



TAPMATIC

TAPPING ATTACHMENTS
TAP CHUCKS
MARKING HEADS



Quality, reliability and good service are what TAPMATIC stands for



Since its establishment in 1952, Tapmatic has manufactured tapping attachments of the highest quality and efficiency. Our focus on tapping attachments and tap holders, and our commitment to research and development, have led to the granting of more than 30 patents in countries all over the world. This investment in innovation and quality has made Tapmatic a world leading manufacturer of tap holding tools.

Today, Tapmatic products are represented through our agents in more than 40 countries.

Our Tapping Attachments and Tap Holders are produced using highly automated equipment. Tapmatic Corporation is an ISO 9001 certified company. This guarantees you of our continued commitment to offering products of the highest quality.

Quality and economic efficiency, innovation and reliability are what have made Tapmatic one of the world's most recognized names for Tapping.



We're not just tapping!

Now Tapmatic also offers a complete program of marking tools. Whether your application calls for dot peen marking, scribing, or stamping, our tools allow you to mark the work piece during the machining process. Mark it while you make it.



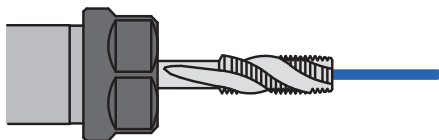
TAPMATIC Post Falls, USA

	Description Self-reversing CNC tapping attachments For vertical and horizontal CNC machining centers, for continuous production. Extended spindles and interchangeable shanks available. ASR and RSR driven tools for CNC lathes.	Model Introduction RCT RCT150 RDT SPD CNC ASR, RSR	Page 4-5 6-9 10 11 12 13
	Synchronized Tapping SynchroFlex® For rigid, or synchronized tapping on CNC machines with or without internal coolant, or with minimum quantity lubrication (MQL). ER collet or Quick Change Spindles.	Introduction SFT (Internal Coolant) SFT (MQL)	14-16 17-21 22
	Tension compression tap chucks For use on CNC machining centers, lathes and all machines with controlled feed when tapping cycle is not synchronized.	Introduction SM TA TIC NC	23 24 25 26 27
	Self-reversing manual tapping attachments with pre-selective torque drive Automatic reverse with increased reverse ratio. For manually operated drilling and milling machines. Heavy duty self-reversing tapping attachment also for machines with automatic feed	Introduction RX X TC/DC SPD/SPD-QC	28 29 30 31 32
	In machine marking Marking tools for in machine marking. Dot peen marking tool. Scribing tool. Stamping head.	Introduction TapWriter Scribe Writer MH	33 34-35 36-37 38-39
	Quick-change adapters Modular accessories, compatible with the respective tapping attachment or chuck.	P - positive drive T - torque control TF - rubber flex	40-41 42-43 44
	Various accessories For use on attachments and chucks.	Rubber flex collets ER-GB ER Clamping nuts Sealing disks	44 45-46 47 48 48
	Various accessories For use and installation of attachments and chucks on intended machines.	Torque wrenches Torque Bars Mounting device CNC Shanks Arbors	49 49 49 50-51
Information			
Speed Chart			52-54
Installation			55
ER Clamping			56
Safety			57
Warranty			57
Application Questionnaire			59

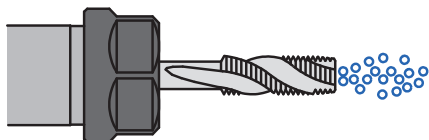
Thread production on machining centers with constant speed tapping



Two Through the Spindle Lubrication Options...



Standard balanced
high pressure
coolant through
the spindle.



Minimum Quantity
Lubrication,
available on
request.

CST Constant Speed Tapping relies on a compact tapping attachment to provide tap reversal. The machine spindle runs in one direction at the exact programmed speed and reversal occurs within the tapping attachment instantaneously upon machine retraction. This avoids the inevitable RPM fluctuations which occur with reversal of the machine spindle. Benefits include the following...

Reduced Cycle Time

By eliminating the machine spindles need to decelerate, stop, reverse and reaccelerate twice for each tapped hole the tapping time is dramatically reduced.

Longer Tap Life, Improved Thread Quality

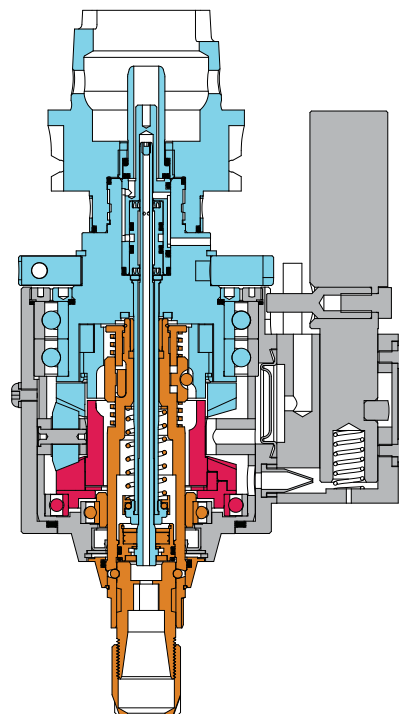
Constant speed tapping means that the tap is allowed to cut at the optimum speed continuously without deceleration at the bottom of the hole. The result is the longest tap life and improved thread quality.

Reduced Machine Spindle Wear

Tapping is the only operation requiring machine reversal. Using a Constant Speed Tapping Head eliminates this strain on the machine.

Reduced Energy Costs of up to 75 %

CST attachments reduce the energy costs required by machine spindle reversal by 75%.



Patented Design

TAPMATIC tapping attachments include a patented reversing ball drive. The ball drive allows for an exact and immediate change over into reverse once the desired thread depth is reached.

Advantages of tapping attachments with automatic reversal

General Information

Thread cutting is the only machining operation which requires a change of direction for the retraction of the tool. Reversing the spindle causes wear and is a costly procedure for any machine.

RCT and RDT tapping attachments

These reversing tapping attachments are specially designed for fast thread production on CNC machining centers. They eliminate reversal related machine wear and tear and reduce energy consumption. The patented ball drive with integrated planet gear for automatic reversal creates an almost constant cutting speed and eliminates the need to stop and reverse the machine spindle twice per tapped hole.

By using the RDT and RCT tapping attachments the cycle time is reduced and the life of the tap is increased. The IC-version allows coolant to flow directly through the tapping head.

Case history:

Original Application

Thread cutting on a horizontal machining center Fritz Werner TC800 with internal coolant.

Material

GG20

Tap

M6 standard thread HSS with TIN-AL coating

Thread

M6 standard thread, 9 mm deep, tapping drill $\varnothing$ 5.05 and 12.5 mm deep

Speed with machine reversal

Rigid tapping with spindle reversal, programmed speed 1,200 RPM

Original Results

Cycle time of 6 min 34 sec for 68 threads

Change with TAPMATIC

Using a TAPMATIC tapping attachment RDT-IC50 with ER16 spindle, programmed speed 1,800 RPM.

Improvement

Cycle time reduced to 3 min 22 sec for 68 threads, tap life tripled.

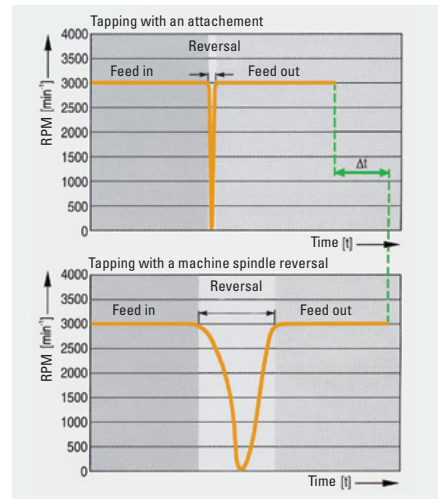
Advantage

Besides reducing the cycle time, tap life was considerably increased.

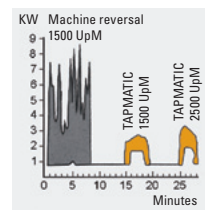
Results

- reduction of cycle time by 50 %
- increase of production capacity
- tap life tripled
- less machine wear (no spindle reversals)
- roughly 75 % energy savings by constant speed tapping

Constant speed tapping – the secret of longer tap life



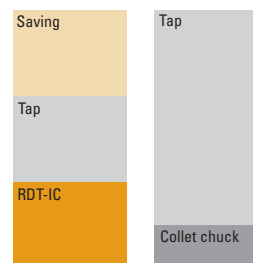
Power consumption for 144 threads M8



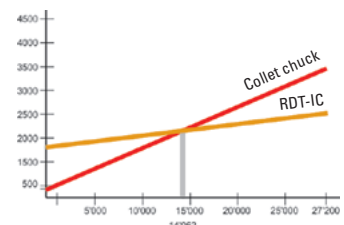
Energy cost saving of 75 %

Not only is the shorter cycle time of importance, but also the constant spindle direction. By changing the direction (decelerating and accelerating) of the spindle, higher spikes of power are needed, which can be prevented by constant spindle rotation.

Total cost/year



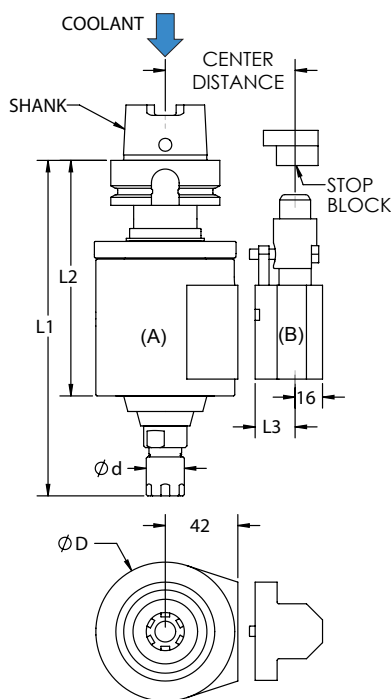
Break Even Point



Conclusion

With the use of Tapmatic constant speed tapping, the cycle time is less, which increases productivity. Additionally, machine repair / downtime and energy costs are reduced and tap life is dramatically improved.

High speed tapping attachments with integral HSK shank and internal coolant system



Features and Advantages

- high speed self-reversing tapping for fastest cycle time
- rugged design for years of production, with little maintenance
- high pressure internal coolant system, 50 Bar
- simple installation and programming

How to Order

Please select the Tapping attachment (A) and stop arm (B) to fit your machine. Accessories like steel collets, sealing gaskets and stop blocks are not included. Please order these separately.

Tapmatic can provide a complete tool ready to fit your machine. Please simply provide the information shown on installation page 55, fill in the form on the back cover or contact us directly.



(A) Tapping Attachment RCT HSK

Model	Order code	Capacity (steel)	Shank	Collets	Max. RPM	Weight kg	D	d	L1	L2
RCT50	0550H63161	M4.5–M12 #10–1/2"	HSK63A	ER16	2500	3.5	80	22	194	136
	0550H80161		HSK80A			3.9			199	141
	0550H100161		HSK100A			4.8			201	143
	0550H63201	M10–M20 7/16"–3/4"	HSK63A	ER20	2300	3.5	80	28	206	136
	0550H80201		HSK80A			3.9			211	141
	0550H100201		HSK100A			4.8			213	143
RCT85HS	0585H6325	M10–M20 7/16"–3/4"	HSK63A	ER25	1500	4.2	80*	42	217	168
	0585H8025		HSK80A			4.6			222	173
	0585H10025		HSK100A			5.5			224	175
RCT85HD	0585H6332	M12–M25 1/2"–1"	HSK63A	ER32	1200	4.4	80*	50	223	168
	0585H8032		HSK80A			4.8			228	173
	0585H10032		HSK100A			5.7			230	175
RCT100	05100H6340	M18–M27 3/4"–1"	HSK63A	ER40	800	4.6	80*	63	229	168
	05100H8040		HSK80A			5.0			234	173
	05100H10040		HSK100A			5.9			236	175

Notes: These internal coolant tools come standard with sealing nuts. These models are also available without internal coolant upon request. When using Roll Form Taps the tool's capacity must be reduced 25%. All dimensions are shown in mm. 25.4mm = 1"

*Please note that size 85 and 100 tools have an 80mm square housing with ø102mm across corners

(B) Stop Arm Assembly

Center Distance (42+L3)	Order code RCT50	Order code RCT85, 100	L3
55	0550551	3985551	13
65	0550651	3985651	23
80	0550801	3985801	38



Stop Block
Page 55



Steel Collets



Sealing Gaskets

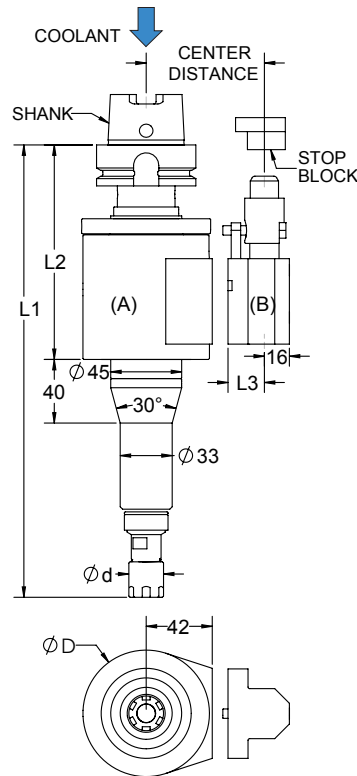


Speed Chart



Installation

Extended length tapping attachments with integral HSK shank and internal coolant system



Features and Advantages

- high speed self-reversing tapping for fastest cycle time
- extended length for difficult to reach holes
- rugged design for years of production, with little maintenance
- RCTXT50 for high pressure internal coolant, 50 Bar
- simple installation and programming

How to Order

Please select the Tapping attachment (A), and stop arm (B) to fit your application. Accessories like steel collets, sealing gaskets and stop blocks are not included. Please order these separately.

Tapmatic can provide a complete tool ready to fit your machine. Please simply provide the information shown on installation page 55, fill in the form on the back cover or contact us directly.

(A) Tapping Attachment RCTXT50 HSK Shank, Internal Coolant System



Model	Order code	Capacity (steel)	Shank	Collets	Max. RPM	Weight kg	D	d	L1	L2
RCTXT50	0550H6316L287	M4.5-M12 #10-1/2"	HSK63A	ER16	1800	4.0	80	22	287	136
	0550H8016L292		HSK80A			4.4			292	141
	0550H10016L294		HSK100A			5.3			294	143
	0550H6320L297		HSK63A	ER20	1600	4.0	80	28	297	136
	0550H8020L302		HSK80A			4.4			302	141
	0550H10020L304		HSK100A			5.3			304	143
	0550H6316L360		HSK63A	ER16	1600	4.2	80	22	360	136
	0550H8016L365		HSK80A			4.6			365	141
	0550H10016L367		HSK100A			5.5			367	143
	0550H6320L370		HSK63A	ER20	1400	4.2	80	28	370	136
	0550H8020L375		HSK80A			4.6			375	141
	0550H10020L377		HSK100A			5.5			377	143

Notes: Special extended length tools are also available on request. These models are also available without internal coolant on request. When using Roll Form Taps the tool's capacity must be reduced 25 %. All dimensions are shown in mm. 25.4mm = 1"

(B) Stop Arm Assembly



Center Distance (42+L3)	Order code RCT50	L3
55	0550551	13
65	0550651	23
80	0550801	38



Stop Block
Page 55



Steel Collets



Sealing Gaskets

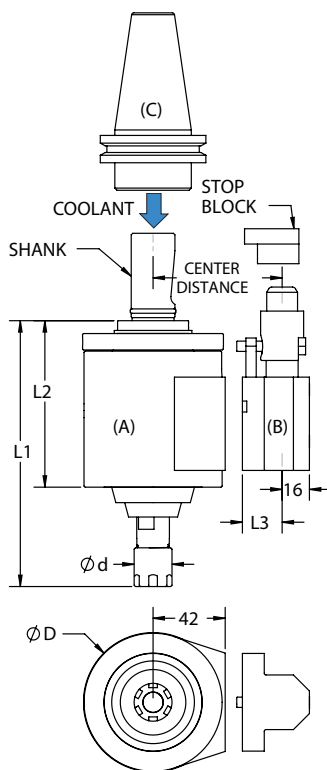


Speed Chart



Installation

High speed tapping attachments with modular straight shank and internal coolant system or without internal coolant, (W/O IC)



Features and Advantages

- high speed self-reversing tapping for fastest cycle time
- rugged design for years of production, with little maintenance
- high pressure internal coolant system, 50 Bar
- simple installation and programming

How to Order

Please select the Tapping attachment (A) and stop arm (B) and CAT, SK or BT shank (C) to fit your machine. Accessories like steel collets, sealing gaskets and stop blocks are not included. Please order these separately.

