CONTACTS

unitechnic.cz s.r.o.

Customer Service Department
Former sugar refinery facility
Hlavní 29 (Hall No. 3 uni-max)
277 45 Úžice

Tel. of Customer Service Dept.	**266 190 156**	T-Mobile	**603 414 975**
	266 190 111	O2	**601 218 255**
Fax	**66 190 100**	Vodafone 6	**08 227 255**

http://www.uni-max.cz
E-Mail: reklamace1@khnet.cz
obchod@khnet.cz

uni-max

TRANSLATION OF THE ORIGINAL MANUAL

DRUM SANDER SM405 PLUS

SM405

Dear Customer, thank you for purchasing a product from UNI-MAX.
Our company is ready to provide you with its services - before, during and after you purchase a product. Should you have any questions, suggestions or recommendations, please contact our place of business. We will endeavour to consider and respond to your suggestion to the highest extent possible.

It is a legal requirement, within the sense of this user's manual, that the user confirms of their own free will that they have thoroughly studied the operating instructions, fully understand their meaning and are familiar with all the risks before the first use of the equipment.
ATTENTION! Do not attempt to put into operation (or use) the equipment before you are completely familiarised with the entire user's manual. Keep this user's manual for future reference.
Attention should be especially paid to occupational safety guidelines. Non-compliance or inaccurate implementation of these instructions may lead to injuries to the operator or other persons, or it may cause damage to equipment or the processed material.
Pay special attention to the safety instructions provided on the equipment's labels. Do not remove or damage these labels.

In order to facilitate possible communication, transcribe the number from the invoice or proof of purchase here.

DESCRIPTION

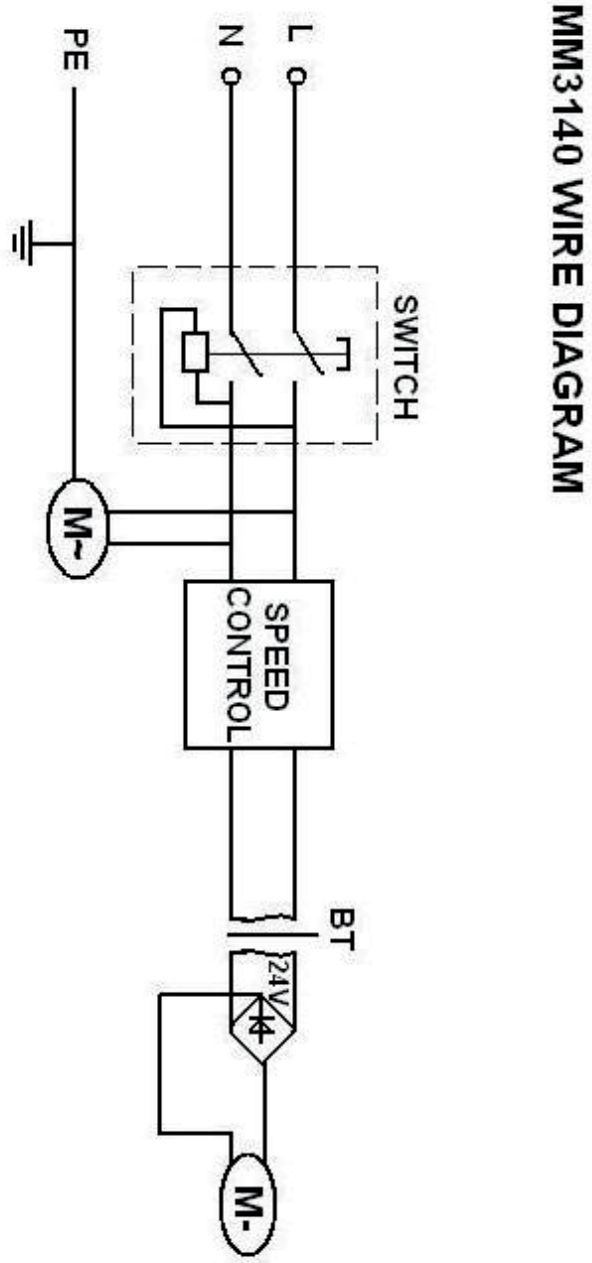
Machine operating voltage 230 V/50 Hz Sanding drum drive power 750 W, speed 1400 rpm, drum 132 × 410 mm, length of sanding surface 405 mm, max. height of sanded material 130 mm. Feeding belt motor power 50 W, feeding speed 0 – 3 m/min. Diameter of dust extraction outlet 62 mm. Packaging Dimensions 920 × 610 × 670 mm.

TECHNICAL DATA

Voltage	230 ~ V/50 Hz
Power input	750 W
Nominal idle speed	1,440 rpm
Drum diameter	Ø 132 mm
Drum length	410 mm
Length of sanding surface	405 mm
Maximum height of sanded material	30 mm
Feeding belt motor	
Power input	50 W
Voltage	230 V
Feeding speed	0 -300 mm/min-1
Dust extraction coupler diameter	Ø 62 mm
Packaging (l × w × h)	920 × 610 × 670 mm

The accuracy of the text, graphs and data depends on the date of printing. In the interest of continuous improvement of our products, we reserve the right to make changes to our technical data without prior notice.

EL. WIRING DIAGRAM



SAFETY PRECAUTIONS

We recommend equipping the workplace with safe workplace fundamentals charts:

- **“Prevent injuries” – WOODWORKING MACHINES.**

Symbols used in these instructions

Attention!
Indicates a risk of injury or significant material damage.

Risk of entanglement!
Beware of injury caused by the entanglement of clothing or body parts by rotating parts.

Warning!
Risk of damage

Note:
Additional information

Meanings of stickers with safety symbols:


Read the manual before use


Harmful or irritating substances


Attention electrical equipment


Danger of limbs being pulled in


Close the protective cover before starting the machine


Danger of cutting off fingers


Do not use water or foam fire extinguishers


Do not use in damp / humid conditions


Use respiratory tract protection


Use hearing protection


Use a protective face shield

Sticker markings located on the surfaces of the equipment, which are under all circumstances visible to the operator of the machine prior to it being started and while it is running.

! General information

- Plastic bags for packaging can be hazardous to children and animals.
- Familiarize yourself with the equipment, its controls, operation, elements of this equipment and possible risks associated with its incorrect use.
- Ensure that the user of the equipment has been thoroughly familiarised with the controls, operation, elements of this equipment and possible hazards resulting from its use.

