

Australian Standard™

Wood processing machinery—Safety

**Part 3: Finishing machinery—Circular
sawing machines**



S t a n d a r d s Australia



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Australian Standard™

Wood processing machinery—Safety

Part 3: Finishing machinery—Circular sawing machines

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PREFACE

This Standard was prepared by the Standards Australia Committee SF-007, Guarding of Woodworking Machinery as a revision, in part, of AS 1473—1991, *Guarding and safe use of woodworking machinery*.

The Standard is one of a series dealing with the safety of woodworking machinery, which has been developed following requests from regulatory authorities for a new edition of the Standard.

In common with many other Standards dealing with the safeguarding of machinery, the Committee agreed to base the series upon a number of drafts emanating from the European Community. This Standard is therefore based upon a number of drafts dealing with the various forms of circular saws which are available.

The Standard specifies the safety requirements which are unique to circular saws. Additional requirements which are common to all wood-processing finishing machines are given in AS 1473.2, *Wood processing machines—Safety, Part 2: Finishing machinery—Common requirements*. This Standard should be read in conjunction with AS 1473.2.

The term ‘normative’ has been used in this Standard to define the application of the appendix to which it applies. A ‘normative’ appendix is an integral part of a Standard.

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STANDARDS AUSTRALIA

Australian Standard Wood processing machinery—Safety

Part 3: Finishing machinery—Circular sawing machines

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies the particular requirements for the design, manufacture, guarding and use of circular sawing machines. It is to be read in conjunction with AS 4024.1 and AS 1473.2, which contain general requirements.

This Standard does not apply to circular saws used for the primary milling of logs.

1.2 OBJECTIVE

The objective of this Standard is to provide designers, manufacturers, suppliers, owners and users of circular sawing machines with the means of minimizing the risks to health and safety of persons working with those machines.

1.3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- | | |
|--------|--|
| 1473 | Wood processing machinery — Safety |
| 1473.2 | Part 2: Finishing machinery—Common requirements |
| 4024 | Safeguarding of machinery |
| 4024.1 | Part 1: General principles |
| 4024.2 | Part 2: Installation and commissioning requirements for electro-sensitive systems—Optoelectronic devices |
| 4024.3 | Part 3: Manufacturing and testing requirements for electro-sensitive systems—Optoelectronic devices |
| 4024.4 | Part 4: Installation and commissioning requirements for electro-sensitive systems—Pressure-sensitive devices |
| 4024.5 | Part 5: Manufacturing and testing requirements for electro-sensitive systems—Pressure-sensitive devices |

AS/NZS

- | | |
|------|---|
| 1020 | The control of undesirable static electricity |
|------|---|

1.4 DEFINITIONS

For the purpose of this Standard, the definitions below apply.

1.4.1 Building site saw (Non-stroking)

A hand fed transportable circular saw bench with a maximum saw blade diameter of 500 mm, mounted on a non-tilting spindle, the position of which remains stationary during machining. (See Figure 1.1.)

1.4.2 Circular saw bench (see Figure 1.2(a))

A machine fitted with a circular saw blade or saw blades (other than a scoring saw) which is fixed during the normal cutting operation, and a horizontal table, all or part of which is fixed during operation. The saw blade is mounted on a horizontal spindle. The machine may have any of the following features:

- (a) The facility for the saw blade to be raised and lowered through the table.
- (b) The facility to tilt the saw blade for angled cutting.
- (c) Machine frame below the table may be open (e.g. some building site saws) or closed in.
- (d) The circular saw bench may be fitted with an additional, manually operated travelling table (see Figure 1.2(b)).

1.4.3 Cross-cutting

The operation of cutting across the grain of a wooden workpiece.

1.4.4 Dimension saw

A hand fed circular saw bench which has an integral travelling table adjacent to the saw blade.

1.4.5 Dual purpose machine – Down cutting and bench saw

A machine which may be used in the following modes:

- (a) As a down cutting cross-cut saw.
- (b) As a circular saw bench.

1.4.6 Machine actuator

A power mechanism used to effect motion of the machine.

1.4.7 Main saw blade

The circular saw blade which is used for separating or dividing the workpiece.

1.4.8 Panel pusher (beam saw application)

A movable workpiece guiding device situated behind the pressure beam which is used to position the workpiece over the line of cut. The positioning of the panel pusher may be under numeric control.

1.4.9 Post formed edge pre-cutting

That cut made in the underside edge of the workpiece deep enough to prevent surface damage when the main saw blade makes its cut.

1.4.10 Post-formed edge pre-cutting saw blade

A saw blade used for post-formed edge pre-cutting. It may be the scoring saw or it may be a separate saw blade specifically for this purpose.

1.4.11 Pressure beam

A workpiece clamping device which extends across the full working width of the machine. Its function is to hold the workpiece down to the table during cutting.

1.4.12 Saws

1.4.12.1 Automatic cross-cut saw

A machine where the saw unit has integrated feed, the workpiece is manually or automatically positioned for cutting to preselected lengths and where the integrated feed of the saw unit is initiated automatically.

1.4.12.2 Beam saw

A machine fitted with one or more travelling circular saw blades, and designed mainly for cutting panels.

1.4.12.3 Circular sawbenches/manual up-cutting cross-cut saws

A dual purpose machine used as a circular sawbench or as a manual up-cutting cross-cut saw. A single circular saw blade unit with only one speed is situated below and in a revolving part of the sawbench table. A dual purpose moveable roller is provided. The saw unit is fixed during use of the machine as a circular sawbench and is manually lifted through the table for use as an up-cutting cross-cut saw.

The machine may have the following features:

- (a) The facility to tilt the saw blade for angled cutting.
- (b) The machine below the table can be either an open or closed design.

1.4.12.4 Down cutting and horizontal cutting cross-cut saw

A machine where the saw unit is fed by hand and the workpiece is manually loaded and/or unloaded and which can be used in two modes:

- (a) With the saw unit as a down cutting cross-cut saw.
- (b) With the saw unit used as a down cutting cross-cut saw with an additional horizontal stroke where the saw unit is moved forward through wide work.

1.4.12.5 Down cutting cross-cut saw

A machine where the saw blade spindle is situated above the workpiece when the saw blade is in its rest position. The saw blade moves down through the workpiece during the cut.

1.4.12.6 Edging circular rip saw with power driven saw unit

A machine where the workpiece is supported in the horizontal plane during cutting. The saw unit is mounted below the workpiece, and the cutting stroke is power driven. The saw blade is automatically raised through the slot in the work table and is retracted from the workpiece for the return stroke. The machine is designed to cut against the feed in a single straight line only.

The machine may have any of the following features:

- (a) The facility to adjust the height of the saw unit.
- (b) The facility to tilt the saw blade for angled cutting.
- (c) The facility to limit the length of cutting stroke.

1.4.12.7 Panel saw

A circular saw bench having a travelling table capable of supporting and moving a panel to be cut.

1.4.12.8 Radial arm or cross-cut saw

A machine where the saw blade moves horizontally with a climb-cutting action and in a straight line through the workpiece during the cut. This includes compound cutting.

1.4.12.9 Semi-automatic cross-cut saw

A machine where the saw unit has integrated feed which is initiated manually and the workpiece is positioned manually for cutting to length.

