



Woodworking machinery at its best!

TABLE SAW WITH VACUUM EXTRACTOR OPERATORS MANUAL

MODEL: TSV150



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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 frequently for continuous safe operation.

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.

1. Make sure all tools are properly earthed.
2. 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.
3. Remove adjusting keys and spanners. Form a habit of checking to see that the keys and adjusting spanners are removed from the machine before switching it on.
4. Keep your work area clean. Cluttered areas and workbenches increase the chance of an accident.
5. 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.
6. Keep children away. All visitors should be kept a safe distance from the work area.
7. Make workshop childproof. Use padlocks, master switches and remove starter keys.
8. Do not force the machine. It will do the job better and be safer at the rate for which it is designed.
9. 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 task.
10. 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.
11. Always use safety glasses. Normal spectacles only have impact resistant lenses. They are not safety glasses.
12. Do not over-reach. Keep proper footing and balance at all times.
13. Maintain the machine in good condition. Keep the machine clean for best and safest performance. Follow instructions for lubrication and changing accessories.
14. Disconnect the machine from power source before servicing and when changing the blade.
15. Never leave the machine running unattended. Turn the power off. Do not leave the machine until it comes to a complete stop.
16. Do not use any power tools while under the effects of drugs, alcohol or medication.
17. 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.

ADDITIONAL RULES FOR CIRCULAR SAWS

1. Ensure that the saw table is clear of off-cuts, tools or anything else that might foul the work-piece.
2. If your saw has a dust extractor hose connected to the crown guard, ensure that it is held clear of the table and will not foul the work-piece as it passes over the table.
3. When cutting large sheets of material or long boards use one or more roller stand(s) to support the work or have a competent helper to support it as it feeds off the rear of the table.
4. Never use the saw without the riving knife and check that it is in line with the blade before using the saw.
5. Always use a brush to clear the table of dust or debris. NEVER use your hands, especially when the machine is running.
6. ALWAYS USE A PUSH STICK WHEN IT IS NECESSARY TO PUSH ANY PIECE OF MATERIAL OF SUCH SIZE THAT IT WOULD BRING YOUR HANDS WITHIN 30 CM OF THE BLADE.
7. Do not cut material that is badly warped or which has screws or nails in it
8. Be extra vigilant when cutting stock which has loose knots in, as these may fly out of the saw.
9. NEVER remove the table insert when the saw is running.
10. To avoid exposure to hazardous dust, do not use this saw without connecting it to a suitable dust extractor.
11. Always work with a sharp saw blade and feed the work at a rate which suits the thickness and hardness of the material.

Note: This table saw has been designed and built solely as a woodworking machine. Do not modify it in any way or use for anything other than its designated purpose. Neither the manufacturers nor the supplies are liable for any damage or injury caused by incorrect assembly, operation or electrical connection of this machine.

Important:



Risk of Injury!
Never reach into
the running saw blade.



**Wear Eye
Protection**



**Wear Ear
Protection**

TSV150 Specification

Table size	280mm x 405mm
Table size with extensions	355mm x 405mm
Saw Motor (brush type)	1100W, 240v
Blade diameter x bore x kerf x Teeth	150mm (6") x 20mm x 1.6mm x 60T
Blade rotation speed (no load)	4500 rpm
Maximum depth of cut at 90/45 degrees	30mm / 15mm
Maximum Cutting Width With Rip Fence	150mm
Maximum Cutting Width With Mitre Fence	150mm / 250mm
Vacuum Extractor Motor (brush type)	1200w, 240v
Dust extractor hose nozzle	32mm diameter
Weight	11kg
Noise Level	95db
Rating	Trade

Rating Description

Trade: Suitable for daily use by professional tradesmen.

Mid range machines with a heavier build and more power. Typically used by 2 or 3 people within a small business and also for the dedicated hobbyist with a larger budget. It is expected to be used up to the machines maximum limit with occasional long work periods. Suitable for income generation. Expected maximum use of 300 hours annually.

Unpacking



The TSV150 is shipped in one carton.



Open the carton, remove the carry bag and the fence. Then lift the saw out of the carton.



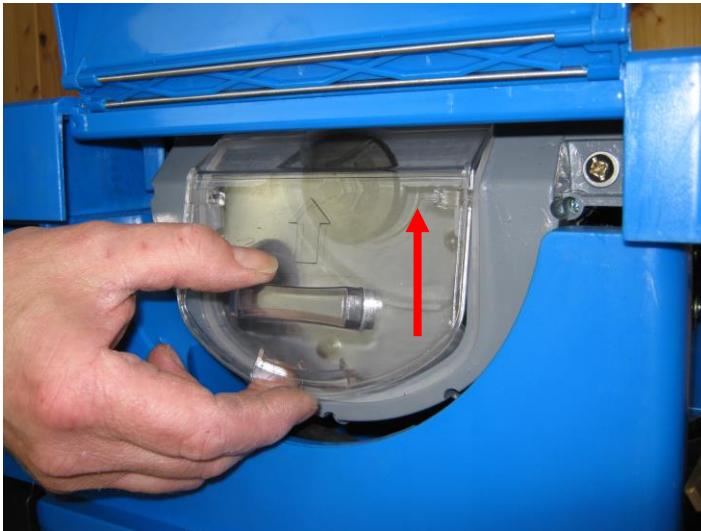
Flip up the bottom edge of the four black plastic clips, then lift the table saw body off the base to reveal the accessories which are packed inside.