Tapmatic can provide a complete tool ready to fit your machine. Please simply provide the information shown on installation page 55, fill in the form on the back cover or contact us directly.

(A) Tapping Attachment RCT Cylindrical Shank



Model	Order code	Capacity (steel)	Shank	Collets	Max. RPM	Weight kg	D	d	L1	L2	Order Code W/O IC	L1 W/O IC
RCT50	05502516	M4.5-M12	25 mm	ER16	2500	3.0	80	22	155	97	04502516	152
	05501116	#10-1/2"	1"								04501116	
	05502520		25 mm	ER20	2300		80	28	167	97	04502520	162
	0550120		1"								0450120	
RCT85HS	05852525	M10-M20	25 mm	ER25	1500	3.7	80*	42	168	119	04852525	163
	0585125	7/16"-3/4"	1"								0485125	
RCT85HD	05852532	M12-M25	25 mm	ER32	1200	3.9	80*	50	174	119	04852532	169
	0585132	1/2"-1"	1"								0485132	
RCT100	051002540	M18-M27	25 mm	ER40	800	4.1	80*	63	180	119	041002540	175
	05100140	3/4"-1"									04100140	

Notes: These internal coolant tools come standard with sealing nuts. These models are also available without internal coolant upon request. When using Roll Form Taps the tool's capacity must be reduced 25 %. All dimensions are shown in mm. 25.4mm = 1".

* Please note that size 85 and 100 tools have an 80mm square housing with ø102mm across corners.

(B) Stop Arm Assembly



Center Distance (42+L3)	Order code RCT50	Order Code RCT 85, 100	L3
55	0550551	3985551	13
65	0550651	3985651	23
80	0550801	3985801	38



Stop Block
Page 55

Page 50

Pages 45-47

Page 48

Pages 52-54

Pages 55

(C)



Interchangeable
Steep Taper



Steel Collets



Sealing Gaskets

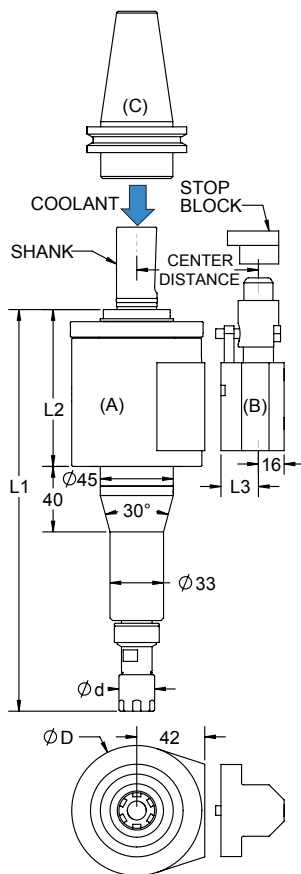


Speed Chart



Installation

Extended length tapping attachments with modular straight shank and internal coolant system or without internal coolant, (W/O IC)



Features and Advantages

- high speed self-reversing tapping for fastest cycle time
- extended length for difficult to reach holes
- rugged design for years of production, with little maintenance
- RCTXT50 for high pressure internal coolant, 50 Bar
- simple installation and programming

How to Order

Please select the Tapping attachment (A), stop arm (B), shank (C) to fit your application. Accessories like steel collets, sealing gaskets and stop blocks are not included. Please order these separately.

Tapmatic can provide a complete tool ready to fit your machine. Please simply provide the information shown on installation page 55, fill in the form on the back cover or contact us directly.

(A) Tapping Attachment RCTXT50 Cylindrical Shank, Internal Coolant System



Model	Order code	Capacity (steel)	Shank	Collets	Max. RPM	Weight kg	D	d	L1	L2	Order code W/O IC	L1 W/O IC
RCTXT50	05502516L248	M4.5–M12 #10–1/2"	25 mm	ER16	1800	3.5	80	22	248	97	04502516L245	245
	0550116L248		1"								0450116L245	
	05502520L258		25 mm	ER20	1600			28	258		04502520L253	253
	0550120L258		1"								0450120L253	
	05502516L321	25 mm	1"	ER16	1600	3.7		22	321		04502516L318	318
	0550116L321										0450116L318	
	05502520L331		25 mm	ER20	1400			28	331		04502520L326	326
	0550120L331		1"								0450120L326	

Notes: These internal coolant tools come standard with sealing nuts. These models are also available without internal coolant upon request. Special extended length tools are also available on request. When using Roll Form Taps the tool's capacity must be reduced 25 %. All dimensions are shown in mm. 25.4mm = 1"

(B) Stop Arm Assembly



Center Distance (42+L3)	Order code RCT50	L3
55	0550551	13
65	0550651	23
80	0550801	38



Stop Block
Page 55

(C)



Interchangeable
Steep Taper



Steel Collets



Sealing Gaskets



Speed Chart



Installation

Large capacity tapping attachments with modular straight shank and internal coolant system

The RCT150 is our new, large capacity self-reversing tapping attachment for CNC machining centers. Heavy duty precision gearing transmits high torque for reversing tap sizes up to M42. They are ruggedly built to provide years of service, and include high volume, high pressure internal coolant.

The RCT150 was developed for the large tapping applications required by the wind energy, heavy industry, and power generation fields. By eliminating machine spindle reversal, cycle time is dramatically improved, electrical power consumption is reduced by as much as 75% and wear and tear to the machine spindle caused by stopping and reversing twice for each tapped hole is eliminated.

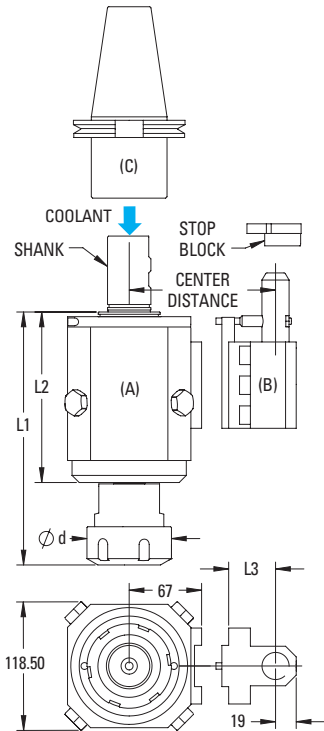
Features and Advantages

- high speed self-reversing tapping for fastest cycle time
- rugged design for years of production, with little maintenance
- high pressure internal coolant system, 50 Bar
- simple installation and programming

How to Order

Please select the Tapping attachment (A), stop arm (B) and CAT, SK, or BT shank (C), to fit your machine. Accessories like steel collets, sealing gaskets and stop blocks are not included. Please order these separately.

Tapmatic can provide a complete tool ready to fit your machine. Please simply provide the information shown on installation page 55, fill in the form on the back cover or contact us directly.



(A) Tapping Attachment RCT150 Cylindrical Shank

Model	Order code	Capacity (steel)	Shank	Collets	Max. RPM	Weight kg	d	L1	L2
RCT150	051504050	M25-M42 1"-1 5/8"	40 mm	ER50	500	6.2	78	234	158

Notes: When using Roll Form Taps the tool's capacity must be reduced 25%. All dimensions are shown in mm. 25.4mm = 1"



(B) Stop Arm Assembly

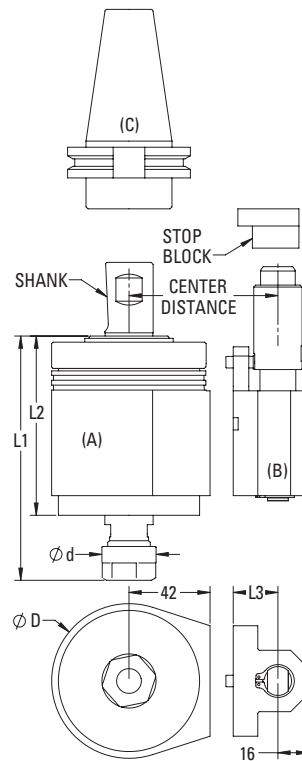
Center Distance (67+L3)	Order code RCT150	L3
80	0515080	13
110	05150110	43



Stop Block
Page 55



High speed tapping attachments with modular straight shank, without internal coolant system



Features and Advantages

- high speed self-reversing tapping for fastest cycle time
- rugged design for years of production, with little maintenance
- simple installation and programming
- large capacity

How to Order

Please select the Tapping attachment (A), stop arm (B) and CAT, SK, or BT shank (C), to fit your machine. Accessories like steel collets, sealing gaskets and stop blocks are not included. Please order these separately.

Tapmatic can provide a complete tool ready to fit your machine. Please simply provide the information shown on installation page 55, fill in the form on the back cover or contact us directly.

(A) Tapping Attachment RDT Cylindrical Shank



Model	Order code	Capacity (steel)	Shank	Collets	Max. RPM	Weight kg	D	d	L1	L2
RDT15	3915258HD	M1-M3	25 mm	ER8	5000	1.7	57	12	97	79
	391518HD	#0-#6	1"							
RDT25	39252511	M2-M6	25 mm	ER11	4000	1.7	57	19	106	79
	3925111	#4-1/4"	1"							
RDT50	39502516	M4.5-M12	25 mm	ER16	2000	3.7	80	28	126	93
	3950116	#10-1/2"	1"							

Notes: When using Roll Form Taps the tool's capacity must be reduced 25 %.
To hold larger taps with RDT50 ER16, use standard collet 20953 and separate square drives packaged with tool.
All dimensions are shown in mm. 25.4mm = 1"

(B) Stop Arm Assembly



Center Distance (42+L3)	Order code RDT15 RDT25	Order code RDT50	L3
55	3925551	3950551	13
65	3925651	3950651	23
80	3925801	3950801	38



Stop Block
Page 55

Page 50

Pages 45-47

Pages 52-54

Pages 55



Economical tapping attachments with modular straight shank

The SPD CNC are low cost, self-reversing tapping attachments for CNC machining centers. They use ER collets and employ a simple stop arm system for easy installation on machines with automatic tool change.

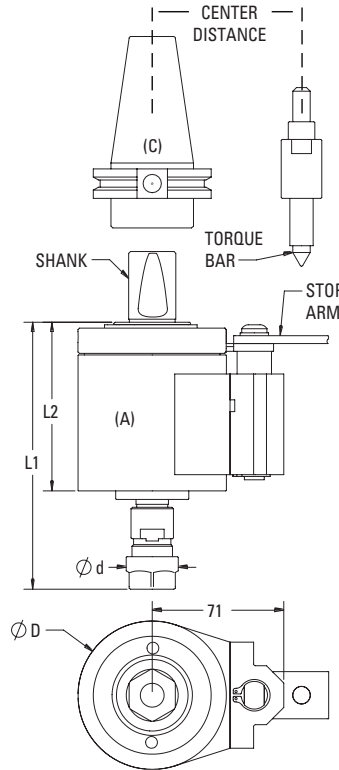
The SPD CNC were developed specifically for short run job shop applications. Their low cost make them economical to use, and they provide all the advantages associated with the elimination of machine spindle reversal. Faster cycle time, elimination of machine spindle wear and tear due to reversal, lower energy costs and longer tap life.

Features and Advantages

- faster cycle time
- eliminates machine reversal for lower energy costs and reduced wear to machine spindle
- ER collets
- simple installation with torque bar and stop arm
- Stop Arm Assembly included
- simple programming

How to Order

Please select the Tapping attachment (A) and CAT, SK or BT shank (C) to fit your machine. Please order accessories like collets, and torque bars separately. Please note the tool comes with a stop arm that can be modified or you can also order a readymade stop arm to fit your machine's bolt circle. Torque bar holders are not included and need to be ordered according to the bolt size of your machine.



(A) Tapping Attachment SPD CNC Cylindrical Shank

Model	Order code	Shank	Capacity (steel)	Collets	Max. RPM	Weight kg	d	L1	L2
SPD CNC3	0283251152	25 mm	M2-M6	ER11	2000	1.7	19	106	73
	0283111152	1"	#4-1/4"						
SPD CNC5	0285251652	25 mm	M4.5-M12	ER16	1500	3.7	28	140	91
	028511652	1"	#10-1/2"						

Notes: The SPD CNC tools include a stop arm assembly, but it is possible to use the RDT25 and 50 stop arm assemblies with them as well. When using Roll Form Taps the tool's capacity must be reduced 25 %. All dimensions are shown in mm. 25.4mm = 1"

Stop Arm Plate

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



Torque Bar Holder Assemblies

Page 55

Page 50

Pages 45-47

Pages 52-54

Pages 55

(C)



Interchangeable Steep Taper



Steel Collets



Speed Chart



Installation

Tapping attachments with VDI shank for CNC lathes



Model RSR



Model ASR

Features and Advantages

- high speed self reversing tapping for fastest cycle time
- lower energy cost
- improves tap life
- steel collets ER-GB (ER)
- modular base adaptors VDI and BMT, to fit all turrets, provided by EWS

Developed in cooperation with EWS, a world leader in driven tooling for CNC lathes

Radial Tapping Attachment RSR

Model	Order code	Capacity (steel)	Collets ER	Max. RPM (I - O = 1 - .666)
RSR50	37014E1	M4.5–M12	ER16	3300

Axial Tapping Attachment ASR

Model	Order code	Capacity (steel)	Collets ER	Max. RPM
ASR50	32161E	M4.5–M12	ER16	2500

Note: Steel collets and VDI shank have to be ordered separately. The VDI shank is manufactured specifically for your lathe. When using Roll Form Taps the tools capacity must be reduced by 25 %. Dimensions for the attachments available on request.

Right angle tapping attachment RSR50 VMC



- self-reversing right angle tapping attachment for machining centers
- capacity: M4.5–M12
- simple installation and programming, suitable for machines with automatic tool change
- automatic reversal for faster cycle time
- lower energy cost
- improves tap life
- eliminates secondary tapping operations
- on request

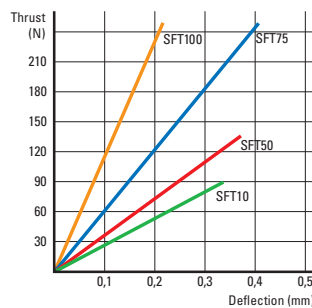


Tap holders for synchronized tapping cycles



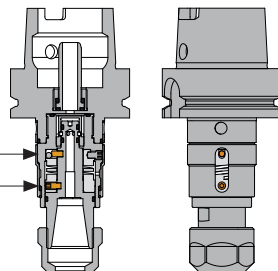
SynchroFlex® – Force vs. Deflection Rates

Unlike competitors that employ elastomer rings to provide a small amount of axial compensation (± 0.5 mm), the SynchroFlex® flexure has a consistent force vs. deflection rate. This means consistently superior tap life and thread quality.



