



Woodworking machinery at its best!

SPINDLE MOULDER OWNERS MANUAL

MODEL: W045



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Forward

These instructions are important, the information contained herein is essential for the correct build and operation of the machine and the safety of its operator.

The machine is equipped with various safety devices to protect itself and the operator. However, these devices cannot cover all eventualities and a thorough understanding of spindle moulding techniques, good workshop practice plus the controls and operation of this machine are essential for your safety.

Do not operate the machine until you have read and understood all the instructions in this manual and are familiar with both the machine and spindle moulding techniques.

Use of the Machine

This machine is designed for moulding along and across the grain of prepared timber, using cutters and limiters, correctly mounted in a standard Euro type cutter block.

It is designed for use by one operator.

Operator Qualifications/Training

Operators of this machine should have a suitable qualification in the use of woodworking machinery, including spindle moulders or should have been trained by someone holding such qualifications.

GENERAL SAFETY RULES



WARNING: Do not attempt to operate the machine until you have read thoroughly and understood completely all instructions, rules, etc. contained in this manual. Failure to comply may result in accidents involving fire, electric shock, or serious personal injury. Keep this owner's manual and review it frequently for continuous safe operation.

1. Know your machine. For your own safety, read the owner's manual carefully. Learn its application and limitations, as well as specific potential hazards pertinent to this machine.
2. Make sure all tools are properly earthed.
3. Keep guards in place and in working order. If a guard must be removed for maintenance or cleaning, make sure it is properly replaced before using the machine again.
4. Remove adjusting keys and spanners. Form a habit of checking to see that the keys and adjusting spanners are removed from the machine before switched it on.
5. Keep your work area clean. Cluttered areas and workbenches increase the chance of an accident.'
6. Do not use in dangerous environments. Do not use power tools in damp or wet locations, or expose them to rain. Keep work areas well illuminated.
7. Keep children away. All visitors should be kept a safe distance from the work area.
8. Make workshop childproof. Use padlocks, master switches and remove starter keys.
9. Do not force the machine. It will do the job better and be safer, at the rate for which it is designed.

10. Use the right tools. Do not force the machine or attachments to do a job for which they are not designed. Contact the manufacturer or distributor if there is any question about the machine's suitability for a particular job.
11. Wear proper apparel. Avoid loose clothing, gloves, ties, rings, bracelets, and jewellery which could get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.
12. Always use safety glasses. Normal spectacles only have impact resistant lenses. They are not safety glasses.
13. Do not over-reach. Keep proper footing and balance at all times.
14. Maintain machine in good condition. Keep machine clean for best and safest performance. Follow instructions for lubrication and changing accessories.
15. Disconnect the machine from its power source before servicing and when changing accessories.
16. To avoid accidental starting, make sure the switch is in the OFF position before plugging in the mains cable.
17. Never leave the machine running unattended. Turn the power off. Do not leave the machine until it comes to a complete stop.
18. Do not use any power tools while under the effects of drugs, alcohol or medication.
19. Always wear a face or dust mask if operation creates a lot of dust and/or chips. Always operate the tool in a well ventilated area and provide for proper dust removal. Use a suitable dust extractor.

EXTRA RULES FOR SPINDLE MOULDERS

1. A spindle moulder should never be used by an untrained operator. Proper training is essential for the operator's safety.
2. The machine must be properly maintained and the correct fitting of all guards checked.
3. Guards should be of such a design and fitted in such a way that they keep fingers out of an area of 50 mm (2 inches) beyond the sweep of any cutter that might be used.
4. Always ensure that you use safe working procedures and that you understand what you are doing.
5. Wear appropriate clothing. Long loose sleeves, long hair or anything else that could get caught in the machine should be tied back or otherwise secured.
6. Never use this spindle moulder for curved work, without a Ring Fence fitted.
7. **NEVER** use a cutter block without limiters.
8. Feed the workpiece to the cutter block or router bit against the direction of rotation.
9. Never draw the workpiece back during cutting. Wait until the block stops rotating before pulling the workpiece back.



Risk of injury!
Never reach into
moving tooling.



Wear Eye
Protection



Wear Ear
Protection

Charnwood W045 Specification

Main table surface	600mm x 400mm
Sliding table size	1000 x 218mm
Sliding carriage stroke	650mm
Table height	800mm
Spindle diameter	30mm
Maximum Tooling Diameter	150mm
Rotation speeds	4 (1400/4000/6000/8000) rpm
Spindle rise and fall	110mm
Table aperture depth	50mm
Motor (induction)	240V, 1500W (2hp) single phase
Extractor outlet	100mm
*Rating	Trade
Product Guarantee	5 years
Weight Net / Gross	105kg / 126kg

*Rating

Trade: Suitable for daily use by professional woodworkers.

Continuously rated, high power and a heavy duty construction. Typically used by several different operators in a small or medium sized business. Will be used up to the machines maximum limit with some long work periods.

Expected maximum use of 1000 hours annually.

Unpacking

Please Note: Do not dispose of any packaging until the machine has been fully assembled and tested. In the unlikely event of a problem which requires the product to be returned, the packaging will need to be re-used.



This product is shipped in a wooden crate.

To open the wooden crate cut the vertical straps and lift the lid of the crate up from the base.

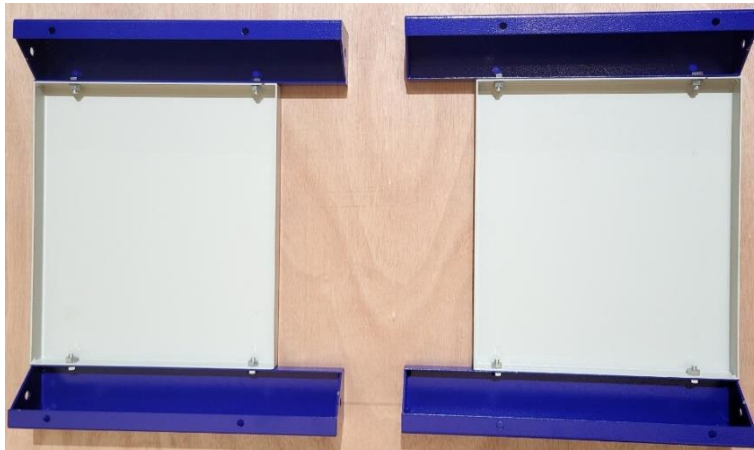
Remove the carton and fences from the side of the machine.

Remove the Table insert rings from the top of the table, remove the router collet spindle and router collets.
Remove the mitre guide, cutter guard and dust hood.