1.4.12.10 Up cutting cross-cut saw

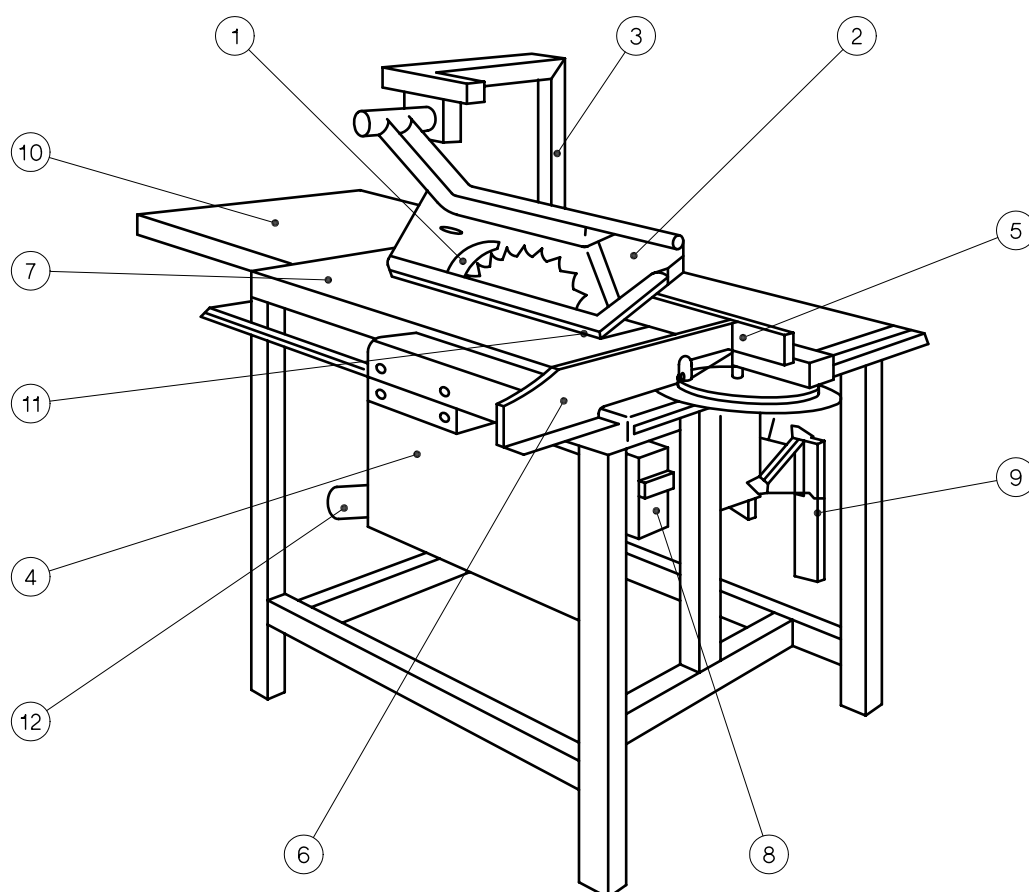
A machine where the saw blade spindle is situated below the workpiece support when the saw blade is in its rest position. The saw blade moves upwards with possible additional horizontal movement through the workpiece during the cut e.g. rise and fall cross-cut saw.

1.4.13 Scoring

The making of a shallow cut generally in the underside surface of a workpiece, deep enough to pass through any veneer or plastic facing on the workpiece so as to prevent surface damage when the main saw blade makes its cut.

1.4.14 Scoring saw blade

A saw blade mounted in front of the main saw blade which is used for scoring.



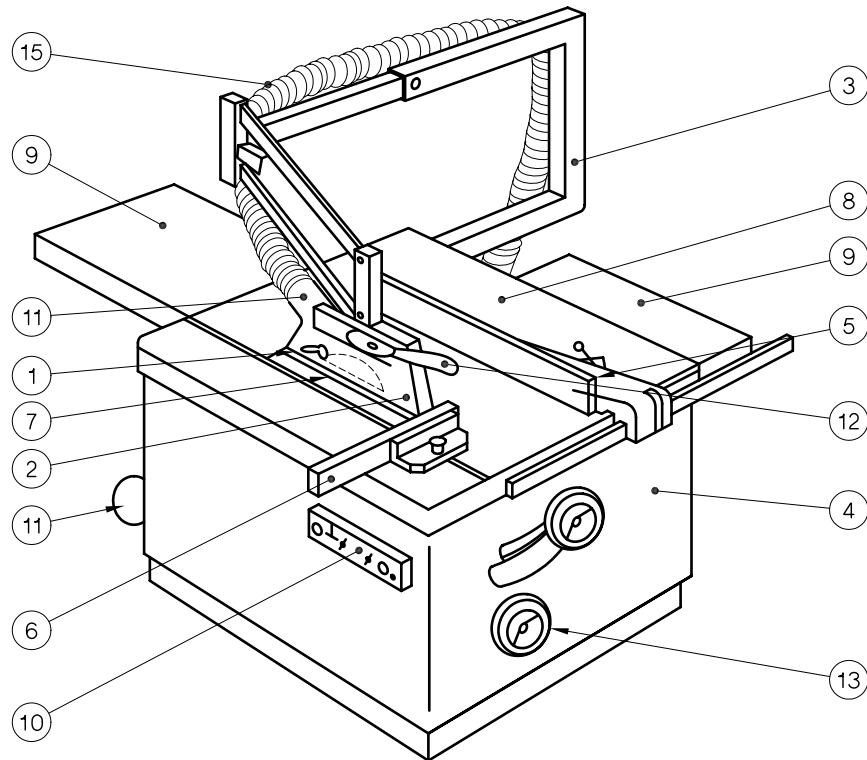
LEGEND:

- | | |
|-------------------------------|---------------------------------|
| 1 = Riving knife | 7 = Table |
| 2 = Saw guard | 8 = Controls |
| 3 = Saw guard support | 9 = Push block storage position |
| 4 = Fixed guard beneath table | 10 = Extension table |
| 5 = Rip fence | 11 = Table insert |
| 6 = Cross-cut fence | 12 = Exhaust outlet |

FIGURE 1.1 TYPICAL BUILDING SITE SAW

1.5 SAFE WORK PRACTICES

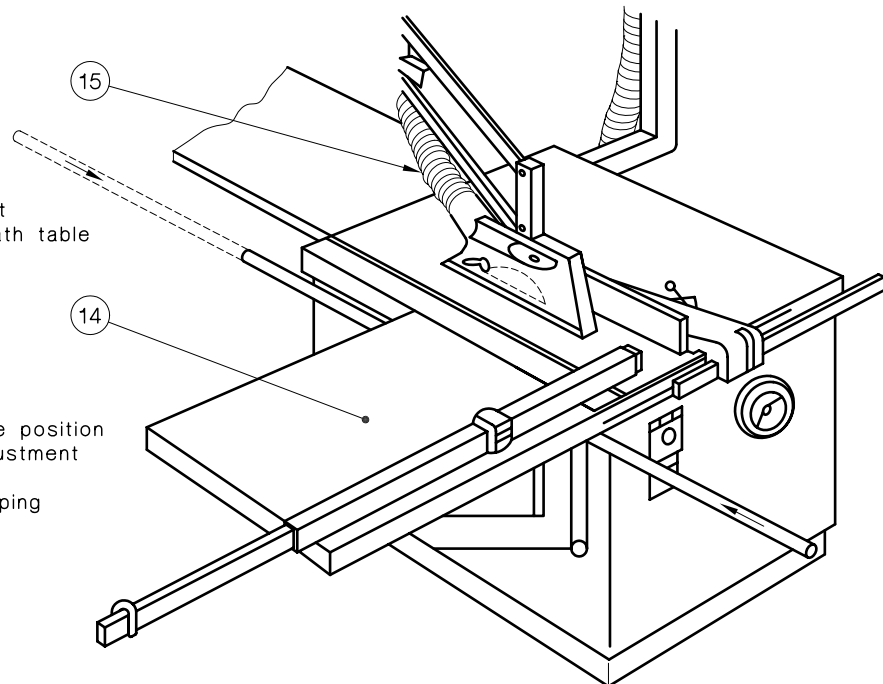
Safe work practices are recognized as contributing to safety but may not be adequate, complete or entirely applicable for every situation. They may not cover all hazardous situations and should be interpreted judiciously. Safe work practices are not a substitute for guarding. Additional guidance on safe work practices is provided in Part 2.