Axial micro compensation is closely limited (mechanically secured)

Torque is transmitted through the drive pins – not through the flexure.



Design and Development

Flexure geometries have been designed using the ANSYS finite element analysis method in order to achieve the optimal force vs. deflection rates for the tap capacity of each holder.

As you can see from the cross section drawing, torque is transmitted through the drive pins not through the flexure.

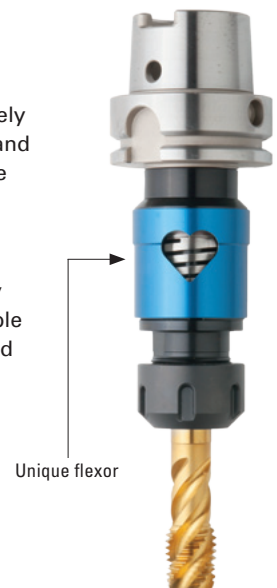
General Information

Modern CNC machines have the capability of synchronizing the spindle rotation to match the feed advance for a specific tap pitch. The «Rigid» or synchronized tapping cycle is very accurate, but it is impossible to avoid small discrepancies between the machine synchronization and the actual pitch of the specific tap being used. Using a rigid tap holder means that any deviation at all increases the thrust forces acting on the tap and this dramatically reduces tap life.

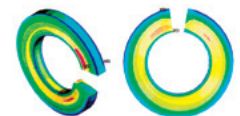
New SynchroFlex® II with increased flow rates for high pressure internal coolant.

SynchroFlex® – The Unique Solution

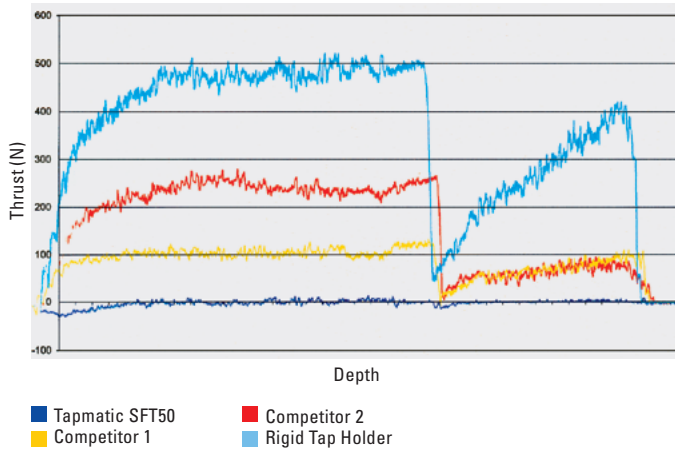
At the heart of SynchroFlex® is a precisely machined flexure which provides axial and radial compensation for the unavoidable discrepancy between the machine feed advance and the actual tap pitch. By compensating for this error, the thrust forces acting on the tap are dramatically reduced. The result is the longest possible tap life, 100% improvement or more, and much better quality threads.



By limiting the axial compensation travel, and torsional forces acting on the flexure, millions of holes can be tapped without causing the SynchroFlex® holder to fatigue, take a set, or wear out. Below is an example of stress analysis at maximum compression.



Comparison tapping with an M6 spiral fluted tap in 6061 Aluminum to depth of 18 mm.



Case History

Application: Thread cutting on horizontal machining center rigid tapping during an unmanned shift.

Material: 42CrMo4V steel, heat treated to 650 N/mm²

Tap Size: M8 x 1

Lubrication: Coolant, oil emulsion 6%

Results: With the tap held in a rigid holder the life was just 1'000 components per tap.

Improvement with SynchroFlex®

Tap life increased to 2'400 to 2'900 components per tap saving the customer not only in tap costs, but the ability to run without interruption through the entire unmanned shift.

Test Results

SynchroFlex® tap holders have been tested by tap manufacturers all over the world and they have confirmed the dramatic improvement in tap life, and thread quality resulting from the reduction of thrust forces acting on the tap.

The graph to the left is an example of a test conducted by an independent tap manufacturer using a Kistler dynamometer to measure the thrust forces during the tapping process. As you can see from the graph, although the competitive holders do reduce thrust forces compared to a rigid tap holder, they are not as effective as SynchroFlex®.

Case History

Application: Thread cutting on machining center rigid tapping.

Material: CF8M steel casting

Tap Size: #10-32

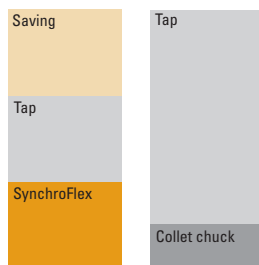
Lubrication: Coolant

Results: With the tap held in a rigid holder the life was just 72 holes per tap.

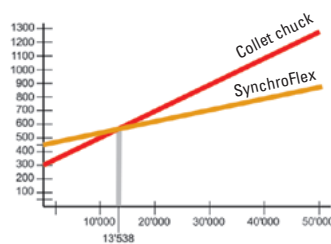
Improvement with SynchroFlex®

Tap life increased to more than 216 holes per tap in this difficult material saving the customer not only in tap costs, but by also reducing his down time caused by frequent tap replacement.

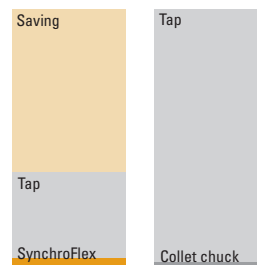
Total cost/year



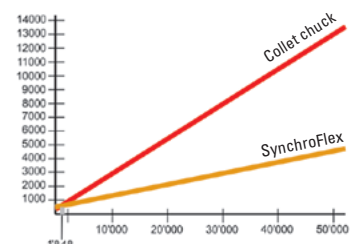
Break Even Point



Total cost/year



Break Even Point



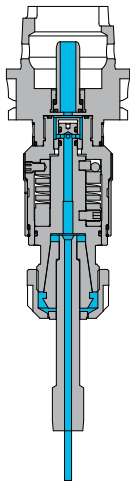
Overview of the SynchroFlex® program



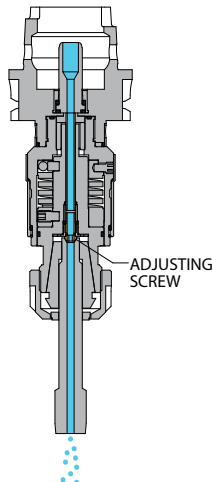
Pictured with ER-collet, spindle and straight shank

Six Sizes to Cover a Wide Range of Taps

- SFT II 5 with capacity M1–M3
- SFT II 10 with capacity M2–M5
- SFT II 50 with capacity M4–M12
- SFT II 75 with capacity M8–M20
- SFT II 100 with capacity M16–M30
- SFT II 150 with capacity M22–M48



SFT II
High Pressure Internal Coolant
with increased flow rates



Minimum Quantity Lubrication
Available for 1 channel or
Multi channel systems

Internal Coolant and MQL

Tapmatic's high pressure internal coolant system may be used at pressures up to 80 bar without affecting the axial compensation.

Tapmatic also can provide tools ready for Minimum Quantity Lubrication through the spindle. Our system provides direct flow of air and lubricant to the back of the tap. See page 22.

Available with QC spindle

Accepts the standard Quick Change adapters or Tapmatic's ER collet chuck QC adapters for improved tap grip.



Integral shank models

Tapmatic offers standard integral shank HSK and Tapmatic Capto tools. ABS shanks are also available on request.



We can also offer integral Steep Taper shank tools but in most cases we recommend a modular system using a cylindrical shank SynchroFlex® together with our Short Projection SK, BT or CAT shank.

No hole beyond your reach

Four standard extensions are available which increase the tool length by 50, 100, 150, or 200 mm.

Special extensions are also available to fit your specific application. Our extensions keep the flexure in close proximity to the tap ensuring the best performance.



Synchronous feed tap holders with modular straight shank, with internal coolant system



ER Collet Chuck



Quick-Change

Features and Advantages

- increase tap life by 100% or more
- improves thread quality
- reduces downtime by lowering frequency of tap replacement
- Axial compensation +/- 0.5mm (SFT II 150 +/- 1.5mm)
- wide range of sizes
- available with ER collet or Quick Change chuck
- available with high pressure internal coolant system up to 80 bar (Balanced Coolant System)

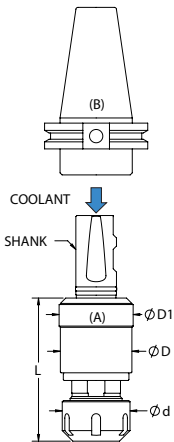
How to Order

Please select the tap holder (A) and SK or BT shank (B), to fit your machine. For Quick Change models order ER collet adapter (C) shown below or standard adapters shown in accessories section. Please order accessories like collets and sealing gaskets separately as they are not included.

(A) Tap Holder SFTII Cylindrical Shank, ER Collet Chuck, Internal Coolant System

Model	Order code (with seal nut)	Capacity (steel)	Shank	Collets	Weight kg	D	D1	d	L (with seal nut)	Order code (nut w/o seal)	L (nut w/o seal)
SFT II 5		M1-M3 #00-#5	12 mm	ER8	0.1	12.0	12.0	12		41051208	28
SFT II 10		M2-M5 #2-#10	25 mm	ER11	0.4	23.5	23.5	19		41102511	52
			1"							41101111	
			20 mm							41102011	
			16 mm							41101611	
SFT II 50	41502520	M4.5-M12	25 mm	ER20	0.5	34.6	36.3	34	69	41502520N	64
	4150120	#8-1/2"	1"							4150120N	
	41502020		20 mm							41502020N	
SFT II 75	41752525	M8-M20	25 mm	ER25	1.0	44.0	45.6	42	88	41752525N	83
	4175125	1/4"-3/4"	1"							4175125N	
SFT II 100	411002540	M16-M30	25 mm	ER40	2.0	62.0	63.6	63	117	411002540N	112
	41100140	5/8"-1"	1"							41100140N	
SFT II 150	411504050	M22-M48	40 mm	ER50	5.1	80.0	86.0	78	166	411504050N	159
		* 7/8"-1 7/8"									

***Note:** Availability of inch size ER50GB collets is limited. Please consult a Tapmatic sales representative for sizes currently available. These internal coolant tools come standard with sealing nut, but tools with standard nuts are also available. When using Roll Form Taps the tool's capacity must be reduced 25%. All dimensions are shown in mm. 25.4mm = 1".



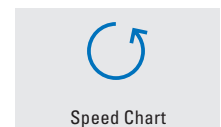
(A) Tap Holder SFTII Cylindrical Shank, Quick-Change Internal Coolant System

Model	Order code	Capacity (steel)	Shank	Adapter	Weight kg	D	D1	d	L
SFT II 50	415025QC	M4-M12	25 mm	Nr. 1	0.5	34.6	36.3	35	56
	41501QC	#8-1/2"	1"						
SFT II 75	417525QC	M8-M16	25 mm	Nr. 1	1.0	44.0	45.6	40	72
	41751QC	1/4"-5/8"	1"						
SFT II 100	4110025QC	M16-M30	25 mm	Nr. 2	2.0	62.0	63.6	59	105
	411001QC	1/2"-7/8"	1"						

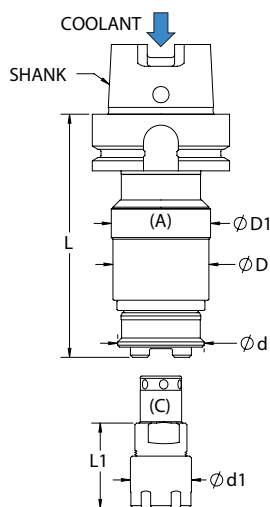
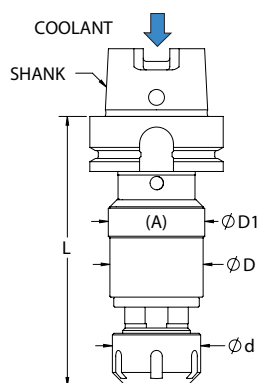
Note: When using Roll Form Taps the tool's capacity must be reduced 25%. All dimensions are shown in mm. 25.4mm = 1". For best performance we recommend ER collet adapters shown below.

(C) ER collet adapter

Order code with Standard Nut	Adapter	Collets	d1	L1	Order code with Seal Nut for BCS version	L1 (BCS)
8208216	Nr. 1	ER16	22	24	8208216S	28
8218220	Nr. 1	ER20	28	35	8218220S	40
8288225	Nr. 2	ER25	35	38	8288225S	43
8288232	Nr. 2	ER32	50	48	8288232S	53



Synchronous feed tap holders with integral HSK shank, with internal coolant system



Features and Advantages

- increase tap life by 100% or more
- improves thread quality
- reduces downtime by lowering frequency of tap replacement
- Axial compensation +/- 0.5mm
- wide range of sizes
- available with ER collet or Quick Change chuck
- available with high pressure internal coolant system up to 80 bar. (Balanced Coolant System)
- also available for Minimum Quantity Lubrication (MQL) through the spindle. Please see page 22

How to Order

Please select the tap holder (A) including the HSK shank, to fit your machine. For Quick Change models order ER collet adapter (C) shown below or standard adapters shown in Accessories section. Please order accessories like collets and sealing gaskets separately as they are not included.

(A) Tap Holder SFT HSK Shank, ER Collet Chuck, Internal Coolant System

Model	Order code (with seal nut)	Capacity (steel)	Shank	Collets	Weight kg	D	D1	d	L
SFT II 50	4150H6320	M4-M12	HSK63A	ER20	1.0	34.6	36.3	34	108
	4150H8020	#8-1/2"	HSK80A		1.9				113
	4150H10020		HSK100A		2.7				115
	4175H6325	M8-M20	HSK63A	ER25	1.6	44.0	45.6	42	128
SFT II 75	4175H8025	1/4"-3/4"	HSK80A		2.4				131
	4175H10025		HSK100A		3.2				133
	41100H6340	M16-M30	HSK63A	ER40	2.2	62.0	63.6	63	160
	41100H8040	5/8"-1"	HSK80A		2.9				161
SFT II 100	41100H10040		HSK100A		3.7				163

Note: These internal coolant tools come standard with sealing nut, but tools with standard nuts are also available. When using Roll Form Taps the tool's capacity must be reduced 25%. All dimensions are shown in mm. 25.4mm = 1".

(A) Tap Holder SFTII HSK Shank, Quick-Change, Internal Coolant System

Model	Order code	Capacity (steel)	Shank	Adapter	Weight kg	D	D1	d	L
SFT II 50	4150H63QC	M4-M12	HSK63A	Nr. 1	1.0	34.6	36.3	35	95
	4150H80QC	#8-1/2"	HSK80A		1.9				100
	4150H100QC		HSK100A		2.7				102
	4175H63QC	M8-M16	HSK63A	Nr. 1	1.6	44.0	45.6	40	112
SFT II 75	4175H80QC	1/4"-5/8"	HSK80A		2.4				115
	4175H100QC		HSK100A		3.2				117
	41100H63QC	M16-M30	HSK63A	Nr. 2	2.2	62.0	63.6	59	148
	41100H80QC	1/2"-7/8"	HSK80A		2.9				149
SFT II 100	41100H100QC		HSK100A		3.7				151

Note: When using Roll Form Taps the tool's capacity must be reduced 25%. All dimensions are shown in mm. 25.4mm = 1". For best performance we recommend ER collet adapters shown below.