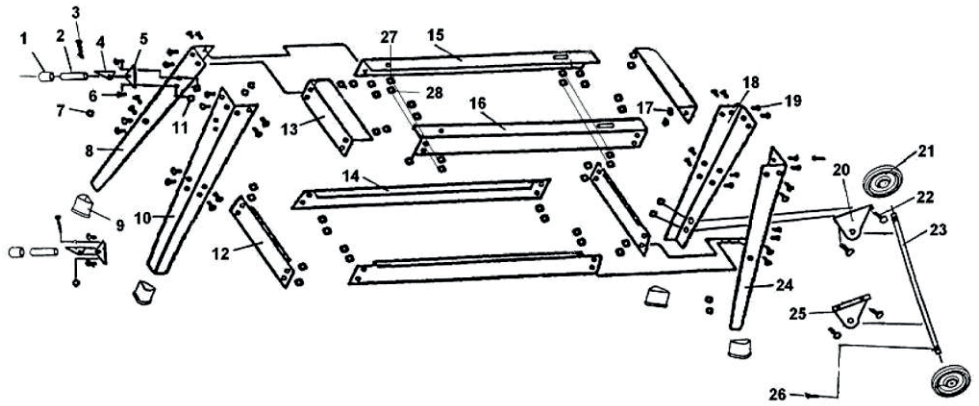
- Always adhere to the safety instructions provided on labels. Do not remove or damage these labels. Contact the supplier in the event of damaged or illegible labels.
- Keep the workplace clean and in order. Untidiness in the workplace may lead to an accident.
- Never work in cramped or poorly lit areas. Always make sure that the floor is stable and there is good access for performing work tasks. Always maintain a stable posture.
- Continuously observe the workflow and use all your senses. Do not continue working if you cannot maintain full concentration.
- Take care of your tools and keep them clean.
- Handles and switches must be kept dry and free from oil and grease.
- Prevent access to animals, children and unauthorised persons.
- Do not place feet or hands into the working area.
- Never leave the equipment unattended whilst it is in operation.
- Do not use the equipment for any purpose other than for which it is intended.
- Use personal protective equipment during work (e.g. goggles, earmuffs, respirator, safety footwear, etc.).
- Do not overexert yourself, always use both hands.
- Never operate the equipment under the influence of alcohol and drugs.
- Do not operate the equipment if you suffer from dizziness, weakness or fainting.
- No modifications to the equipment are permitted. DO NOT USE it if you discover bent parts, cracks or other damage.
- Never carry out maintenance on the equipment during operation.
- If unusual sounds or other unusual phenomena occur, immediately stop the equipment and stop working.
- Remove any keys and screwdrivers from the machine after use.
- Make sure that all bolts are tightened before use.
- Ensure proper maintenance of the equipment. Check the equipment for damage before using it.
- Only use original spare parts for maintenance and repair.
- The use of additional equipment or accessories not approved by the manufacturer may lead to injuries.
- Select suitable devices for specific work. Do not attempt to overload low-power devices or accessories with work that requires larger mechanical equipment.
- Do not overload the equipment. Organise workflow to enable effortless work at optimal speed. Any damage caused by overloading the equipment is not covered by the warranty.
- Protect the equipment against excessive heat and sunlight.
- The equipment is not designed for work under water or in a wet environment.
- When not using the equipment, store it in a dry, safe place away from children.
- Before starting the equipment, check that all safety elements are working smoothly and efficiently. Make sure that all moving parts are in good condition.
- Check whether any parts are broken or stuck, make sure that all components are properly mounted. Also check all other conditions, which may affect the operation of the equipment.
- Unless otherwise stated in this manual, any damaged parts or safety elements must be repaired or replaced.

! Configurations

- Do not use the equipment if it has not been completely assembled according to instructions contained in the manual.

! Electrical equipment

- You should always follow the basic safety precautions when using electrical equipment, including the following, so that the risk of fire, electrical shock and injury to persons is reduced to a minimum. Before putting this product into operation, read these instructions and remember them.
- Ensure that the power plug is connected to a correctly fused and grounded power socket. To prevent the motor from overheating or burning up, and to avoid insufficient performance, the mains voltage must correspond to the voltage on the rating label.
- Before connecting to the mains power supply, make sure that the main switch is set to the OFF position. In the event that the equipment is not fitted with a power switch, then this function is performed using the power plug instead. After finishing work, pull the power plug out of the mains power socket.
- Never carry electrical equipment by the power cord. Do not use the power cord to pull the plug out of the power socket.
- Protect the power cord against high temperatures, oil, solvents and sharp edges.



Pos.	Name	Pcs	Pos.	Name	Pcs
1	Handle case	2	15	Long support board (right)	1
2	Handle	2	16	Long support board (right)	1
3	Bolt M4×35	2	17	Nut M8	36
4	Load-bearing base	2	18	Rear stand (left)	1
5	Clamping base	2	19	Bolt with nut M8×12	36
6	Bolt M6×10	4	20	Wheel mounting base	1
7	Nut M4	4	21	Wheel 125 mm	2
8	Front stand (left)	1	22	Bolt M8×16	4
9	Front stand (right)	4	23	Wheel shaft	1
10	Front stand (right)	1	24	Rear stand (right)	1
11	Nut M6	4	25	Wheel mounting stand	1
12	Short cross stand	2	26	Pin 4×20	2
13	Short support plate (left)	2			
14	Long cross stand	2			

46	Lock nut M4	4	109	Switch	1
47	Rod housing holder	8	110	Label	1
48	Holder	2	111	Grommet	3
49	Nut M12	1	112	Connector	1
50	Washer M12	1	113	Motor	1
51	Rotating table	1	114	Holder L	1
52	Wheel	1	115	Insulating washer	1
53	Lifting shaft	1	116	Bolt M5×6	2
54	Key 5 ×5 × 16	1	117	PV board	1
55	Bolt M5×16	4	118	Key 5	1
56	Cover holder	1	119	Key 6	1
57	Metal ball 3	23	120	Key 11-13	1
58	Socket	1	121	Bolt M10×30	4
59	Frame	1	122	Bolt M8×30	2
60	Steel washer	1	123	Bolt M6×25	2
61	Nut M16×1.5	4	124	Washer 8	4
62	Bolt M6×35	1	125	Washer 6	4

- Regularly inspect the power cord, and in the event of its damage, have it repaired by an expert. Regularly inspect all extension cords and in the event of their damage, replace them.
- When necessary, always use quality extension cords with corresponding power parameters, fully unwound. Regularly inspect it for damage. A faulty power cord must be replaced or repaired.
- Prior to starting maintenance, installation, replacement of parts or other similar tasks, turn off the main switch and pull the plug out of the power socket.
- Take care that the equipment is prevented from starting spontaneously. Keep fingers away from the starting mechanism unless it is unconditionally necessary.
- If the equipment is to be installed on a workbench, after completing the installation, release the safety button.
- Do not operate the equipment in an explosive environment (during varnishing, when working with flammable liquids, etc.).
- Do not use it in a wet environment or when the equipment is wet. The electrics are constructed for use in normal environments at ambient temperatures of +5°C to +40°C, at a relative humidity not exceeding 50% at a temperature of +40°C.
- Electrical equipment is subject to regular technical inspections at set intervals.