Remove all the parts from inside the base, leaving the dust collector bag in place.

Check the parts against the picture and ensure nothing is missing.

Re-attach the saw to the base using the four black plastic clips.

Assembly



1) Assemble the TCT sawblade

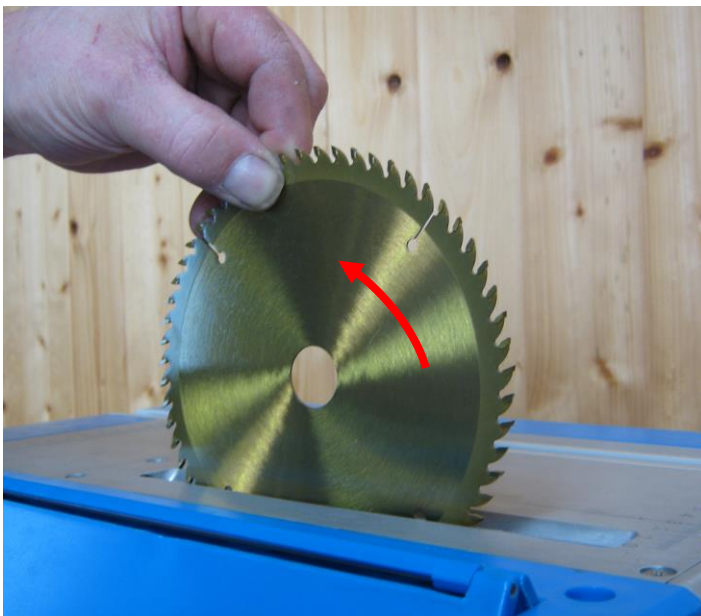
Lift the blade side panel, located on the right hand side of the saw.

Using the protruding handle, slide the transparent cover vertically upwards. When the locking lugs are free, remove the transparent cover.



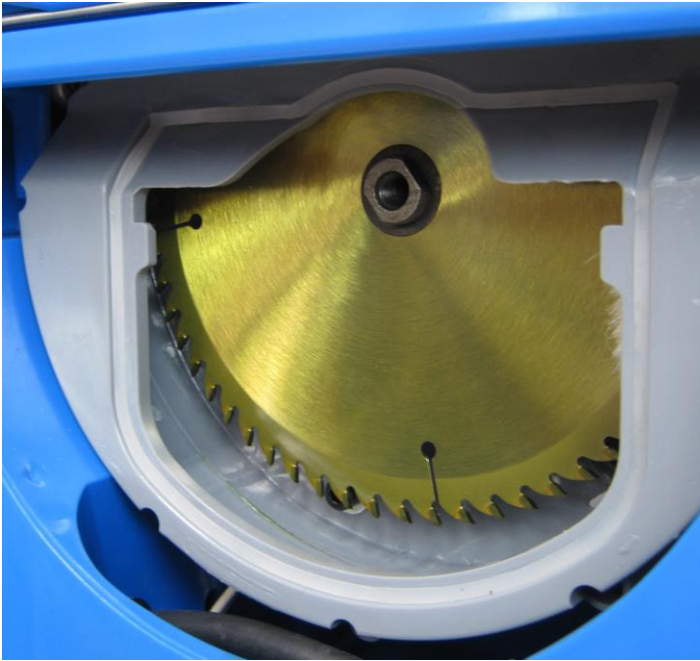
Using the spanner provided, remove the blade retaining bolt by turning it anticlockwise.

Remove the small washer, then remove the large washer.



Next feed the sawblade down through the slot in the table.

Note the direction of the blade teeth in the picture.



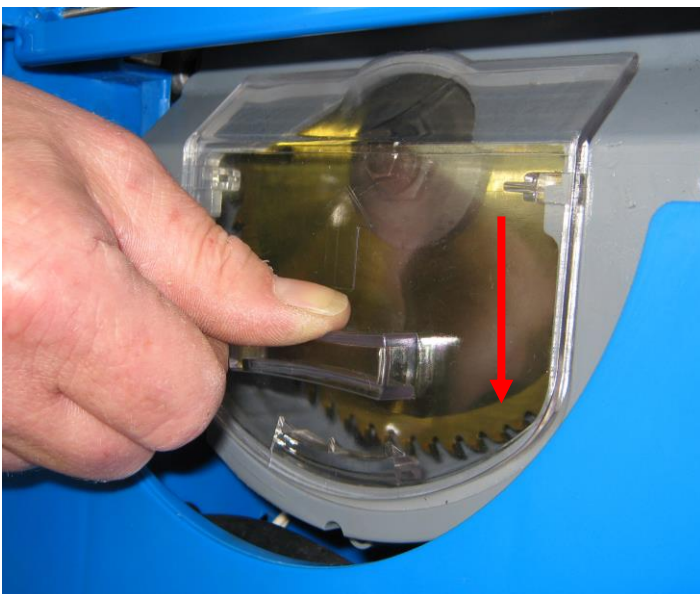
Align the sawblade so that the centre bore hole fits over the shaft.



Refit the large washer, ensuring that the flat sides of the centre hole are aligned with the flat sides of the shaft.

Then refit the small washer and the blade retaining bolt and tighten it using the spanner provided.

Tip: If it becomes necessary to hold the shaft stationary whilst tightening or loosening the blade retaining bolt; use a 19mm spanner on the Hex part of the large washer to hold the shaft in place.



