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Thick Turret tap tool – Quick start guide

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Note: Although the following guide features a NCT3 (C station) tool, similar principles apply for the larger NCT3.5 (D station) tool.

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Oil Hose connection

The tool will be supplied with a length of hose and fittings such that the hose can be cut to length to suit the installation.

Locate the tank and tool in the turret to determine the hose length required before cutting.

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Oil Hose connection

Once cut to length assemble the appropriate connections to the hose and oil tank



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Oil Tank Priming

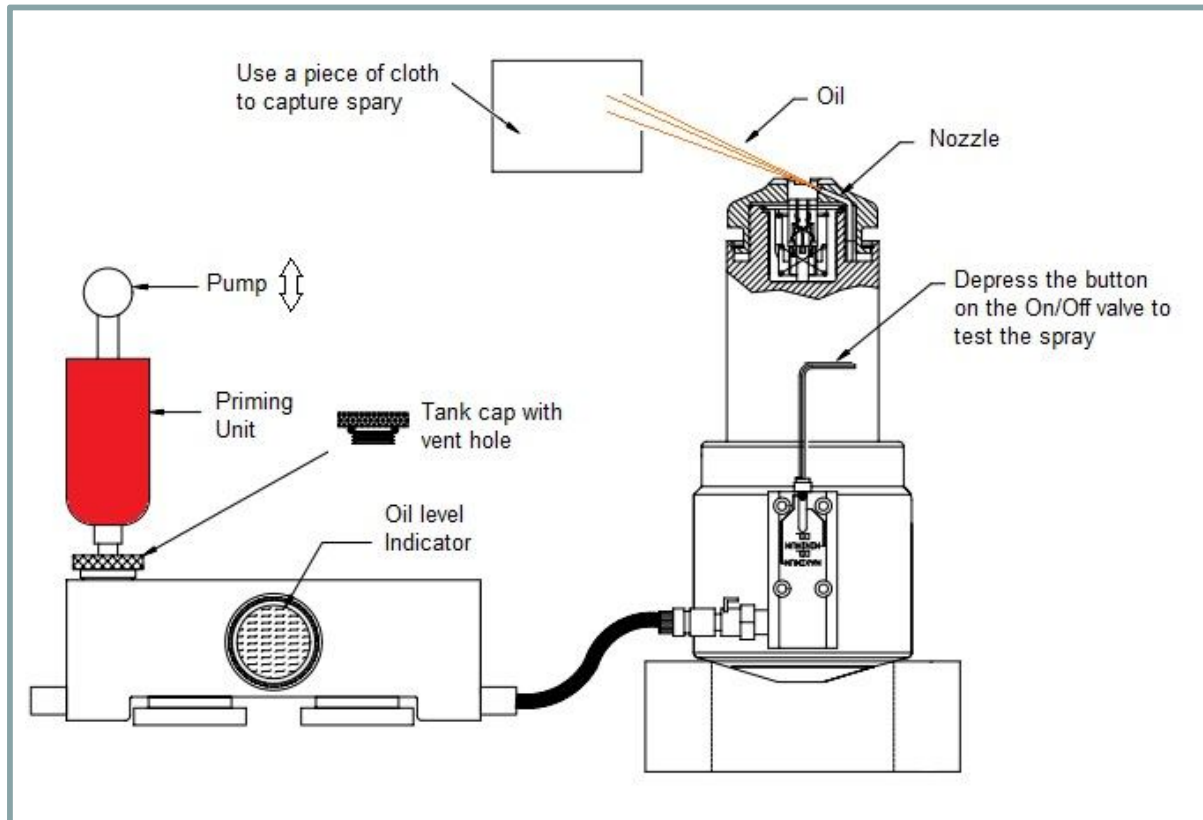
Prior to initial installation or whenever air has entered the line, the system will need to be primed.

Using the filter screen funnel provided with the tool, fill the oil tank up to the cap threads.

Screw the Priming pump into place and pump it one or two times to lightly pressurise the system.

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Oil Tank Priming

After lightly pressurising the tank, press on the On/Off valve button to pump oil through the nozzle.

It may be necessary to repeat the process of pressurising the tank and pumping the oil a few times until all air is purged from the system.

Once a consistent flow of oil is achieved the priming pump can be removed, the oil topped up and the cap replaced.