(C) ER Collet Adapter

Order code with Standard Nut	Adapter	Collets	d1	L1	Order code with Seal Nut	L1
8208216	Nr. 1	ER16	22	24	8208216S	28
8218220	Nr. 1	ER20	28	35	8218220S	40
8288225	Nr. 2	ER25	35	38	8288225S	43
8288232	Nr. 2	ER32	50	48	8288232S	53



Steel Collets

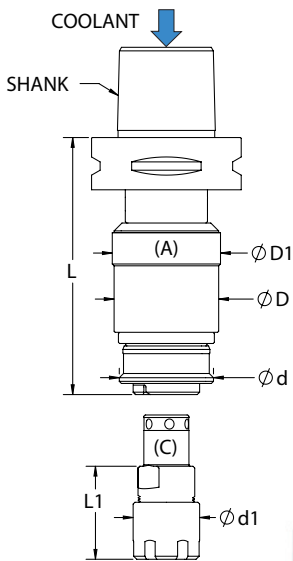
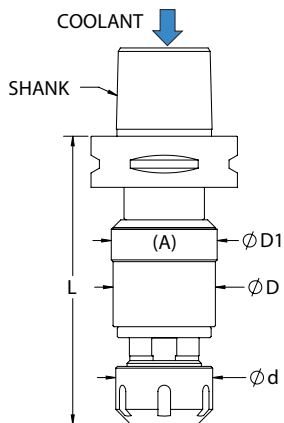


Sealing Gaskets



Speed Chart

Synchronous feed tap holders with Tapmatic Capto shank, with internal coolant system



Features and Advantages

- increase tap life by 100% or more
- improves thread quality
- reduces downtime by lowering frequency of tap replacement
- Axial compensation +/- 0.5mm
- wide range of sizes
- available with ER collet or Quick Change chuck
- available with high pressure internal coolant system up to 80 bar. (Balanced Coolant System)

How to Order

Please select the tap holder (A) including the Tapmatic Capto shank, to fit your machine. For Quick Change models order ER collet adapter (C) shown below or standard adapters shown in Accessories section. Please order accessories like collets and sealing gaskets separately as they are not included.

(A) Tap Holder SFT II Tapmatic Capto Shank, ER Collet Chuck, Internal Coolant System

Model	Order code (with seal nut)	Capacity (steel)	Shank	Collets	Weight kg	D	D1	d	L
SFT II 50	4150C420	M4-M12	C4	ER20	0.7	34.6	36.3	34	102
	4150C520	#8-1/2"	C5		1.0				103
	4150C620		C6		1.2				105
	4150C820		C8		2.1				112
SFT II 75	4175C525	M8-M20	C5	ER25	1.2	44.0	45.6	42	122
	4175C625	1/4"-3/4"	C6		1.5				124
	4175C825		C8		2.4				131
SFT II 100	41100C640	M16-M30	C6	ER40	2.9	62.0	63.6	63	154
	41100C840	5/8"-1"	C8		3.8				161

Note: These internal coolant tools come standard with sealing nut, but tools with standard nuts are also available. Please add N to part number to specify nut without sealing.

When using Roll Form Taps the tool's capacity must be reduced 25%.

All dimensions are shown in mm. 25.4mm = 1"

(A) Tap Holder SFT II Tapmatic Capto Shank, Quick-Change, Internal Coolant System

Model	Order code	Capacity (steel)	Shank	Adapter	Weight kg	D	D1	d	L
SFT II 50	4150C4QC	M4-M12	C4	Nr. 1	0.7	34.6	36.3	35	89
	4150C5QC	#8-1/2"	C5		1.0				90
	4150C6QC		C6		1.2				92
	4150C8QC		C8		2.1				99
SFT II 75	4175C5QC	M8-M16	C5	Nr. 1	1.2	44.0	45.6	40	106
	4175C6QC	1/4"-5/8"	C6		1.5				108
	4175C8QC		C8		2.4				115
SFT II 100	41100C6QC	M16-M30	C6	Nr. 2	2.9	62.0	63.6	59	142
	41100C8QC	1/2"-7/8"	C8		3.8				149

Note: When using Roll Form Taps the tool's capacity must be reduced 25%.

All dimensions are shown in mm. 25.4mm = 1"

For best performance we recommend ER collet adapters shown below.

(C) ER Collet Adapter

Order code with Standard Nut	Adapter	Collets	d1	L1	Order code with seal nut	L1
8208216	Nr. 1	ER16	22	24	8208216S	28
8218220	Nr. 1	ER20	28	35	8218220S	40
8288225	Nr. 2	ER25	35	38	8288225S	43
8288232	Nr. 2	ER32	50	48	8288232S	53



Steel Collets



Sealing Gaskets

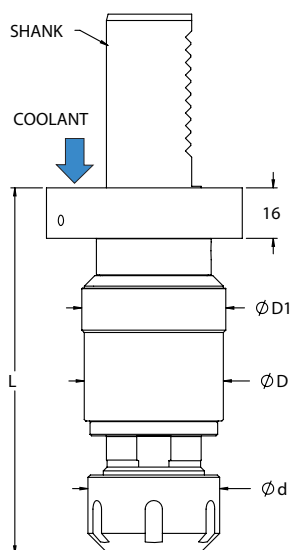


Speed Chart

Synchronous feed tap holders with VDI shank, with internal coolant system



Synchronized Tapping

**Features and Advantages**

- increase tap life by 100% or more
- improves thread quality
- reduces downtime by lowering frequency of tap replacement
- Axial compensation +/- 0.5mm
- wide range of sizes
- available with high pressure internal coolant system up to 80 bar. (Balanced Coolant System)

How to Order

Please select the tap holder (A) including the VDI shank, to fit your machine. Please order accessories like collets and sealing gaskets separately as they are not included.

(A) Tap Holder SFT II VDI Shank, ER Collet Chuck, Internal Coolant System

Model	Order code (with seal nut)	Capacity (steel)	Shank	Collets	Weight kg	D	D1	d	L
SFT II 50	4150VDI3020	M4–M12 #8–1/2"	VDI 30	ER20	1.2	34.6	36.3	34	97
	4150VDI4020		VDI 40		2.1				97
SFT II 75	4175VDI3025	M8–M20 1/4"–3/4"	VDI 30	ER25	1.5	44	45.6	42	116
	4175VDI4025		VDI 40		2.4				116

Note: These internal coolant tools come standard with sealing nut, but tools with standard nuts are also available. Please add N to part number to specify nut without sealing.
When using Roll Form Taps the tool's capacity must be reduced 25%.
All dimensions are shown in mm. 25.4mm = 1"



Steel Collets

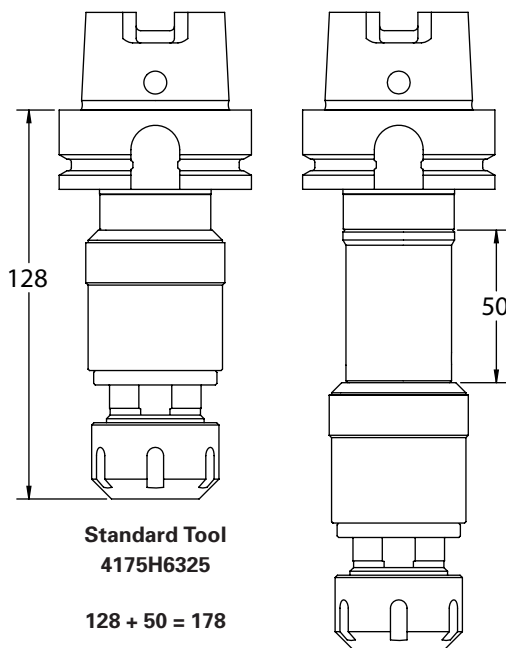


Sealing Gaskets



Speed Chart

Synchronous feed tap holders with extended length, with internal coolant



Extended Tool
4175H63L17825

Features and Advantages

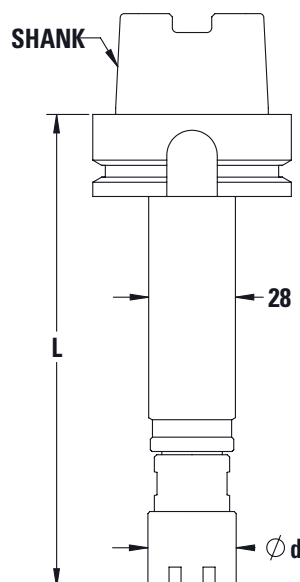
- four standard extensions of 50, 100, 150 and 200 mm
- increased tap life of 100% or more
- improved thread quality
- reduced downtime by lowering frequency of tap replacement
- Axial compensation +/- 0.5mm
- available with internal coolant pressure up to 80 bar

How to Order

Please select the standard length SFT50 or SFT75, including the integral shank of your choice. Then choose a standard extension of 50, 100, 150 or 200mm. The order code is given as shown in the example drawing at left. Accessories like steel collets and sealing gaskets are not included. Please order these separately.

Special length extensions are also available upon request.

Synchronous feed tap holders with reduced diameter and extended length



Features and Advantages

- special reduced diameter extended length tools for difficult to reach holes
- increased tap life of 100% or more
- improved thread quality
- reduced downtime by lowering frequency of tap replacement
- Axial compensation +/- 0.5mm
- available with internal coolant pressure up to 50 bar
- available with ER16 or ER20 mini nut collet chuck

How to Order

Please simply let us know the type of shank, length (L), and your preference of the ER16 or ER20 collet chuck. Please note diameter "d" for ER16 mini nut is 22mm and for ER20 it is 26mm. Accessories like steel collets and sealing gaskets are not included. Please order these separately.



Steel Collets

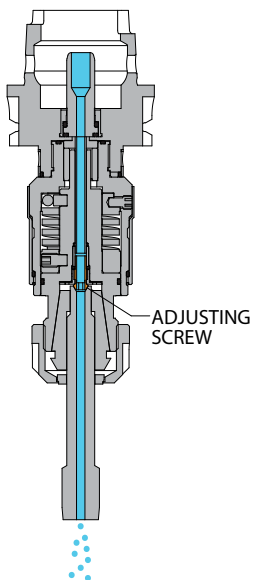
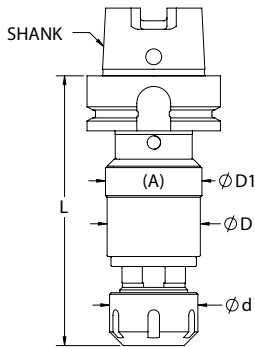


Sealing Gaskets



Speed Chart

Synchronous feed tap holders with integral HSK shank, with MQL, minimum quantity lubrication



Features and Advantages

- increase tap life by 100% or more
- improves thread quality
- precise lubrication delivery for improved tool life
- reduce coolant and maintenance costs
- environmentally friendly alternative to recirculating coolant
- standard for one channel system, but multi-channel also available

How to Order

Please select the tap holder (A) including the HSK shank, to fit your machine. Please order accessories like collets, adjusting screws and sealing gaskets separately as they are not included.

(A) Tap Holder SFTII HSK Shank, ER Collet Chuck, MQL, minimum quantity lubrication system

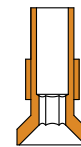
Model	Order code for MQL version	Capacity (steel)	Shank	Collets	Weight kg	D	D1	d	L
SFT II 50	4150H6320M	M4-M12	HSK63A	ER20	1.0	34.6	36.3	34	108
	4150H8020M	#8-1/2"	HSK80A		1.9				113
	4150H10020M		HSK100A		2.7				115
SFT II 75	4175H6325M	M8-M20	HSK63A	ER25	1.6	44.0	45.6	42	128
	4175H8025M	1/4"-3/4"	HSK80A		2.4				131
	4175H10025M		HSK100A		3.2				133

Note: These MQL tools come standard with sealing nut.
When using Roll Form Taps the tool's capacity must be reduced 25%.
All dimensions are shown in mm. 25.4mm = 1"
Other shank sizes are also available

Adjusting Screws

Taps with External Center

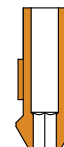
Tap Shank	SFT50II	SFT75II
6mm, 7mm	810836	
8mm, 9mm	810838	811838
10mm	8108310	8108310
11mm to 16mm		8118311



Taps with External Center

Taps with Internal Center

Tap Shank	SFT50II	SFT75II
6mm, 7mm	810836IN	
8mm, 9mm	810838IN	811838IN
10mm	8108310IN	8108310IN
11mm to 16mm		8118311IN



Taps with Internal Center

Additional sizes available on request.



Steel Collets



Sealing Gaskets



Speed Chart

Tension / Compression tap chucks for tapping cycles that are not synchronized

For tapping applications on CNC machines where the revolutions per minute and feed rate are not synchronized to the tap pitch, tap holders with tension / compression float are recommended. These tap chucks rely on the machine spindle for reversal, but by providing axial float, the tap is able to follow the correct pitch, producing gage perfect threads.

Tapmatic offers a complete program of tension / compression tap chucks with a wide range of sizes, and three different tap holding options. Rubberflex multi range collets, ER collets, or Quick Change.



SM Rubberflex Collets

Tension / compression floating tap holders for gage perfect threads with releasable hard start for consistent tapping depth control.

For tap sizes M1.4-M30.

Only two collets needed to cover the capacity of each holder.



SM ER Collets

All the same features as the rubberflex version but for use with ER square drive collets.

For tap sizes M1.4-M18.

ER GB square drive collets include an internal square drive for securely gripping the tap shank.



TA Quick Change

In addition to tension/compression and releasable hard start, the TA series includes front release. A safety feature that releases the quick change tap adapter when the extension float is exceeded.

For tap sizes M1-M49.

Quick Change for fast tap change without wrenches



TIC Quick Change

All the same features as the TA series but with the addition of high pressure internal coolant up to 50 bar.

For tap sizes M3-M36.



NC Quick Change

In addition to tension/compression and releasable hard start, the NC series includes a unique release to neutral feature that allows you to control tapping depth independent of the machine spindle stopping point.

For tap sizes M2-M22.

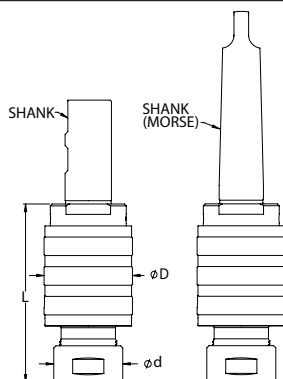


NC150 Large capacity ER50

Tension floating tap holder for large sizes with release to neutral. Includes high pressure internal coolant.

For tap sizes M22-M48.

Tension/Compression tap chucks with modular straight shank and RF collet



Dimensions

Model	D	d	L	Weight kg
SM2	27	19	53	0.2
SM4	38	27	71	0.4
SM6	48	37	96	0.8
SM8	63.5	57	128	2.5

Tapping chuck with increased tension and compression to accommodate tapping cycles that are not synchronized.

Features and Advantages

- increased tension and compression
- releasable hard start for consistent depth control
- right hand and left hand tapping
- multi-range collets (RF), adjustable back jaw for driving tap square

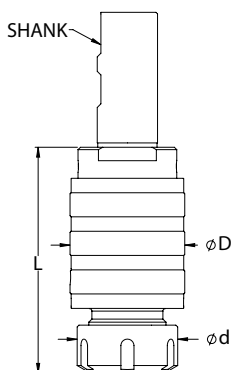
How to Order

Please select the tap chuck (A) and CAT, SK or BT shank (C), to fit your application. Please order rubber flex collets separately.