Open the carton, unpack all the components and check everything is present.

Assembly



Assemble The Base

Assemble the front and rear frames, using 8 of the M8 x 15mm hex head bolts and M8 nuts.

Leave the nuts finger tight for now.



Attach the two side panels finger tight using a further 8 of the M8 x 15mm Hex bolts and M8 nuts.

Leave the nuts finger tight for now.



Lift The Body Onto The Base

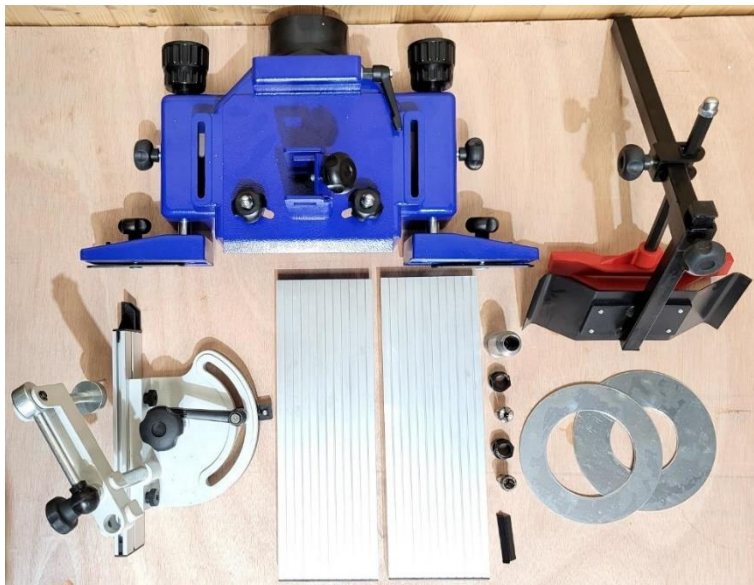


Lift the body of the machine up off the pallet base and onto the assembled base.

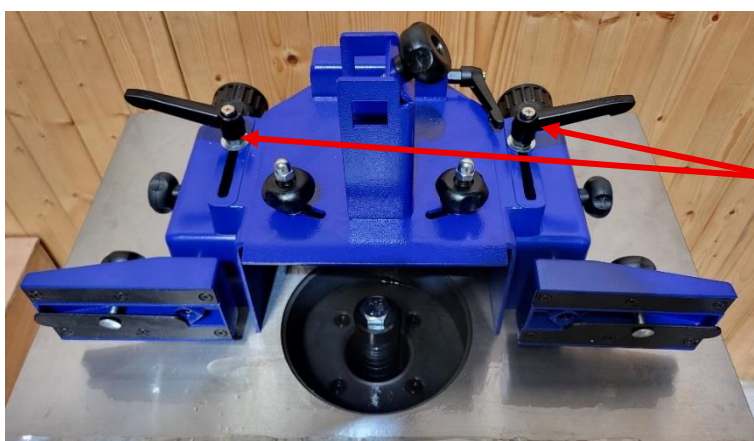
Open the hinged door on the left hand side of the body to gain access. Secure the body in place using 4 of the M8 x 15mm hex head bolts and M8 nuts.

Use a spanner to tighten all 20 of the nuts.

After tightening the 4 fixings holding the body to the base, If you find accessing any of the other bolts difficult. It may be easier to lay the machine on its back with suitable support to not damage any protruding parts.



Unwrap the remaining parts and check everything is present.

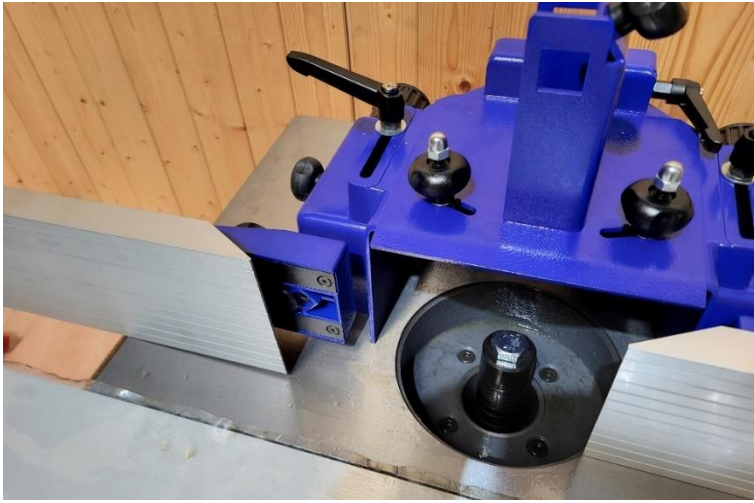


Fit The Cutter Hood

Fit the Hood onto the table

Hood Locking Handles

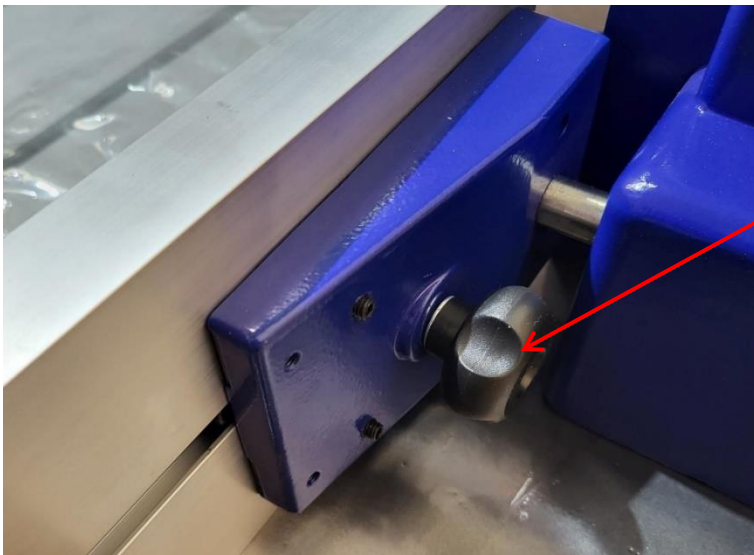
Secure the hood by locating the 2 locking handles into 2 threaded holes in the table.



Fit The Fences

Slide the fence, bevelled end first, over the guide plate

The fences can be adjusted in and out to close the gap to the cutters.