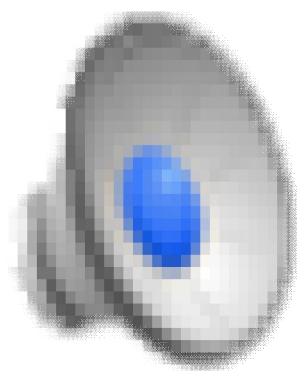
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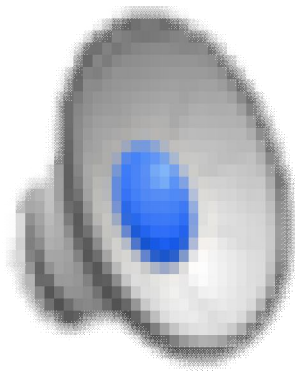
Pitch Insert removal and length setting

The nose piece of the tool is removed by releasing the retaining clip.



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Pitch Insert removal and length setting

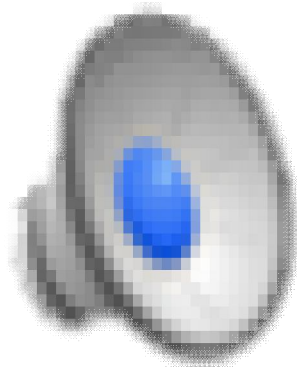
Rotate the oil nozzle to allow the pitch insert to be lifted out.

Release the small retaining ring that secures the pitch insert.

Use the tap to help with lifting out the pitch insert assembly.

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Pitch Insert removal and length setting

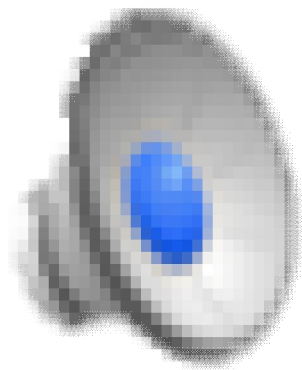
Measure the length of the assembly from the tip of the tap, to the back of the pitch insert body.

The length can be adjusted by rotating the tap clockwise or anti-clockwise.

Refer to the manual for length settings as they will be different for flat sheet or extrusion.

When first starting up it is advisable to set the length a little shorter than the recommended value and increase slowly until satisfactory thread is produced.

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Pitch Insert removal and length setting

Insert pitch insert assembly into tool (ensure sufficient grease).

Re-fit pitch retaining clip.

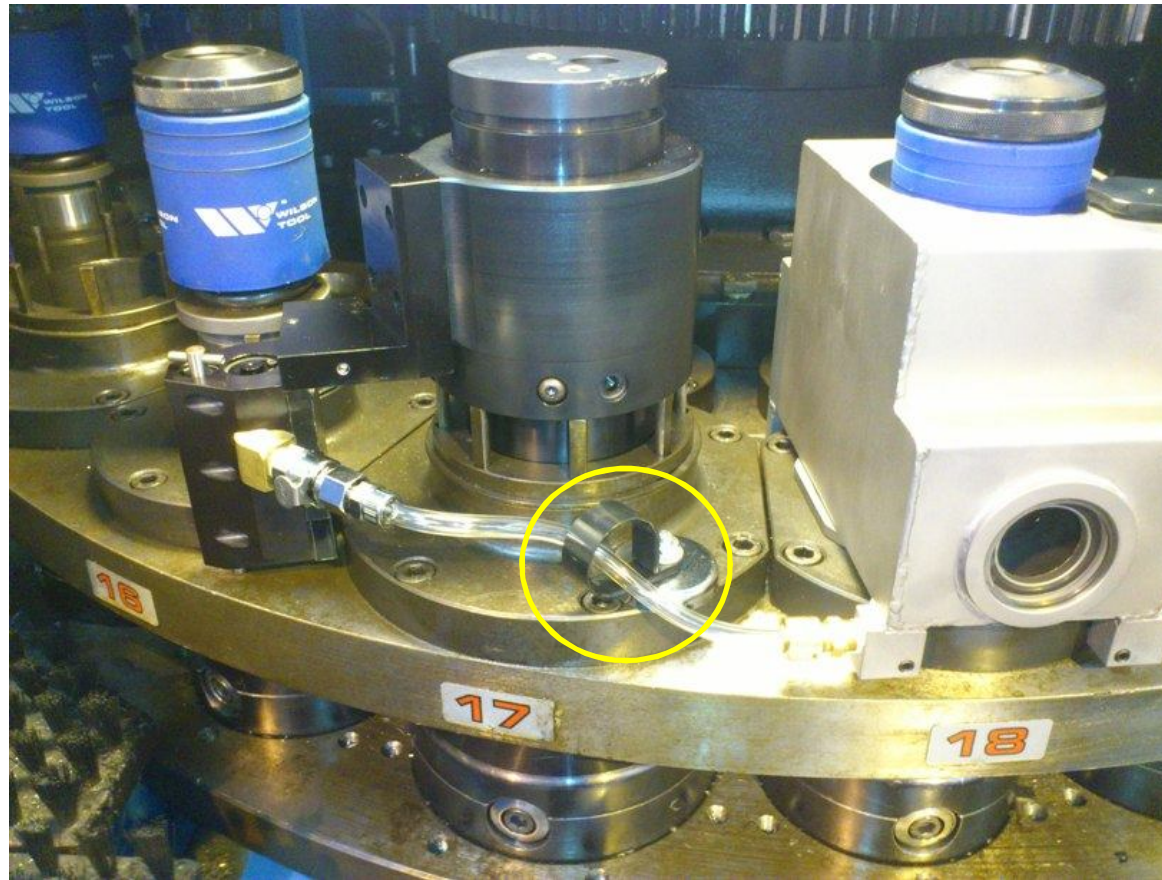
Rotate nozzle to align with the tap.