Refit the transparent cover. Push it firmly downwards to lock it into position.



2) Assemble the blade guard and riving knife.

Locate the riving knife retaining bolt.

Using a cross head screw driver, remove this bolt.

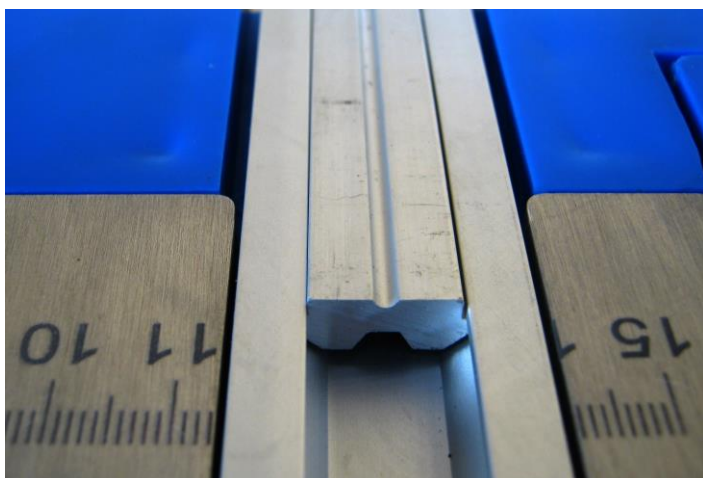


Take the blade guard and riving knife assembly. Feed the bottom end of the riving knife down into the slot, directly behind the blade. Push it down until the transparent guard sits on the surface of the table.

Refit the securing bolt and tighten it with a screw driver.

Ensure there is a clearance between the teeth of the sawblade and the riving knife of around 5mm

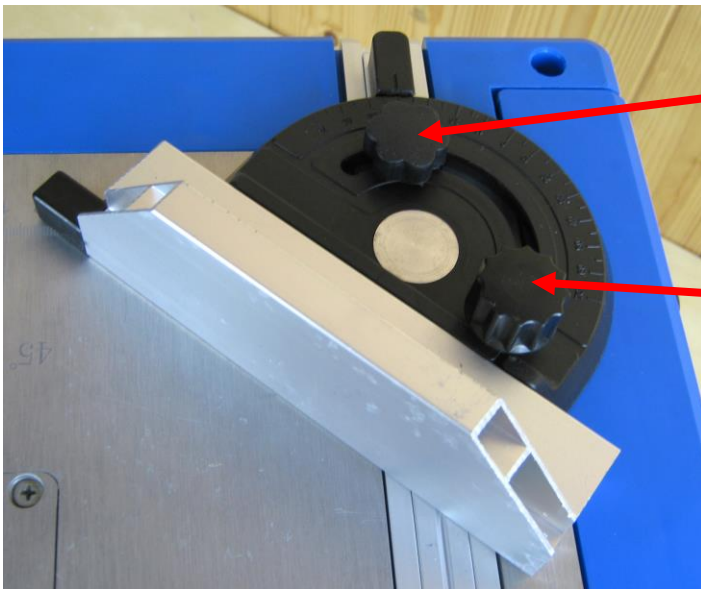
Lower the side panel.



3) Assemble the Sliding Mitre Fence

The mitre fence runs in a T shaped channel. Feed the runner of mitre guide into the end of the channel in the table top.

The mitre fence will now slide along the table, guided by the channel.



The mitre fence can be adjusted in 2 ways.

Angle Adjusting knob

The angle of the fence can be adjusted from a straight crosscut by up to 70 degrees in each direction. The current angle can be read from the scale and pointer.

Fence Adjusting knob

Rotate the locking knob by a half turn (180 degrees) to release the fence. The aluminium part of the fence can now slide towards or away from the blade. The fence should always be set so that the right hand tip of the fence is close to, or touching the blade. The plastic tip is designed to be cut by the sawblade.



4) Assemble the Rip Fence

Lift the clamping levers located at each end of the fence.

Place the fence onto the table in the desired position.

Ensure that the hook part of the clamp is located under the rim of the table, at each end, and press the clamping lever down to lock it into place.