Model	Order code	Capacity (steel)	Shank	Collets Rubber Flex	Tension T	Compression H
SM2	023216	M1.4–M7	16mm	21600, 21700	4.5	6
	023262	#0 - 1/4"	5/8"			
	023202		No. 2 Morse			
SM4	023420	M3–M12	20mm	22100, 22200	7	7
	023475	#6 - 1/2"	3/4"			
	023402		No. 2 Morse			
SM6	023625	M5–M18	25mm	24100, 24500	11	11
	023610	#10 - 3/4"	1"			
	023603		No. 3 Morse			
SM8	023832	M10–M30	32mm	26100, 26200	17	17
	023815	1/2" - 1 1/8"	1 1/2"			
	023803		No. 3 Morse			
	023804		No. 4 Morse			

Note: Additional shanks available. When using roll form taps, the tool capacity must be reduced 25%.

Tension/Compression tap chucks with modular straight shank and ER collet



Dimensions

Model	D	d	L	Weight kg
SM2	27	28	65	0.2
SM4	38	34	74	0.4
SM6	48	42	94	0.8

Tapping chuck with increased tension and compression to accommodate tapping cycles that are not synchronized.

Features and Advantages

- increased tension and compression
- releasable hard start for consistent depth control
- right hand and left hand tapping
- ER steel collet chuck

How to Order

Please select the tap chuck (A) and CAT, SK or BT shank (C), to fit your application. Please order ER steel collets separately.

Model	Order code	Capacity (steel)	Shank	Collets	Tension T	Compression H
SM2	023216ER	M1.4–M7	16mm	ER16	4.5	5
	023262ER	#0 - 1/4"	5/8"			
SM4	023420ER	M3–M12	20mm	ER20	7	7
	023475ER	#6 - 1/2"	3/4"			
SM6	023625ER	M5–M18	25mm	ER25	11	11
	023610ER	#10 - 3/4"	1"			

Page 50

Page 44

Pages 45-47

Pages 52-54

(C)



Interchangeable
Steep Tapers



RF Multi-range Collets

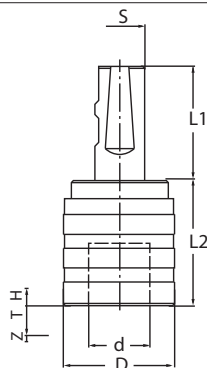


Steel collets



Speed Chart

Tension/Compression tap chucks with modular straight shank and quick change



Dimensions

Model	D	d	L1	L2
TA0-016	29	13	48	38.0
TA0-020			50	
TA1-016	39	19	49	39.0
TA1-020			51	
TA1-025			57	
TA2-025	56	31	57	63.0
TA2-032				
TA3-032	81	48	61	124.0
TA4-040	99	60	71	135.5

TA tapping chuck with tension/compression. With its quick change spindle the taps can be changed in seconds.

Features and Advantages

- tension and compression
- releaseable hard start for consistent depth control
- front release protects against damage if over extended
- right hand and left hand tapping
- short projection

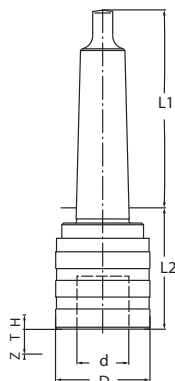
How to Order

Please order the tap chuck (A) and CAT, SK or BT shank (C) to fit your application. Please order tap adapters separately

(A) Model	Order code	Capacity (steel)	Shank	Adapter	Tension T	Compression H	Front release Z
TA0-016	490016	M1-M10	16 mm	Nr. 0	7.5	5	1.7
TA0-020	490020	#0 - 1/4"	20 mm	Nr. 0	7.5	5	1.7
TA1-016	491016	M3-M14	16 mm	Nr. 1	8	5	2.1
TA1-020	491020	#8 - 9/16"	20 mm	Nr. 1	8	5	2.1
TA1-025	491025		25 mm	Nr. 1	8	5	2.1
TA2-025	492025	M4.5-M24	25 mm	Nr. 2	15	8.5	2.8
TA2-032	492032	5/16" - 7/8"	32 mm	Nr. 2	15	8.5	2.8
TA3-032	493032	M14-M36, 13/16" - 1 3/8"	32 mm	Nr. 3	23.5	15	4.1
TA4-040	494040	M22-M48, 7/8" - 1 7/8"	40 mm	Nr. 4	25	16.5	5.7

Note: When using Roll Form Taps the chuck's tapping capacity must be reduced by 25 %.

Tension/Compression tap chucks with morse taper and quick change



How to Order

Please select the tap chuck (A) to fit your application. Please order quick change tap adapters separately.

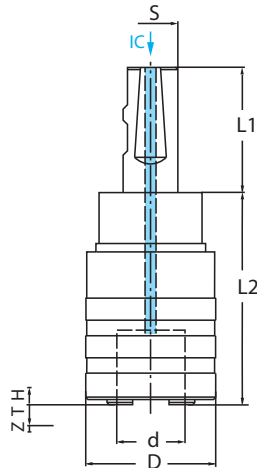
Dimensions

Model	D	d	L1	L2
TA0-MT1	29	13	62.0	43.5
TA0-MT2	29	13	75.0	45.0
TA1-MT2	39	19	75.0	47.0
TA2-MT3	56	31	94.0	71.0
TA3-MT4	81	48	117.5	105.0
TA4-MT5	99	60	149.5	116.5

(A) Model	Order code	Capacity (steel)	Morse taper MT	Tap adapters	Tension T	Compression H	Front release Z
TA0-MT1	490MT1	M1-M10	1	Nr. 0	7.5	5	1.7
TA0-MT2	490MT2	#0-1/4"	2				
TA1-MT2	491MT2	M3-M14	2	Nr. 1	8	5	2.1
TA1-MT3	491MT3	#8-9/16"	3				
TA2-MT3	492MT3	M4.5-M24	3	Nr. 2	15	8.5	2.8
TA2-MT4	492MT4	5/16"-7/8"	4				
TA2-MT5	492MT5		5				
TA3-MT4	493MT4	M14-M36	4	Nr. 3	23.5	15	4.1
TA3-MT5	493MT5	13/16"-1 3/8"	5				
TA4-MT5	494MT5	M22-M48	5	Nr. 4	25	16.5	5.7
TA4-MT6	494MT6	7/8"-1 7/8"	6				

Note: When using Roll Form Taps the chuck's tapping capacity must be reduced by 25 %.
All dimensions are shown in mm. 25.4mm = 1"

Tension/Compression tap chucks with modular straight shank, quick change and internal coolant



Tapping chuck with internal coolant system, tension, compression and quick-change spindle, where the tap can be changed in seconds.

Features and Advantages

- tension and compression
- releaseable hard start for consistent depth control
- front release protects against damage if over extended
- right hand and left hand tapping
- internal coolant system (max. 50 bar)
- short projection

How to Order

Please order the tap chuck (A) and CAT, SK or BT shank (C) to fit your application. Please order tap adapters separately.

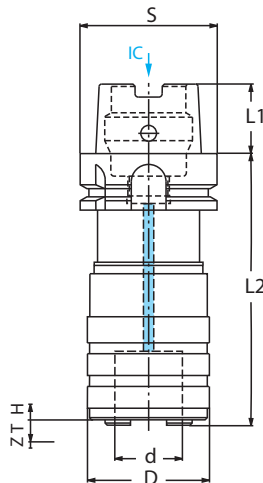
Dimensions

Model	D mm	d mm	L1 mm	L2 mm
TIC1-025	43	19	57	62
TIC2-025	59	31	57	98
TIC3-032	80	48	61	147

(A) Model	Order code	Capacity (steel)	Shank	Adapter	Tension T	Compression H	Front release Z
TIC1-025	49C1025	M3-M14, #8 - 9/16"	25	Nr. 1	7.5	5	2.5
TIC2-025	49C2025	M4.5-M24, 5/16" - 7/8"	25	Nr. 2	10	7	3
TIC3-032	49C3032	M14-M36, 13/16" - 1 3/8"	32	Nr. 3	20	15	5

Note: When using Roll Form Taps the chuck's tapping capacity must be reduced by 25%.

Tension/Compression tap chucks with HSK shank, quick change and internal coolant



Dimensions

Model	D	d	L1	L2
TIC1-HSK50A	43	19	25	91
TIC1-HSK63A			32	93
TIC1-HSK80A			40	97
TIC1-HSK100A			50	98
TIC2-HSK50A	59	31	25	140
TIC2-HSK63A			32	130
TIC2-HSK80A			40	133
TIC2-HSK100A			50	135

How to Order

Please select the tap chuck (A) to fit your application. Please order quick change tap adapters separately.

(A) Model	Order code	Capacity (steel)	Shank S HSK-A	Adapter	Tension T	Compression H	Front release Z
TIC1-HSK50A	49C1H50	M3-M14	50	Nr. 1	7.5	5	2.5
TIC1-HSK63A	49C1H63	#8 - 9/16"	63				
TIC1-HSK80A	49C1H80		80				
TIC1-HSK100A	49C1H100		100				
TIC2-HSK50A	49C2H50	M4.5-M24	50	Nr. 2	10	7	3
TIC2-HSK63A	49C2H63	5/16" - 7/8"	63				
TIC2-HSK80A	49C2H80		80				
TIC2-HSK100A	49C2H100		100				

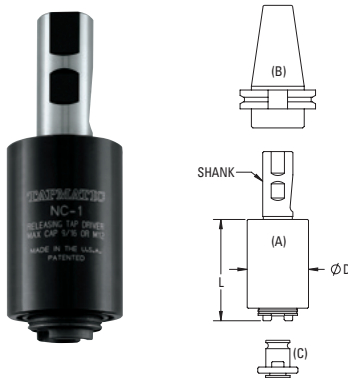
Note: When using Roll Form Taps the chuck's tapping capacity must be reduced by 25%. All dimensions are shown in mm. 25.4mm = 1"



Tension/Compression tap holders with self feed and release to neutral

The **NC Series Tools** include a unique feature which allows you to control the tapping depth independent of the stopping position of the machine spindle. When the feed is paused with the spindle of the machine still rotating, the tap will continue into the hole for a short "self feed" distance, extending the tension float of the tap holder. Once this position is reached the drive of the tap holder releases and the tap stops. The machine spindle can then be stopped, reversed and retracted. The release feature is an accurate way to control tapping depth in blind holes and can be used on both CNC controlled machines or even on conventional machines where the operator is controlling the feed.

Tension/Compression tap chucks with modular straight shank, quick change and release to neutral



Tapping chuck with quick change spindle and self-release.

Features and Advantages

- tension compression
- releasable hard start for consistent depth control
- self-release for precise depth control independent of machine spindle stop
- quick-change version for fast tap changes without any wrenches

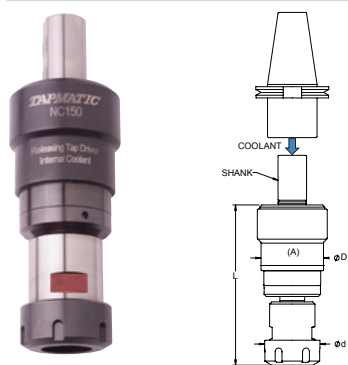
How to order

Please select the tapping chuck (A) and CAT, SK or BT shank (B), to fit your application. Standard adapters (C) shown in accessories section.

(A) NC Tapping Chuck with Straight Shank, Quick-Change Adapter

Model	Order code	Capacity (steel)	Shank	Adapter Size	Weight kg	D	L	Self-feed self-release	Compression
NC0	34002	M2-M6	20 mm	Nr. 0	0.4	38	60	5	8
	34000	#4-1/4"	3/4"						
NC1	34012	M3-M12	25 mm	Nr. 1	1.2	51	85	5	15
	34010	#8-9/16"	1"						
NC2S	34022S	M5-M22	25 mm	Nr. 2	2.0	70	89	8	11
	34020S	5/16"-7/8"	1"						

NC150 large capacity, tension float with release to neutral and internal coolant system



(A) NC150 Tapping Chuck with Straight Shank, ER50 Steel Collet, Internal Coolant System

Model	Order code	Capacity (steel)	Shank	Collets	Weight kg	D	d	L	Self-feed self-release
NC150	3415040	M22-M48	40 mm	ER50	4.0	88	78	227	9



Tapping attachments for manual tapping application



X
For general tapping with sensitive fiber clutch.



RX
Newest series for high production with heavy duty ball clutch.



TC/DC
Adjustable self feed for accurate depth control in shallow holes.



SPD
Positive drive for applications where torque control is not desirable. 1 to 1 reverse ratio simplifies adjustment of automatically controlled feed.



SPD-OC
With quick change spindle. Recommended for pipe taps.

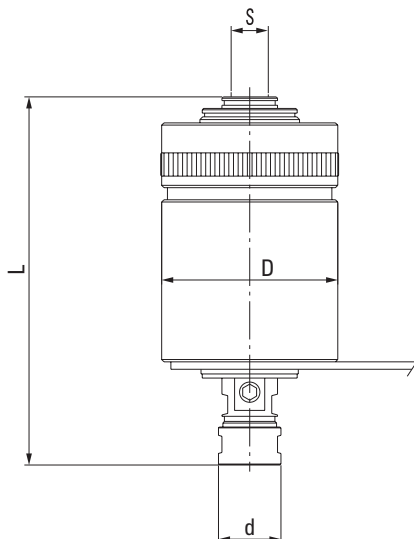
Tapping attachments for drilling and milling machines and pneumatic, hydraulic and electric spindles

Since 1952 Tapmatic has manufactured the world's most popular line of compact self-reversing tapping attachments. Our experience and commitment to quality make these tools an excellent value. Although there are other products available on the market, a Tapmatic head is still the most economical to use. Our customers know they can count on our tools for many, many years of service.

Tapmatic offers a complete program of self-reversing tapping attachments to meet the most difficult requirements. Ruggedly built, these Tapmatic tools provide higher production rates due to:

- decrease in tap breakage
- production of perfect threads
- reduced cycle time through increased 1.75:1 reverse speed
- longer tap life
- accurate depth control
- better thread quality
- consistent trouble free performance
- interchangeable mounts
- left hand versions available on request

High production self-reversing tapping attachments with high-speed reverse and pre-selective torque control



- for hard to machine material and high
- torque applications like roll form tapping
- less tap breakage due to pre-selective torque control
- reduced cycle time through increased 1.75:1 reverse speed
- easy handling, compact design
- easy adaptation with multiple interchangeable arbors

How to Order

Please select the tapping attachment (A) and arbor (C) to fit your application. Choose an arbor to fit the thread or taper mount of the tapping attachment, with the Morse Taper, R8 or straight shank to fit your machine. Please order rubber flex collets and torque bars separately .