(a) Normal machine

LEGEND:

- 1 = Riving knife
- 2 = Saw guard
- 3 = Saw guard support
- 4 = Fixed guard beneath table
- 5 = Rip fence
- 6 = Cross-cut fence
- 7 = Table insert
- 8 = Table
- 9 = Extension table
- 10 = Controls
- 11 = Exhaust outlet
- 12 = Push stick storage position
- 13 = Cutting height adjustment
- 14 = Travelling table
- 15 = Dust extraction piping



(b) Machine with travelling table

FIGURE 1.2 TYPICAL CIRCULAR SAW BENCH

SECTION 2 PARTICULAR REQUIREMENTS FOR CIRCULAR SAW BENCHES (WITH OR WITHOUT TRAVELLING TABLES) AND DIMENSION SAWS

2.1 POSITION OF CONTROLS

For bench saws without a travelling table, electrical controls shall be situated in the shaded area marked X or the shaded area marked Y in Figure 2.1(a), or on a movable control panel.

For bench saws designed to be used with a sliding table, electrical controls shall be situated in the shaded area marked Y in Figure 2.1(a), or on a movable control panel.

For the location of emergency stops see AS 4024.1 and AS 1473.2.

For dimension saws, electrical controls shall be positioned on the side of the machine in the shaded areas numbered 1-5 on Figure 2.1(b). The following conditions apply:

- (a) There shall be a stop control positioned at area 1, unless the distance B is less than 300 mm
NOTE: Where B is less than 300 mm, the stop control required in area 1 may be positioned in area 2.
- (b) There shall be a stop control positioned at areas 3 or 4, unless the distance B is less than 300 mm.
NOTE: Where B is less than 300 mm, the stop control required at areas 3 or 4 may be replaced by a stop control in area 2.
- (c) Where a movable control panel is provided (area 5), stop controls required at positions 1, 2, 3, or 4 may be replaced by a stop control situated on the movable control panel only if the distance A is limited to less than 850 mm.
- (d) Where a movable control panel is provided, and the distance A exceeds 850 mm, a stop control shall be provided at area 1 and either at area 3 or area 4.
- (e) Where a movable control panel is provided, the movement of the control panel shall be limited so that the distance C is not less than 100 mm.

2.2 RISK OF BREAK-UP DURING OPERATION

Means shall be provided to contain blade tips ejected in the direction of the guards. Suitable means include, but are not restricted to—

- (a) a saw guard below the table which should be made of steel with a breaking strength of at least 350 N/mm^2 and a wall thickness of at least 2 mm or of light alloy with a breaking strength of at least 180 N/mm^2 and a wall thickness of at least 5 mm; and
- (b) a saw guard above the table which should be made of the same materials required for the saw guard below the table, or be of polycarbonate or other plastic having equivalent strengths with a wall thickness of at least 3 mm.

Other materials exhibiting strength equivalent to those materials given above may be used.

2.3 TOOL HOLDER AND TOOL DESIGN

Tool holders and the design of tools shall comply with the following:

- (a) When it is necessary to hold the spindle stationary for saw blade changing, a spindle holding device shall be provided so that the saw spindle can be held stationary whilst locking or unlocking the saw spindle locking device.

- (b) It shall not be possible to fit a saw blade in the machine of greater capacity in either physical or rotational speed than the largest saw blade for which the machine is designed.

Precautions shall be taken to ensure that the saw blade does not come loose during start up, running, during rundown or during braking, for example by using a positive connection between the spindle and saw blade, or by using a positive connection between the front saw flange and the saw spindle.

- (c) Saw flanges (or, in the case of flush mounted saw blades, a flange) shall be provided. The diameter of the flanges shall be at least $D/4$, where D = Diameter of largest saw blade for which machine is designed. Where two flanges are provided, both outside diameters of saw flanges shall be within a tolerance of ± 1 mm. The clamping surface of the outside part of the flange shall be at least 5 mm in width and recessed to the centre.

Flanged bushes shall be provided where the spindle diameter is different from the bore size of the saw blades for which the machine is designed.

- (d) Additional guidance on maintenance and inspections is provided in AS 1473.2.

