



INSTRUCTIONS FOR: TAP AND DIE SET All Models

Thank you for purchasing a Sealey Product.. Manufactured to a high standard this product will, if used according to these instructions and properly maintained, give you years of trouble free performance.



IMPORTANT: ACCIDENTS MAY OCCUR IF TOOLS ARE INCORRECTLY USED AND/OR YOU FAIL TO MAINTAIN TOOLS IN A SAFE CONDITION. IT IS THE RESPONSIBILITY OF THE USER, TO ENSURE THAT TOOLS ARE CORRECTLY USED AND MAINTAINED. PLEASE READ THESE SAFETY INSTRUCTIONS CAREFULLY. NOTE THE SAFE REQUIREMENTS FOR USE, WARNINGS AND CAUTIONS. USE TOOL CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY. PLEASE KEEP INSTRUCTIONS FOR FUTURE USE.

1. SAFETY INSTRUCTIONS

1.1. GENERAL SAFETY

- **WARNING!** Ensure health & safety, local authority, and general workshop practice regulations are adhered to when using this equipment.
- x **DO NOT** hold the workpiece by hand. Use clamps or a vice (not included) to secure the workpiece.
- ✓ Wear approved safety eye protection (standard spectacles are not adequate).
- ✓ Keep the work area clean, uncluttered and ensure there is adequate lighting.
- ✓ Keep children and unauthorised persons away from the working area.

1.2. PERSONAL PRECAUTIONS

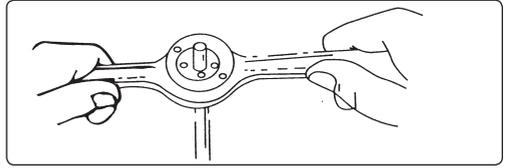
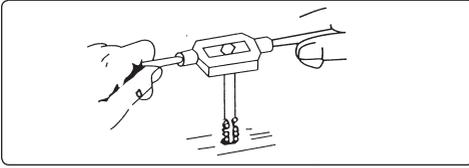
- ✓ Remove ill fitting clothing. Remove ties, watches, rings, and other loose jewellery, and contain and/or tie back long hair.
- ✓ Wear appropriate protective clothing.

2. SPECIFICATION

Tap Drills & Screw Thread Chart - preferred thread series.

Nominal ∅ of threads in mm.	Pitch (P) in mm.	Tapping Drill ∅ in mm.	M5.0	0.80	4.20	M12.0	1.50	10.50	M22.0	1.50	20.50	M36.0	4.00	32.00
			M6.0	0.75	5.20	M12.0	1.75	10.20	M22.0	2.00	20.00	M39.0	3.00	36.00
			M7.0	1.00	6.20	M14.0	1.25	12.80	M24.0	1.00	23.00	M40.0	1.50	37.50
M2.0	0.25	1.75	M7.0	1.00	6.00	M14.0	1.50	12.50	M24.0	1.50	22.50	M40.0	3.00	37.00
M2.0	0.40	1.60	M8.0	0.75	7.20	M14.0	2.00	12.00	M24.0	2.00	22.00	M42.0	4.00	38.00
M2.2	0.45	1.75	M8.0	1.00	7.00	M16.0	1.00	15.00	M24.0	3.00	21.00	M42.0	4.50	37.50
M2.5	0.35	2.15	M8.0	1.25	6.80	M16.0	1.50	14.50	M25.0	1.50	23.50	M45.0	4.00	41.00
M2.5	0.45	2.05	M9.0	0.75	8.20	M16.0	2.00	14.00	M25.0	2.00	23.00	M45.0	4.50	40.50
M3.0	0.35	2.65	M9.0	1.00	8.00	M18.0	1.00	17.00	M27.0	1.50	25.50	M48.0	4.00	44.00
M3.0	0.50	2.50	M9.0	1.25	7.80	M18.0	1.50	16.50	M27.0	3.00	24.00	M48.0	5.00	43.00
M3.5	0.35	3.15	M10.0	1.00	9.00	M18.0	2.00	16.00	M28.0	1.50	26.50	M52.0	4.00	48.00
M3.5	0.60	2.90	M10.0	1.25	8.80	M18.0	2.50	15.50	M30.0	1.50	28.50	M52.0	5.00	47.00
M4.0	0.50	3.50	M10.0	1.50	8.50	M20.0	1.00	19.00	M30.0	3.50	26.50	M56.0	4.00	52.00
M4.0	0.70	3.30	M11.0	1.00	10.00	M20.0	1.50	18.50	M32.0	1.50	30.50	M56.0	5.50	50.50
M4.5	0.50	4.00	M11.0	1.50	9.50	M20.0	2.00	18.00	M33.0	2.00	31.00	M60.0	4.00	56.00
M4.5	0.75	3.70	M12.0	1.00	11.00	M20.0	2.50	17.50	M33.0	3.50	29.50	M60.0	5.50	54.50
M5.0	0.50	4.50	M12.0	1.25	10.80	M22.0	1.00	21.00	M36.0	3.00	33.00			

