

Radial Arm Saws

DT Workshop Equipment Reference — D&T / STEM resource for school workshops | Woodworking Machines



Photo: U.S. Navy photo by Photographer's Mate 2nd Class John F. Looney — Public domain — via Wikimedia Commons (US_Navy_060614-N-9662L-001_Petty_Officer_2nd_Class_Aloysius_Figirmow, a Seabee assigned to Naval Facilities Engineering Command, cuts a piece of wood)

A radial arm saw has a motorised blade mounted on an arm above the table that is pulled across the work to cut. It crosscuts, rips, mitres and dados, but requires careful setup and is unforgiving, so it is usually reserved for experienced users or kept for repeating identical crosscuts.

Key Features

- Blade up to 350 mm on heavier models
- Arm rotates for mitres and compound angles
- Motor tilts for bevel cuts
- Can be set for repeated identical cuts
- Sawdust extraction port at the blade guard

Typical Uses in the Workshop

- Repeatable crosscuts for batches of parts
- Mitre and bevel cutting of framing
- Dado and groove cutting with stacked blades
- Ripping with the blade rotated along the arm

Safe Operation

1. Lock the arm and set the depth stop for each cut
2. Pull the saw across the work in one smooth stroke
3. Return the saw fully behind the fence before lifting
4. Use the fence as the reference, never freehand
5. Clamp stop blocks for batch lengths

SAFETY NOTES

- The blade climbs onto the work - pull slowly and steadily
- Never reach under the blade guard
- Keep hands on the handles, clear of the blade path
- Wear eye protection and keep the area clear
- Only trained staff and senior students use this machine

Maintenance & Consumables

- Check the arm locks and table alignment regularly
- Keep the blade sharp; dull blades climb and kick
- Vacuum dust from the arm track and motor
- Check the guard and anti-kickback devices
- Re-align the machine after any knock

Specification & Buying Notes

Radial arm saws are hard to justify new for most school shops - a table saw and mitre saw cover the same jobs more safely. If second-hand, check the arm locks tightly and the table is dead square.