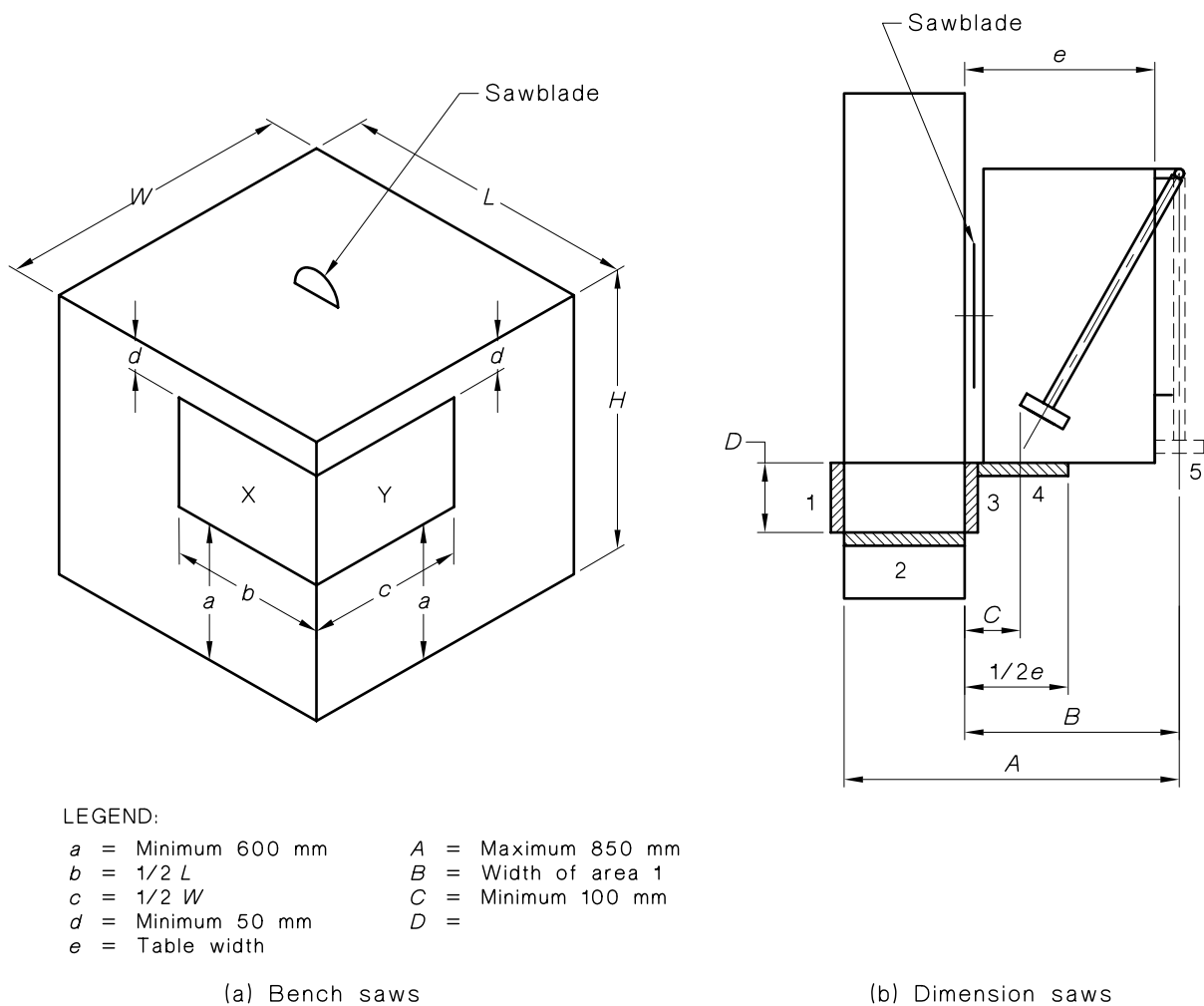


FIGURE 2.1 POSITION OF CONTROLS

2.4 DEVICES TO MINIMIZE THE POSSIBILITY OR THE EFFECT OF EJECTION

Every circular saw bench and dimension saw shall be supplied with riving knives to accommodate the range of saw blades which are intended for use with that machine as indicated in the instruction handbook (see Figure 2.2).

The riving knife and its mounting arrangement shall have the following characteristics:

- (a) Riving knives shall be manufactured from steel with a minimum tensile strength of 580 N/mm^2 , or of comparable material, have flat sides (within 0.1 mm in 100 mm) and shall have a thickness between the width of the saw blade and the width of cut.
- (b) The leading edge of the riving knife shall be chamfered to provide a lead-in (see Figure 2.3), and the riving knife shall be of constant thickness (within $\pm 0.05 \text{ mm}$) throughout its working length.
- (c) The riving knife shall be capable of vertical adjustment so that its tip reaches a point level with or higher than the highest point on the periphery of the saw blade when set in accordance with the requirements of this Standard.
- (d) The riving knife shall be designed so that when it is mounted and adjusted so that its closest point to the saw blade is 3 mm from the saw blade, then at no point shall the gap between the saw blade and the riving knife exceed 8 mm, measured radially through the centre of the saw spindle (see Figure 2.4).
- (e) The front and rear contours of the riving knife shall be continuous curves or straight lines, without any flexure which would weaken it.
- (f) The riving knife fixing arrangement shall be such that the relative position of the riving knife and the fixed saw flange remains within the tolerance shown in Figure 2.5. The relative position of the riving knife and the fixed saw blade flange shall be maintained with the rise and fall and canting of the blade.
- (g) The arrangement for fixing the riving knife shall be such that its strength is able to satisfy the requirements laid down in Appendix A.
- (h) The riving knife shall either conform with the lateral stability test laid down in Appendix B, or the width of the riving knife on each side of the fixing slot within the fixing area shall be designed according to the following equations (see Figure 2.6):
 - (i) For riving knives supporting a saw guard:

$$X + Y \geq \frac{D \text{ max.}}{5} \quad \dots 2(1)$$

where $X = Y \pm 0.5Y$
 - (ii) For riving knives not supporting a saw guard:

$$X + Y \geq \frac{D \text{ max.}}{6} \quad \dots 2(2)$$

where $X = Y \pm 0.5Y$

Where $D \text{ max.}$ is the maximum saw blade diameter for which the riving knife can be used.

X and Y shall be measured midway along the riving knife fixing slot in the fixing area.

- (i) The riving knife shall be held in position by guides, e.g. guiding pins. The riving knife fixing slot shall be no more than 0.5 mm wider than the guides. The fixing slot should be closed to prevent ejection.

NOTE: Where it is necessary to change the riving knife to accommodate different diameters of saw blade, the riving knife fixing slot may be open ended.

- (j) When the riving knife is adjusted to its maximum height, the riving knife fixing slot shall not protrude above the table.