Dimensions

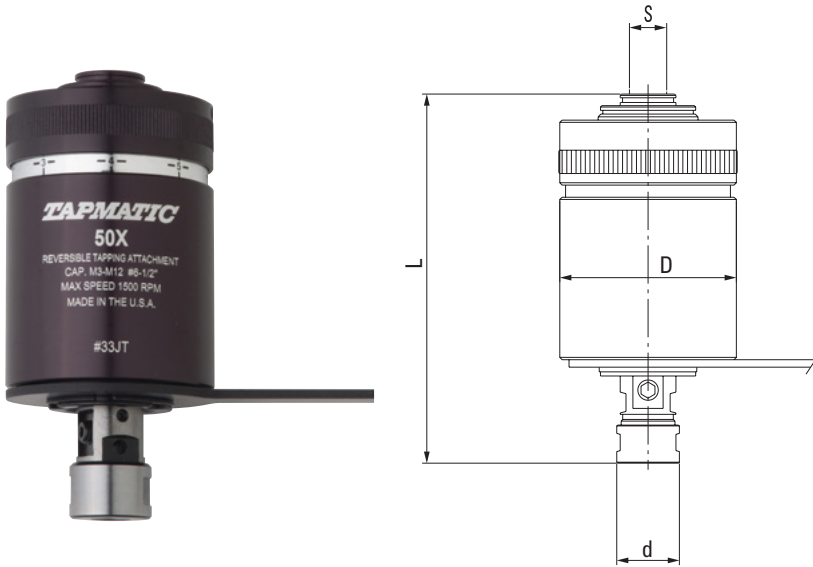
(A) Model	D mm	d mm	Self-feed mm T	Weight kg
RX30	53	19	3	0.7
RX50	76	27	5	1.8
RX70	88	36	7	3.0

Model	Order code	Capacity (steel)	Collets Rubber Flex	Max. RPM	Mounts S		L
					Taper mounts	Thread. mounts	
RX 30	013006	M1.4–M7 #0 - 1/4"	21600 21700	2000	JT6	3/8"–24 1/2"–20	116
	013016				B16		
	013033				JT33		
	013037						
	013050						
RX 50	015006	M3–M12 #6 - 1/2"	22100 22200	1500	JT6	1/2"–20	157
	015016				B16		
	015033				JT33		
	015050						
RX 70	017003	M5–M18 #10 - 3/4"	24100 24500	1200	JT3	1/2"–20 7/8"–20	182
	017050						
	017087						

Note: When using Roll Form Taps the tool's tapping capacity must be reduced by 25 %.
Special thread mounts are also available to fit Burgmaster machines.
All dimensions are shown in mm. 25.4mm = 1"



Self-reversing tapping attachments with high-speed reverse and pre-selective torque control



- easy handling, compact design
- less tap breakage due to pre-selective torque control
- easy adaptation with multiple interchangeable arbors
- reduced cycle time through increased 1.75:1 reverse speed
- only 2 Rubber Flex collets per model required. (exception 100XB)

How to Order

Please select the tapping attachment (A) and arbor (C) to fit your application. Choose an arbor to fit the thread or taper mount of the tapping attachment, with the Morse Taper, R8 or straight shank to fit your machine. Please order rubber flex collets and torque bars separately.

Note: X models with Quick Change or ER collet chuck are also available on request.

Dimensions

Model	D	d	Self-feed	Weight kg
100XB	33	9	5	0.2
30X	48	19	3.5	0.5
50X	70	27	6	1.4
70X	76	36	9	2.1
90X	105	57	13	5.0

(A)	Model	Order code	Capacity (steel)	Collets Rubber Flex	Max. RPM	Mounts S		L
						Taper mounts	Thread. mounts	
	100XB	16101	M0.5–M2, #0000-0	XB	2000	JT1		94
	30X	10306	M1.4–M7 #0 - 1/4"	21600 21700	2000	JT6		113
		10312				B12		
		10316				B16		
		10333				JT33		
		10331					5/16"–24*	104
		10337					3/8"–24	
		10350					1/2"–20	113
		10362					5/8"–16*	
		10375					3/4"–16*	
	50X	10506	M3–M12 #6 - 1/2"	22100 22200	1500	JT6		153
		10516				B16		
		10533				JT33		
		10537					3/8"–24	148
		10550					1/2"–20	
		10562					5/8"–16*	
		10575					3/4"–16*	
	70X	10703	M5–M18 #10 - 5/8"	24100 24500	1200	JT3		176
		10718				B18		
		10750					1/2"–20	
		10762					5/8"–16*	
		10775					3/4"–16*	
		10787					7/8"–20	
	90X	10904	M10–M30 1/2" - 1 1/8"	26100 26200	600	JT4		219
		10915					1.1/2"–18	

Note: When using Roll Form Taps the tool's tapping capacity must be reduced by 25%.

* These special thread mounts are only for Burgmaster machines.

All dimensions are shown in mm. 25.4mm = 1"



RF Multi-range Collets



Arbors

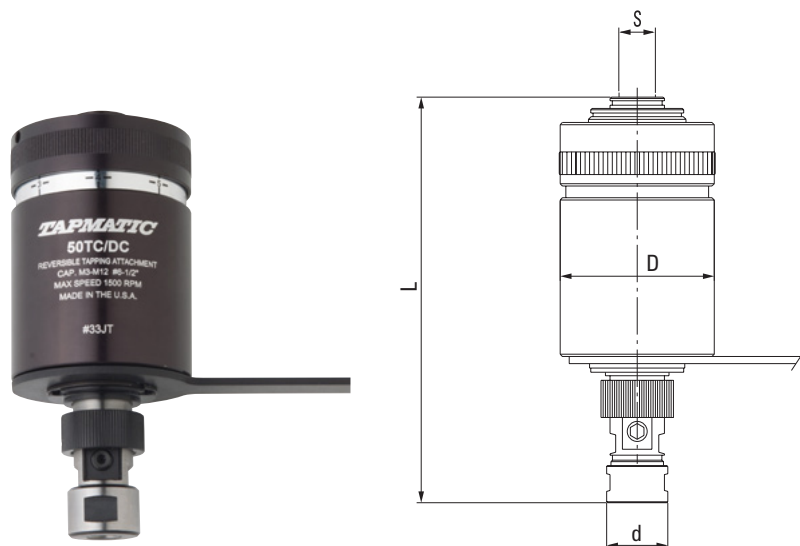


Torque Bar



Speed Chart

Self-reversing tapping attachments with high-speed reverse, pre-selective torque control and adjustment for shallow depth tapping



- adjustable depth control for shallow blind hole
- easy handling, compact design
- less tap breakage due to pre-selective torque control
- easy adaption with multiple interchangeable arbors
- reduced cycle time through increased 1.75:1 reverse speed
- only 2 Rubber Flex collets per model required.

How to Order

Please select the tapping attachment (A) and arbor (C) to fit your application. Choose an arbor to fit the thread or taper mount of the tapping attachment, with the Morse Taper, R8 or straight shank to fit your machine. Please order rubber flex collets and torque bars separately.

Dimensions

Model	D	d	Self-feed	Weight kg
30TC/DC	48	19	1.5–3.5	0.5
50TC/DC	70	27	2–6	1.2
70TC/DC	76	36	3–9	2.3

(A)	Model	Order code	Capacity (steel)	Collets Rubber Flex	Max. RPM	Mounts S		L
						Taper mounts	Thread. mounts	
	30TC/DC	14306	M1.4–M7 #0 - 1/4"	21600 21700	2000	JT6		122
		14312				B12		
		14316				B16		
		14333				JT33		
		14331					5/16"–24*	113
		14337					3/8"–24	
		14350					1/2"–20	122
		14362					5/8"–16*	
	50TC/DC	14506	M3–M12 #6 - 1/2"	22100 22200	1500	JT6		169
		14516				B16		
		14533				JT33		
		14537					3/8"–24	
		14550					1/2"–20	
		14562					5/8"–16*	
	70TC/DC	14703	M5–M18 #10 - 5/8"	24100 24500	1200	JT3		191
		14718				B18		
		14750					1/2"–20	
		14762					5/8"–16*	
		14787					7/8"–20	

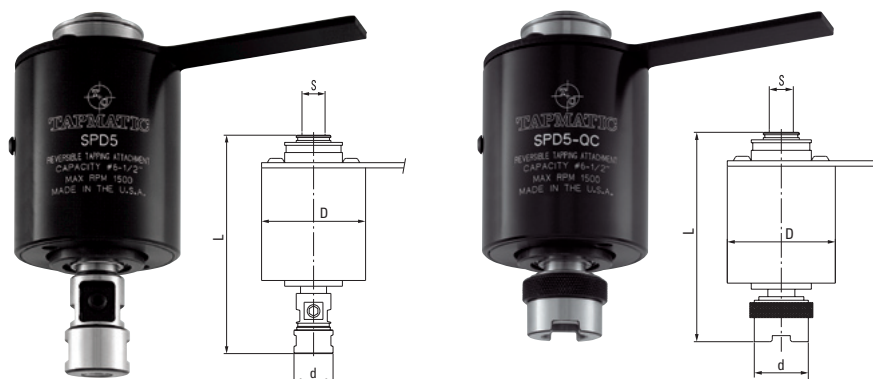
Note: When using Roll Form Taps the tool's tapping capacity must be reduced by 25 %.

* These special thread mounts are only for Burgmaster machines.

All dimensions are shown in mm. 25.4mm = 1"



Tapping attachments with automatic reversal for conventional machines



Features and Advantages

- rugged design
- short lengths
- 1:1 reverse speed
- for heavy applications like drill tapping or roll form tapping
- SPD QC also recommended for pipe taps

Dimensions

Model	D mm	d mm	Self-feed mm	Weight kg
SPD-3	53	19	3	0.5
SPD-5	69	27	5	1.4
SPD-7	76	36	7	2.1
SPD-9A	103	57	10	5.0
SPD-3 QC	53	28	3	0.5
SPD-5 QC	69	36	5	1.4
SPD-7 QC	76	54	7	2.1
SPD-9A QC	103	76	10	5.0
SPD-11 QC	146	90	13	14.0

Note: When using Roll Form Taps the tool's tapping capacity must be reduced by 25%.

* These special thread mounts are only for Burgmaster machines.

All dimensions are shown in mm. 25.4mm = 1"

Model	Order code	Capacity (steel)	Collets	Max. RPM	Mounts S		L mm
					Taper mounts	Thread. mounts	
SPD-3	18306	M1.4–M7 #0 - 1/4"	21600 21700	2000	JT6		118
	18316				B16		
	18333				JT33		
	18337					3/8"–24	105
	18350					1/2"–20	113
	18362					5/8"–16*	
SPD-5	18506	M3–M12 #6 - 1/2"	22100 22200	1500	JT6		148
	18516				B16		
	18533				JT33		
	18537					3/8"–24	138
	18550					1/2"–20	
	18575					3/4"–16*	
SPD-7	18587	M5–M18 #10 - 5/8"	24100 24500	1200		7/8"–20	148
	18703				JT3		175
	18750					1/2"–20	162
	18762					5/8"–16*	
SPD-9A	18787	M10–M30 1/2" - 1 1/8"	26100 26200	600		7/8"–20	175
	17904				JT4		228
	17915					1 1/2"–18	200
SPD-3 QC	18216	M1.4–M7 #0 - 1/4"	Nr 0	2000	B16		109
	18233				JT33		
	18237					3/8"–24	96
	18250					1/2"–20	104
	18262					5/8"–16*	
	18275					3/4"–16*	109
SPD-5 QC	18416	M3–M12 #6 - 1/2"	Nr 1	1500	B16		130
	18433				JT33		
	18450					1/2"–20	122
	18462					5/8"–16*	
SPD-7 QC	18487	M5–M18 #10 - 5/8"	Nr 2	1200		7/8"–20	130
	18603				JT3		159
	18650					1/2"–20	147
	18662					5/8"–16*	
SPD-9 QC	18687	M10–M30 1/2" - 1 1/8"	Nr 3	600		7/8"–20	159
	17804				JT4		217
	17815					1 1/2"–18	189
SPD-11 QC	18100	M22–M42, 3/4" - 2"	Nr 4	400		2 1/4"–10	236

Note: SPD-11 QC Recommended capacity 1 1/2" steel, 2" aluminum

Page 44

Page 49

Page 51

Pages 40-44

Pages 52-54



RF Multi-range Collets



Torque Bar



Arbors



Quick-Change Adapters



Speed Chart

**NOW!!! A COMPLETE PROGRAM FOR IN MACHINE MARKING
DOT PEENING, SCRIBING OR STAMPING**



The collage features three main tool types and their applications:

- TapWriter:** A black tool with a silver tip, shown marking a metal surface with the word "WELCOME TO TAPMATIC" in a stylized font. The tool has a label that reads: "effectivity tools", "TapWriter", "Die Set Marker", "SPEED 750 - 1500 RPM", "Order Code 57810", and "TAPMATIC www.tapmatic.com".
- ScribeWriter Force II:** A black tool with a blue label, shown marking a metal surface with the word "TAPMATIC" in a grid of dots. The label reads: "effectivity tools", "ScribeWriter Force II", and "TAPMATIC www.tapmatic.com".
- Marking Head MH 1/2:** A black tool with a silver tip, shown marking a metal surface with the word "TAPMATIC" in a grid of dots. The tool has a label that reads: "effectivity tools", "MARKING HEAD MH 1/2", "Loading Stroke = 0.500/12mm", "Order Code 575010TH", and "TAPMATIC www.tapmatic.com".

Other images in the collage include a close-up of a tool tip marking a metal surface, a close-up of a tool tip marking a metal surface, and a close-up of a tool tip marking a metal surface.

THREE WAYS TO MARK IT WHILE YOU MAKE IT FOR MAXIMUM EFFICIENCY

Dot Peen Marking tool for CNC marking



Tapmatic Is Pleased To Introduce An Exciting New Product.... The TAPMATIC TapWriter.

The TapWriter allows you to mark your work piece while you are machining it without the need for a secondary marking operation. Part numbers, date codes, logos and even decorative patterns and artwork can easily be created with this unique dot marking tool.

It can also be used for controlled, consistent shot peening to improve a parts resistance to fatigue. Using the TapWriter for shot peening allows treating specific areas of a part without the need for masking, and no special cleaning is needed afterwards.

Installs easily on Machining Centers or CNC lathes with Live Tooling.

It utilizes standard engraving software, but unlike engraving, dot-peen marking does not require the use of delicate cutting tools and high speed spindles.

You can mark soft plastics or steel as hard as 55 RC.

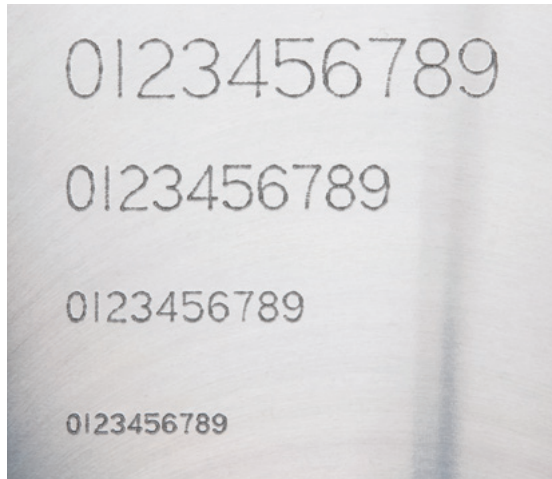
The durable carbide stylus is thrown against the work piece which allows the marking of uneven or round surfaces.

The TapWriter is Fast. Up to 80 characters per minute or more just depending on the capabilities of your machine.

Dot peen marking is widely used in the aerospace industry because the cross section of the dot has gentle curves, resulting in no significant stress concentration.

With the TapWriter you have complete control of the mark. The revolutions per minute determines the dots per minute, and the velocity of the carbide stylus when it impacts the work piece. The feed rate controls the distance between dots allowing you to select the appearance of discrete dots or a continuous line.

Here are just a few examples...



Character heights shown from 6 mm to 2 mm, using standard engraving software.



Point to point programming for creating characters with defined dot position or 2D Data Matrix codes.



Mark logos using standard CAD/CAM software for the tool path.