! Rotary tools

- Always wear suitable work clothing (e.g. do not wear loose clothing, ties, jewellery etc., tie up long hair behind the head, protect the feet and do no wear worn-out footwear. Shirt sleeves must be buttoned up or rolled up). Risk of getting caught or winding on to rotating parts.
- Do not remove safety covers and ensure that maximum protection is provided to the operator.
- Avoid coming into contact with moving parts during work. Keep hands away from rotating parts.

! Machining/turning

- Always securely fasten the workpiece on the workbench or in a vice. Do not attempt to hold the workpiece that is being machined in your hands. Use both hands to hold the handles of the machine/tool.
- Do not overreach. Maintain stable posture standing on both legs that is sufficiently safe to handle potential kickback.
- Maintain tools clean and sharp.
- Follow maintenance directives and instructions for changing tools.
- Use buttons to feed in the material.
- Make sure that the workpiece meets the technical parameters of the machine and that it is securely clamped.
- When releasing workpieces, proceed with utmost care.

! Grinding

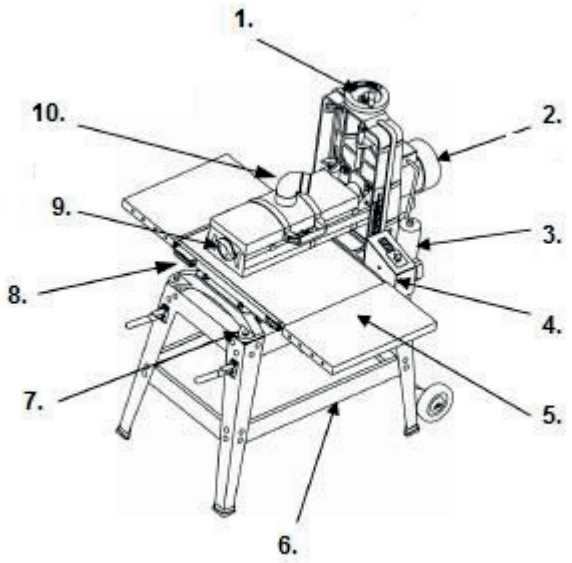
- Grinding may only be performed by gradually pushing down the grinding disc on to the workpiece so that the disc is not damaged or torn apart in the event that it impacts something or is suddenly stopped.
-  Do not smoke or handle an open flame during work.
- ! Use personal protective equipment such as gloves, glasses, etc. and respirator if necessary.

INSTALLATION

- Before throwing away the equipment packaging, ensure that no parts remain inside it. If so, find the part in the parts list or on the assembly diagram and install the relevant part.

Description of the machine

Fig. 1



1. Handle assembly for height adjustment
2. Sanding drum drive motor
3. Feeding belt motor
4. Speed control cabinet
5. Extension table
6. Support stand with handle and wheels for easy movement
7. Stand mounting hole
8. Feeding belt track adjuster
9. Anti-dust cover for sanding drum
10. Dust extraction elbow

Pos.	Name	Pcs	Pos.	Name	Pcs
1	Table	2	63	Bolt M8×40	4
2	Bolt M8×20	8	64	Pin 6×45	2
3	Protective cover „A”	1	65	Dial	1
4	Elbow 90°	1	66	Feed roller support (left)	1
5	Lock nut M6	6	67	Feed roller support (right)	1
6	Board	1	68	Spring washer 8	15
7	Handle	1	69	Bolt M8×25	4
8	Bolt M8×25	2	70	Stand arch	1
9	Bolt M4×8	1	71	Bolt M8×50	1
10	Sanding clamp „A”	1	72	Stand support	1
11	Spring washer 4	1	73	Large-area washer 8	3
12	Nut M4	1	74	Handle	1
13	Socket	1	75	Bolt M10×35	4
14	Sanding belt	1	76	Spring washer 10	4
15	Spring (for sanding clamp „B”)	1	77	Washer 10	8
16	Spring washer 28	1	78	Base	1
17	Sanding washer „B”	1	79	Bar	2
18	Inner slit guard	1	80	Bolt M8×30	4
19	Bolt M6×30	4	81	Propeller	1
20	Hinge	2	81A	Motor	1
21	Bolt M8×25	4	82	Bolt M8×45	2
22	Outer bearing cover	1	83	Bolt M6×90	2
23	Bearing 6205	2	84	Sliding limit stop	2
24	Inner bearing cover	3	85	Tensioning block	2
25	Sanding case unit	1	86	Bolt M5×16	4
26	Washer 8	22	87	Spring	2
27	Nut M8	3	88	Nut M5	7
28	Nut M6	3	89	Belt	1
29	Low nut M6	2	90	Feed roller	1
30	Bolt M6×14	1	91	Bolt M8×12	4
31	Bolt M8×16	8	92	Table	1
32	Large-area washer 6	1	93	Feed	1
33	Protective collar	2	94	Bolt M6×16	4
34	Bolt M5×16	2	95	Washer 6	10
35	Connecting piece	2	96	Spring washer 6	7
36	Bolt M6×8	2	97	Feed roller	1
37	Indication bar	1	98	Bolt M5×20	1
38	Indication block	1	99	Inner cover	1
39	Washer 5	8	100	Bridge	1
40	Spring washer 5	7	101	Connecting piece	2
41	Bolt M5×30	4	102	Bolt M5×10	2
42	Spring	4	103	Base	1
43	Holder	2	104	Power adapter	1
44	Spring holder (left)	2	105	Bolt M4×10	2
45	Spring holder (right)	2	106	Bolt M6×16	3