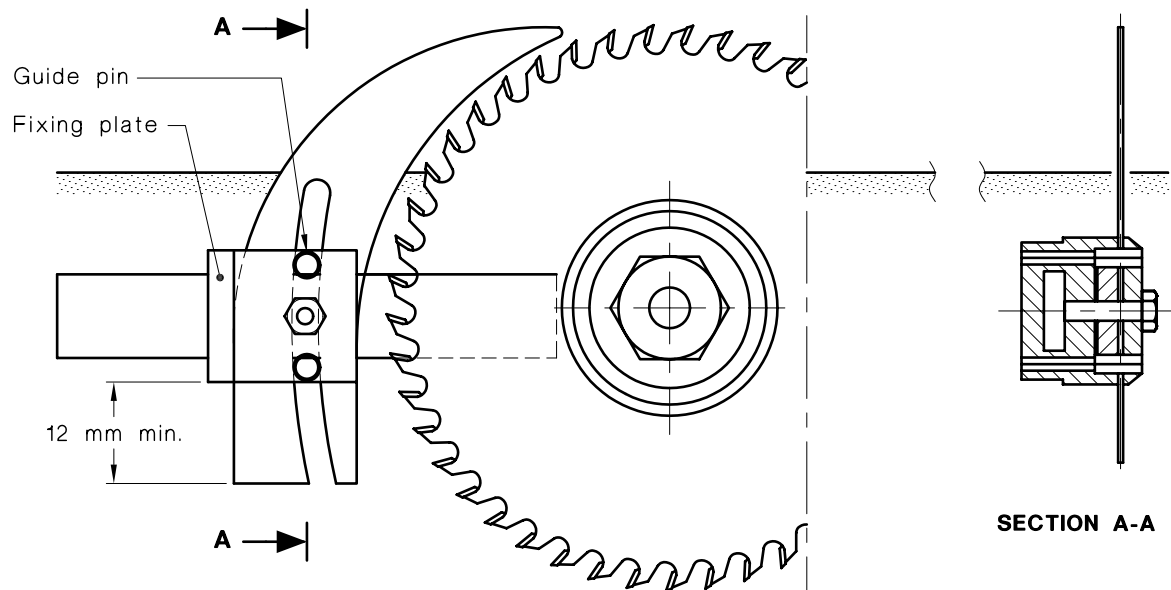


FIGURE 2.2 TYPICAL RIVING KNIFE FIXING MECHANISM



FIGURE 2.3 CHAMFERED LEADING EDGE OF RIVING KNIFE

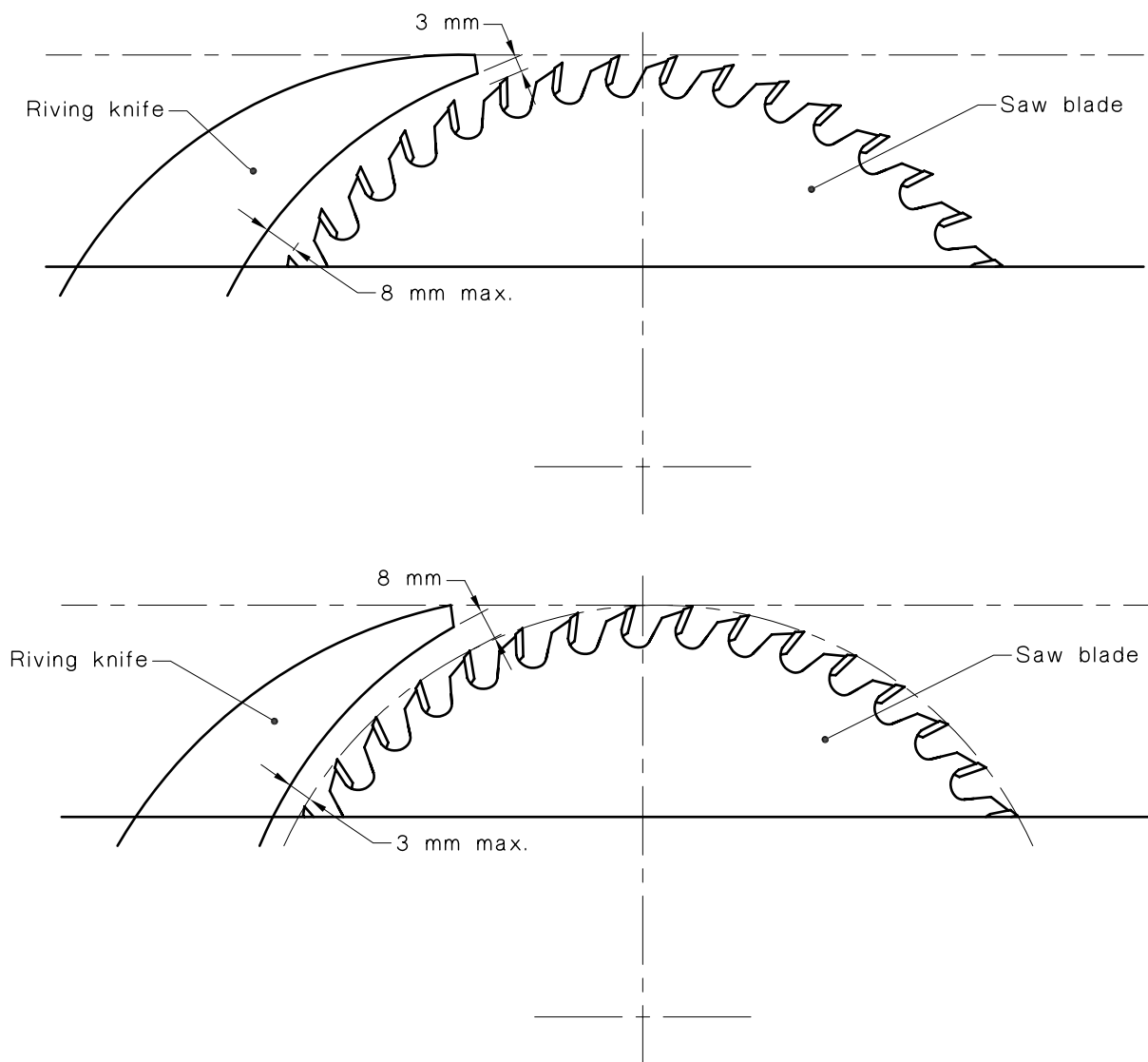


FIGURE 2.4 POSITIONING LIMITS FOR RIVING KNIFE DESIGN

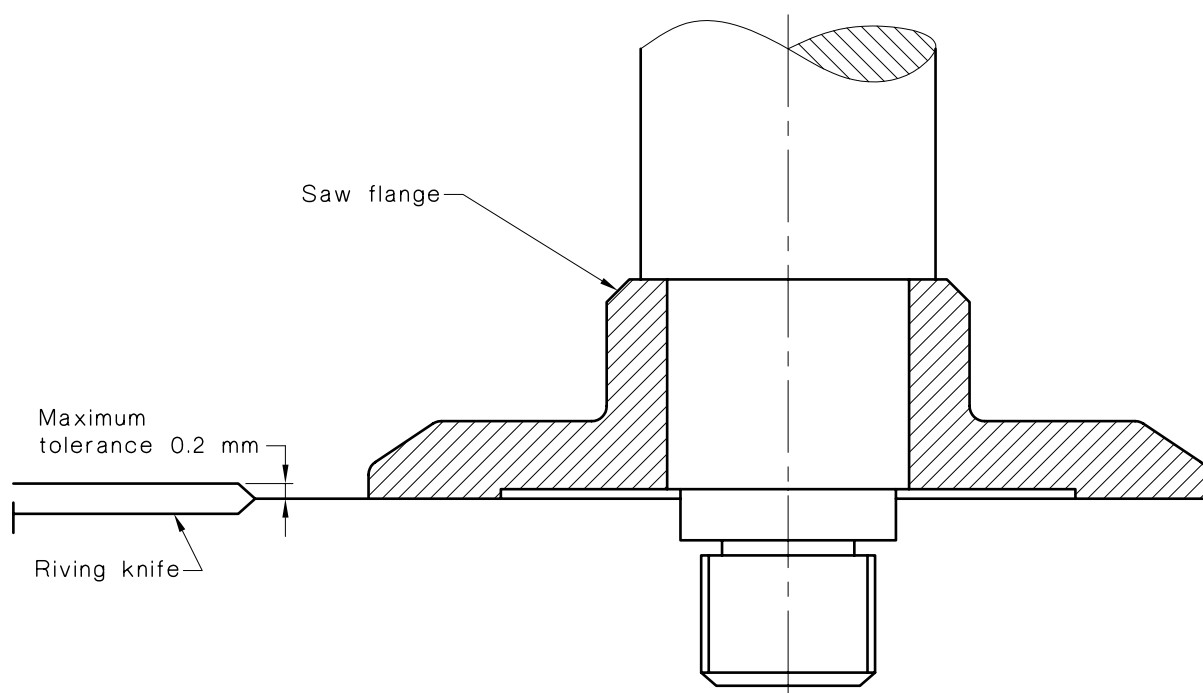


FIGURE 2.5 POSITIONING OF RIVING KNIFE IN RELATION TO FIXED SAW FLANGE

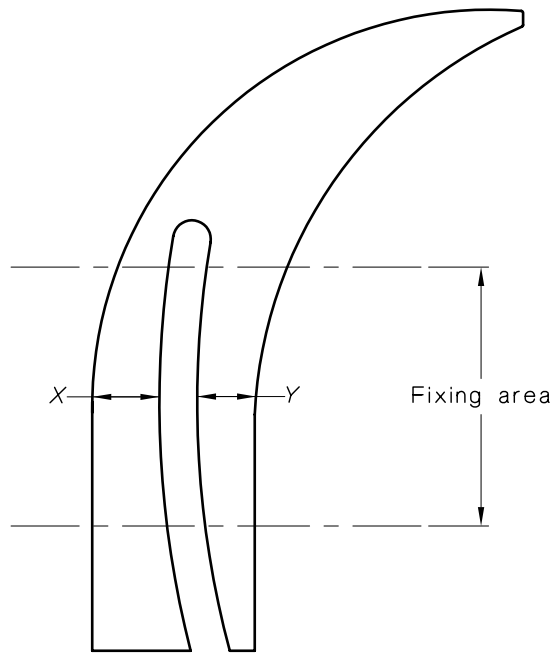


FIGURE 2.6 FIXING DETAILS FOR RIVING KNIFE

2.5 WORKPIECE SUPPORTS AND GUIDES

2.5.1 Work guides and fences

All circular saw benches and dimension saws shall be fitted with a rip fence which is adjustable at right angles to the saw blade at least over the whole width of that part of the table at the side of the saw blade.