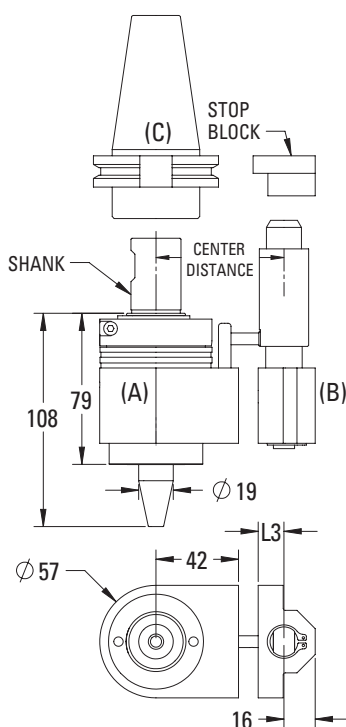
- **Eliminates extra operations**
- **Faster than engraving**
- **Long tool life with replaceable carbide stylus**
- **Mark hard or soft materials**
- **Mark round or uneven surfaces**
- **Simple to install and program**



How to Order

The TapWriter® adapts to machining centers with automatic change, using a locking stop arm, similar to those used with self reversing tapping attachments. Select the installation method you prefer as shown below. Please select the TapWriter® (A), stop arm (B), and CAT, SK, or BT shank (C), to fit your machine. Please order accessories like torque bars, ready made stop arms and stop blocks separately.

TapWriter® with Stop Arm Bar and Stop Block Installation



(A) TapWriter® CNC Dot Peen Marking Tool

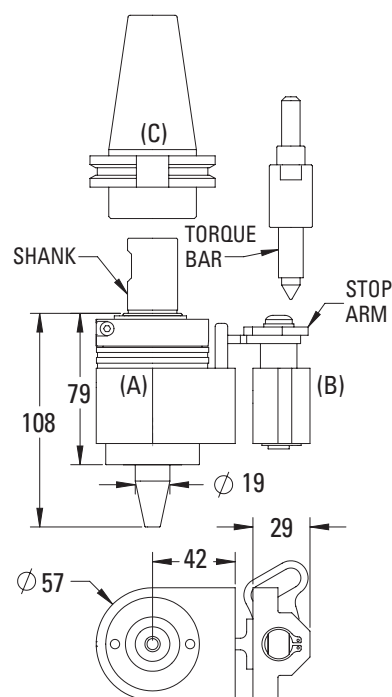
Model	Order code	Shank	Weight kg
TAPWRITER	57820	20 mm	1.7
	57825	25 mm	
	57810	1"	

(B) Stop Arm Assembly

Center Distance (42+L3)	Order code	L3
55	3925551	13
65	3925651	23
80	3925801	38

Special stylus points or extended lengths are available on request.

TapWriter® with Stop Arm Plate and Torque Bar Installation



(A) TapWriter® CNC Dot Peen Marking Tool

Model	Order code	Shank	Weight kg
TAPWRITER	57820	20 mm	1.7
	57825	25 mm	
	57810	1"	

(B) Stop Arm Plate Assembly 392552

Please note a blank stop arm which can be modified is included. Please see torque bars on Pg. 55.



Interchangeable Steep tapers



Stop Block



Installation

NEW!

ScribeWriter® Force II

Marking tool for work piece scribing



With high pressure internal coolant



Mark It While You Make It.

- Scribing tool for CNC machines.
- For marking of different materials up to 62 HRC hardness, and surface variations up to 5mm.
- Fast marking without spindle rotation.
- Simple programming directly at the machine control or from the programmers work station using engraving software.
- Marking force and resulting depth are adjustable by turning the knurled sleeve.
- Easy to read marking force reference scale with high quality magnification lens from Thorlabs.
- Settings 0-7 for gradually increasing force up to setting H for marking the hardest materials. There is no need to change springs.
- With high pressure internal coolant capability for improved stylus lubrication and increased marking force.
- Simple to change, long life, carbide stylus. A 90° and 60° stylus are available.
- New ball point stylus option. The rolling ball creates very smooth lines, but depth is shallower in comparison to scribing points.

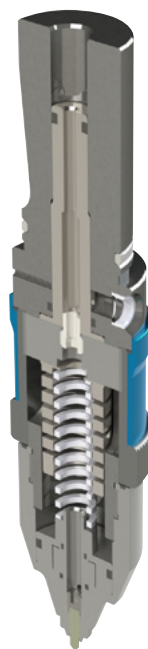


Marking force reference scale.

Turn to increase or decrease marking force.

Easy to exchange long life carbide stylus.

Setting 0-7 for marking all kinds of materials



Setting H for deep marking or for hard materials

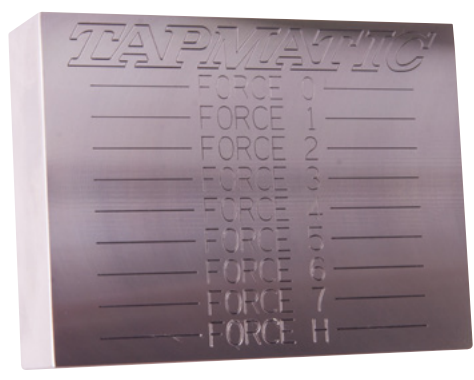


Unique flexure technology for higher marking force without the need to change springs.

NEW!

ScribeWriter® Force II

Marking tool for work piece scribing



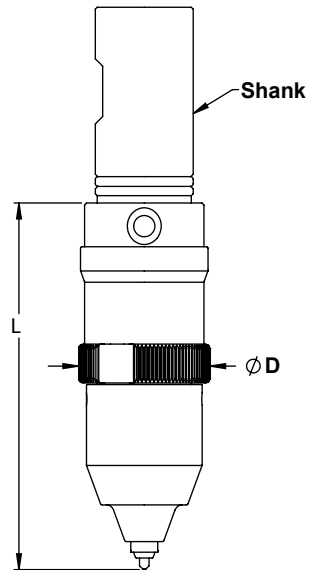
Example in 4140 pre heat treated material with hardness 28 HRC. Marking at different settings with 1.3 mm compression against the surface.



Example created with new ball point stylus in aluminum material.



Example marking a curved surface programmed at constant marking plane. Material is S7 tool steel heat treated to 60 HRC. Setting 'H' with 2mm compression at closest point on surface.



How to Order

Please select the ScribeWriter® with shank to fit your application. Please order CAT, SK, or BT shanks separately. The ScribeWriter® comes with one standard 90° stylus. A 60° stylus is also available.

Order code	Shank	L	Ø D
57601	1"	95	32
57625	25 mm	95	32
57620	20 mm	95	32
57616	16 mm	95	32

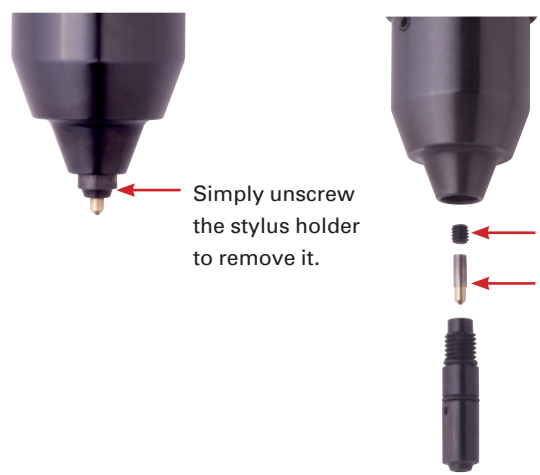
Note: To order the ScribeWriter with 60° stylus, please specify by adding "-60" to the above order codes.
To order the ScribeWriter with a ball point stylus please specify by adding "-B" to the above order codes.

Standard Stylus Options

Order code	Stylus Point
7361608	90°
7361611	60°



Changing the stylus

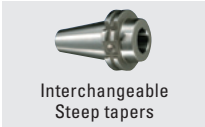


Simply unscrew the stylus holder to remove it.

Remove the retaining screw.
The stylus can then be removed and changed.

Ball Point Stylus Options

Order code	Description
73602BN4A	Complete ball point assembly
71735C	2mm carbide ball



Interchangeable Steep tapers

CNC Marking Heads for use with standard type or custom stamps



Tapmatic MH Series Marking Heads

Eliminate the need for expensive secondary marking operations. The Marking Head allows you to mark the work piece during the machining process.

Simple to install on Machining Centers, CNC lathes or even manually controlled conventional machines. Compact in size, they fit easily in the tool magazine or turret without interference.

With the Marking Head, no rotation is required. Simply advance the head against the work piece a short distance to charge the internal impact system and rapid feed away.

The impact force and marking depth can be adjusted by turning the knurled sleeve.

The Marking Heads shock absorbtion system cushions any recoil effect on the machine spindle or turret.

With the Marking Head you can hold standard type or custom made stamps. Mark part numbers, date codes, batch codes, logos or other information.

The marking location and depth are accurate and consistent.

Characters and stamps are securely held and can be changed quickly.

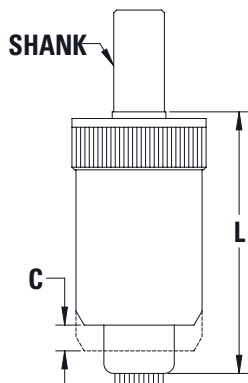
The Marking Head is fast. Stamping the work piece takes less than one second.



CNC Marking Heads for use with standard type or custom stamps

How to Order

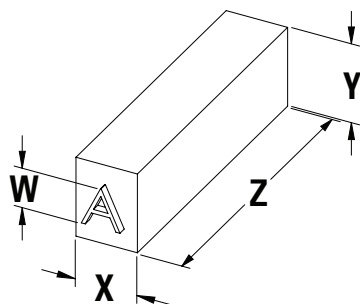
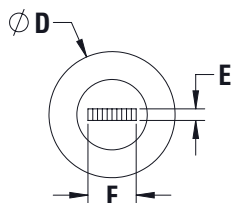
Please select the Marking Head with the shank to fit your application. Please order accessories like standard type or custom stamps separately. Please note the Marking Head accepts standard type directly or you can use one of the separate Type Holders for quick replacement of characters and fast change over.



MH Marking Heads

Model	Order code	Shank	E	F	D	L	Stroke C	Weight kg
MH 1/2	575020TH	20 mm	6.4	24.5	62	128	12	1.6
	575025TH	25 mm						
	575075TH	3/4"						
	575010TH	1"						
	575003TH	No.3 Morse						
MH 3/4	577525TH	25mm	6.4	40	86	172	18	3.4
	577510TH	1"						

Note: The impact force of each marking head may be adjusted by turning its knurled sleeve. For softer materials like plastic we also have the ability to deliver a Marking Head with lighter springs. Please just let us know the details about your specific application for a recommendation.



Standard Type Dimensions

W	X	Y	Z	Order code 26 Letters	Order code 10 Numbers	Order code Blank Spacer
1	1.6	6.4	22.2	5707111006	5707101000	5707014002
1.5	1.6	6.4	22.2	5707112009	5707102003	5707014002
2	2	6.4	22.2	5707113001	5707103006	5707015005
2.5	2.4	6.4	22.2	5707114004	5707104009	5707016008
3	3.2	6.4	22.2	5707115007	5707105001	5707017000
4	4	6.4	22.2	5707120001	5707118008	5707021008
5	4.8	6.4	22.2	5707117002	5707106004	5707018003
6	6.5	9.5	19	5707950 *	5707951 *	5707952 *

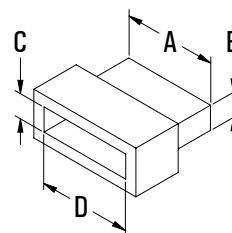
Note: To order individual letters or numbers please use the set order code shown above followed by the desired character.

FOR EXAMPLE: "5707111006D" for the letter D character with height of 1mm.

* Only for use with type holder 5775THILG

Type Holders for fast change over

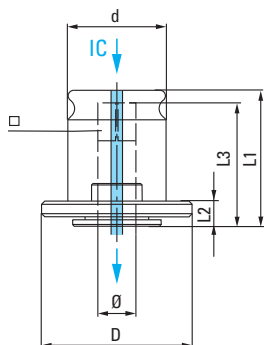
Model	Order code	A	B	C	D
MH 1/2	5750THI	24	6.35	6.4	24
MH 3/4	5775THI	40	6.35	6.4	40
MH 3/4	5775THILG	40	6.35	9.6	40



Custom Stamps Available on Request

Note: Tapmatic can also supply custom stamps to fit the Marking Heads. Please let us know the details of your application and we will be pleased to provide a proposal drawing and quote.

Quick-change adapters, positive drive *inch* sizes



For quick change tap chucks TA, TIC, NC and SPD QC, with or without internal coolant system.

Features and Advantages

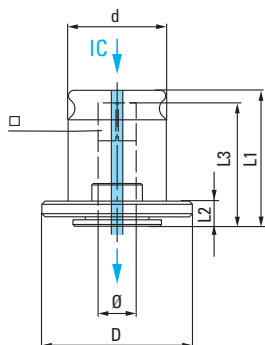
- equally appropriate for taps with internal coolant
- no pre-selective torque drive
- suitable for right and left hand tapping

Model	Adapter Size	Dimensions			
		d mm	L1 mm	D mm	L2 mm
P0	0	13	26.5	22	7
P1	1	19	28.5	30	7
P2	2	31	46.5	48	11
P3	3	48	68.5	70	14
P4	4	60	105.0	92	42

Product range – Adapters

Tap	Shank Ø inch	Square inch	Order code P0	Order code P1	Order code P2	Order code P3	Order code P4
#0 - #6	.141	.110	1001	1006			
#8	.168	.131	1002	1007			
#10	.194	.152	1003	1008	1016		
#12	.220	.165	1004	1009			
1/4"	.255	.191	1005	1010	1017		
5/16"	.318	.238		1012	1018		
3/8"	.381	.286		1013	1019		
7/16"	.323	.242		1014	1020		
1/2"	.367	.275		1015	1021		
9/16"	.429	.322		10155	1022		
1/8" Pipe	.313	.234		10166	10266		
1/8" Pipe	.438	.328		10177	10277		
5/8"	.480	.360			1023		
11/16"	.542	.406			1024		
3/4"	.590	.442			1025		10392
13/16"	.652	.489			1026	1031	
7/8"	.697	.523			1027	1032	
1/4" Pipe	.562	.421			10288		
3/8" Pipe	.700	.531			10299	10386	
1/2" Pipe	.687	.515			10300	10387	
15/16"	.760	.570				1033	
1"	.800	.600				1034	10391
1 1/8"	.896	.672				1035	10393
1 1/4"	1.021	.766				1036	1039
1 3/8"	1.108	.831				1037	1040
3/4" Pipe	.906	.679				10388	10440
1" Pipe	1.125	.843				10389	10442
1 1/2"	1.233	.925					1041
1 5/8"	1.305	.979					1042
1 3/4"	1.430	1.072					1043
1 7/8"	1.519	1.139					10435
1 1/4" Pipe	1.312	.984					10444
1 1/2" Pipe	1.500	1.125					10455
2"	1.644	1.233					1044

Quick-change adapters, positive drive *metric* sizes



For quick change tap chucks TA, TIC, NC and SPD QC with or without internal coolant system.