PARTS DESCRIPTION DRAWING

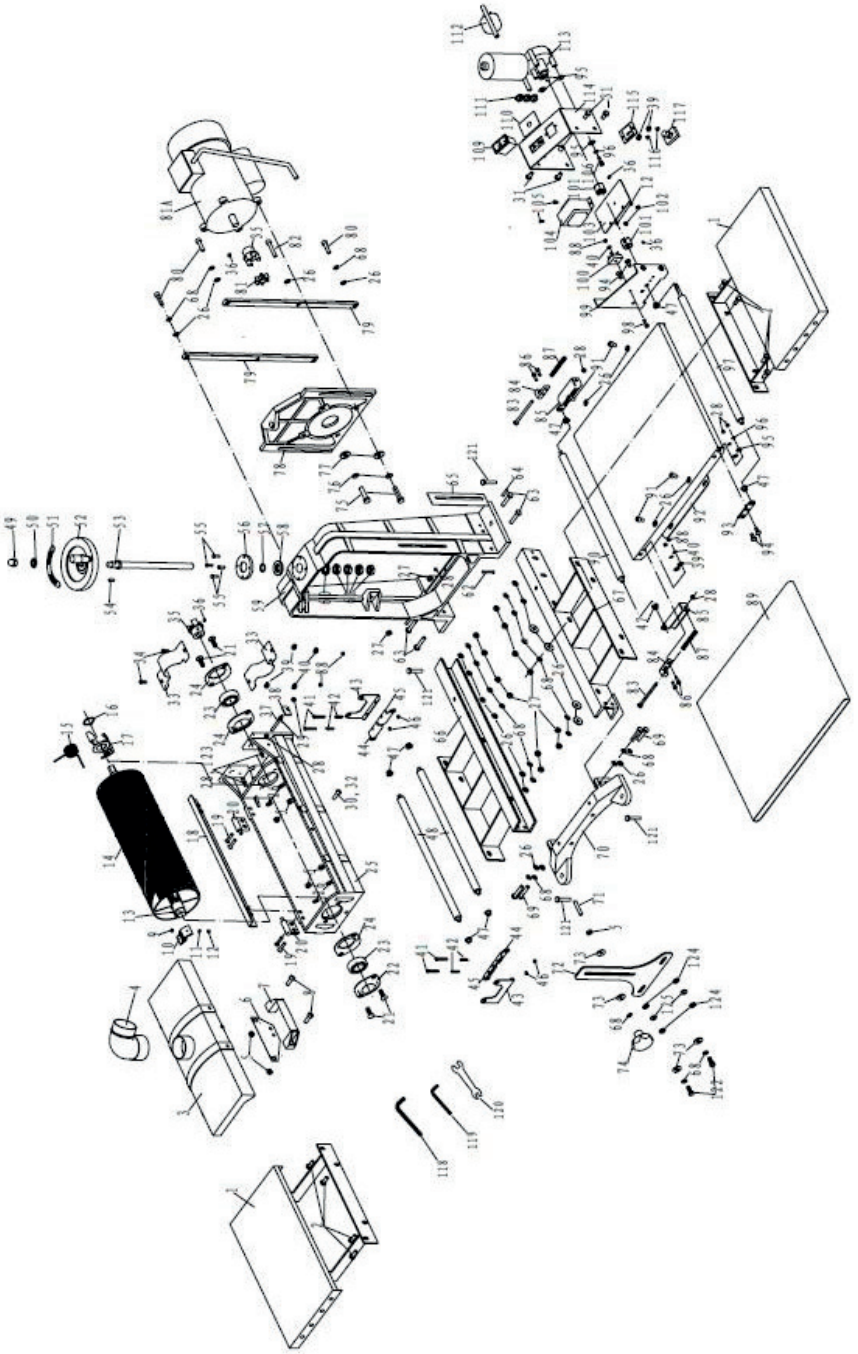
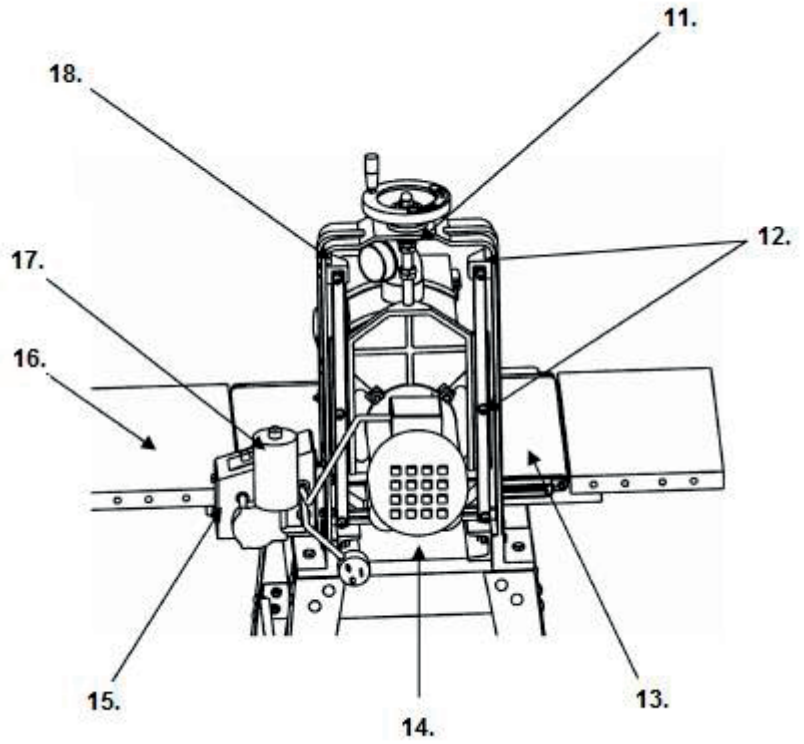


Fig. 2

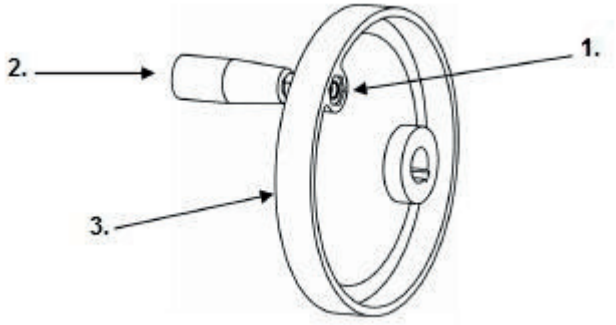


1. Sanding drum housing cover
2. Elevation pre-tension adjustment bolts
3. Feeding belt
4. Sanding drum motor
5. Main power switch and speed control cabinet
6. Extension table
7. Feeding belt motor
8. Elevation pre-tension adjustment bolts

Assembly of the machine
Installation of the roller height adjustment handle

- Screw the roller height adjustment handle into the threaded nut in the height adjustment crank using a flat-head screwdriver all the way to the tab

Fig. 3

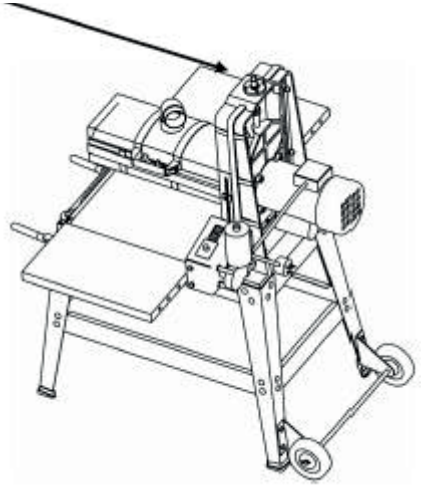


1. Threaded nut
2. Handle
3. Height adjustment crank

- Insert a 4mm fastening bolt into the crank.
- Put the crank on the height adjustment shaft.
- The fastening bolt must be aligned with the axis of the machined facet on the height adjustment shaft.

Fig. 4

Height adjustment shaft



DISPOSAL

It is necessary to dispose of the product at the end of its service life in accordance with the applicable legislation. The product is made of metal and plastic parts that are recycled after separation.

1. Disassemble all parts of the machine.
2. Sort all parts according to the material (metals, rubber, plastics, etc.). Hand over the sorted material for further use.
3. Electrical and electronic waste (used electrical power tools, electrical motors, charging power supplies, electronics, batteries, ...).