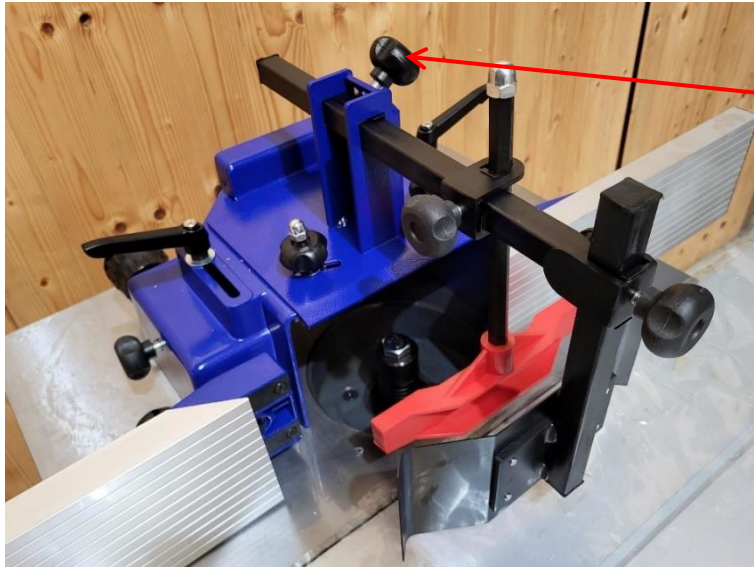
When the fences are in the desired position, lock them in place with the Fence Locking Knob

Fence Locking Knob



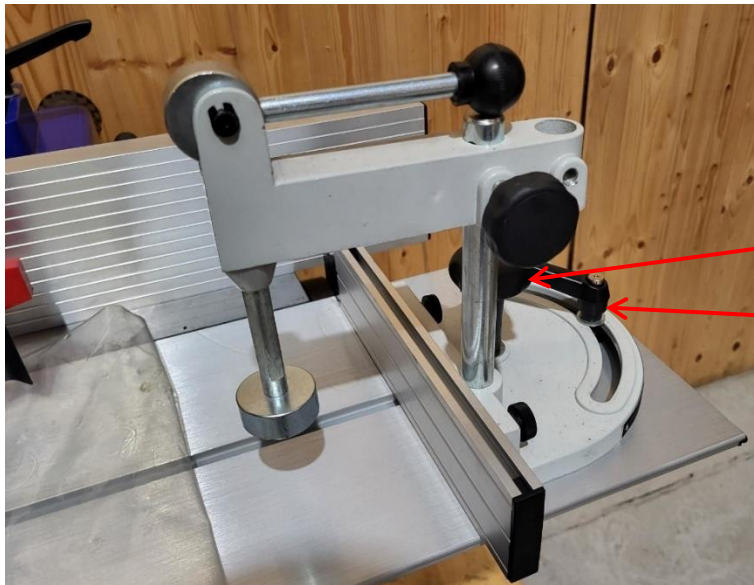
Fit the Guard Assembly

Holding the locking plate in place, slide the square tube into the support bracket.



Lock it in place using the locking knob.

Front Guard Locking Knob



Fit the Mitre Fence

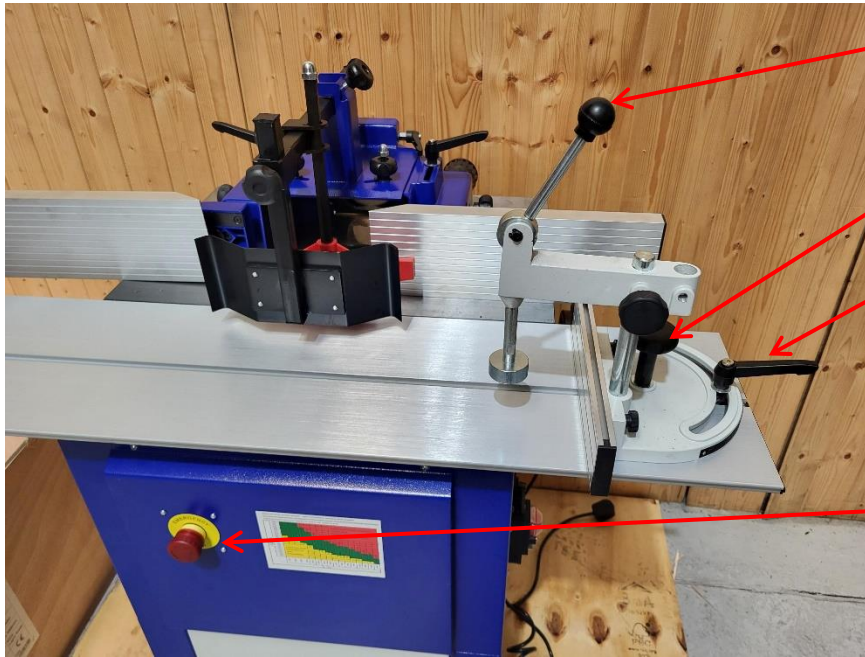
Take the mitre fence and fit the guide bar into the T-slot running along the length of the sliding carriage

Mitre Fence Pivot Locking Knob

Mitre Fence Angle Lock

Lock it in place using the pivot lock and the angle lock.