The workpiece guiding part of this fence shall have the following characteristics:

- Be made from soft alloy, plastic, wood or other suitable material which will not damage the saw blade in the event of contact.
- Be adjustable parallel with the saw blade so that its outfeed end can be adjusted forward to a point in line with the front edge of the riving knife, and rearwards to a point at table level which is in line with the first cutting tooth of the largest saw blade for which the machine is designed and adjusted to the maximum cutting height.
- Have two guiding surfaces with a high position for deep work and a low position for shallow and angled cutting (see Figure 2.7).
- Have on machines designed to be used with saw blades with a diameter greater than 315 mm, a minimum height of 90 mm in its highest position and a height between 6 and 15 mm in its low position. On machines capable of being fitted with saw blades up to a diameter of 315 mm the workpiece guiding part shall have a minimum height of 50 mm in its high position and a height between 6 and 15 mm in its low position.
- Be so designed that when it is in the low position, the saw blade shall not be capable of touching the rip fence at Point B as shown in Figure 2.8 when the saw blade is fully tilted.
- Be so designed that when it is in the low position, the saw guard can be lowered to the minimum height of the workpiece guiding part of the fence (point 'C' in Figure 2.7).

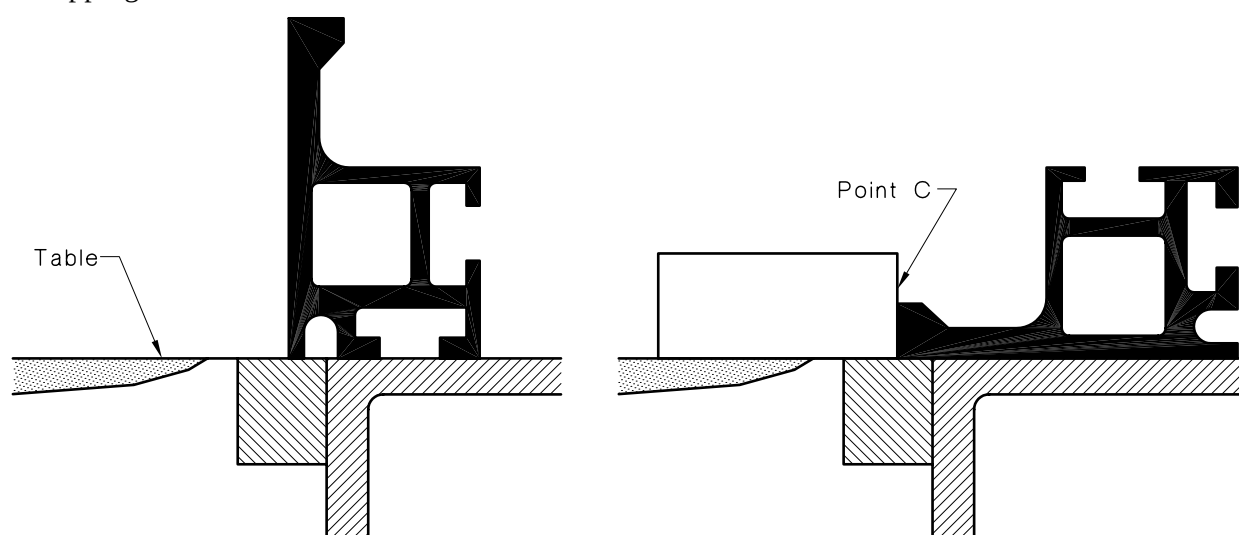
All adjustments to the fence position shall be possible without the aid of a tool.

All circular saw benches and dimensions saws used for cross-cutting shall be provided with a cross-cutting fence (e.g. see Figure 1.1), and the fixing arrangement shall ensure that the

fence cannot rise or swing out of position during use. If the cross-cutting fence extends beneath the saw guard then the height of that section shall not exceed 15 mm.

If the workpiece guiding part of the cross-cutting fence is adjustable in length and if there is a possibility of contact between the cross-cutting fence and the saw blade, this part of the fence shall be made of plastic, aluminium or wood.

All dimension saws shall be equipped with a workpiece clamping shoe which shall be mounted on the travelling table, for holding down the end of uneven workpieces during ripping.



