

Radial-arm saw

Radial-arm saws are circular saws that are normally used to cut against the grain of wood (crosscut) but can also cut with the grain (rip). For crosscutting, the operator pushes the wood against a fence and pulls the saw into the cut. For rip cuts, the blade is set parallel to the fence, and the stock is pushed through.

Hazard

Severe cuts and amputations can occur if the operator contacts the rotating blade.

If the saw blade is able to go past the edge of the table, the blade can contact the operator's body.

Stock can be thrown back at the operator if unsecured, caught in the blade, or fed in the wrong direction.

Solution

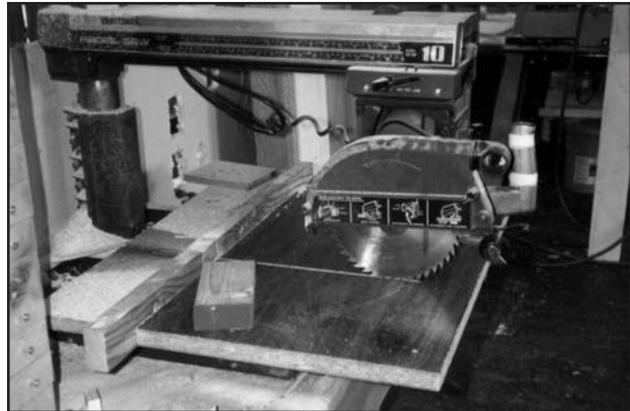
Enclose the upper half of the saw (top of the blade to the arbor) with a fixed hood.

Guard the sides of the bottom half of the blade with a self-adjusting guard that automatically adjusts to the thickness of the stock and remains in contact with the stock throughout the cut. The lower guard must guard the full perimeter of the blade on both sides during the cutting cycle and in the rest position. It must guard all of the saw teeth. Oregon OSHA allows radial saws to be guarded by a device or devices (jigs, work holders, guides, or stops) that provide protection equal to that mentioned above.

Make sure the cutting head has a return device and an adjustable stop to prevent the leading edge of the saw from passing the front edge of the table, or extend the table edge.

Securely fasten material to avoid unwanted movement during cuts.

For ripping, install non-kickback fingers on both sides of the saw blade and use a spreader to prevent the cut in the wood from immediately closing and binding the blade.



Bottom half of saw blade is unguarded.



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References

- **General Industry** — *Oregon OSHA Division 2/Subdivision O 29 CFR 1910.213(h) and OAR 437-002-0242(4)*
- **Construction** — *Oregon OSHA Division 3/Subdivision I 29 CFR 1926.304(g)*
- **Agriculture** — *Oregon OSHA Division 4/Subdivision O OAR 437-004-2000(5)*
- Oregon OSHA Program Directive A-38 “Guarding: Radial Arm Saws” (March 8, 2001)
- ANSI 01.1 *Woodworking Machinery — Safety Requirements*