3. INSTRUCTIONS FOR USE



3.1. INTERNAL THREADS

- X DO NOT** hold the workpiece by hand. Use clamps or a vice (not included) to secure the workpiece.
- 3.1.1. To cut an internal thread **through** a solid piece of metal, drill a correctly sized hole using a tapping drill selected from the size chart above.
Note: an M3 threaded hole does not use an M3 drill.
- 3.1.2. Ensure that the hole is free from burrs, clear of swarf and apply a smear of suitable lubricating grease.
- 3.1.3. Select the correct taper tap from the set and secure it in the tap wrench. Apply a little grease to the tip of the tap.
- 3.1.4. Rest the tap in the hole and grasp the wrench with two hands. Apply even pressure and turn the tap clockwise until it “bites”. Continue to twist the wrench until resistance is felt (usually about $\frac{1}{2}$ a turn) then give it a quarter turn anti-clockwise until a slight click is felt. This is the swarf from the clockwise twist being broken off.
- 3.1.5. Continue this action until the tap has run almost its complete length and ensure that a suitable lubricating grease is applied regularly.
- 3.1.6. To cut a thread in a **blind** hole, use the same instructions as above but be careful not to jam the tap in the bottom of the hole.

3.2. EXTERNAL THREADS

- X DO NOT** hold the workpiece by hand. Use clamps or a vice (not included) to secure the workpiece.
- ✓ Provide appropriate lubrication while cutting threads.
- 3.2.1. To cut an external thread on a solid bar, select the correct die for the rod being threaded.
Note: Whilst the size of the rod or bolt is not too important, it must be longer than the desired thread, and ideally 0.005” to 0.0010” undersized.
- 3.2.2. Insert the die into the die stock and turn the set screw snugly into one of the recesses on the outside surface of the die.
Note: The recess and slot pattern of dies allows for a variety of die stocks.
- 3.2.3. Bevel the end of the piece to be threaded in order to make starting easier.
- 3.2.4. Using the chamfered side of the die, start the threading operation by rotating the die on the rod clockwise until it starts leading onto the workpiece.
- 3.2.5. Chips will flow into the holes provided and should be broken by reversing the action every $\frac{1}{4}$ to $\frac{1}{2}$ a turn, depending on the tightness encountered.
- 3.2.6. Continue this operation until the threads of the desired length have been cut.

NOTE: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

IMPORTANT: No liability is accepted for incorrect use of this product.

WARRANTY: Guarantee is 12 months from purchase date, proof of which will be required for any claim.

INFORMATION: For a copy of our latest catalogue and promotions call us on 01284 757525 and leave your full name and address, including postcode.



Sole UK Distributor, Sealey Group,
Kempson Way,
Suffolk Business Park,
Bury St. Edmunds, Suffolk,
IP32 7AR



01284 757500



www.sealey.co.uk



01284 703534



sales@sealey.co.uk