

~ FABRICATION ~



OPERATING INSTRUCTIONS



INTRODUCING

the



DIMENSION SAW



Dimensioning Saw (table travel type), wood workshop. For use with wood only

Access Level 3 (see Wood Workshop induction Guide on Access Levels)

Cuts wood along and across the grain on a travelling table. Dimensions sheets to width

PPE Basic

- Suitable workcoat (provided)
- Spectacles, goggles or faceshield rated to BS/EN 166 (provided)
- Sturdy boots will help when working with sheet material or heavy wood planks

What to do before use

- ENSURE the wall isolator is set to OFF before attempting to ACCESS any part of the machine
- CHECK the machine;
 - Blade SECURELY locked onto arbor
 - Travelling table runs SMOOTHLY
 - Parallel fence in GOOD ORDER
 - Top surfaces are CLEAR
 - Blade crown guard in GOOD ORDER
 - Extraction hoses in GOOD ORDER
 - Start & Stop controls in GOOD ORDER,
 - Emergency Stops (BOTH machine AND foot) are in GOOD ORDER
 - Work clamps in GOOD ORDER
 - Dimensioning and Parallel fences also in GOOD ORDER
- ENSURE Push Sticks are of the correct form and comply with a MINIMUM length between the bird's mouth front and the part gripped by hand. This should be NOT LESS than 450mm. The push stick should not be looped over the hand. THIS IS A DANGEROUS PRACTICE

- **A changed blade (or newly-fitted) should be TESTED BEFORE operational use by RUNNING it at normal speed WITHOUT load and then several times under wood-cutting load. This will identify ANY problems with the blades connection to the machine**
- **Blade changes ALSO require the blade Riving Knife to be adjusted accordingly. The riving knife PREVENTS WOOD CLOSING around the back section of the blade, thrusting the wood forward as KICKBACK at great speed**
- **The adjustment of the riving knife SHOULD ONLY be done by a member of staff with proficiency in adjusting the riving knife**
- **The riving knife edge should be AS CLOSE AS POSSIBLE to the back of the blade and NOT exceed 8mm at any time, and MUST NOT be less than 25mm BELOW the crown of the blade and be solidly constructed (i.e. Steel, not Plywood or Plastic)**

How to Use The Dimensioning Saw

- **GLOVES SHOULD NOT BE WORN WITH ANY OF THE OPERATIONS BELOW**
- **If PARALLEL cutting – along the grain, follow steps below UNTIL dimension cutting**
- **REMOVE the dimensioning fence that travels with the table and fit the top surface parallel fence to the right side of the blade via the machine fence support rails**
- **SET your parallel fence distance using the supplied metered gauge or, for accuracy, a metal rule. The distance should be measured from the fence FACE to the facing side of the BLADE**
- **CAREFULLY lock the fence completely down on the support rails**
- **For THIN sheet material, rotate the fence over 90° anti-clockwise so that the THIN edge FACES the blade and allows CLEARANCE between the blade crown guard and the fence, REDUCING the likelihood of KICKBACK or STOCK JAM**
- **If using LONG and/or HEAVY lengths of timber or sheeting, ASK a colleague or member of staff for ASSISTANCE and TELL them what they SHOULD DO and SHOULDN'T DO when assisting**
- **Fit the CORRECT blade type, which your instructor can identify for you**
- **For PARALLEL saw cutting, the teeth are generally larger, with a larger gullet and teeth that point slightly forward**
- **All parallel cutting blades should be supplied with TOOTH LIMITERS, found just behind the tooth. These PREVENT the full face of the following teeth SUDDENLY coming into contact with the stock – REDUCING kickback risk**
- **STAFF ONLY will fit the correct blade since they will be proficient and trained to do so**
- **With the blade fitted correctly, the machine can be switched ON at the wall isolator**
- **SET the blade height using the adjustment wheel UNTIL the blade's crown teeth protrude SLIGHTLY ABOVE the top of the wood stock. The gullets of the top 3 teeth should be CLEAR of the stock**
- **If your CROWN GUARD is fitted to the rising/falling riving knife, you will notice that this may raise the BOTTOM of the crown guard ABOVE the stock by a margin EXCEEDING the recommended distances under H&S regulations**