Using The Spindle Moulder

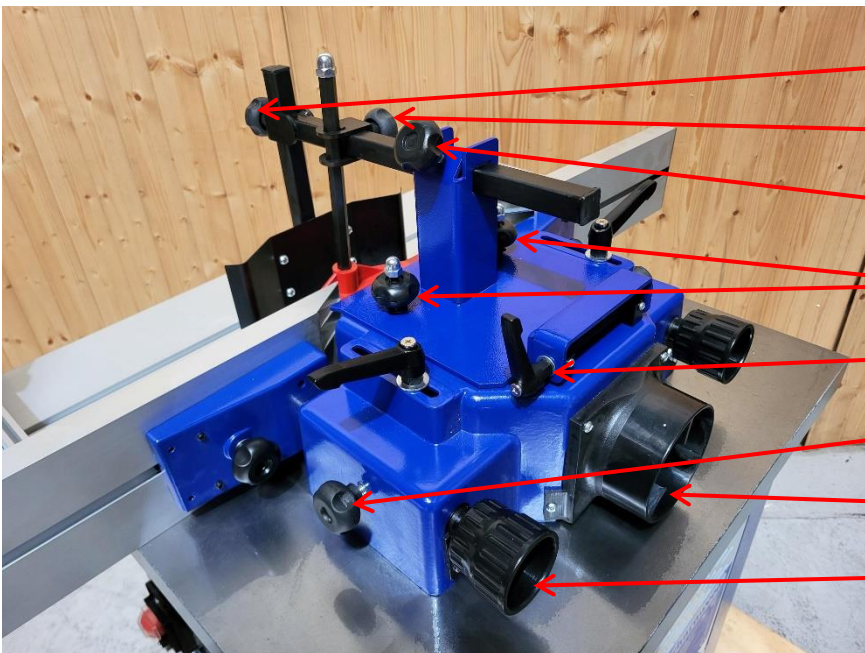


Work Clamp Lever

Work Clamp Height Adjuster

Mitre Fence Angle Lock

Emergency Off Switch



Front Guard Height Lock

Overhead Hold Down Lock

Front Guard Locking Knob

Hood Cover Lowered Lock

Hood Cover Raised Lock

Infeed Fence Offset Lock

Dust Extraction Outlet

Infeed Fence Offset Adjuster



Sliding Carriage Lock

Digital Speed Readout

Spindle Height Adjuster

Spindle Height Reader

Spindle Direction Switch

On/Off Switch

Fitting a Cutter Block



Disconnect from the Power Supply

Raise the Spindle

Spindle Height Lock

Disengage the spindle height lock by rotating the lever anticlockwise.

Turn the handwheel clockwise to raise the spindle.



Unload The spindle

Using the 24mm Spanner and the Flat spanner provided:

Holding the spindle stationary with the flat spanner, Undo the Locking Bolt from the top of the spindle with the 24mm spanner.

Turn the bolt anticlockwise to undo the bolt.

Remove the Locking Cap and Spacer Set from the spindle



Spindle Components

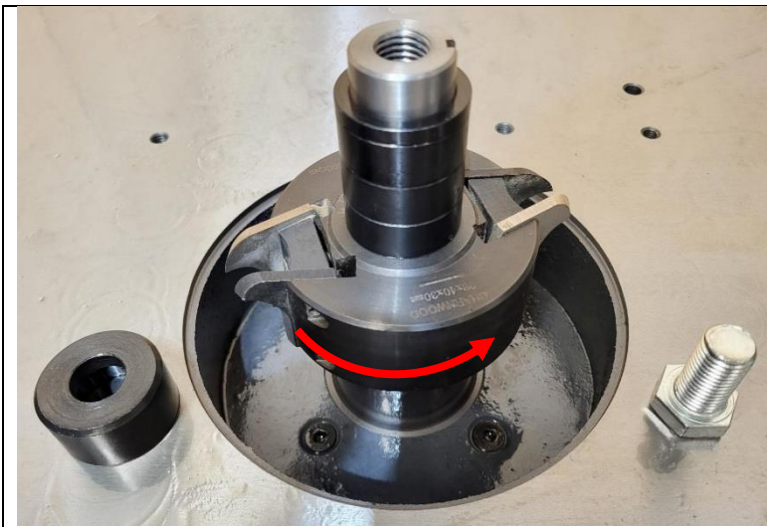
Spacer Set

Locking Bolt

Locking Cap

24mm Spanner

Flat Spanner



Fit the Cutter Block

Fit the cutter block onto the spindle as low as possible. Be sure to check the direction of rotation of the cutter block (When set to 'L' the spindle runs anticlockwise)

Fit spacers back onto the spindle until the top of the spacer stack is within 12mm of the top of the spindle.

Fit the Locking Cap and tighten the Locking Bolt

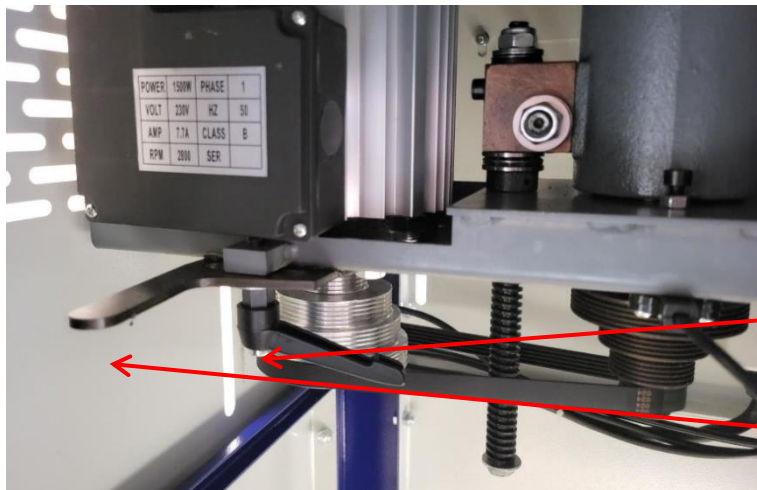


Fit the Table Insert Rings

Fit the Inserts to close up the aperture much as possible

The insert rings close the aperture from 170mm to: 105mm & 80mm

Changing The Spindle Speed

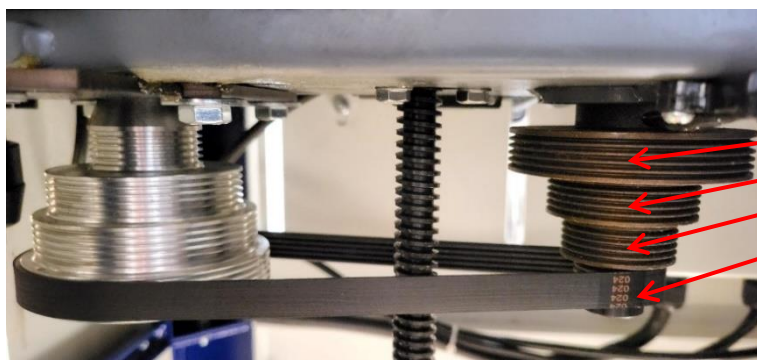


Disconnect from the power supply

Open the access door by rotating the lock lever. The door is fitted with a cut out switch to prevent running when the door is open.

Loosen the Tension Lock Lever.

Pull the tensioning lever towards you to slacken the tension on the drive belt



Move the drive belt onto the appropriate pulley pair to get the desired speed

- 1400rpm Drum Sanding
- 4000rpm Moulding in Hardwood
- 6000rpm Moulding in Softwood
- 8000rpm Routing

Re-tension the drive belt, tighten the locking bolt, close the access door



Speed Display

The current spindle speed can be read in RPM from the digital read out when the machine is powered up.

Operating the Spindle Moulder

It is assumed that anyone purchasing a spindle moulder has been trained to operate this type of machine competently. Such training is beyond the scope of this manual.

