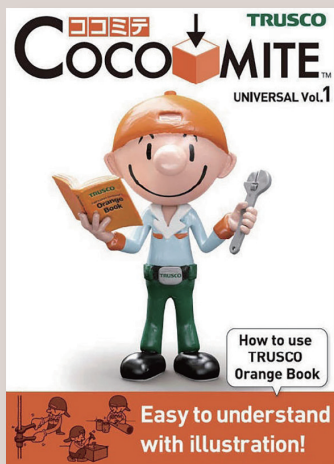
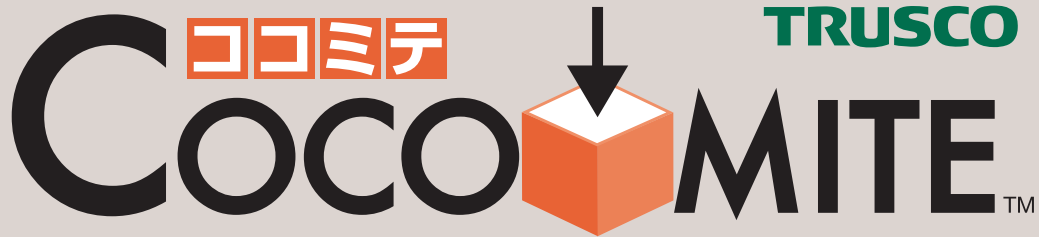


# COCOMITE UNIVERSAL Vol.1 (English)



COCOMITE UNIVERSAL is the guidebook which explains items in as simple way as possible with plenty of illustrations and pictogram for you to “understand at a glance” **usage of Pro Tools**, use situations and tips when ordering with the aim of knowledge enhancement.

### 01 Woodworking Bit / Cutter

#### Adjustable Hole Cutter

A tool that performs various drilling with this single product.

Specify the processing hole diameter.

Features: In case of drilling different size holes on the indoor or outdoor wall such as down lights and air conditioner piping, able to perform it only by changing the position of the cutting edge.

Types: Double sided-blade type (Safe with good working balance), Single sided-blade type (Directly attach the blade to the bar).

Shank shape: Triangle (φ10), Straight (φ13), Three-flute (φ10), Hex (φ35).

**Safety Cover**: Prevents scattering of chips and contact during rotation when using the adjustable hole cutter.

**Working tools (example)**: Electric drill, Drilling machine.

**COCOMITE**: Check the material and thickness of the plate to be drilled, Select the type (double-sided/single-sided blade) according to the use, Check the shank shape.

### 01 Thread Cutting

#### Tap

"Tap" is a tool for creating screw hole (female screw) on a pilot hole of metal.

Name of each part of tap: Flank, Flute, Chamfer lead, Thread length, Total length, Cutting face, Chip breaker, Core diameter, Pitch diameter, Major diameter.

Types of taps (classified by the pitch hole shaped hole through hole): Cutting type (generating chips) - Spiral tap (Discharges chips backward, Mainly used for "blind hole"), Point tap (Discharges chips forward, Used for "through hole"), Hand tap (Some with forming types are available, As it keeps chips inside the tap itself, used for both "blind hole" and "through hole"), Forming type (not generating chips) - Roll tap (Does not generate chips, Both blind hole and through hole type are available).

**Guide of tap selection by material**

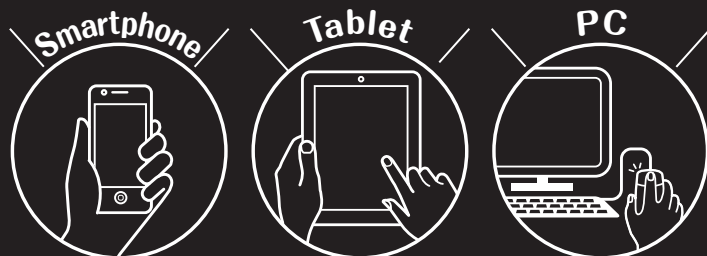
	Aluminum	Steel	Stainless	Cast iron	Cast steel
Through hole	○	○	○	○	○
Blind hole	○	○	○	○	○
Cast iron	○	○	○	○	○
Cast steel	○	○	○	○	○
Stainless	○	○	○	○	○
Steel	○	○	○	○	○
Aluminum	○	○	○	○	○
Plastic	○	○	○	○	○

Legend: ○:Optimum, ◐:Applicable, ◑:Unsuitable, ×:Inapplicable

**How screw hole is made**: In case of blind hole, (1) Drill, (2) Insert it into the hole made in the step (1) by turning it, (3) Screw hole is complete. The hole that penetrated the metal plate is called a "through hole", and the hole that does not penetrate is called a "blind hole".

**Processing example**: [Simple calculation formula of screw pilot hole diameter] - Pilot hole diameter = nominal - pitch (e.g. in case of M6x1: 6-1=5), Roll tap: Pilot hole diameter = nominal - pitch/2 (e.g. in case of M6x1: 6-1/2=5.5).

**COCOMITE**: Check the thread size × pitch (mm), Check whether it is "blind hole" or "through hole".



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