



Tapmatic can supply a tapping attachment ready to fit your machining center

RDT and RCT tapping attachments eliminate the need for the machine spindle to reverse by automatically reversing the taps rotation when the machine retracts. For the automatic reversal to function a stop arm is needed to prevent the housing of the tapping attachment from rotating. Our stop arm locking mechanism allows the tool to easily make automatic tool changes.

Tapmatic maintains a large data base of machining center installations

Please simply let us know the machine manufacturer, make and model and we may already have the installation information available to provide a tool ready to run on your machine.

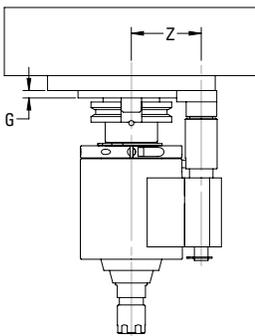
My machine already has a stop block

If your machine already has an anti-rotation stop block installed, please let us know the dimensions shown in the drawing below. We can prepare a tool to go with your existing stop block.

My machine does not have a stop block

If your machine does not have a stop block already installed, we would be pleased to prepare one for you. Please simply fill in the form on the back cover or download it from our homepage and forward us the information. We will be pleased to submit an offer to you.

Preferred Installation

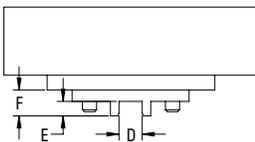


Gage Line to Mounting Surface
G =

Center Distance
(commonly 55, 65, or 80)
Z =

Diameter of Bore or
Width of Slot in Stop Block
D =

Depth of Bore or Slot in Stop Block
E =



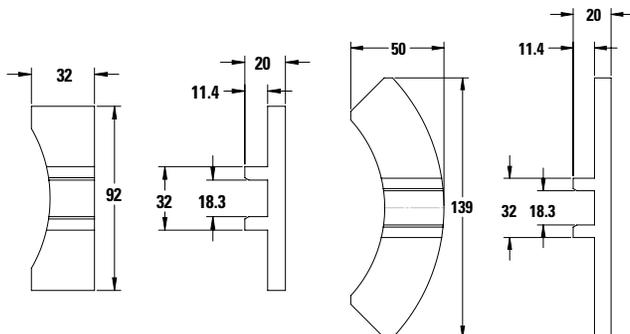
Total Height of Stop Block
F =

Machine Spindle Taper
(SK, BT, CAT, HSK...)
Shank =

Machine Manufacturer and
Model =



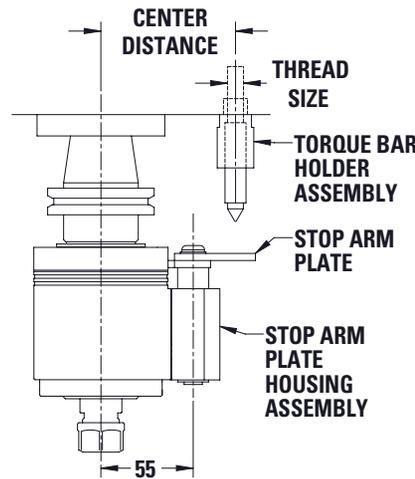
Standard stop blocks are available if you would like to design your own installation. These blank stop blocks can be modified to fit the bolt pattern of your machine.



Order code.
36007 Standard Block

Order code
36010 Standard Block

Alternative installation



Stop arm plate housing assembly

Order code	For Model
392552	RDT15, RDT25
395052	RDT50

Stop arm plate

Order code	Center Distance
723420	53-69
723421	68-77
723422	74-88
723423	86-100

Torque bar holder assemblies

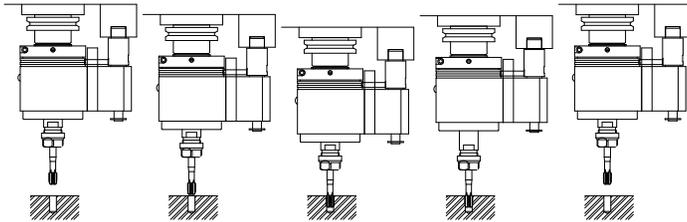
For the use with straight stop arm. Torque bar installation must be stronger than the largest tap.