5) Assemble the Vacuum Hose

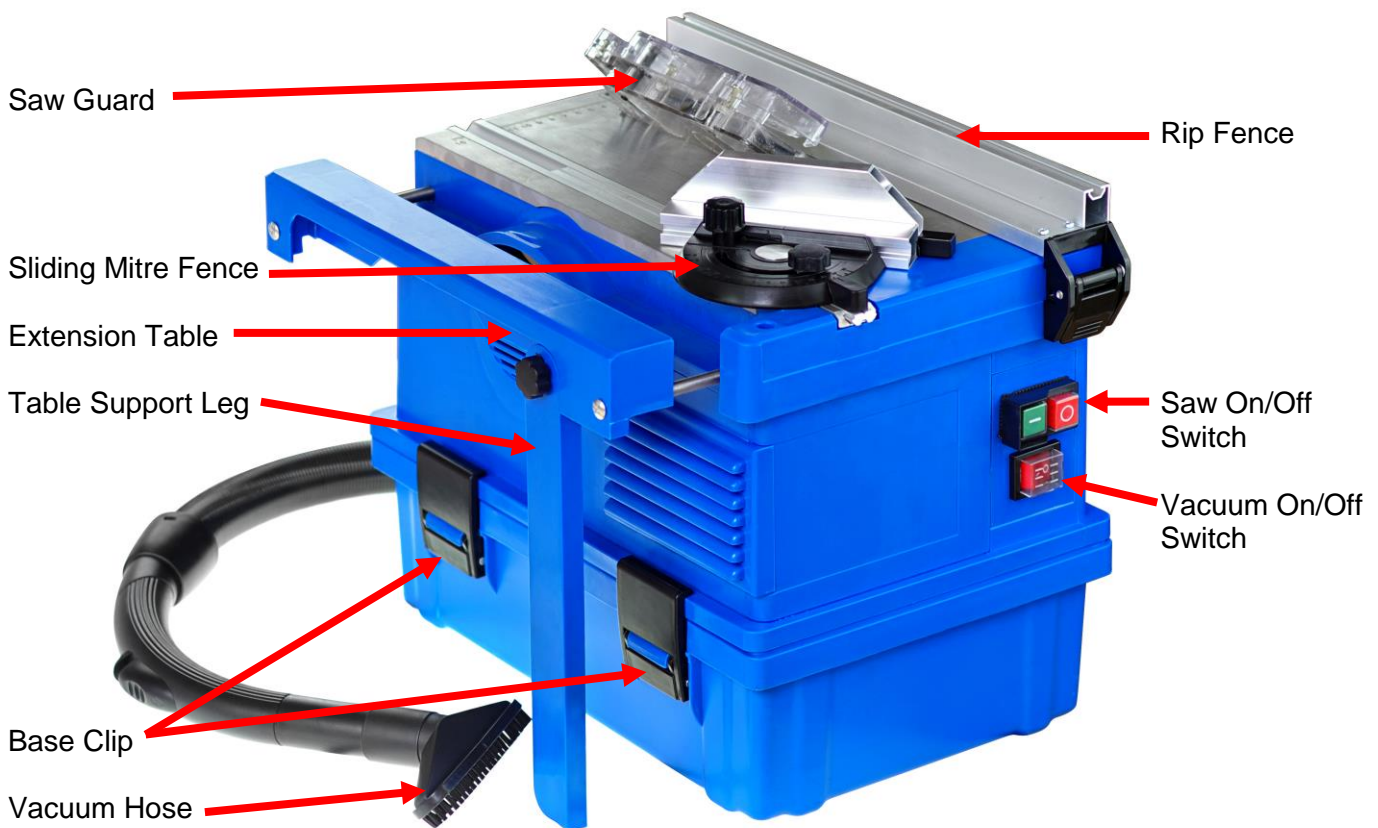
To use the vacuum hose for cleaning up the work area, slide the transparent plastic inlet cover, located at the rear of the saw, upwards to open the inlet.

Rotate the hose cuff, to align the ridges with the inlet, then firmly push it into place.

The flexible hose will extend to 1.5m. The plastic nozzle fitting on the end has an air vent to avoid ground suction.

A brush attachment is also supplied which pushes onto the end of the nozzle.

Using the Table Saw



On/Off Switch

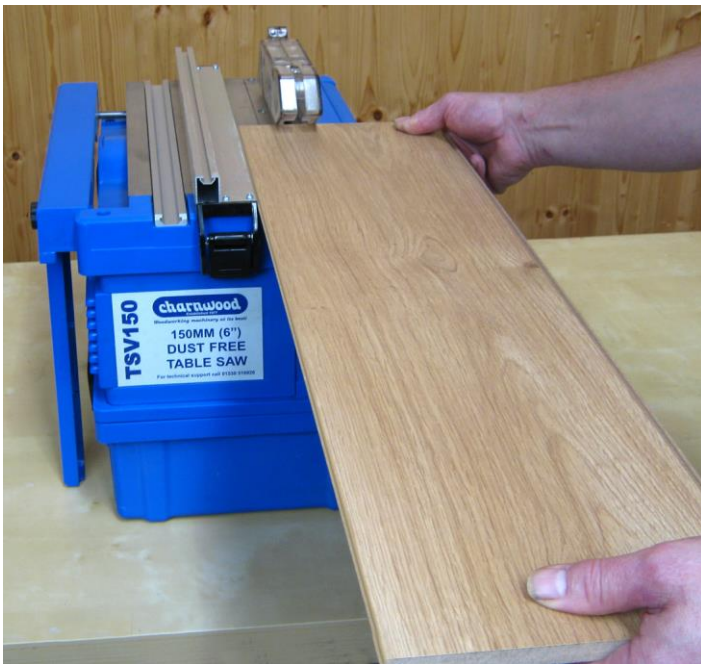
To turn the saw on, press the green button. Wait for the blade to reach its maximum speed of rotation before commencing with the cut.

Press the red button to stop the saw. The machine is fitted with an NVR (No Voltage Release) switch. This type of switch is designed so that if the machine is disconnected from the mains whilst running and then reconnected, the motor will not automatically restart.

It is highly recommended that you always start the vacuum extraction when you start the saw.

When stopping the saw, the vacuum should be left running for 5 seconds to clear any remaining dust from inside the unit.





Making a cut

Ensure there is enough space around the table for the work piece before starting the cut. Position your feet in a stable and balanced stance.

When feeding the timber, place your hands on the section of timber being kept. Never hold the waste part of the timber.

Never force timber through the saw, always let it cut at its own speed.