Set The Fences



The fences are adjustable in two directions:

1) Close up the gap

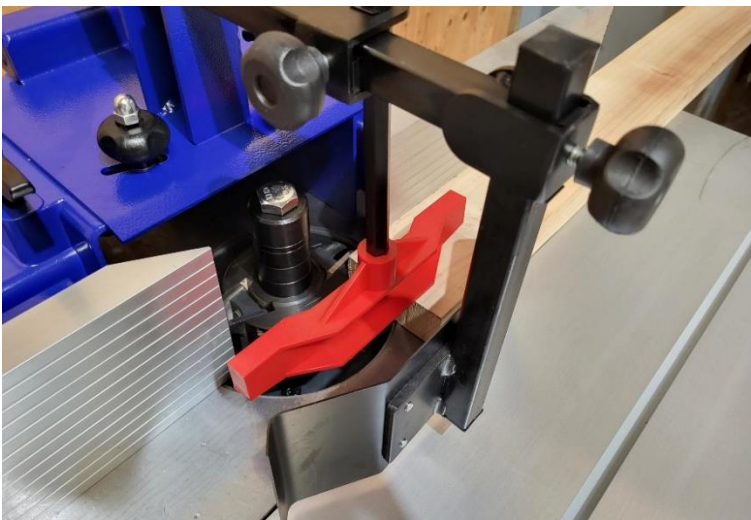
Undo the Fence Locking Knob and slide the fence towards the cutter until there is a gap of around 5mm. Repeat for the other side.

2) Fence Offset

If the cut will remove the complete face of the work piece, the outfeed fence can be stepped out.

Undo the outfeed fence offset lock and rotate the adjuster clockwise. This will move the outfeed fence forwards.

Set The Hold Down And Front Guard



Adjust the position of the overhead hold down by loosening the locking knob and moving to the centre of the workpiece.

Then lower so that the hold down is in contact with the workpiece.

Adjust the position of the Front Guard so that it contacts the front face of the workpiece.

Adjust the height of the Front Guard so the bottom edge is 5mm above the work table.

Set The Sliding Carriage



To use the sliding carriage first undo the Carriage Lock. Pull the knob down and twist to the left. The spring loaded plunger is now held in the open position.

The Mitre Fence is normally set at 90 degrees to the direction of travel. To change the angle of the fence, loosen both the pivot lock and the angle lock. Set the angle from the scale and tighten both locks.

The work clamp can be used to secure the workpiece on the work table. Set the height of the clamp to within 5mm of the top surface of the work piece. Raise the lever into the vertical position to engage the clamp.

Set the Spindle Height



Disengage the spindle height lock by loosening the locking lever anticlockwise.

Turn the handwheel clockwise to raise the spindle.

The spindle height can be read from the scale.

Starting The Spindle



First choose the spindle rotation direction. Turning the selector switch to the Left 'L' position is the regular direction. Cutters spin anticlockwise and feed direction is right to left when viewed from the front of the machine.

If you have made any adjustment to the cutter block, the speed, the fences or the guard - Start the machine with a quick 'On/Off' burst, to check the cutters are not making contact anywhere.

Once satisfied, start the machine and allow the cutters to get up to full rotation speed before making a cut.

Fitting the Router Collet Shaft



This machine is also supplied with a routing spindle.

To remove the 30mm spindle, use the flat spanner and the 6mm hex key to unlock the 8mm Cap head bolt inside the centre of the spindle.

Hold the spanner stationary and turn the hex key anti-clockwise.



Place the 8mm Cap head bolt into the centre of the routing spindle.

Line the guide pin up with the hole in the bottom of the spindle.

Use a 6mm hex key to tighten the M8 Cap Head bolt.

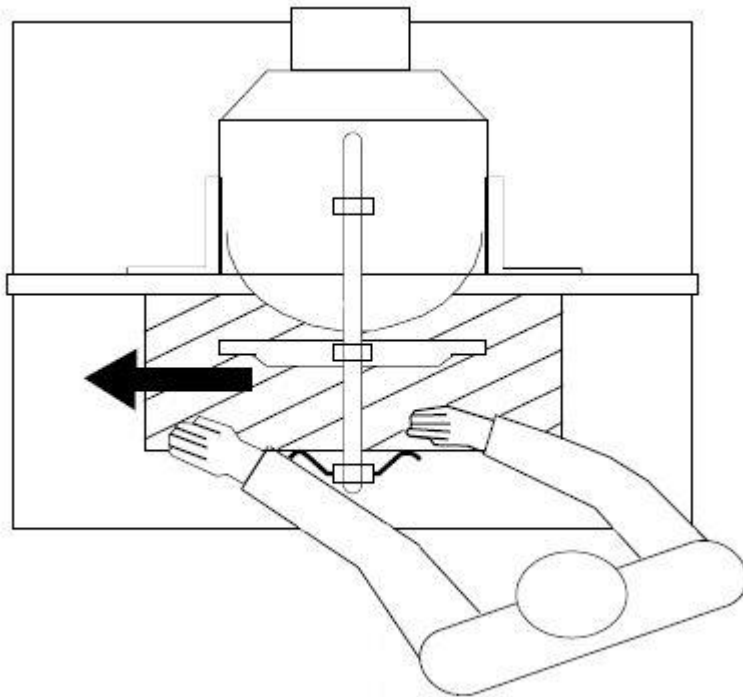


There are 2 collet sizes supplied:

1/4" Diameter
1/2" Diameter

Fit the appropriate sized collet and nut onto the top of the spindle.

Workpiece Handling



Feed the workpiece straight across the machine table, holding the fingers close together and guiding the workpiece with the palm of your hands.

Never put your hands under or behind the cutter guard.

Always keep your hands well clear of the rotating cutter.

Always feed the workpiece against the cutter rotation: From right to left when viewed from the front of the machine. Use a push stick when working the ends of a narrow workpiece.

Always machine the workpiece over its entire length.

Support long pieces with roller stands or table extensions.

Diagram shows regular feed direction with the selector switch in 'L' position.

Troubleshooting Guide

Problem	Cause	Remedy
Machine does not start	Tripped MCB	Reset Fuse
	Direction Switch not Set	Select 'L' or 'R'
	Faulty switch	Replace switch
Only starts when Green button is held down	Faulty switch	Replace switch
Machine does not run but buzzing noise heard from motor	Failed capacitor	Replace the motor start capacitor.
Spindle RPM Slows During Cut	Cut is too big	Re-set fence to make a smaller cut
Cuts are slow, wood is blackened	Cutters are blunt	Sharpen the cutters
Spindle tilt or blade height difficult to adjust	Adjusting rod obstructed by dust build up	clean and lubricate the mechanism
Spindle tilt or blade height will not adjust	Lock is engaged	Release the lock

Declaration of Conformity

Charnwood Declare that Woodworking Vertical Spindle Moulder, Model W045

Conforms with the following EU Directives: Machinery Directive 2006/42/EC
EMC Directive 2014/30/EU

And further conforms to the machinery example for which the type examination Certificate No. BM50617475 and AE50615964, have been issued by TUV Rheinland LGA Products GmbH, Tillystrasse 2, 90431, Nurnberg.

