres.

WARNING: Only use 750x203 mm sanding belts

8. Tighten the belt by turning the lever (**pos. 12 fig. C**) anti-clockwise.
9. Connect the mains plug.
10. Check that the lever (**pos. 4 fig. A**) is engaged and the roller raised from the floor.
11. Momentarily turn the switch (**pos. 10 fig. A**) from **0** to **START** and hold it there until the motor has reached sufficient speed. Then release the switch, which automatically returns to working position **1**.
12. Check the behaviour of the sanding belt. Follow the "SANDING BELT CENTRING PROCEDURE" page 15.
13. Close the side guards (**fig. B**).
14. Begin sanding.
15. To stop the machine turn the switch (**pos. 10 fig. A**) from pos. **1** to pos. **0**.

IMPORTANT: If the motor is difficult to start when it is cold in winter, remove the sanding belt and start the motor in load free conditions and let it run for a few minutes. Replace the belt and repeat the starting procedure described above.

WARNING This machine is fitted with a safety switch. In the event of power failure during use, the switch automatically cuts-out to prevent accidental restart when power is restored. To continue working, repeat the starting procedure described above.

DECLARATION OF CONFORMITY

EC DECLARATION OF CONFORMITY
73/23CEE, 89/392/CEE, 91/368/CEE
89/336/CEE, 92/31/CEE, 93/44/CEE
93/68/CEE

We

KÜNZLE & TASIN S.p.A.
Accounting office: Via C. Freguglia 4
20122 Milan - Italy

declare under our responsibility that the product

ARIES BELT SANDER

to which this declaration relates is in conformity with the following standards or other normative document(s):

- Safety of machinery - Basic concepts, general principles for design
Basic terminology, methodology EN 292 Part 1 -September 1991
- Safety of machinery - Basic concepts, general principles for design
Technical principles and specification EN 292 Part 2 September 1991
- Safety of machinery - Electrical equipment of machines
Part 1 : General requirements EN 60204-1 - October 1992
- Safety of household and electrical appliances - General requirements
EN 60 335-1 – 1991
- Particular requirement for floor treatment and floor cleaning machine for industrial and
commercial use – EN 60 335-2-67
- General emission standard - Residential, commercial and light industry EN 50082-1 Edit. 1992
- Limits and methods of measurements of radio disturbance characteristics of electrical motor-
operated and thermal appliances for households and similar purposes, electric tools and similar
electric apparatus - EN 55014 - Edit. 1993
- Disturbances in supply systems caused by household appliances and similar electric equipment
– Harmonics – EN 60555-2 –Edit. 1986
- Disturbances in supply systems caused by household appliances and similar electric equipment
– Voltage fluctuations – EN 60555-3 –Edit. 1986

following the provisions of the Directives:

73/23CEE, 89/392/CEE, 89/336/CEE, 91/368/CEE 92/31/CEE, 93/44/CEE 93/68/CEE

(place and date of issue)

(signature)

ADJUSTING THE MACHINE

SANDING BELT CENTRING PROCEDURE

The belt centres itself when the motor is switched on.

WARNING: The belt is correctly position when it protrudes from the sanding roller by about 1.5 cm.

When first fitted the belt may be in the wrong position. In this case, turn the screw (**pos. 14 fig. C**) using a spanner as follows:

1. Turn the screw clockwise to shift the belt outwards.
2. Turn the screw anti-clockwise to shift the belt inwards.

SANDING PRESSURE ADJUSTMENT

To adjust the pressure the roller exerts on the floor, adjust the handwheel (**pos. 15 fig. D**) as follows:

1. Turn the wheel clockwise to decrease pressure.
2. Turn the wheel anti-clockwise to increase pressure.

FLOOR EDGE WHEEL

The machine is fitted with a free running wheel (**fig. B**) to prevent damage to skirtings or walls while sanding the floor edge.

WARNING: In the correct position the wall edge wheel gives the machine approx. 8 mm clearance when in contact with the wall

Before starting work, set the wheel to the correct position by loosening the screw (**pos. 13 fig. B**), moving the wheel to the desired position and re-tightening the screw.

ADJUSTING THE WHEELS (parallel to the roller axis)

To adjust the position of the wheels, proceed as follows:

1. Turn the machine over.
2. Use the tool provided (**pos. 16 fig. E**) to check that the wheels protrude from the base by an equal amount. Otherwise:
3. Loosen the nut (**pos. 17 fig. E**).
4. Turn the cam pin (**fig. E**) until wheel protrusion is equal.
5. Tighten the nut (**pos. 17 fig. E**).

PERIODIC MAINTENANCE

To keep the machine in good working order, the following items must be periodically checked and maintained:

SANDING BOX (users)

Periodically clean the accumulated sawdust from the box to prevent it interfering with the tensioner.

ROLLERS (users)

Periodically check the external surface of the tension and sanding rollers. Remove any dirt present.

WHEELS (users)

Periodically remove any dirt from the machine housing and wheels. Accumulated dirt may cause undulations on the surface being sanded.

DUST BAG (users)

Remove the dust bag and shake it vigorously to remove the collected sawdust. Turn the bag inside out and machine wash it in cold water to prevent pore blockage which decreases dust suction capacity.

BELT TENSIONING (users)

Periodically check belt tension. For adjustment procedure see page 7 (BEFORE STARTING)

BEARINGS (maintenance personnel only)

Periodically check bearings for wear or damage:

Wheels	after the first 2500 working hours
Tensioner pulley	after the first 2500 working hours
Fan drive shaft	after the first 2500 working hours
Tension rollers	after the first 2500 working hours
Sanding roller	after the first 5000 working hours
Motor shaft	after the first 5000 working hours

REPLACEMENT PARTS

Always use original **K&T** replacement parts. The guarantee and all consequent liability will be forfeited if non-original **K&T** parts are used or repairs are carried out by unauthorised persons.



TROUBLESHOOTING (users)

PROBLEM	CAUSE	REMEDY
Insufficient sanding depth	Sanding belt worn or unsuitable Insufficient roller pressure Insufficient roller belt tension Roller belt worn	Replace sanding belt Increase roller pressure, see page 15, increase belt tension, see page. 7 Replace belt
Motor speed too low	Insufficient voltage due to: excessive length or inadequate section of power cables poor connections power condenser defective motor defective	Use cables with adequate section and length Use suitable plugs and sockets Contact an authorised K&T dealer Contact an authorised K&T dealer
Working surface scored	Defective sanding belt Roller surfaces soiled or defective Wheels badly adjusted	Replace sanding belt Clean roller surfaces Clean, adjust or replace the rubber lined roller Adjust wheel position see page 15
Insufficient dust suction	Dust bag over 1/3 full Dust bag dirty or with blocked pores Suction/delivery pipe obstructed	Empty the bag Shake out dust and wash bag Clean air pipes
Motor does not start	Defective switch or safety device Defective starter condenser Insufficient voltage due to poor connection Defective motor No power	Contact an authorised K&T dealer Contact an authorised K&T dealer Contact an authorised K&T dealer Contact an authorised K&T dealer Check power supply and connections
Working surface scorched	Sanding belt worn Excessive sanding pressure Abrasive too fine	Replace the sanding disk Decrease sanding pressure. page 15 Use coarser abrasive