Order code	Bolt size	Order code	Bolt size
69383A	M6	69389A	5/16"-18
69384A	M8	69390A	5/16"-24
69385A	M10	69391A	3/8"-16
69386A	M12	69392A	3/8"-24
69387A	1/4"-20	69393A	1/2"-13
69388A	1/4"-28	69394A	1/2"-20

Model RDT, RDT-IC and RCT

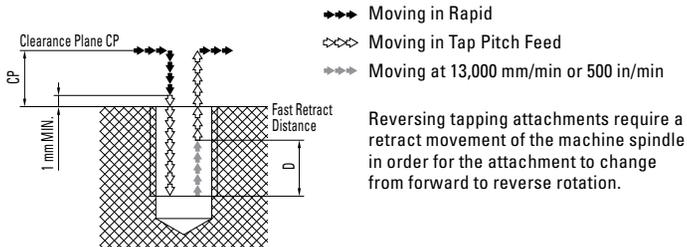
For efficient Tapping and production on CNC machining centers we recommend the writing of a subroutine with high speed retract. As an alternative a G85 boring cycle can be used. **IMPORTANT NOTE** at no time should the G code for Exact Stop or Ramp be used with TAPMATIC self-reversing Tapping Attachments. They will cause the tapping cycle time to be significantly slower. We will gladly help with any programming questions.

- 1.) Rapid Traverse to clearance plane above the hole location.
- 2.) Rapid Down to 1mm minimum above component.
- 3.) Tap pitch feed into component to programmed depth.
- 4.) Retract Tapping head at 13,000 mm/min or 500 in/min, specified distance for specific tapping head to reverse tap rotation.
- 5.) Tap pitch feed out of hole to clearance plane.



Note: The only time during the cycle spent in the feed rate is the 1mm approach height plus thread depth in and out. All other moves are at maximum speed.

Clearance Plane



Clearance Plane and Fast Retract Distance

RDT15	CP = D = .250 in or 6 mm
RDT25	CP = D = .250 in or 6 mm
RDT50	CP = D = .400 in or 10 mm
RDT85/100	CP = .590 in or 15 mm D = .400 in or 10 mm
RCT50	CP = .400 in or 10 mm D = .250 in or 6 mm

Please note that the distance shown is the minimum clearance plane and maximum fast retract distance allowed.

Example (Fanuc programming)

Tapping attachment	RDT25
Tap size	M5 x 0.8
Speed	2000 RPM
Feed at 100%	2000 RPM x .8 = 1600 mm/min

Subroutine:

Rapid traverse to 1 mm above component
 Move in to 8 mm depth at tap pitch feed rate
 (Please note: Actual depth slightly deeper than program depth)
 Retraction of 6 mm at 13'000 mm/min for changeover
 (at fastest retraction speed up to 13'000 mm/min)
 Feed out to 6 mm above component surface at tap pitch feed rate

Main programme:

T01 M06	Tool change – tool #1
G00 G90 X25.0 Y25.0	move toward X/Y-coordinates
S2000 M03	speed 2'000 RPM, clockwise rotation of spindle
G43 H1 Z25.0 M08	rapid feed to Z25, tool offset 1, coolant on
M98 P0004	retrieve subroutine O0004
G00 Y50.0	rapid feed to next position Y50
M98 P0004	retrieve subroutine O0004

Subroutine:

O0004	program number of subroutine
G90	absolute movement
G64	exact machining mode off
M49	feed override cancel off
G00 Z1.0	rapid to Z1
G01 Z-8.0 F1600	feed to Z-8 with feed 1'600 mm/min
G01 Z-2.0 F13000	feed to Z-2 with feed 13'000 mm/min for changeover
G01 Z6.0 F1600	feed to Z6 with feed 1'600 mm/min
M48	feed override cancel on
M99	subroutine end

The programming example shown here uses G- and M-codes that comply with a Fanuc control. Your machine may use different codes. Please be sure to review the actual G and M codes used with your machine and make changes when necessary.