I hereby declare that equipment named above has been tested and found to comply with the relevant sections of the above referenced specifications. The machinery complies with all essential requirements of the directives.

Signed: 

Dated: 01/04/2025

Location: Leicestershire

Richard Cook, Director



Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local amenity tip and place into the appropriate recycling bin.

Only for EU countries



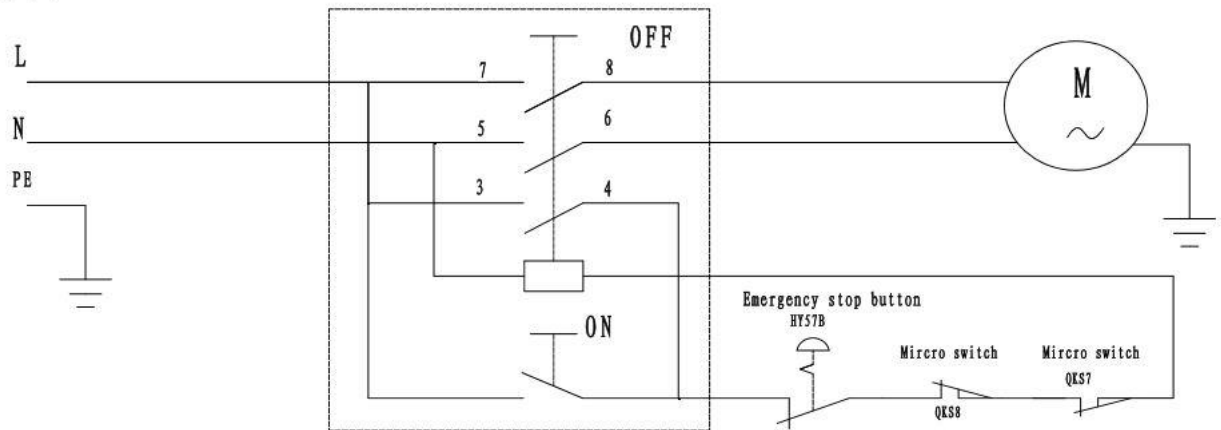
Do not dispose of electric tools together with household waste material!
In observance of European Directive 2002/96/EC on waste electrical and electronic equipment (WEEE) and its implementation in accordance with national law, electric tools that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.
Your local refuse amenity will have a separate collection area for WEEE goods.