When cutting narrow pieces - use a push stick.

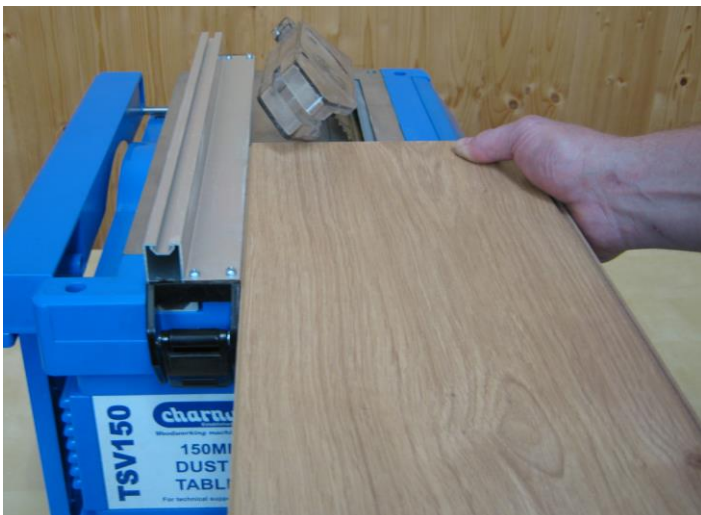


Ripping Cut

The rip fence is used to make longitudinal (with the grain) cuts.

Lift the clamping levers located at each end of the fence. Place the fence on the table in the desired position for the width of cut required using the engraved scale. Ensure that the hook part of the clamp is located under the rim of the table and press the clamping lever down to lock it into place.

The fence can be used either way around. Make wider cuts with the taller side of the fence facing the blade. Make narrow cuts with the lower side of the fence facing the blade.

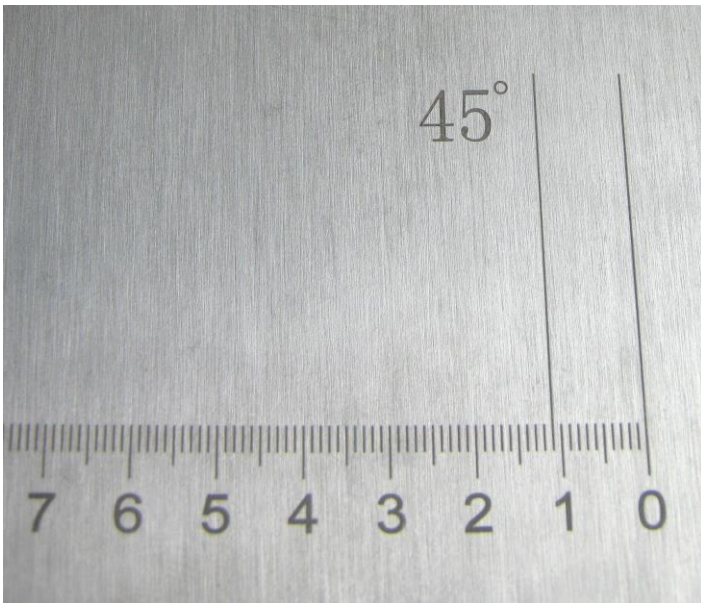


Blade Angle

Adjustments to the angle of cut should be made only when the saw is not running.

To tilt the blade for making bevel cuts, Undo the locking handle at the rear of the saw.

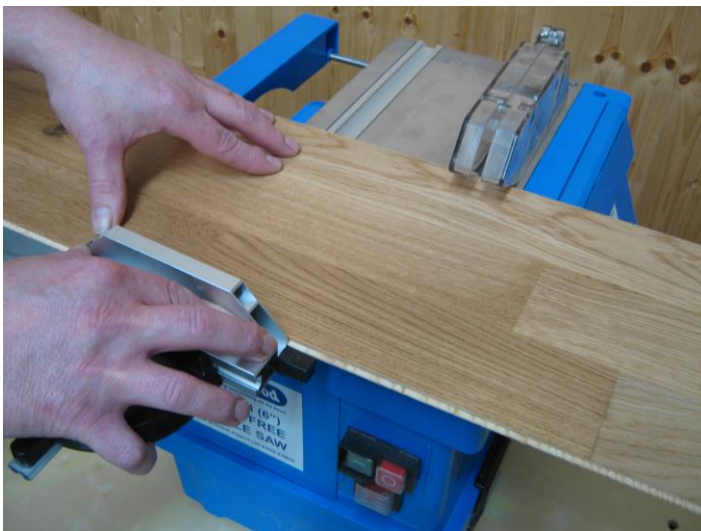
Then use the large knob to move the blade to the desired angle. Turn it clockwise to increase the angle. Read the angle off the scale provided, then set it with the locking handle. The most commonly used bevel angle is 45 degrees.



When making a rip cut at 45 degrees it is necessary to make an adjustment to the position of the rip fence, due to the altered position of the blade.