Locate nose-piece by lining up key slot with slot in the tool.

Re-fit retaining ring to secure nose-piece.

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Loading into the machine

Load the tool and oil tank into their appropriate turret positions. On some machines the tank locates around an adjacent tool, on others it fits to the turret with magnets.

Magnets are also used to ensure the oil hose is correctly positioned.

The die anvil is fitted in the same way as any other standard die.

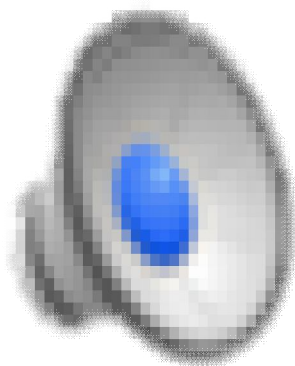
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Loading into the machine

Always manually rotate the machine turret to ensure there is clearance around the tool, oil tank and hoses.



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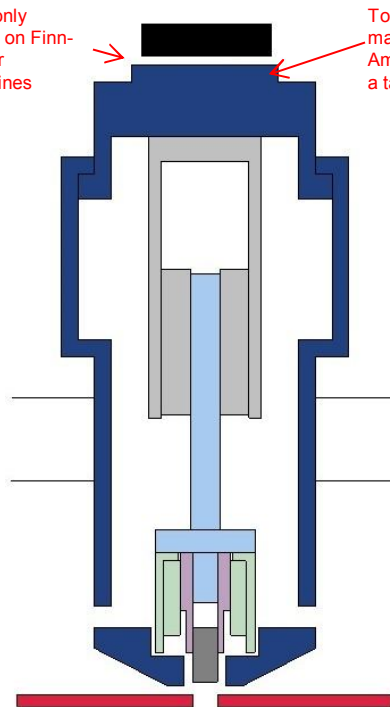
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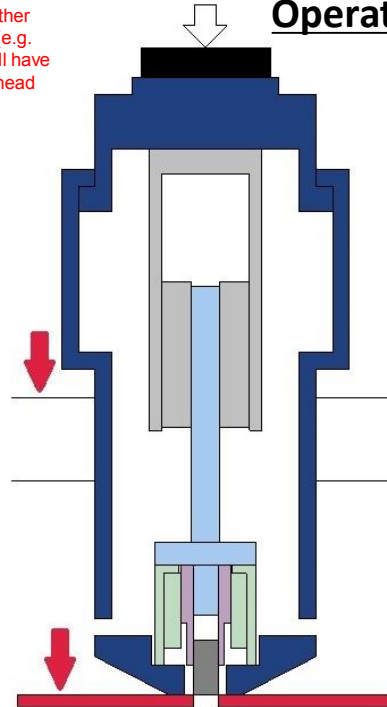
Operation principle

Gap only exists on Finn-Power machines

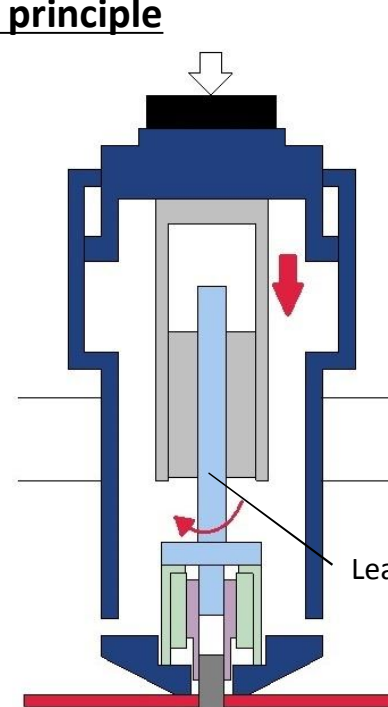
Tools for other machines (e.g. Amada) will have a tapered head