(a) High position for deep work

(b) Low position for shallow or angled cutting

FIGURE 2.7 TWO POSITION FENCE

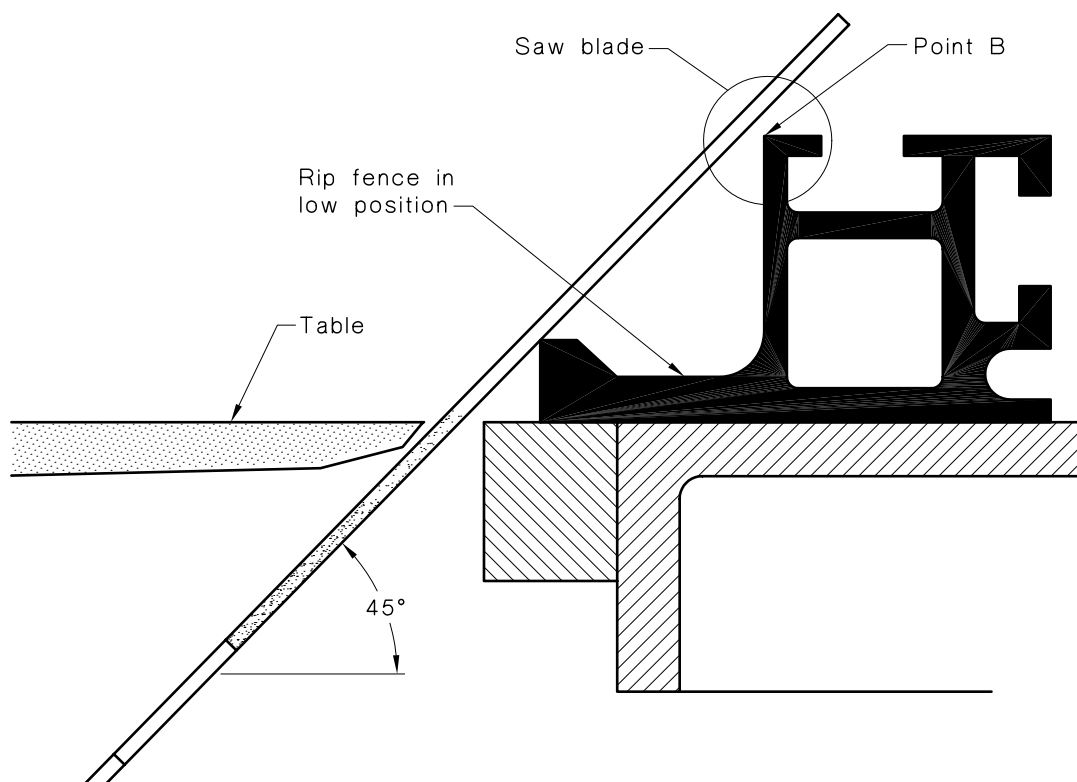
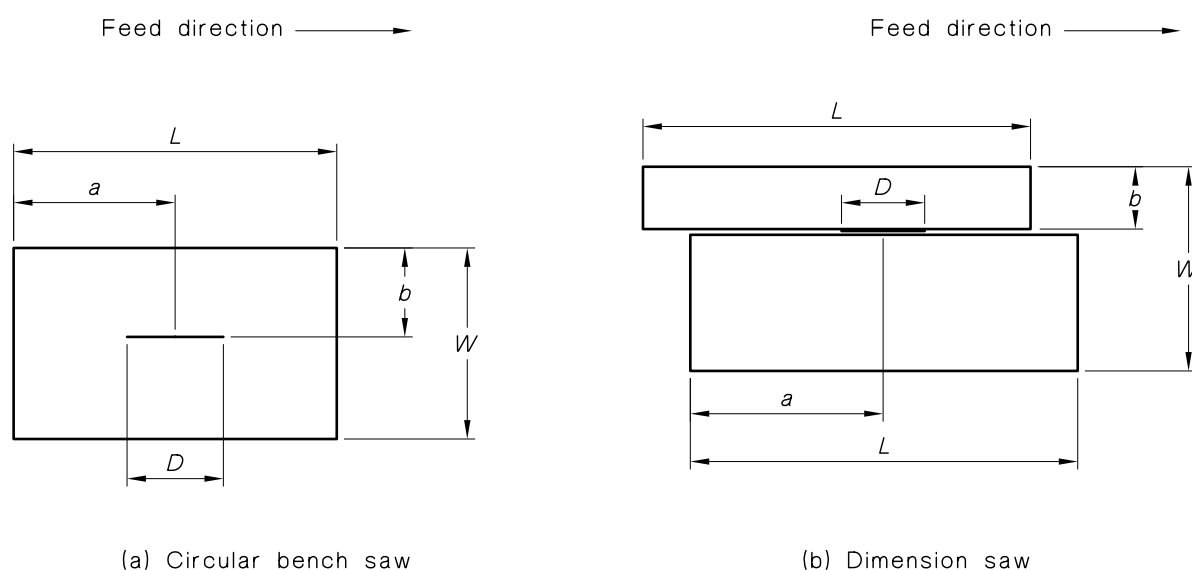


FIGURE 2.8 DESIGN OF RIP FENCE IN LOW POSITION

2.5.2 Table size

The dimensions of the machine table shall conform to the standards laid out in Figure 2.9.



Dimension	Saw blade diameter, D						
	millimetres						
	$D \leq 200$	$D > 200$ $D \leq 250$	$D > 250$ $D \leq 315$	$D > 315$ $D \leq 400$	$D > 400$ $D \leq 450$	$D > 450$ $D \leq 500$	$D > 500$
L	500	625	790	1000	1125	1250	1500
W	335	415	525	850	850	850	1000
$a \geq$	250	310	395	500	560	625	750
$b \geq$	110	140	175	280	280	280	335

FIGURE 2.9 MINIMUM DIMENSIONS OF MACHINE TABLE

2.5.3 Extension tables

2.5.3.1 General

All machines should be designed with the facility to attach an extension table, e.g. fixing holes.

Means shall be provided to support elongated or over-width materials.

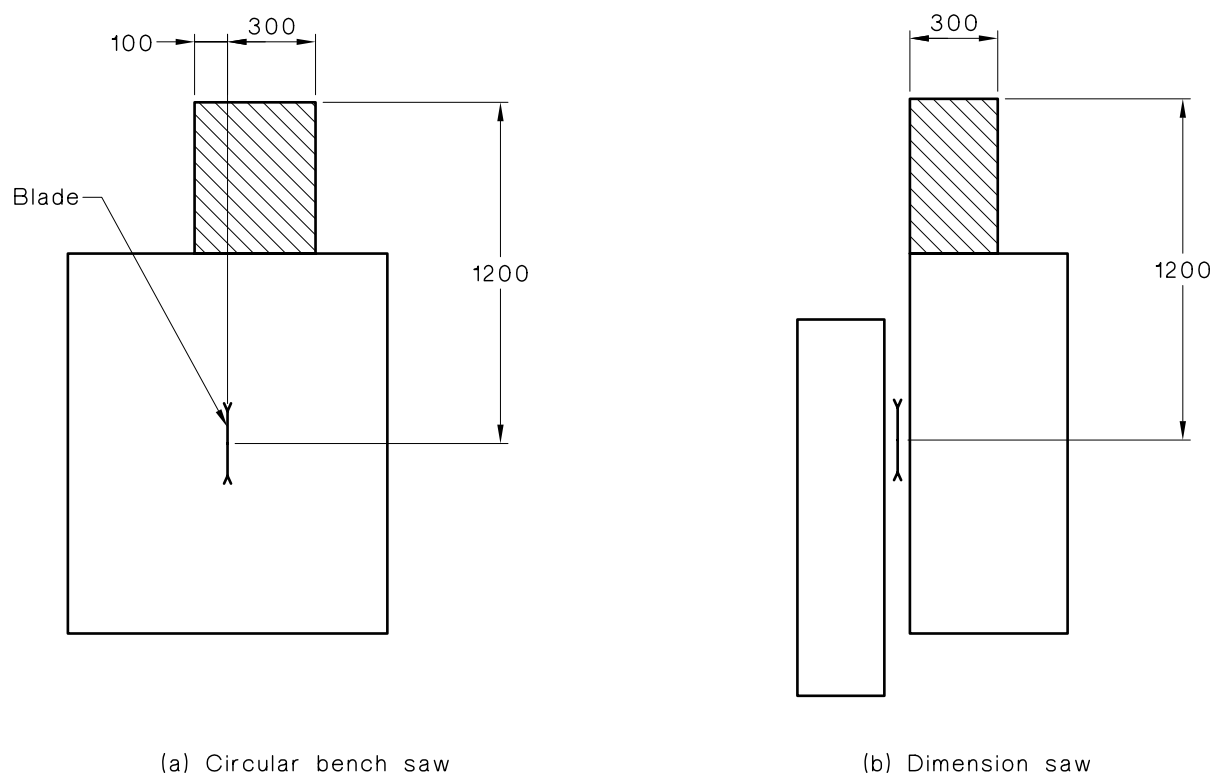
Where a machine is to be used with an extension table, provisions for bolting, or firmly joining the two together shall be provided.

2.5.3.2 Circular saw bench (with and without travelling table)

Where provided, the width of the extension table shall be such that it extends at least 300 mm to the fence side of the saw cutting line and at least 100 mm on the non-fence side. (See Figure 2.10).

2.5.3.3 Dimension saws

The minimum width of the extension table shall be in accordance with that shown in Figure 2.10.