- The push stick **SHOULD** be used in nearly **ALL** parallel cutting operations, so this negates potential issues regarding the amount of exposed blade
- Switch **ON** the LEV/Extraction system
- Ear defenders, filter mask and face shields **MUST** be worn during wood-cutting operations
- It is **NOT** a good idea to stand directly in-line with the saw blade; any stock **KICKBACK** will propel the wood directly back to **YOU** at great velocity. This is especially **LIKELY** when parallel sawing **THIN** widths
- Put the stock **FIRMLY** against the parallel fence – asking your assistant to **HOLD** the stock steady if necessary – while you switch **ON** the saw blade motor via the **START** control button
- Depending upon the **LENGTH** of the stock, **STEADILY** run the stock through the saw **UNTIL** the end of the stock reaches 1 **PUSH STICK LENGTH** away from the blade front. At this point **SWITCH** to one (or more) push sticks
- **STOP** pushing immediately the end of the stock has been cut-through
- If just doing a single cut, switch **OFF** the machine as per normal shut-down procedures
- If doing **MULTIPLE** cuts, leave it switched on and continue feeding stock through it steadily – but **DO NOT** walk away from the machine **AT ALL**
- An assistant may help remove the off-loading of sheets from **BEHIND** the blade, but they must be **NO CLOSER** than 1.5m to the blade and **MUST NOT** be forcibly pulling material through the saw blade
- Once you **HAVE** finished, switch **OFF** the machine. It should stop the saw blade in 10 seconds or less (without a load). **NEVER** force a blade to stop more quickly by running wood through it – this is potentially dangerous
- **ISOLATE** the machine at the wall and remove the parallel fence, putting it **CAREFULLY** back to the rack
- **CLEAN** the machine down using a **HOOVER** – **DO NOT** sweep up dust and wood waste
- **RETRACT** the blade into the chassis of the machine for safety
- Switch **OFF** the extractor, allowing a few minutes to remove any airborne dust particles

- If dimension cutting – across the grain, follow the steps below:-
- **REMOVE** the parallel fence, if fitted
- **DO NOT** use the parallel fence as a depth gauge; the wood should have **FREE** movement on the **DIMENSIONED END** of the stock
- When dimensioning, it is **GOOD PRACTICE** to have the timber pre-marked using a dark or soft pencil
- **AVOID** using ink pens since they stain the wood. Mark **ALL ROUND** using a woodworking square. You should mark one side of the line with rough chevrons, identifying the **WASTE** side of the cut
- If the stock is slightly warped, **CLAMP** it down to the travelling table such that the warped edges **POINT UP ONLY** as they will rub along the fixed surface and could **TWIST SUDDENLY** in the blade
- **ENSURE** the correct blade type is fitted for dimension sawing
- The saw blade for cutting **ACROSS** the grain is usually fitted with considerably **MORE TEETH**, which have a smaller gullet than **RIPPING** blades and they are usually set so the tooth sits back on the blade.
- Cross cutting blades **DO NOT** have anti-kickback restrictors fitted, helping identification
- **STAFF ONLY** will fit the correct blade since they will be proficient and trained to do so

- With the blade fitted correctly, the machine can be switched ON at the wall box isolator
- SET the blade height using the FRONT adjustment wheel until the gullets of the blade's TOP 3 TEETH protrude SLIGHTLY above the top of the wood stock
- If your CROWN GUARD is fitted to the rising/falling riving knife, you will notice that this may raise the BOTTOM of the crown guard ABOVE the stock by a margin EXCEEDING the recommended distances under H&S regulations
- Switch ON the Extraction system
- Ear defenders and face shields MUST be worn – and a DUST FILTER MASK if using hardwoods or hardwood-faced material
- With the stock LOCKED DOWN against the dimensioning fence and set to the appropriate cutting distance along the length, the machine should be switched ON via the front control panel; set to the SAW BLADE icon
- Allow the blade to reach FULL SPEED before carefully UNLOCKING the travelling table lock and SLOWLY running it along the rails UNTIL the stock starts to touch the front of the blade
- Push firmly, keeping hands at least 400mm from the blade waste side as the stock is cut through. DO NOT straddle hands either side of the blade as the stock is being cut – keep both hands on the same side of the blade
- Keep fingers on the STOCK ONLY - not the stock AND fence – this can lead to hands being PULLED IN should stock SUDDENLY twist on the fence
- Once the cut work is complete, STOP the machine using the Red STOP button
- DO NOT use the EMERGENCY STOPS as stopping switches. This prevents the braking devices from operating, allowing the blade to come to a complete LONGER than the maximum permitted time of 10 SECONDS
- Switch OFF the machine at the wall box isolator
- REMOVE the stock from the top surface
- Hoover down the surfaces – DO NOT sweep wood waste down
- Retract the blade down into the chassis for safety and remove the dimensioning fence to the saw storage area
- Switch OFF the extractor, allowing a few minutes to remove any airborne dust particles

I verify that I have read and understood the information detailed within this document

Date

Name

Signature