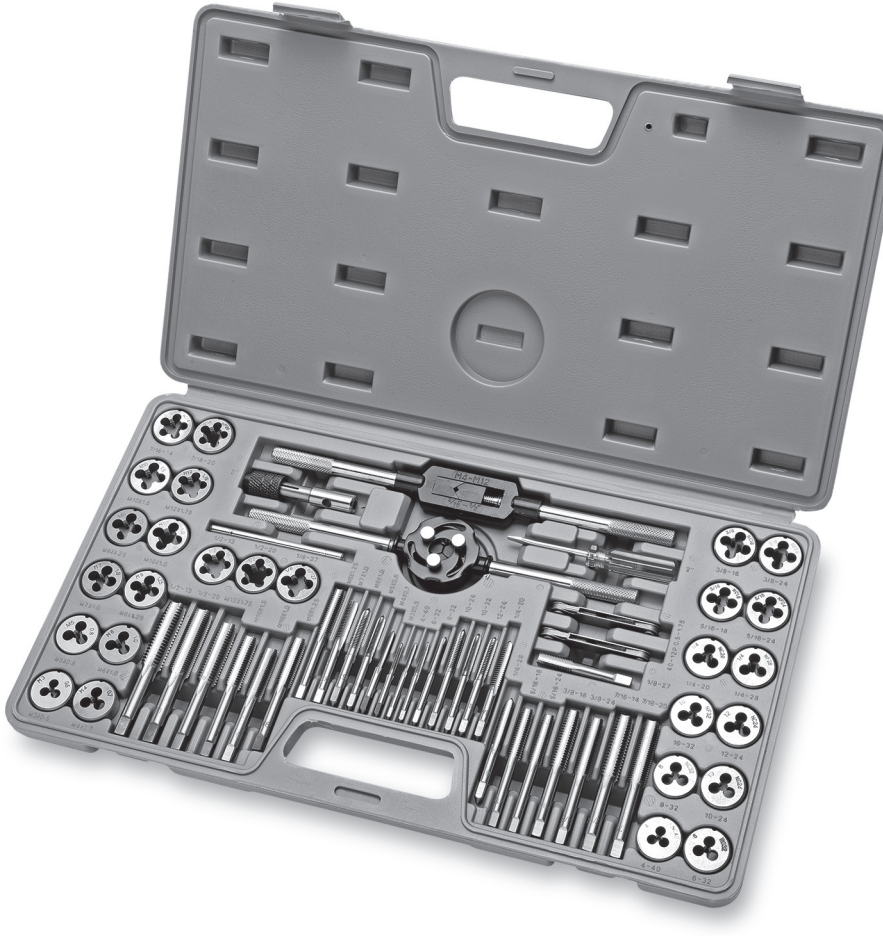
Eastwood®

DO THE JOB RIGHT.®

Item #33861

60PC TAP AND DIE SET

INSTRUCTIONS



The **EASTWOOD 60 PIECE TAP AND DIE SET** offers both SAE and Metric Tap and Die thread sizes to handle most any thread cutting project. A selection of Tap and Die holders provide positive and secure control of Taps and Dies while performing thread cutting operations. The included SAE and Metric Thread Gauges allow accurate measuring of existing threads to be matched. A heavy-duty, blow molded case keeps all components clean and rust free.

CONTENTS

SAE Sets (32 Pieces)

- **(1 Each)** 4-40 Tap and Die
- **(1 Each)** 6-32 Tap and Die
- **(1 Each)** 8-32 Tap and Die
- **(1 Each)** 10-24 Tap and Die
- **(1 Each)** 10-32 Tap and Die
- **(1 Each)** 12-24 Tap and Die
- **(1 Each)** 1/4-20 Tap and Die
- **(1 Each)** 1/4-28 Tap and Die
- **(1 Each)** 5/16-18 Tap and Die
- **(1 Each)** 5/16-24 Tap and Die
- **(1 Each)** 3/8-16 Tap and Die
- **(1 Each)** 3/8-24 Tap and Die
- **(1 Each)** 7/16-14 Tap and Die
- **(1 Each)** 7/16-20 Tap and Die
- **(1 Each)** 1/2-13 Tap and Die
- **(1 Each)** 1/2-20 Tap and Die

METRIC SETS (20 PIECES)