DIMENSIONS IN MILLIMETRES

FIGURE 2.10 MINIMUM DIMENSIONS OF EXTENSION TABLE

2.5.4 Travelling table

The forward movement of the travelling table on dimension saws shall be restricted so that the travelling table stops when the rear of the workpiece support of the travelling table has reached the centre of the saw blade. Where there is a facility to override this stop mechanism in order to allow saw blade changing, the override shall automatically return to the blocked position when the travelling table is returned to within its normal operating limits.

The facility to override the stop mechanism shall be interlocked with the drive of the saw blade to prevent the saw blade turning when the stop mechanism is overridden.

2.5.5 Prevention of access to moving parts

2.5.5.1 Guarding of tools

The adjustable guard shall be provided to guard that portion of the blade above the table. This guard shall have the following characteristics:

- (a) The guard shall be designed to encompass the saw blade and scoring saw when fitted, and shall extend beyond the first cutting tooth at the table top level when the saw blade or scoring saw blade is adjusted to its highest position.

When the machine is fitted with a post-formed edge pre-cutting saw blade, the top guard shall be interlocked so that post-formed edge pre-cutting is not possible unless the guard is at the same height or lower than the maximum capacity for post-formed edge pre-cutting for which the machine is designed.

- (b) Saw guard stability shall be such that it conforms with the requirements of the tests given in Appendix C.

- (c) The base of the saw guard slot shall be lined with a rib, made of a material which will not damage the saw blade, such as plastic, light alloy, wood or wood based products. This rib shall be a minimum 3 mm in depth, and shall be designed so as to prevent the saw blade teeth from cutting into the guard should the saw guard be displaced from the line of cut. If the rib is replaceable, the fixing arrangement shall be such that it does not damage the saw blade, e.g. brass screws.
- (d) Machines which are designed to be used with saw blades up to a diameter of 315 mm shall be designed so that the top guard is mounted on the riving knife (see Figure 2.11 and Appendix B), or mounted separately from the riving knife but integral with the machine (see Figure 1.2).
- (e) On machines that are capable of accommodating a saw blade of diameter greater than 315 mm, the design shall be such that the top guard is mounted separately from the riving knife but integral with the machine (see Figure 1.1). The support for the guard shall not be in line with the riving knife.

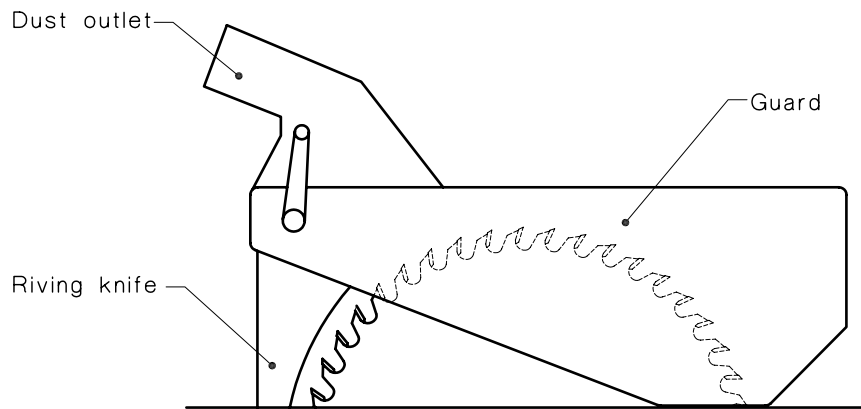


FIGURE 2.11 RIVING KNIFE MOUNTED GUARD

2.5.5.2 Additional requirements for riving knife mounted saw guards

For all intended saw blade diameters and all positions of the saw blade, the guard shall cover the top and sides of the exposed saw teeth from the saw guard mounting point on the riving knife to the first cutting tooth at the top of the workpiece. It may be necessary to provide more than one fixing point on the riving knife in order to achieve this requirement.

The saw guard shall either be an adjustable guard, or a self-adjusting guard. The mounting arrangement and the design of the guard shall be such that when cutting a workpiece of the maximum height for which the machine is designed, the bottom edge of the guard shall be parallel with the table, (within 1 mm for every 100 mm of length) and neither the guard nor its mounting arrangement shall obstruct the passage of the workpiece. (See Figure 2.11).

Incorporation of a riving knife mounted guard shall not prevent the use of full depth of cut.

The infeed end of the base of the saw guard should have a lead-in or roller in order to avoid misfeeding, should the guard be incorrectly set or the workpiece be uneven.

The maximum outside width of the saw guard should be 30 mm so as to minimize the risk of exposure to the blade while fitting the saw blade.

2.5.5.3 Additional requirements for saw guards mounted separately from riving knife

When mounted separately from the riving knife, the saw guard shall be an adjustable guard which covers the top and sides of the saw blade, and shall be capable of being raised and lowered so that when the machine is fitted with the largest saw blade for which it is

designed, the bottom edge of the guard can be raised to a maximum height of 5 mm above the uppermost saw teeth, and the guard can be lowered to table level. The means of adjustment shall ensure that the bottom of the guard remains parallel to the table at all times the saw guard shall be fitted with a device for easily adjusting the height of the guard (see Figures 2.12(a) and 2.12(b)).

The mounting arrangement for the guard support shall be such that it cannot be removed from the machine without the aid of a tool.

If the saw guard support allows the saw guard to be moved away from its position above the saw blade, then this movement shall—

- (a) be capable of being carried out without the aid of a tool; and
- (b) be equipped with positive stops so that when the saw guard is moved back into position above the saw slot no further adjustment is necessary.

On machines which do not have tilting saw blades, the maximum width of the saw guard at its base should be 50 mm. The maximum width of the saw guard on the fence side should be 15 mm from the saw blade flange.

On machines which have the facility to tilt the saw blade, either an auxiliary guard shall be provided, or the saw guard shall be capable of being fitted with an extension piece for use during angled cutting. The guards or extension pieces shall be capable of being fitted without the aid of a tool (see Figure 2.12(c)).

The infeed end of the base of the saw guard, should have a lead-in in order to avoid misfeeding should the guard be incorrectly set or the workpiece be uneven.

2.5.5.4 *Slot for the saw blade in the table or in the table slot lining*

On the fixed saw flange side of the table, the distance between the body of the saw and the edge of the table slot should not exceed 3 mm for saw blades up to a diameter of 500 mm and 5 mm for saw blades with a diameter greater than 500 mm (see Figure 2.13).

For bench saws, and on the fixed table side of a dimension saw, the table slot shall extend not more than 20 mm in front of the saw blade when fitted with the largest saw blade for which the machine is designed raised to its maximum height. On machines fitted with a scoring saw blade or a post-formed edge pre-cutting saw blade, the table slot shall extend not more than 20 mm in front of the scoring saw blade or post-formed edge pre-cutting saw blade when these are raised to their maximum height.

The table slot shall be lined with plastic, aluminium, wood or similar material.

Circular bench saws with a saw blade diameter greater than 315 mm shall have a replaceable table slot lining which is held in position such that it would not be dislodged in the event of contact between the saw blade and the table slotlining.

In cases where the saw blade is changed from above the table, the table insert should be at least 80 mm wide on the non-fixed flange side to allow safe blade changing.

As a guide, the gap on each side between the face of the saw plate and the table slot should be 3 mm for blade having a diameter of up to and including 500 mm and 5 mm for blades having a diameter of greater than 500 mm.