Dear customer, in terms of valid waste regulations, electrical and electronic waste is considered to constitute hazardous waste the disposal of which is subject to special provisions.
It is forbidden to throw electrical and electronic waste into containers intended for the collection of communal waste.
Likewise, it is possible to hand the machine over at electrical waste disposal points. Information on collection points is available at your local city office or on the internet.

ATTENTION

In the event of a malfunction, send the equipment to the vendor's address so that the repair can be carried out as soon as possible. A brief description of the fault will shorten troubleshooting and repair time. Include proof of purchase with the equipment within the warranty period. We will repair your equipment for a reasonable price after the warranty period expires.

To prevent damage to the equipment during transport, pack it securely and use the original packaging. We are not liable for any damage during transit and any claims with the shipping service depends on the level of packaging and protection against damage.

Note: The illustrations may differ from the product delivered and the extent and type of accessories supplied can also vary. This is a result of development, and such differences have no impact on the product's correct functionality.

Cleaning the sanding belt

- Sandpaper becomes clogged with sawdust during use, which results in poor sanding results, damage to and burning of the workpiece.
- Occasionally, turn off the machine, disconnect it from the mains power supply and check the sanding belt for clogging.
- Perform this task frequently, particularly when sanding high-resin types of wood, since material gets into the sandpaper and cannot be removed and the belt then needs to be replaced. Pay special attention to all warnings and be particularly careful when cleaning.
- Use the regulator to set the lowest feeding belt speed. Avoid coming into contact with the feeding belt.
- Open the anti-dust cover of the drum in order to gain access to the sanding drum and belt.
- For cleaning the belt, use a long rod so that you do not touch the belt with your hands.
- Turn on the machine, hold the rod with both hands and lean it against the cabinet covering the sanding drum. Slowly lower the rod on to the rotating drum, move it from side to side and remove the deposited sawdust.
- When you have finished cleaning, pull the rod out, turn off the machine and close and secure in place the anti-dust cover.

Feeding belt replacement

Common reasons for replacement of the feeding belt are:

- standard wear and tear
- accidental contact with the sanding belt
- projections caused by an incorrectly guided track of the feeding belt.
- excessive deposits of a thin unremovable layer.

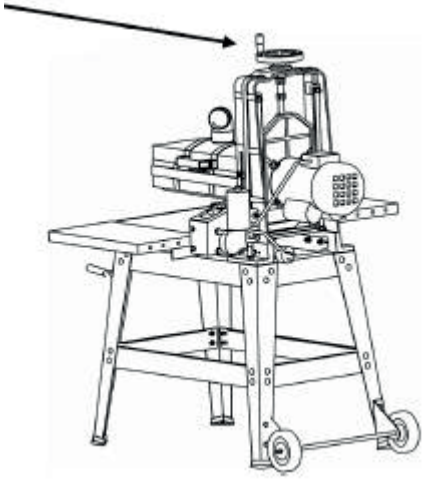
Procedure for removing and replacing the feeding belt

- Disconnect the machine from the mains power supply.
- Using the height adjustment handle, raise the sanding drum to the highest position (approx. 75 mm above the feeding table).
- Using a cross head screwdriver, remove the 2 screws and safety washers attaching the cover of the front housing to the speed control cabinet. Then remove the cover of the front housing by sliding it to the left and away from the outer case of the drum roller.
- Using the supplied 6mm hex key, remove both the mounting bolts of the feeding table on the outer open side of the sanding drum.
- Reduce the tension on the feeding belt by turning the inner and outer belt track adjustment bolts anticlockwise.
- Remove the used belt by grasping both sides of the belt and carefully lifting the feeding table to slide out the belt. If the belt does not move, further reduce the belt tension and lift the table up sufficiently to enable the belt to slide out.
- When installing a new belt, proceed according to the preceding points in reverse sequence.
- Position the new belt into the middle of the feeding table and tension it evenly using the inner and outer tensioners.
- In the event that you have problems with adjusting the track, proceed according to section Adjustment of the feeding belt track.

- Put the height adjustment handle assembly on to the height adjustment shaft and tighten the fastening bolt using the supplied 4mm hex key.

Fig. 5

Handle assembly for height adjustment



- Attach the assembled drum sander to the included work stand or to an appropriate stable work table or stand. Then you can put the machine into operation.

WARNING:

- To prevent serious injuries, always disconnect the sander from mains power before performing maintenance or removing the sanding belt.
- In the interest of your own safety, never connect the power plug into the power socket without first having read the regulations related to the safety and operation of your sander and understanding them.
- Make sure that the main power switch is in the VYP (OFF) position before inserting the power plug into a mains power socket.
- Do not turn the machine on until you are ready to operate it.
- Prior to connecting it to mains power, ensure that all the bolts are firmly tightened.
- The base to which the sander is attached must not be bent or uneven.
- Mounting the base of the machine to a bent base will lead to deformations and poor quality production.

OPERATION

Introduction to drum sanding

- Drum sanding, sometimes called “abrasive smoothing” is a repetitive process wherein both sides of a wooden material are sanded to the required thickness and/or smoothness.
- When this process is performed correctly, both opposing surfaces are parallel to each other. Do not mistake drum sanding for planing to a target thickness!
- During drum sanding, material is removed gradually in layers with a thickness no greater than 0.8 mm depending on the grain of the sanded material, the hardness and width of the sanded material, etc.
- Conversely, planing to a target thickness serves to quickly remove material at thickness of up to 3.2 mm in a single pass by means of portable equipment.
- If you have ever used a planer for smoothing and modifying the dimensions of a material, then you will quickly learn how to use your new drum sander.
- Be patient and allow the sander to work with a removal of max. 0.8 mm, or ideally smaller thickness increments, which will deliver better results.
- Most common mistake
- Attempting to remove as much material in a single pass as possible.
- Variables such as the grit size of the sanding material, the width of the workpiece, wood type, feeding speed and moisture content affect the amount of material that is removed during a single pass.

Advantages of drum sanding

- One advantage of a drum sander is that, thanks to the construction with an open side, it is possible to work with material that has a width of up to 812 mm.
- Drum sanders require a far smaller downward pressure on the workpiece than planers, which enables work on very thin materials.
- Based on your requirements, it is possible to sand to the thickness of the veneer (ply) and thereby expand your options in wood processing.
- You can also sand smaller and longer workpieces, irregularly shaped workpieces and crosswise wood texture.
- Removal of cupping (bulge) on wood.
- The ideal machine for removing cupping is a planer.
- However, since a drum sander exerts minimum pressure, it is possible to remove the cupping because the wood is not straightened by being pushed down on to the feeding belt and table.
- Be patient because this process may take a substantial amount of time based on the degree of cupping.
- Feed the material into the machine with the cupping distortion facing upwards (the edges are lying on the feeding belt) and use a coarse sanding belt.
- Repeat the procedure until the bulge is levelled.
- One side is now straight.
- Turn the workpiece over and sand it until level.
- Do not be surprised by how thin the board is after the entire cupping distortion is removed.

