

Lesson 8: Sanding Tools

Introduction

In woodworking, sanding is an integral part of the craft. They enable you to transform the wood piece into precise, neat, and clean surfaces. Sanding tools are essential in woodworking to achieve a smooth and polished finish. They help prepare surfaces for painting, varnishing, or further assembly. Understanding the different sanding tools and abrasives ensures quality craftsmanship.



Introduction to Sanding

Sanding in woodworking is the process of smoothing and preparing wood surfaces by using sandpaper or sanding tools. It helps remove rough spots, scratches, and uneven areas, making the surface ready for finishing. Proper sanding ensures that paint, stain, or varnish adheres well and gives the wood a clean, polished look.

Types of Sanders

Random Orbital Sander – Combines spinning and oscillating motion to prevent swirl marks, making it ideal for general sanding and achieving a smooth, even finish.



Belt Sander – Uses a continuous loop of sandpaper for aggressive sanding, perfect for leveling, flattening, and quickly removing stock on large wooden panels.



Palm Sander – Small, lightweight, and easy to handle, designed for light sanding, fine finishing, and reaching tight spaces.



Spindle Sander – Features a rotating drum that moves up and down, excellent for shaping, smoothing curves, and finishing inside edges.



Abrasives

Sandpaper Backing – The flexible base layer (paper, cloth, or film) that supports abrasive grains and determines durability.



Aluminum Oxide Paper – Long-lasting abrasive commonly used in woodworking; self-renews as it wears, making it efficient for extended sanding.



Abranet – A mesh-based abrasive that provides superior dust extraction, reduces clogging, and extends tool life.



Webrax – Non-woven abrasive used for cleaning, polishing, and creating smooth finishes without removing too much material.



Sanding Block – A handheld tool that holds sandpaper flat, giving better grip, control, and even sanding pressure, especially for edges and corners.



Terminologies

Sanding – The process of smoothing surfaces using abrasive materials.

Grit – The measurement of sandpaper coarseness. Lower grit = rough, higher grit = smooth.

Abrasives – Materials used to wear down surfaces by friction.

Backing – The paper, cloth, or mesh that holds abrasive grains.

Reference

Bridgewater, A. (2014). Woodwork step by step: More Than 100 Tools and Techniques with Inspirational Projects to Make. DK.

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