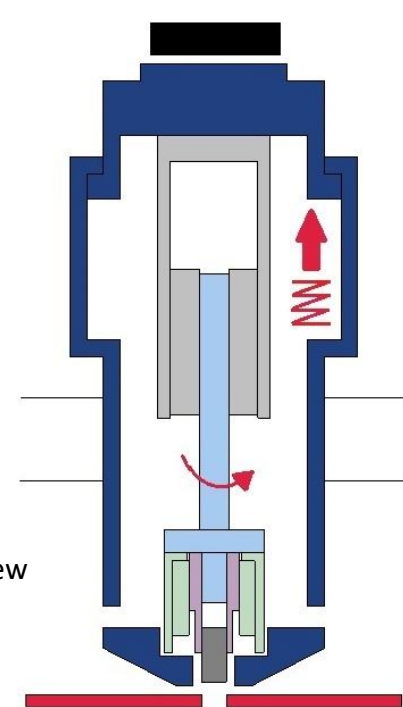
Tool in turret in 'At Rest' position



First stage of machine stroke moves the whole tool to close the gap between nose (stripper) of tool and sheet. Stripper contacts sheet.



The Ram pushes down, causing the lead-screw to rotate. The tap is driven into the Pre-hole, forming the thread.



The tap withdraws from the tapped hole under the tool's internal spring pressure

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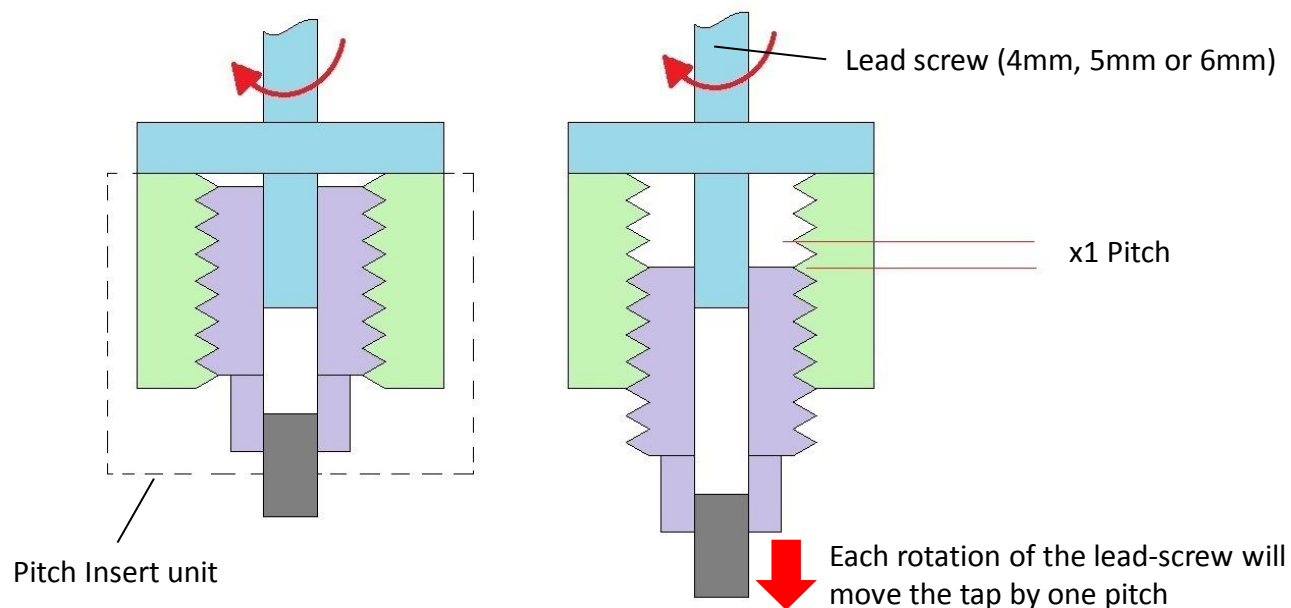


Operation principle

As seen on the previous slide, the downward stroke of the machine causes the internal lead screw to rotate.

The amount of stroke required to move the tap by one full pitch depends on the size of lead screw fitted.

Example: a tool with a 4mm lead-screw, using a M5 x 0.8 pitch insert, will need 4mm of stroke to move the tap 0.8mm



The tool will be fitted with one of the following sized lead-screws (depending on the application):

4mm lead-screw (C station):	4mm of stroke creates one rotation of the lead-screw.
5mm lead-screw (C or D station):	5mm of stroke creates one rotation of the lead-screw.
6mm lead-screw (D station):	6mm of stroke creates one rotation of the lead-screw.

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