ATTENTION

Deformations and twists of boards cannot be removed by a drum sander or a planer.

- Prior to sanding, always check for deformations and twisting of the workpiece, since such a workpiece can easily jam inside the machine. Especially short pieces tend to cause problems.

Plan your work in advance

- Planning drum sanding operations minimises adjustments, work time and eliminates unnecessary activities.
- Sort the sanded material into groups based on thickness and requirements for sandpaper grit size.
- Start with the largest grit size and sand the material from the largest thickness to the smallest.
- Then reduce the grit size and repeat the procedure.
- We recommend that you experiment with various sandpaper grit sizes and wood types to determine the results that you can expect when sanding the actual material.
- Each time that you adjust the machine, first perform tests on scrap material.

DO NOT REMOVE MORE THAN 0.8 mm OF MATERIAL IN A SINGLE PASS.
DO NOT SAND material that is shorter than 76 mm and thinner than 19 mm.

GRIT SIZE
SANDPAPER APPLICATIONS AND CHARACTERISTICS

Grit size	Characteristics	Use
36	Very aggressive	Maximum material removal, removal of glue, abrasive smoothing, removal of cupping distortions (bulges), removal of paint coats.
60	Moderately aggressive	Material removal, level sanding, removal of glue, cross cut sanding.
80	Moderately aggressive	Material removal, level sanding, removal of glue, cross cut sanding, removal of marks after planing.
100	Medium	Light surface sanding, smoothing of cross cuts, removal of marks after planing.
120	Medium fine	Light surface sanding and material removal, reducing thin material to required dimensions.
150	Fine	Minimal material removal, final surface sanding treatment, reducing thin material to required dimensions.
180	Fine	Sanding to a clean surface
220	Very fine	Sanding to a clean surface

MAINTENANCE

To prevent serious injuries, disconnect the drum sander from mains power before performing maintenance or removing the sanding belt.
Servicing the machine requires significant attention and knowledge of the machine and must be performed by a qualified service technician.
After 50 operating hours, STOP THE MACHINE and check that all the mounting bolts on the motor, drum and feeding drums are pulled tight.

- Always keep the sander in clean condition. Foreign material entering the tool mechanism may cause damage to the tool.
- When using solvents, ensure sufficient ventilation and do not use them for cleaning plastic components.
- We recommend wiping plastic parts with a rag dipped in soapy water.
- Wipe metal surfaces with a rag dipped in kerosene.
- Regularly remove any resin deposits from inside the drum.
- Regularly lubricate moving parts using a lubricating agent, including the depth regulation threads, sliding surfaces and bronze housings of the depth regulation mechanism.
- Do not lubricated using oil or grease since these attract sawdust and support their accumulation.
- Regularly check that all bolts on the frame and mounting bolts/clamps on the motor and drum are pulled tight.
- Keep the sanding drum feed belt in clean condition.
- Only use clean sanding belts.
- Regularly check the levelling of the feeding table. Levelling as described in the procedure above.
- Store the unused equipment in a preserved state in a dry place where it will not corrode.

- After wrapping the all the way around, keep the belt tensioned and insert the remaining tapered end into the slit in the drum.
- Use your right hand to lift the clamp of the tensioner and completely open up the jaws.
- Insert the tapered end of the sandpaper. The clamp of the tensioner will secure in place and will tension the sanding belt during operation and maintain tension in the event that the belt is stretched (extended).
- In the event that the sanding belt is not firmly attached, it means that you didn't raise the clamp up sufficiently and that the jaws did not open up properly before the belt was inserted.

NOTE

- In certain cases, if the sanding belt is stretched (extended), it will be necessary to reset the position of the tensioning points of the clamp on the sanding belt.
- Ensure that during longer operation runs that the belt remains constantly tensioned.

Selecting sandpaper grit size

Sanding process

Smoothing or sanding of wood is a process whereby smaller and smaller scratches are made until they are so small that they become invisible to the human eye.

The grit of the sandpaper determines the coarseness of the sanding belt. The lower the grit number, the coarser the sandpaper and the larger are the surface scratches. Therefore, a sandpaper with a grit of 36 is coarser (makes bigger scratches) than sandpaper with a grit of 60, which is again coarser than a sandpaper with a grit of 80, etc. When using a sandpaper with a grit 36 and 60, a large amount of material is removed and surface scratches are created, whilst when using a sandpaper with a grit of 220, the material that is removed is very small and the surface has a polished appearance.

SELECTING GRIT SIZE

As a rule, start sanding using a coarser grit and gradually transition to finer grits until you achieve the desired surface quality or thickness.

The selection of the initial grit size depends on your subjective assessment based on the evaluation of the condition of the sanded material (coarse, smooth, etc.), thickness, wood hardness and the required result quality.

Below are described certain general principles relating to grit size selection. (Pre-cut belts in each of the listed grit sizes is available from the vendor or in factory service centres).

Adjusting the machine

- Your drum sander was levelled and completely configured during its production. Nevertheless, with respect to the stresses acting on the machine during transport, it is necessary to again adjust and perfectly level the machine before using it. It is very important that you perform the following adjustment.

WARNING:

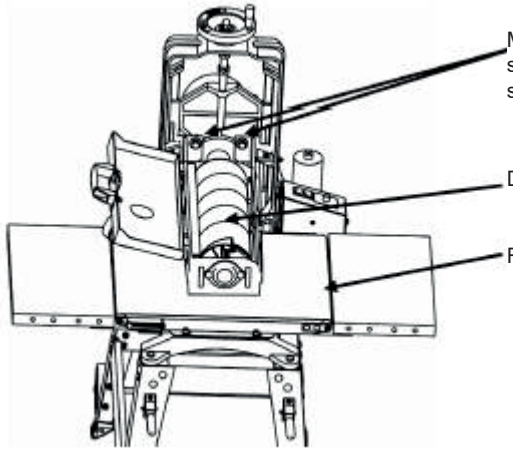
- All adjustment operation must only be performed on a machine that is disconnected from mains power supply. Otherwise, you risk serious injury.
- Always attach the machine to a work table or a stand to prevent it from tilting over, sliding or moving along the base surface. Otherwise, you risk serious injury.

Sanding drum misalignment

- Prior to levelling the drum according to the procedure described in the following section, secure its minimum misalignment in the upward direction during sanding. The three fundamental causes of excessive misalignment during sanding are the following:

1. Excessive sanding depth. Reducing the sanding depth minimises the pressure exerted on the sanding drum assembly.
1. Loose pre-tension adjustment bolts.
1. Loosened motor assembly mounting bolts and sanding drum bolts. Check that all four (4) bolts, 2 top and 2 bottom, are tightened and if necessary, tighten them.