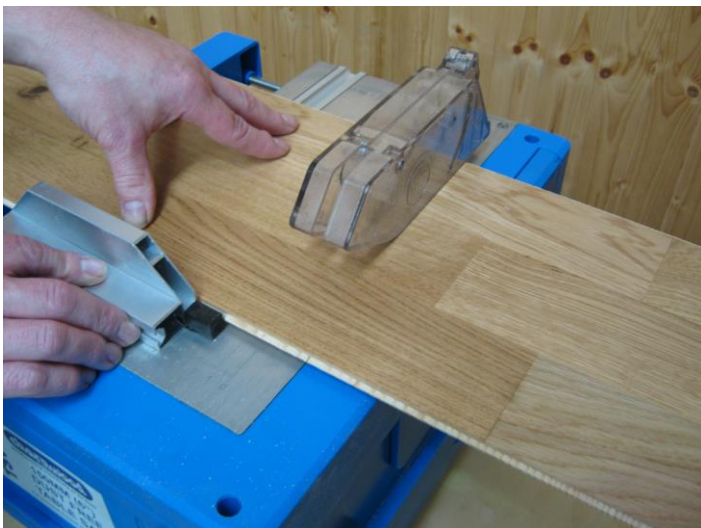
The table is engraved to show this.

When making a bevel cut at 45 degrees add 11mm to the measurement setting of the cutting width.



Cross Cutting

The sliding mitre fence is used to make cuts across the grain. It can make square cuts at 90 degrees to the blade or can be adjusted to make angled cuts up to 70 degrees in either direction.



To prevent the back edge of the wood from splitting out, the fence should always be adjusted so that the tip on the right hand end of the fence is touching the blade. It is made of a soft plastic which will not damage the blade.



Extension table

When crosscutting longer pieces it may be helpful to use the extension table. Simply pull the extension out from the left hand edge of the table. It extends by 75mm. Undo the support leg locking knob and swing the leg down to the vertical position. Lock the knob in this position.

Using The Vacuum Cleaner

When using the vacuum in conjunction with the saw, ensure the inlet cover is in the down position, blocking the inlet.

To use the vacuum for cleaning the general work area, fit the flexible hose to the inlet.

The on/off switch for the vacuum is located directly underneath the on/off switch for the saw.

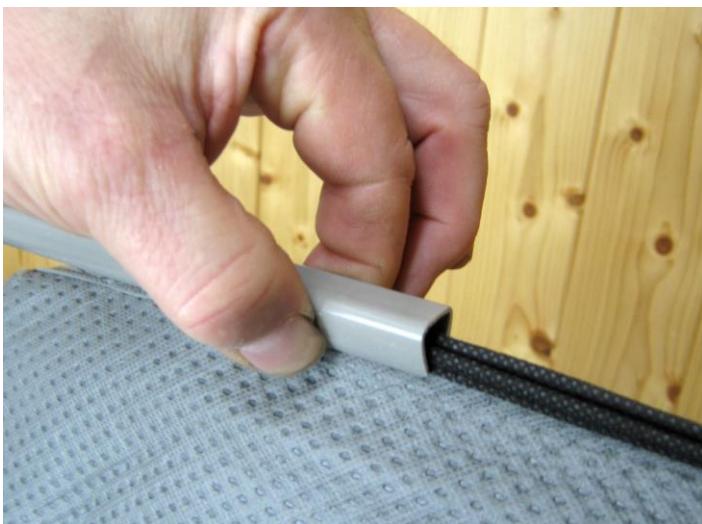


From time to time, or when you notice a decrease in the performance of the vacuum function, it is necessary to empty the dust collection bag.

Undo the four clips which lock the saw body onto the base and lift off the saw body.

Pull the dust collection bag away from the inlet and remove it from the base.

Take it to a suitable waste bin or disposable plastic bag.



To empty the dust bag, slide the plastic sealing strip along the opening edge of the bag and empty the contents.

Once the dust bag is empty, refit the sealing strip to close the bottom of the bag and fit it back into the base.

Transporting The Saw



The saw is supplied with a canvas carry case. Ideal for transporting to job sites and keeping all the accessories together.

The saw can be lifted into the carry case in one piece with the rip fence and mitre fence mounted on the table.

An internal pocket is provided for storing the smaller accessories.

The end pocket can store the vacuum hose.



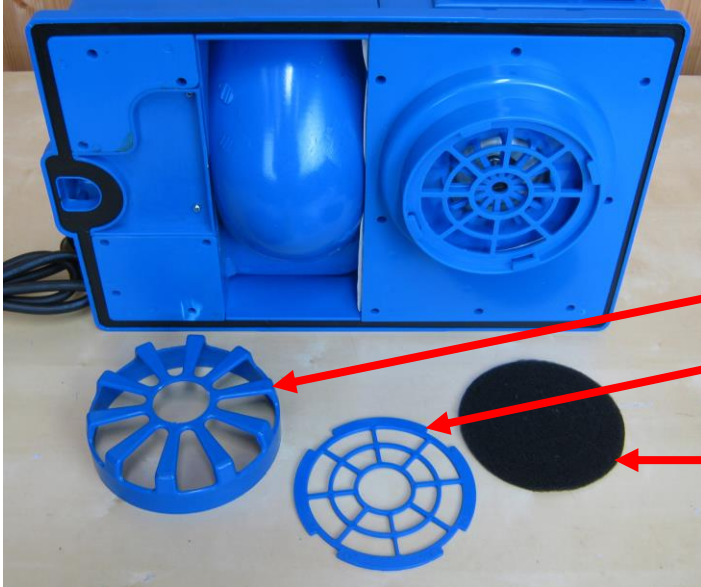
An adjustable shoulder strap is also provided to carry the machine to the work site.