- **(1 Each)** M3 x 0.5 Tap and Die
- **(1 Each)** M4 x 0.7 Tap and Die
- **(1 Each)** M5 x 0.8 Tap and Die
- **(1 Each)** M6 x 1.0 Tap and Die
- **(1 Each)** M7 x 1.0 Tap and Die
- **(1 Each)** M8 x 1.25 Tap and Die
- **(1 Each)** M9 x 1.25 Tap and Die
- **(1 Each)** M10 x 1.0 Tap and Die
- **(1 Each)** M10 x 1.5 Tap and Die
- **(1 Each)** M12 x 1.75 Tap and Die

PIPE THREAD (2 PIECES)

- **(1)** 1/8-27 NPT Tap and Die

TOOLS (4 PIECES)

- **(1)** Large, Vice-type Tap Holder
- **(1)** Small, T-Handle Collet Tap Holder
- **(1)** Die Holder
- **(1)** Screw Driver

THREAD PITCH GAUGES (2 PIECES)

- **(1)** SAE Thread Pitch Gauge
- **(1)** Metric Thread Pitch Gauge

Packaged in Storage Case

SAFETY INFORMATION

The following explanations are displayed in this manual, on the labeling, and on all other information provided with this product:

⚠ DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

⚠ NOTICE

NOTICE is used to address practices not related to personal injury.

⚠ READ INSTRUCTIONS

- Thoroughly read and understand these product instructions before using the Eastwood Tap and Die Set.
- Keep these product instructions for future reference.

⚠ CAUTION FALL HAZARD!

- The workpiece must be securely anchored in place or clamped in a vice. Parts being threaded may suddenly release creating a dangerous fall and injury condition.

⚠ CAUTION INJURY HAZARD!

- Taps may shatter if broken. Always wear ANSI approved eye protection when using this tool.
- Thread cutting will produce sharp metal chips and edges. Always wear gloves when operating this tool to avoid cuts from sharp metal edges.

⚠ NOTICE DO NOT APPLY EXCESSIVE FORCE!

- Taps may break inside of a drilled bore. If excessive force is required, reverse direction of cutting, remove chips and resume cutting.

SET-UP

TAP HOLDER SET-UP

- If using the Small, T-Handle Collet Tap Holder:
  - Insert T-bar through hole in Tap Holder stem.
  - Open the Collet Jaws to accept the square of the selected Tap.
  - Insert the Square Drive of Tap into the Collet Jaws.
  - Securely hand-tighten the Collet to clamp the Tap in place.
- If using the Large, Vice-type Tap Holder:
  - Open the Vice Block by threading the right-side Handle (engraved side facing upward) outward.
  - Insert the Square Drive of Tap into the Vice Block.
  - Securely hand-tighten the right-side Handle (engraved side facing upward) to clamp the Tap in place.

DIE HOLDER SET-UP

- Place the Die Holder with the open side facing upwards.
- Loosen the Set-screw on the side of the Die Holder with the included Screwdriver.
- Insert the selected Die into the recess of the Holder making sure the larger, beveled opening of the Die is facing upwards.
- Using the included Screwdriver, firmly tighten the Set-screw to clamp the Die in place.
- Loosen the three thumbscrews on the back of the Die Holder, rotate the aperture to set the Guide Jaws to lightly contact the O.D. of the rod being threaded.
- Re-tighten the three aperture thumb screws finger tight.

THREAD CUTTING

CUTTING INTERNAL THREADS WITH A TAP

- Consult the included Tap Drill Guide and drill the appropriate tap hole size. (Tap drills not included).
- Apply a generous amount of cutting oil to the Tap.
- Insert the Tap into the bored hole and begin turning with a steady, even pressure. Keep the Tap straight in the bore. If excessive resistance is felt, stop immediately to avoid breaking a Tap.
- Typical tapping procedure is one revolution then back out 1/2 turn to release chips.
- When the tapping operation is complete, slowly, and steadily back out the Tap.

CUTTING EXTERNAL THREADS WITH A DIE

- Prep the end of the shaft material by grinding or filing an 0.063" [1.6mm] or more chamfered edge.
- Make sure the larger, beveled opening of the Die is placed over the end of the shaft material, apply cutting oil to Die and begin thread cutting on the end. The Die MUST be kept square and straight on the shaft material.
- Typical thread cutting procedure is one revolution then back off 1/2 turn to release chips.
- When the threading operation is complete, slowly, and steadily back off the Die.

NOTES

NOTES

If you have any questions about the use of this product, please contact

The Eastwood Technical Assistance Service Department: 800.343.9353 >> email: tech@eastwood.com

PDF version of this manual is available at eastwood.com

The Eastwood Company 263 Shoemaker Road, Pottstown, PA 19464, USA

800.343.9353 eastwood.com