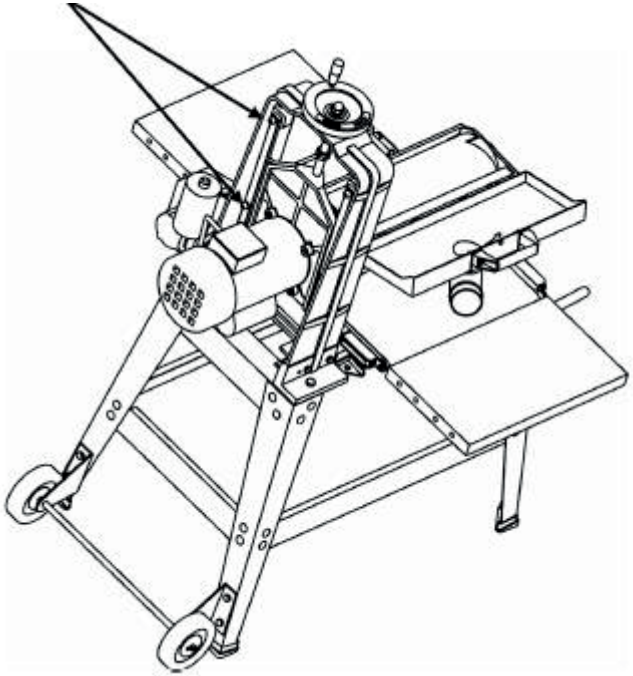
Fig. 6



Checking the pre-tension setting on the elevation adjustment bolts
Check that the elevation pre-tension adjustment bolts are tightened.

- Tightening of these bolts must enable continuous height adjustment whilst sufficiently limiting misalignment of the drum. (if the bolts are too loose, the drum will misalign during operation and the sanded surface will not be level. If the bolts are too tight, height adjustment will be difficult.)

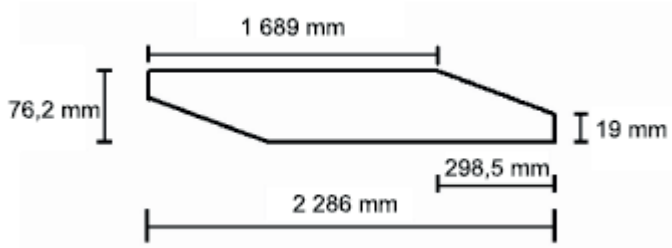
Fig. 7
Elevation pre-tension adjustment bolts



Installing new replaceable belts

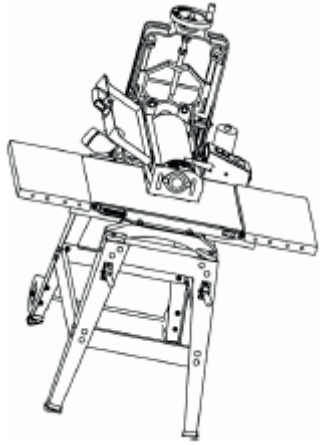
WARNING: To prevent serious injuries, always disconnect the sander from mains power before performing maintenance or removing sanding belts.

- Sanding belts can be cut based on the given pattern from a sandpaper sheet roll of corresponding width.
- Sanding belts are tapered at their ends to enable them to radially wind around the drum and provide an endless sanding surface.
- Ensure that the main power switch is turned off and pull out the power cord from the power socket.
- Use either a pre-cut belt or a belt that you have cut yourself.
- To install the belt, start by sliding the cut end of the belt into the slit on the left side of the drum, whilst simultaneously pushing down the clamp.
- It is necessary to insert approx. 2.5 cm of the belt into the slit to ensure a connection in the clamp.
- Release the pressure on the clamp when the end is firmly secured in the jaws of the clamp.



Dimensions for cutting of the sanding belt

- When the sanding belt is secured in the left clamp, stand in front of the machine and radially wind on the sanding belt. Turn the drum with your left hand away from yourself, using your right hand to tension the sanding belt and place the material on the drum. In this way wind the end of the sanding belt to the second end radially around the drum. Make sure that when winding on the belt that you do not overlap the material. When winding on, a gap must be left, but the material must not overlap.



USEFUL TIP
Tighten the side opposite to the required direction of the track setting. For example, tightening the right side will shift the belt track to the left.

USER INSTRUCTIONS

WARNING: Never insert your fingers into the sawdust extraction outlet or underneath the drum cover.
WARNING: To prevent your sander from becoming damaged, it is necessary to provide for appropriate dust extraction.
The 63.5 mm outlet is part of the anti-dust cover of the drum and is used for connection to an extraction unit or hose. Drum height adjustment

- Lift the drum by turning the height adjuster clockwise.
- Lower the drum by turning the height adjuster anti-clockwise.
- The movement equates to approx. 0.4 mm per 1/4 turn in both directions.
- A complete rotation equates to 1.6 mm.
- The adjustment can be measured using a depth gauge on the right side of the load bearing frame of the drum.

NOTE:

- When adjusting depth while sanding a surface, it is necessary to consider several factors.
- The hardness and width of the sanded material and the feeding speed needs to be taken into consideration when determining the amount of material that is removed during a single pass.
- Never remove more than 0.8 mm of material in a single pass.
- Variable feeding speed is adjusted taking into account protection against burning and ensuring a smooth surface on various types and widths of material.
- It is generally recommended to remove material in the range of 1/4 of a turn or max. 0.4 mm on coarser grains and softer woods, and in the range of 1/8 of a turn on harder woods and/or finer grains.
- When selecting the feeding speed of the sanded material, it applies that the wider the material, the lower the speed.
- Similarly, the harder the wood, the lower the speed.
- Getting to know the sanding performance of your drum sander will require experimenting and experience. When sanding a surface, the activity of your sander is very similar to that of a planer. Thanks to its characteristic blades, a planer is able to remove much more material in a single pass, where as the removal of material with the sander is limited by the sanding material.