Maintenance

Blade Removal and Replacement

The instructions for fitting the saw blade are shown earlier in this manual. To remove the sawblade just follow the instructions in reverse, starting by removing the riving knife assembly.

A saw blade should be replaced when it has become blunt or if any of the tungsten carbide tips are damaged / missing.



Clean Vacuum Filter

From time to time it will be necessary to clean the vacuum filter.

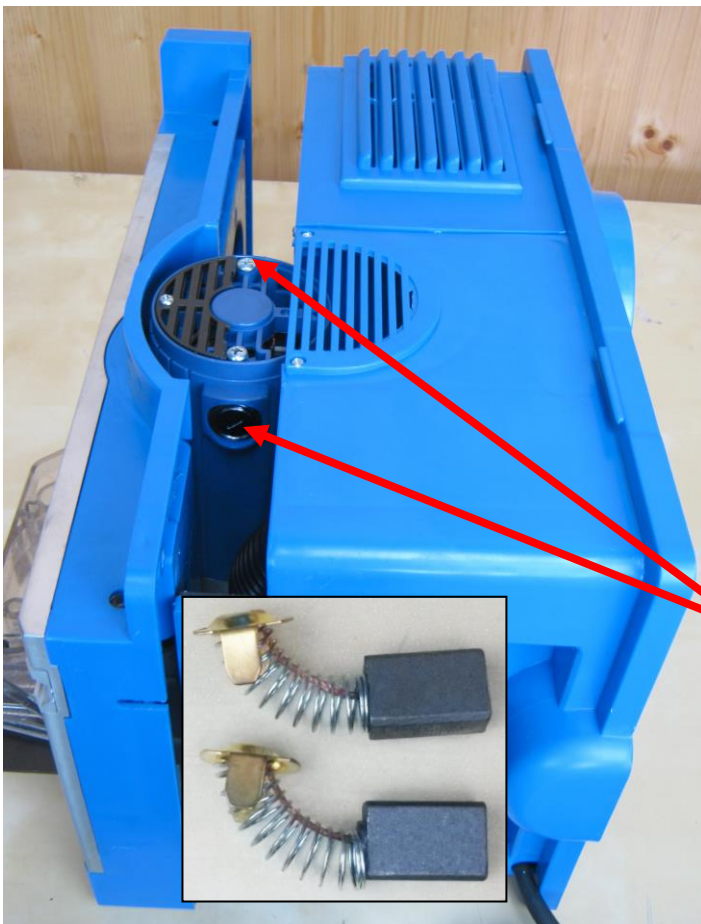
To access the filter, undo the four clips and remove the saw body from the base.

With the saw body laid on its side;

Pull off the outer grille cover

Rotate the inner grille clockwise until it releases

Remove the filter. Scrape it clean and wash it in soapy water. Ensure it is fully dry before re-fitting.



Replace motor brushes

After many hours of service, it may be necessary to replace the carbon brushes of the saw motor. A spare set is supplied with the machine.

To access the motor;

Remove the screw which holds the rear end of the extension table onto the guide rod.

Remove the extension table.

From the top of the table, remove 4 screws, one in each corner, which fix the table to the casing.

Undo the four clips and remove the saw body from the base.

Lay the table saw body onto its right hand side and split the table top from the casing.

You will then see the motor and the 2 brush caps.

Use a flat screwdriver to unscrew the cap.

Remove the worn brush, fit the replacement and screw the cover back in.

Repeat for the other side, then re-assemble the saw.

Troubleshooting


Problem	Cause	Remedy
Machine does not start	Blown Fuse	Replace Fuse
	Loose switch terminal	Inspect back of switch
	Faulty switch	Replace switch
	Motor brushes worn	Replace brushes
Only starts when Green button is held down	Faulty switch	Replace switch
Sparks seen from saw motor	Motor brushes worn down	Replace brushes
Motor speed not constant	Motor brushes worn down	Replace brushes
Saw vibrates	Damaged teeth on saw blade	Check & replace the blade
Cuts are slow, wood is blackened	Saw blade is blunt or damaged	Examine the blade. If any Tungsten tips are missing or broken the blade should be replaced. If the tips are blunt, the saw blade may to be professionally sharpened.
Saw stalls	Feed rate too high	Slow down
Wood binds on rear of saw blade	Rip fence is not parallel to blade	Re-set the rip fence

Declaration of Conformity for CE Marking

Charnwood Declare that Circular Saw Bench, Model TSV150

Conforms with the following Directives: Machinery Directive 2006/42/EC
EMC Directive 2004/108/EC

And further conforms to the machinery example for which the EC type examination Certificate No. NT1104729 and NT1104730 have been issued by Shenzhen NTEK Testing Technology Co. Ltd, 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Baso'an District, Shenzhen, China. 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 directive.

Signed:  Dated: 06/11/2014 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.