W045 Wiring Diagram

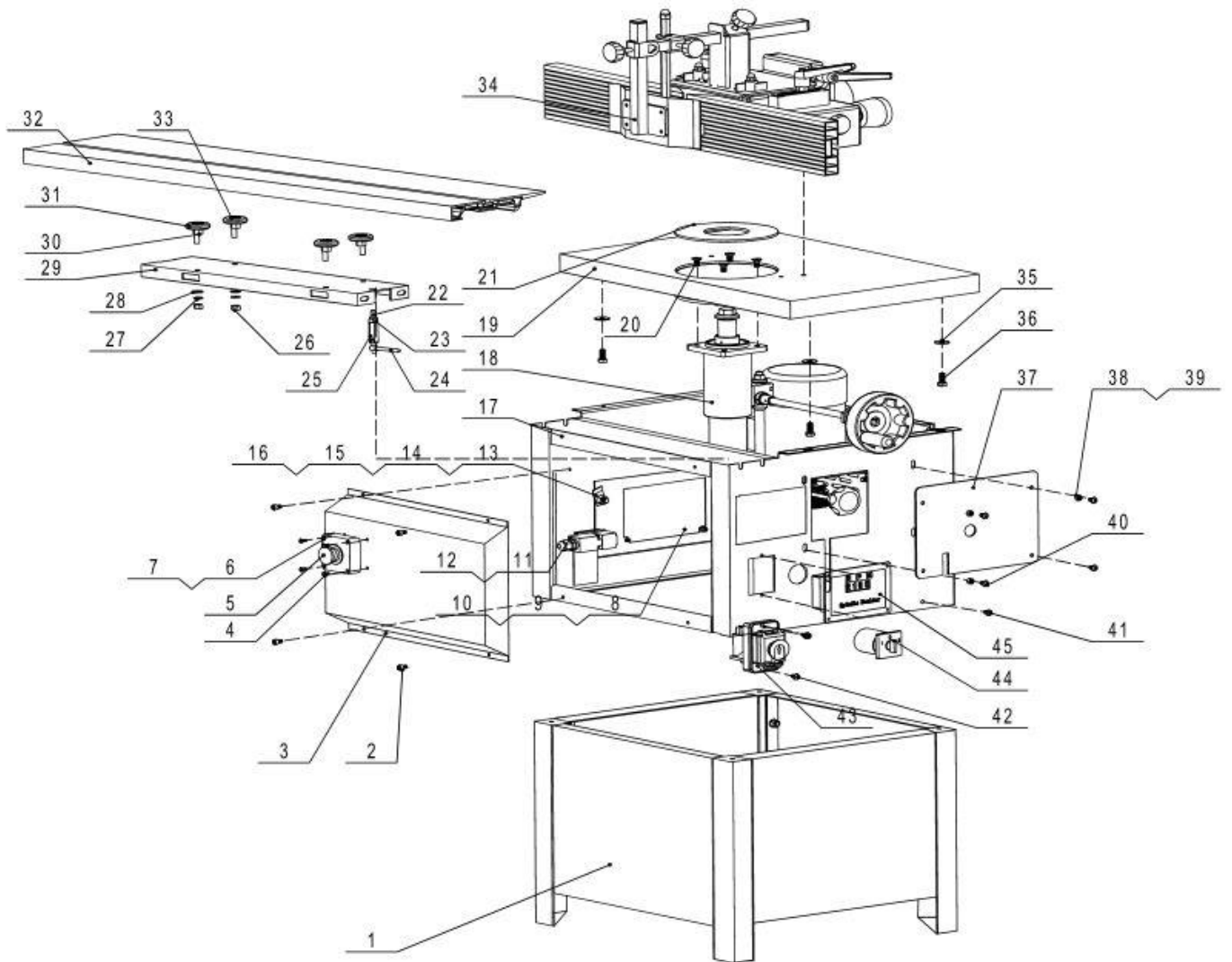
WIRING DIAGRAM FOR 230V/50Hz

230V

KJD11



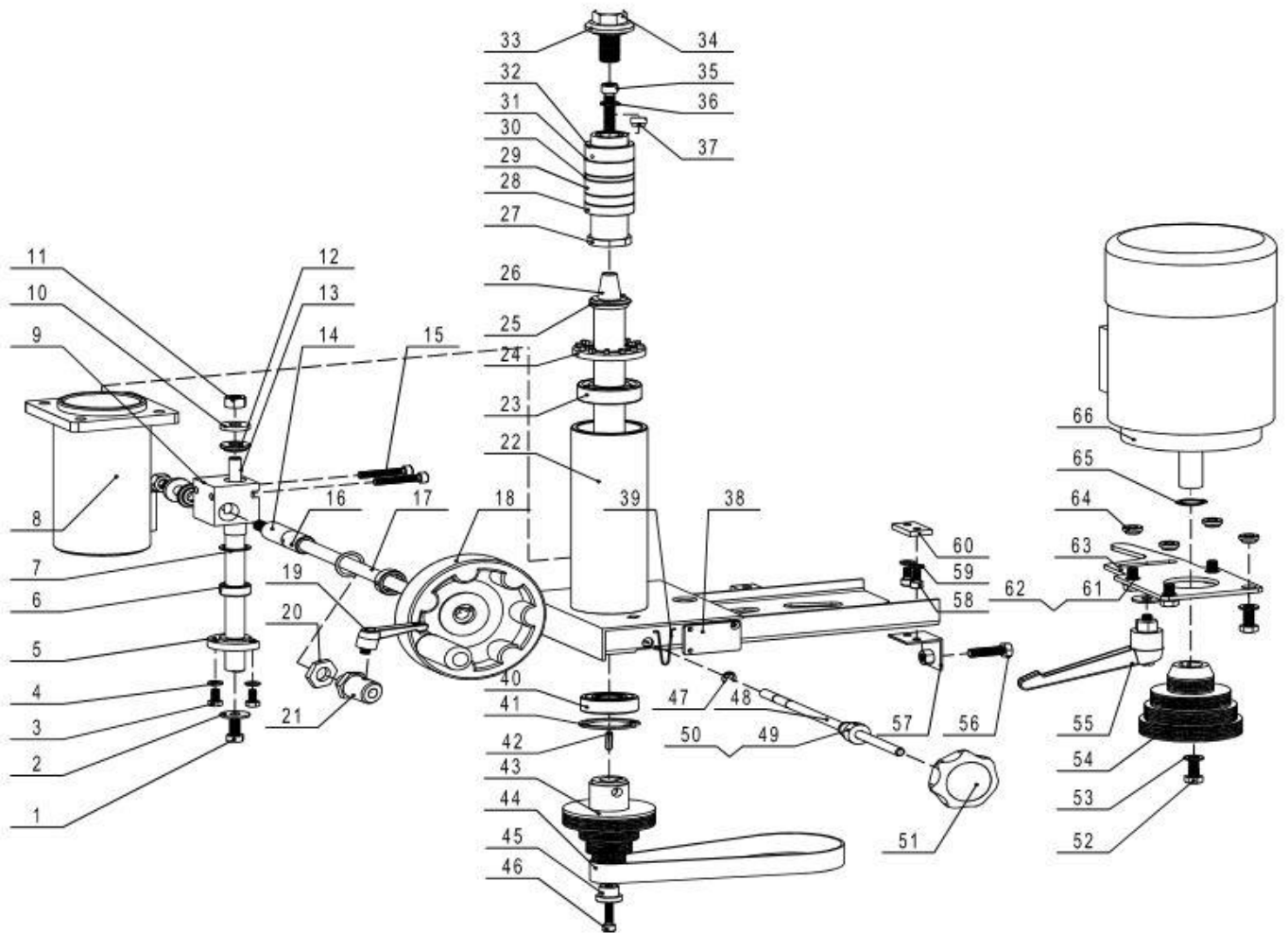
Parts Drawing A



Parts List A

Part No.	Description		Part No.	Description
A01	Stand Assembly		A23	Nut M14
A02	Cap Bolt M5 x 10		A24	Pulley Rod
A03	Protective Cover		A25	Locating Sleeve
A04	Phillips Screw M4 x 35		A26	Nut M8
A05	Emergency Switch		A27	Spring Washer 8
A06	Emergency Switch Cover		A28	Flat Washer M10
A07	Emergency Switch Box		A29	Support Seat
A08	Window		A30	Eccentric Shaft
A09	Phillips Screw M4 x 12		A31	Roller
A10	Micro Switch		A32	Aluminium Sliding Table
A11	Nut M5		A33	Axle Ring 10
A12	Phillips Screw M4 x 30		A34	Protection Cover Assembly
A13	Locking Plate		A35	Spring Washer 8
A14	Locking Handle		A36	Hex Bolt M8 x 15
A15	Self-Locking Nut M10		A37	Cover Plate
A16	Flat Washer M10		A38	Flat Washer 6
A17	Body Assembly		A39	Nut M6
A18	Moulder Driving Assembly		A40	Phillips Screw M6 x 12
A19	Working Table		A41	Cap Bolt M5 x 8
A20	Screw M8 x 20		A42	Phillips Screw M5 x 12
A21	Spindle Cover Ring		A43	Switch JKD11
A22	Angular Setting Assembly		A44	Diverting Switch
			A45	Digital Display Device

