



Construction Trades I

Project Book 1-Chapter 5: Power Tools for Fastening and Finishing

May 7, 2020



11-12 Construction Trades I Project Book 1-Chapter 5 : [May 7, 2020]

Objective/Learning Target:

Students will learn about different power tools used for fastening and finishing and how to use them properly.

POWER TOOLS FOR FINISHING AND FASTENING

What You Now Know

- How to safely and effectively operate some power tools
- The importance of safety when operating power tools

What You Will Know

- Which power tools to use during fastening and finishing processes
- How to safely and effectively operate common finishing and fastening power tools

INTRODUCTION TO POWER TOOLS

- DRIVEN BY ELECTRIC MOTORS, BATTERIES, OR COMPRESSED AIR
 - CORDED OR CORDLESS
 - PROPER SAFETY PROCEDURES MUST BE FOLLOWED
 - APPROPRIATE PPE MUST BE WORN
- NEVER USE ANY POWER TOOL WITHOUT PROPER TRAINING.

POWER TOOL SAFETY

AVOIDING ELECTRIC SHOCK

- ANY EXPOSURE TO ELECTRIC SHOCK CAN BE DANGEROUS.
- NEARLY ALL SHOCKS CAN BE AVOIDED.
- SOME TOOLS ARE DOUBLE INSULATED—TWO-PRONGED PLUG.
- SOME HAVE A GROUND WIRE ON THE INSIDE OF THE TOOL—THREE-PRONGED PLUG.
- AVOID USING POWER TOOLS IN DAMP PLACES.

POWER TOOL SAFETY CONTINUED

SAFETY TAGS

DO NOT PUT TOOLS THAT NEED REPAIR BACK ON THE SHELF.

MARK DEFECTIVE TOOLS WITH A TAG.

- LIST WHAT IS WRONG WITH THE TOOL.
- WRITE "DO NOT USE" ON THE TAG.

POWER DRILL

ROTATES A BIT AT A HIGH RATE OF SPEED

USED TO CREATE HOLES AND TO PREVENT MATERIALS FROM SPLITTING

CORDED OR BATTERY POWERED

MANY HAVE VARIABLE SPEED SETTINGS

D-SHAPED OR L-SHAPED HANDLES

DIFFERENT SIZED CHUCKS

DIFFERENT DRILL BITS:

TWIST BIT

SPADE BIT



SCREW GUN

- USED TO INSTALL SCREWS
- INTERCHANGEABLE TIPS
- SHAFT CAN ROTATE CLOCKWISE OR COUNTER-CLOCKWISE
- ADJUSTABLE NOSE CONE



PNEUMATIC NAIL GUN

- USES AIR PRESSURE TO DRIVE NAILS
- PRESSURE SUPPLIED BY AN ELECTRIC COMPRESSOR OR PUMP
- FOOT IS A SAFETY CATCH
- TWO TYPES: FRAMING AND FINISHING
- NAIL GUNS LOAD DIFFERENTLY ACCORDING TO THE DESIGN OF THE MANUFACTURER
- DISCONNECT HOSE BEFORE LOADING THE NAILS
- DUAL-ACTION SYSTEM
- SEQUENTIAL TRIP SYSTEM



BELT SANDER

- MAKE SURE THE BELT IS IN GOOD WORKING ORDER.
 - USE A SANDER WITH A DUST-COLLECTION SYSTEM, WHEN POSSIBLE.
- MAKE SURE THE SANDER IS OFF BEFORE CONNECTING IT TO THE POWER SOURCE.
 - KEEP BODY PARTS, CLOTHING, HAIR, AND JEWELRY CLEAR OF THE MOVING BELT.
- MAKE SURE THE POWER CORD IS CLEAR OF WORK.
 - CHECK THE PLUG FOR DAMAGE.
- ALWAYS WEAR A DUST MASK.
 - ALWAYS WEAR EYE PROTECTION.