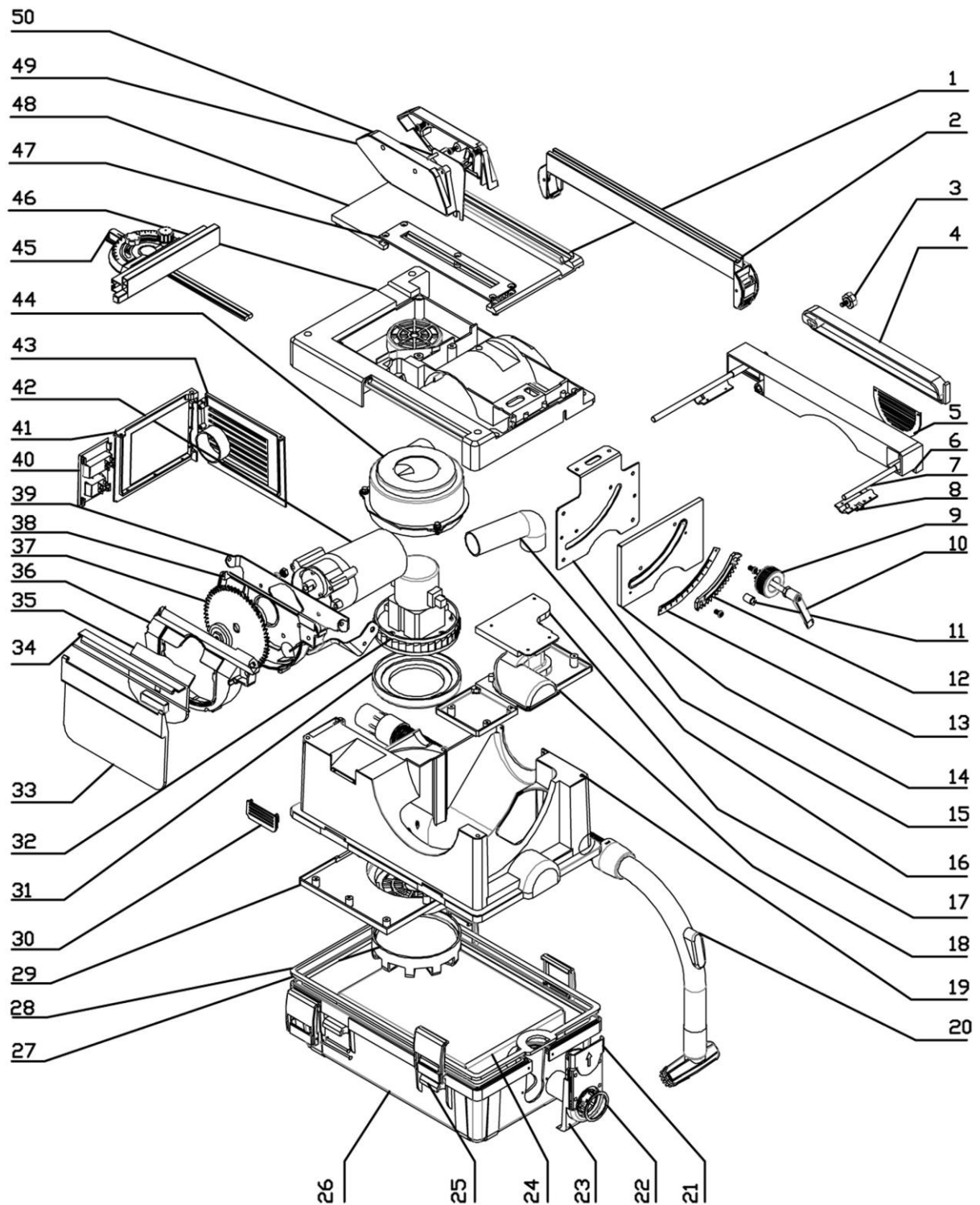


Only for EU countries
Do not dispose of electric tools together with household waste material!
In observance of European Directive 2002/96/EC on waste electrical and electronic equipment (EEE) and its implementation in accordance with national law, electric tools that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.



Your local refuse amenity will have a separate collection area for EEE goods

CHARNWOOD TSV150 PARTS DIAGRAM



CHARNWOOD TSV150 PARTS LIST

01	T Shaped Channel	02	Rip Fence Assembly
03	Knob	04	Extension Leg
05	Suction Grill	06	Extension Rail
07	8mm Rod	08	Rod Guide
09	Tilting Gear	10	Lock Bolt & Handle
11	Tilting Indicator	12	Gear Rack
13	Tilting Scale	14	Tilting Plate
15	Tilting Plate Bracket	16	Vacuum Connector
17	Hose Connector Cover	18	Hose Connector
19	Case	20	Vacuum Hose
20A	Brush Attachment		
21	Vacuum Inlet Cover	22	Seal Ring
23	Dust Bag Socket	24	Dust Bag
25	Locking Clip	26	Base
27	Fan Motor Cover	28	Case Seal Ring
29	Fan Motor Base	30	Suction Grille
31	Fan Motor Seal Ring	32	Vacuum Motor 1200w, 240v
33	Baffle	34	Baffle Connector
35	Transparent Blade Cover	36	Exterior Blade Cover
37	Saw Blade 150mm x 20mm	38	Interior blade Cover
39	Motor Bracket	40A	Saw On/Off Switch CK21
40B	Vacuum On/Off Switch RK1-01		
41	Fixing Plate	42	Saw Motor 1100w, 240v
43	Exhaust Grille	44	Mute Cover
45	Mitre Fence Assembly	46	Frame For Aluminium Table
47	Cover Plate	48	Aluminium Plate
49	Blade Guard	50	Riving Knife
51	Riving Knife Retaining Bolt	52	Dust Collection Bag
53	Dust Bag Sealing Strip	54	Saw Blade Retaining Bolt
55	Saw Blade Small Washer	56	Saw Blade Large Washer
57	Blade Fitting Spanner	58	Canvas Carry Case



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