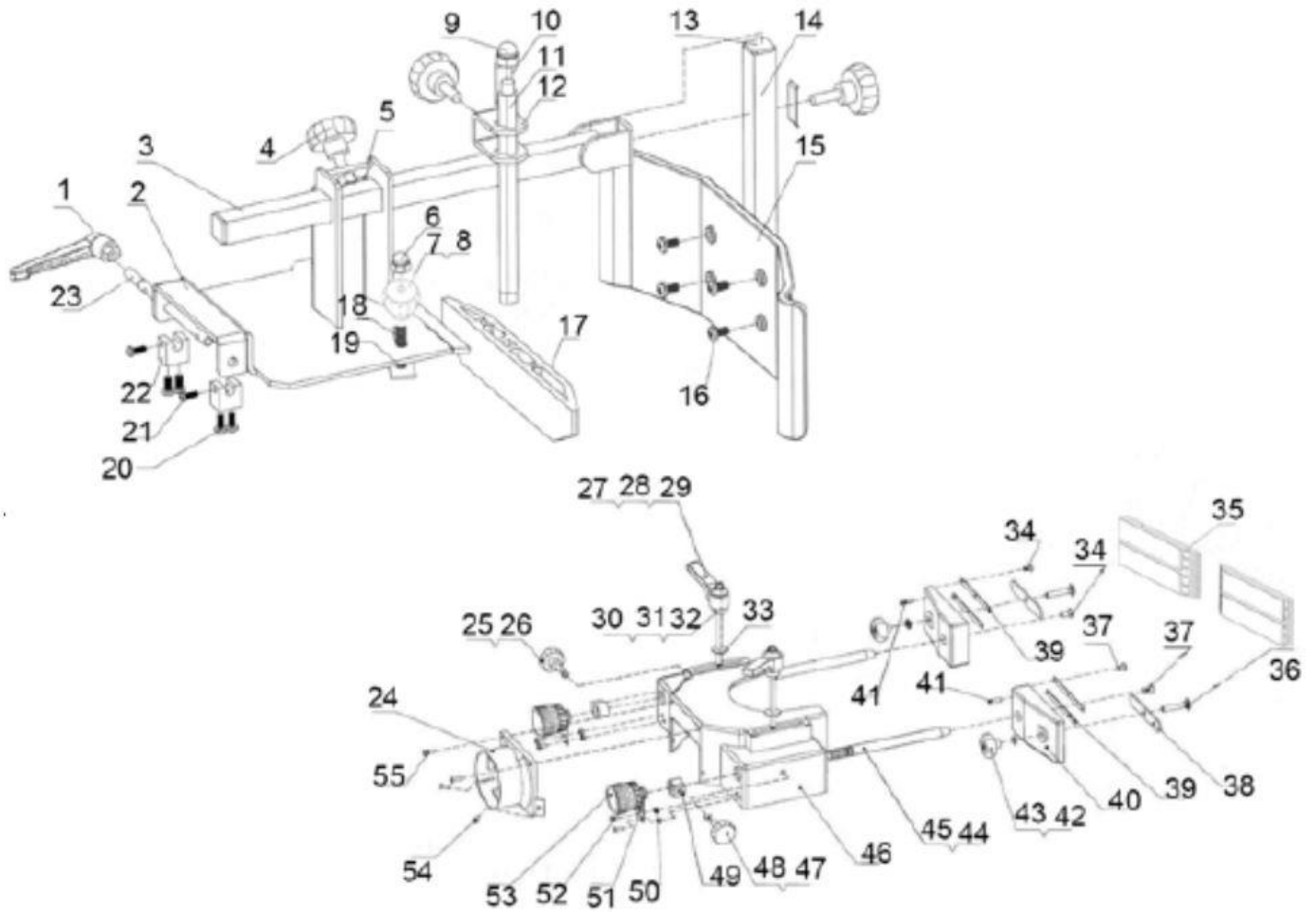
Parts Drawing B



Parts List B

Part No.	Description		Part No.	Description
B01	Hex bolt M8 x 10		B34	Hex Bolt M16 x 40
B02	Flat Washer M8		B35	Cap Screw M8 x 40
B03	Hex Bolt M6 x 12		B36	Spring Washer M8
B04	Flat Washer M6		B37	Nut
B05	Nut Bush		B38	Plate
B06	Gear Tube		B39	Spring Clamp
B07	Bearing 8103		B40	Bearing 6204
B08	Lifting Tube Bracket		B41	C Ring 47
B09	Gear Box		B42	Pin A5 x 35
B10	Bearing		B43	Spindle Pulley
B11	Nut M10		B44	Drive Belt 508 J5
B12	Spindle Tube		B45	Fix Tube
B13	Gear Shaft		B46	Cap Screw M6 x 35
B14	Gear		B47	C Ring 6
B15	Screw M6 x 40		B48	Control Axle
B16	Spring Pin 4 x 25		B49	Separate Tube
B17	Hand Wheel Axle		B50	Flat Head Screw M6 x 8
B18	Hand Wheel		B51	Locking Handle
B19	Locking Handle		B52	Bolt M18
B20	Nut M20		B53	Flat Washer M8
B21	Locking Bush		B54	Motor Pulley
B22	Spindle Column		B55	Locking Handle M8 x 20
B23	Bearing		B56	Hex Bolt M8 x 30
B24	Bearing Cap		B57	Angle Iron
B25	Bearing C Ring 30		B58	Cap screw M6 x 12
B26	Spindle		B59	Flat Washer M6
B27	Short Spindle 30mm		B60	Nut Plate
B28	Spindle Washer 10mm x 2		B61	Hex Bolt M8 x 20
B29	Spindle Washer 15mm x 2		B62	Flat Washer M8
B30	Spindle Washer 5mm x 3		B63	Tension Block
B31	Spindle Washer 0.5mm x 10		B64	Adjusting Tube
B32	Spindle Washer		B65	C Ring 19
B33	Spindle Cap		B66	Motor 240v

Parts Drawing C



Parts List C

Part No.	Description		Part No.	Description
C01	Locking Handle		C26	Locking Handle
C02	Exhaustion Cover		C27-C32	Locking Handle M8 x 80 x 140
C03	Square Leader Assembly		C33	Flat Washer M8
C04	Locking Handle		C34	Head Screw M5 X 10
C05	Long Washer		C35	Fence
C06	Lock Nut M8		C36	Bolt M8 x 45
C07	Locking Handle		C37	Head Screw M5 x 10
C08	Flat Washer M8		C38	Splint
C09	Lock Nut M10		C39	Board
C10	Hex Square Leader		C40	Activity Block
C11	Washer		C41	Flat Head Screw M6 x 20
C12	Clamp Plate		C42	Locking Handle
C13	Square Block		C43	Flat Washer M8
C14	Stand Pipe		C44	Guide Plate Adjusting Axle
C15	Anti Kickback Plate		C45	Flat Washer M8
C16	Phillips Screw M6 x 12		C46	Cutter Hood Casting
C17	Vertical Hold Down Guide		C47	Nut
C18	Spring		C48	Locking Handle
C19	Locking Block		C49	Locking Block
C20	Phillips Screw M5 x 12		C50	Nut M5
C21	Phillips Screw M4 x 12		C51	Baffle
C22	Small Support		C52	Hex Bolt M5 x 16
C23	Shaft		C53	Handwheel
C24	Dust Port		C54	Phillips Screw M5 x 12
C25	Nut		C55	Phillips Screw M5 x 16



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Updated June 2025

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