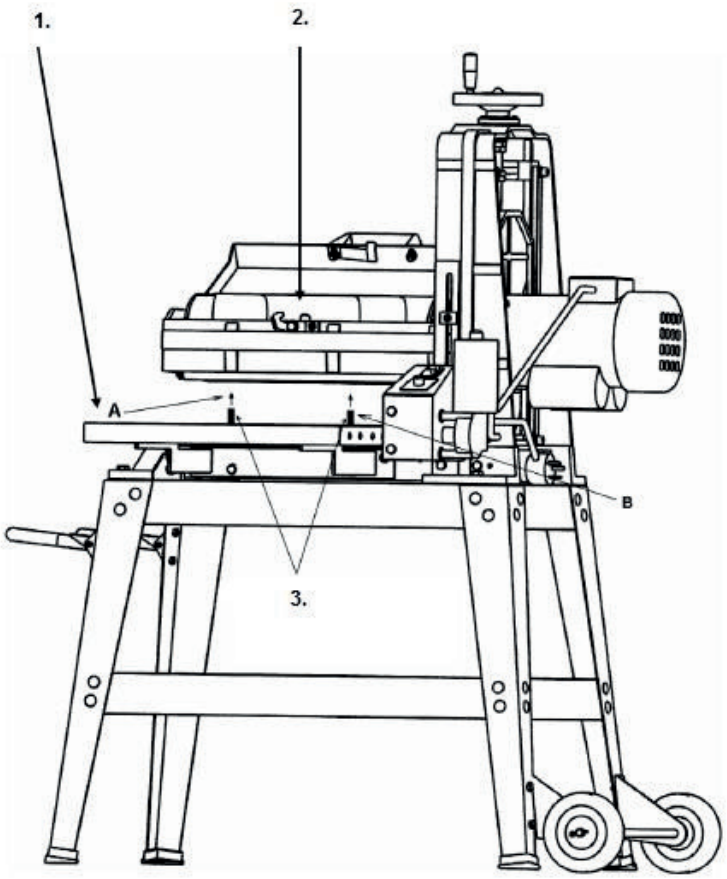
SANDING

- Disconnect the machine from the mains.
- Place the timber on the feeding table and slide it so that you can set the height of the sanding drum to align with the height of the workpiece in the highest location.
- Connect and turn on the dust extraction unit.
- Set the feeding speed in accordance with the sanding requirements and the width of the workpiece.
- Turn on the machine and place the workpiece on the feeding table so that the feeding belt takes the workpiece underneath the sanding drum.
- Support long timber while feeding it, as required.
- When the sanding process permits, move over to the output side of the machine and remove and inspect the timber coming out of the sander.

NOTE:

- When providing support to and guiding the timber through the sander, do not push the timber up or down. Otherwise, the sanding drum may jam in the sanded workpiece.
- During the subsequent passes, reverse the timber feeding direction, whilst at the same time adjusting the depth of removal using the height adjustment handle assembly. Determining the correct removal depth is affected by several factors. They are: grit size of the sanding material, width and hardness of the timber, feeding speed and the moisture content of the timber.

Fig. 8

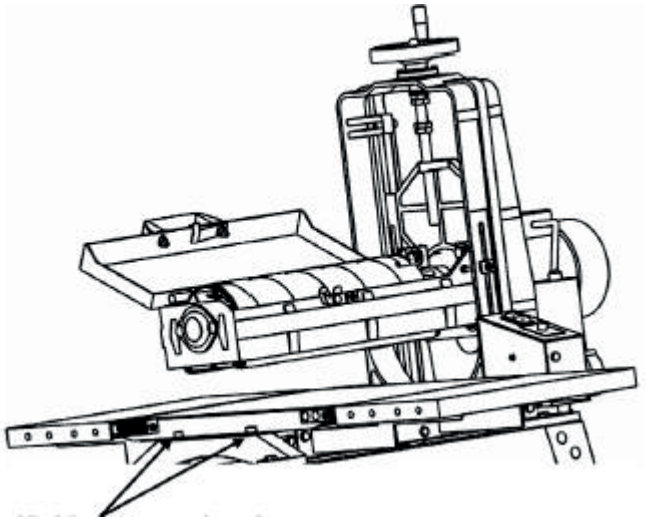


1. Feeding table
2. Roller
3. Limit stop (wooden cube or gauge)

- If the measurement in point A is greater than in point B by 0.5 mm, proceed as follows:

1. Loosen the 2 outer mounting bolts of the feeding table.

Fig. 9



Mounting bolts of the feeding table

1. As required, insert one or two washers (not included) underneath the edge of the feeding table as shown in the picture.
2. Tighten the mounting bolts of the feeding table. Check the measurements in points A and B again.
3. Test the sanding results on a piece of wood and check the uniformity of thickness.

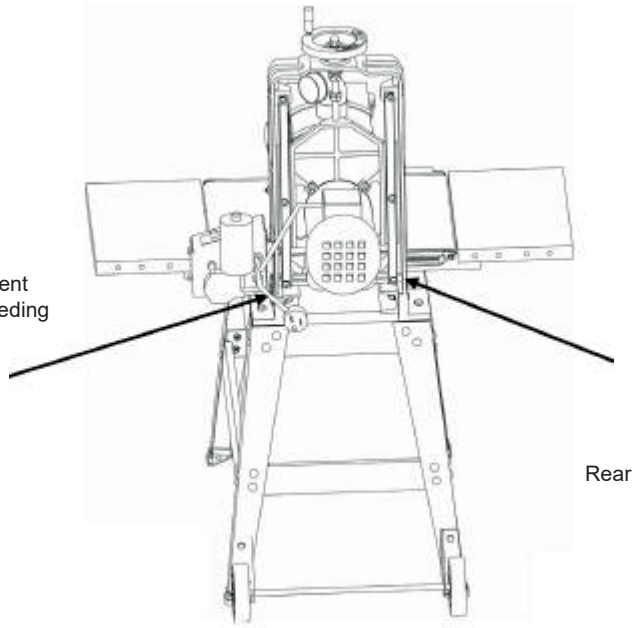
- If the measurement in point A is greater than in point B by more than 0.5 mm, or if distance B is greater than A, proceed as follows:

1. Loosen the two front and two back adjustment bolts. Now the whole drum assembly can be turned.
2. As required, insert one or two washers (not included) underneath the edge of the feeding table as shown in the picture.
3. Tighten the mounting bolts of the feeding table. Check the measurements in points A and B again.
4. Test the sanding results on a piece of wood and check the uniformity of thickness.

- If the measurement in point A is greater than in point B by more than 0.5 mm, or if distance B is greater than A, proceed as follows:

1. Loosen the two front and two back adjustment bolts. Now the whole drum assembly can be turned.
2. Using the height adjustment handle assembly, lower the drum until the distance in points A and B is equal.
3. Tighten the adjustment and mounting bolts.
4. Test the sanding results on a piece of wood and check the uniformity of thickness. If necessary, repeat the above described procedure.

Fig. 10



NOTE: If the machine is bolted to a stand or a table, loosen the mounting bolts at the end of the motor.

Adjustment of the feeding belt track

- Occasionally, it is necessary to adjust the feeding belt track because of its extension (stretching). Ideally, the belt should run through the centre of the feeding table.
- The belt track adjustment screw is located on the inner and outer rear side at the rear part of the drum sander.
- To tension the belt, turn the adjustment bolt clockwise, whilst holding its nut in position using an open 11 mm wrench (not included). Loosen the belt by turning the same belt anticlockwise, whilst maintaining the position of the nut using a wrench.
- In the event that the feeding belt is moving into the machine (side of the motor), tighten (increase the tension) the belt track adjustment bolt on this side of the machine.

NOTE: With respect to the width of the feeding belt, the adjustment will not manifest itself immediately! Increase the speed of the belt for the results of the adjustment to manifest faster. Perform small corrections of approx. a 1/4 turn and evaluate the results.
Keep repeating the adjustment until the track is correctly set.