Features and Advantages

- equally appropriate for taps with internal coolant
- no pre-selective torque drive
- suitable for right and left hand tapping

Model	Adapter Size	Dimensions			
		d mm	L1 mm	D mm	L2 mm
P0	0	13	26.5	22	7
P1	1	19	28.5	30	7
P2	2	31	46.5	48	11
P3	3	48	68.5	70	14
P4	4	60	105.0	92	42

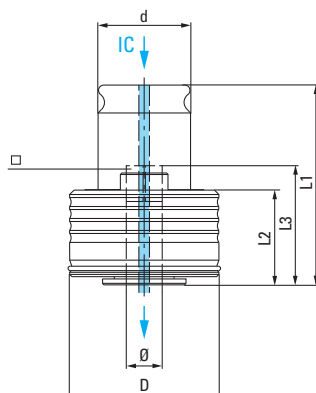
Quick change adapters, positive drive metric sizes

Tap	Shank Ømm	Square mm	Order code P0	Order code P1	Order code P2	Order code P3	Order code P4
M2, M2.5, M4	2.8	2.1	P0-028021				
M3, M5	3.5	2.7	P0-035027	P1-035027			
M3.5	4	3	P0-040030	P1-040030			
M4	4.5	3.4	P0-045034	P1-045034			
M4, M4.5	5	4	P0-050040	P1-050040			
M4.5, M5, M6, M8	6	4.9	P0-060049	P1-060049	P2-060049		
M8	8	6.2	P0-080062*	P1-080062	P2-080062		
M7, M9, M10	7	5.5	P0-070055*	P1-070055	P2-070055		
M12	9	7		P1-090070	P2-090070		
M10	10	8		P1-100080	P2-100080		
M14	11	9		P1-110090	P2-110090	P3-110090	
M16	12	9			P2-120090	P3-120090	
M18	14	11			P2-140110	P3-140110	
M20	16	12			P2-160120	P3-160120	
M22, M24, M25, M26	18	14.5			P2-180145	P3-180145	P4-180145
M27, M28	20	16				P3-200160	P4-200160
M30, M32	22	18				P3-220180	P4-220180
M33	25	20				P3-250200	P4-250200
M34, M35, M36, M38	28	22				P3-280220	P4-280220
M39, M40, M42	32	24					P4-320240
M45, M48, M50	36	29					P4-360290

Note: Version with (*) only suitable for light processing

Note: other sizes available on request.

Quick-change adapters, with pre-selective torque drive *inch sizes*



For quick change tap chucks TA, TIC, NC and SPD QC, with or without internal coolant system. A pre-selective torque drive protects the tap from breakage.

Features and Advantages

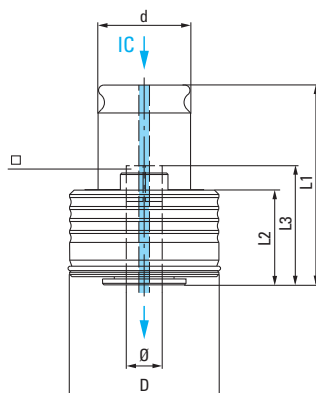
- equally appropriate for taps with internal coolant
- with pre-selective torque drive
- suitable for right and left hand tapping

Model	Adapter Size	Dimensions			
		d mm	L1 mm	D mm	L2 mm
TC0	0	13	40.5	23	21
TC1	1	19	46.5	32	25
TC2	2	31	69	50	34
TC3	3	48	100.5	72	45
TC4	4	60	131	95	68

Product range – Adapters with torque control

Tap	Shank Ø inch	Square inch	Order code TC0	Order code TC1	Order code TC2	Order code TC3	Order code TC 4
#0 - #6	.141	.110	1046	1051			
#8	.168	.131	1047	1052			
#10	.194	.152	1048	1053			
#12	.220	.165	1049	1054			
1/4"	.255	.191	1050	1055	10614		
5/16"	.318	.238		1056	1062		
3/8"	.381	.286		1057	1063		
7/16"	.323	.242		1058	1064		
1/2"	.367	.275		1059	1065		
9/16"	.429	.322		10595	1066		
1/8" Pipe	.313	.234		10600			
1/8" Pipe	.438	.328		10611			
5/8"	.480	.360			1067		
11/16"	.542	.406			1068		
3/4"	.590	.442			1069	1074	
13/16"	.652	.489			1070	1075	
7/8"	.697	.523			1071	1076	
1/4" Pipe	.562	.421			10722		
3/8" Pipe	.700	.531			10733	1082	
1/2" Pipe	.687	.515			10744	10821	
15/16"	.760	.570				1077	
1"	.800	.600			10711	1078	10835
1 1/8"	.896	.672				1079	10836
1 1/4"	1.021	.766				1080	10837
1 3/8"	1.108	.831				1081	1084
3/4" Pipe	.906	.679				10822	10880
1" Pipe	1.125	.843				10833	10882
1 1/2"	1.233	.925					1085
1 5/8"	1.305	.979					1086
1 3/4"	1.430	1.072					1087
1 7/8"	1.519	1.139					10875
1 1/4" Pipe	1.312	.984					10899
1 1/2" Pipe	1.500	1.125					10900

Quick-change adapters, with pre-selective torque drive *metric sizes*



For quick change tap chucks TA, TIC, NC and SPD QC, with or without internal coolant system. A pre-selective torque drive protects the tap from breakage.

Features and Advantages

- equally appropriate for taps with internal coolant
- with pre-selective torque drive
- suitable for right and left hand tapping

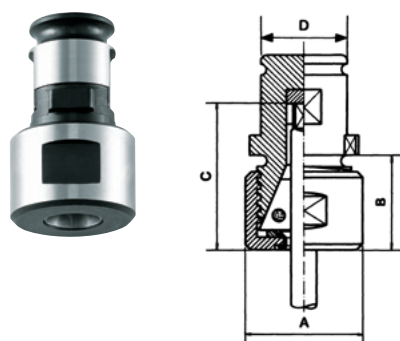
Model	Adapter Size	Dimensions			
		d mm	L1 mm	D mm	L2 mm
TC0	0	13	40.5	23	21
TC1	1	19	46.5	32	25
TC2	2	31	69	50	34
TC3	3	48	100.5	72	45
TC4	4	60	131	95	68

Product range – Adapters with torque control

Tap	Shank Ø mm	Square mm	Order code TC0	Order code TC1	Order code TC2	Order code TC3	Order code TC4
M2, M2.5, M4	2.8	2.1	TC0-028021				
M3, M5	3.5	2.7	TC0-035027	TC1-035027			
M3.5	4	3	TC0-040030	TC1-040030			
M4	4.5	3.4	TC0-045034	TC1-045034			
M4, M4.5	5	4	TC0-050040	TC1-050040			
M4.5, M5, M6, M8	6	4.9	TC0-060049	TC1-060049	TC2-060049		
M8	8	6.2	TC0-080062*	TC1-080062	TC2-080062		
M7, M9, M10	7	5.5	TC0-070055*	TC1-070055	TC2-070055		
M12	9	7		TC1-090070	TC2-090070		
M10	10	8		TC1-100080	TC2-100080		
M14	11	9		TC1-110090	TC2-110090	TC3-110090	
M16	12	9			TC2-120090	TC3-120090	
M18	14	11			TC2-140110	TC3-140110	
M20	16	12			TC2-160120	TC3-160120	
M22, M24, M25, M26	18	14.5			TC2-180145	TC3-180145	TC4-180145
M27, M28	20	16				TC3-200160	TC4-200160
M30, M32	22	18				TC3-220180	TC4-220180
M33	25	20				TC3-250200	TC4-250200
M34, M35, M36, M38	28	22				TC3-280220	TC4-280220
M39, M40, M42	32	24					TC4-320240
M45, M48, M50	36	29					TC4-360290

Note: Version with (*) only suitable for light processing

Quick-change collet chuck adapters for rubber flex collets (RF)



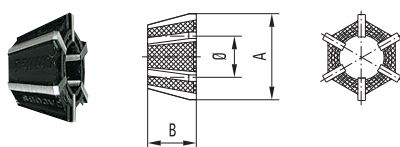
Tap holders with various or adjustable back jaws for quick change tap chucks TA and NC. Only 2 multi-range collets (RF) per type necessary to cover capacity.

Delivery

Accessories include wrench and necessary square drives for the specified capacity. Please note that rubber flex collets are also included

Model	Order code	Tap size	Collets Rubber Flex Included	Dimensions			
				A mm	B mm	C mm	D mm
TF0	29350	M1.4–M7	21600 21700	18.6	18.6	21.0	13
TF1	29351	M3–M12	22100 22200	27.4	18.6	27.0	19
TF2	29352	M5–M18	24100 24500	37.2	24.6	38.1	31
TF3	29353	M10–M30	26100 26200	54.0	31.8	50.5	48

Rubber Flex multi-range collets



Rubber Flex collets for TAPMATIC tapping attachments and chucks.

Model capacity	Order code	Capacity mm	Type	Model capacity	Order code	Capacity mm	Type
M1.4 - M7 #0 - 1/4"	21500	1.0–2.5	Extra	M5 - M18 #10 - 3/4"	24000	7.0–13.0	Extra
	21600	2.5–4.5	Standard		24100	4.5–10.0	Standard
	21700	4.5–6.5	Standard		24300	2.8–7.0	Extra
M3 - M12 #6 - 1/2"	22000	4.5–8.0	Extra		24500	10.0–15.0	Standard
	22100	3.5–6.5	Standard		26100	10.0–16.0	Standard
	22200	6.5–10.0	Standard	M10 - M30 1/2" - 1 1/8"	26200	16.0–23.0	Standard
	22300	2.0–4.5	Extra				

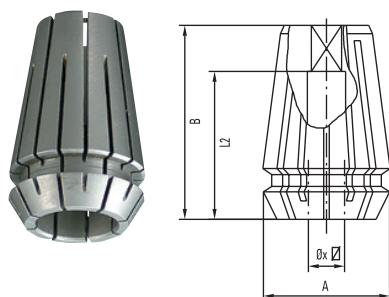
XB collets



For TAPMATIC miniature tapping attachment model 100XB.

Model	Order code	Capacity mm	Type	Model	Order code	Capacity mm	Type
117XB1	20100	0.9–1.0	DIN 376	117XB5	20500	2.0–2.2	DIN 376
117XB2	20200	1.1–1.25	ISO	117XB6	20600	2.3–2.5	DIN 371
117XB3	20300	1.4–1.55		117XB7	20700	2.8–3.0	ISO
117XB4	20400	1.6–1.8		117XB8	20800	3.3–3.6	

All dimensions are shown in mm. 25.4mm = 1"

Steel collets ER-GB with inner square *metric sizes*

Collets to DIN 6499B with inner square for positive drive of tap square.

ER11GB		
	A = 11.5 mm B = 17.0 mm	
Order code	Shank mm	Square mm
GB111028	2.8	2.1
GB111035	3.5	2.7
GB111045	4.5	3.4
GB111050	5.0	4.0
GB111060	6.0	4.9

ER16GB		
	A = 17.0 mm B = 27.5 mm	
Order code	Shank mm	Square mm
GB116040	4.0	3.15/3.2
GB116045	4.5	3.4
GB116050	5.0	4.0
GB116053	5.5	4.3
GB116055	5.5	4.5
GB116065	6.0	4.5
GB116060	6.0	4.9
GB116062	6.2	5.0
GB116063	6.3	5.0
GB116070	7.0	5.5
GB116071	7.1	5.6
GB116080	8.0	6.2/6.3
GB116085	8.5	6.5
GB116090	9.0	7.0/7.1

ER20GB		
	A = 21.0 mm B = 31.5 mm	
Order code	Shank mm	Square mm
GB120040	4.0	3.15/3.2
GB120045	4.5	3.4
GB120050	5.0	4.0
GB120053	5.5	4.3
GB120055	5.5	4.5
GB120065	6.0	4.5
GB120060	6.0	4.9
GB120062	6.2	5.0
GB120063	6.3	5.0
GB120070	7.0	5.5
GB120071	7.1	5.6
GB120080	8.0	6.2/6.3
GB120085	8.5	6.5
GB120090	9.0	7.0/7.1
GB120100	10.0	8.0
GB120105	10.5	8.0
GB120110	11.0	9.0
GB120112	11.2	9.0
GB120120	12.0	9.0

ER25GB		
	A = 26.0 mm B = 34.0 mm	
Order code	Shank mm	Square mm
GB125040	4.0	3.15/3.2
GB125045	4.5	3.4
GB125050	5.0	4.0
GB125053	5.5	4.3
GB125055	5.5	4.5
GB125065	6.0	4.5
GB125060	6.0	4.9
GB125062	6.2	5.0
GB125063	6.3	5.0
GB125070	7.0	5.5
GB125071	7.1	5.6
GB125080	8.0	6.2/6.3
GB125085	8.5	6.5
GB125090	9.0	7.0/7.1
GB125100	10.0	8.0
GB125105	10.5	8.0
GB125110	11.0	9.0
GB125112	11.2	9.0
GB125120	12.0	9.0
GB125125	12.5	10.0
GB125140	14.0	11.0/11.2
GB125150	15.0	12.0
GB125160	16.0	12.0

ER32GB		
	A = 33.0 mm B = 40.0 mm	
Order code	Shank mm	Square mm
GB132040	4.0	3.15/3.2
GB132045	4.5	3.4
GB132050	5.0	4.0
GB132053	5.5	4.3
GB132055	5.5	4.5
GB132065	6.0	4.5
GB132060	6.0	4.9
GB132062	6.2	5.0
GB132063	6.3	5.0
GB132070	7.0	5.5
GB132071	7.1	5.6
GB132080	8.0	6.2/6.3
GB132085	8.5	6.5
GB132090	9.0	7.0/7.1
GB132100	10.0	8.0
GB132105	10.5	8.0
GB132110	11.0	9.0
GB132112	11.2	9.0
GB132120	12.0	9.0
GB132125	12.5	10.0
GB132140	14.0	11.0/11.2
GB132150	15.0	12.0
GB132160	16.0	12.0
GB132170	17.0	13.0
GB132180	18.0	14.0/14.5
GB132200	20.0	16.0

ER40GB		
	A = 41.0 mm B = 46.0 mm	
Order code	Shank mm	Square mm
GB140065	6.0	4.5
GB140060	6.0	4.9
GB140062	6.2	5.0
GB140063	6.3	5.0
GB140070	7.0	5.5
GB140071	7.1	5.6
GB140080	8.0	6.2/6.3
GB140085	8.5	6.5
GB140090	9.0	7.0/7.1
GB140100	10.0	8.0
GB140105	10.5	8.0
GB140110	11.0	9.0
GB140112	11.2	9.0
GB140120	12.0	9.0
GB140125	12.5	10.0
GB140140	14.0	11.0/11.2
GB140150	15.0	12.0
GB140160	16.0	12.0
GB140170	17.0	13.0
GB140180	18.0	14.0/14.5
GB141200	20.0	16.0
GB141220	22.0	18.0

ER50GB		
	A = 60.0 mm B = 52.0 mm	
Order code	Shank mm	Square mm
GB150220	22.0	18.0
GB150250	25.0	20.0
GB150280	28.0	22.0
GB150320	32.0	24.0

Steel collets ER-GB with inner square *inch sizes*

ER11GB

Order code	Tap size	Shank inch	Square inch	A	B	L2
21000	#0 - #6	.141	.110	.444	.708	.472
21001	#8	.168	.131	.444	.708	.551
21002	#10	.194	.152	.444	.708	.551

ER16GB

Order code	Tap size	Shank inch	Square inch	A	B	L2
21004	#0 - #6	.141	.110	.629	1.083	.709
21005	#8	.168	.131	.629	1.083	.709
21006	#10	.194	.152	.629	1.083	.709
21008	#12	.220	.165	.629	1.083	.709
21010	1/4"	.255	.191	.629	1.083	.709
21012	5/16"	.318	.238	.629	1.083	.866
21014	7/16"	.323	.242	.629	1.083	.866

ER20GB

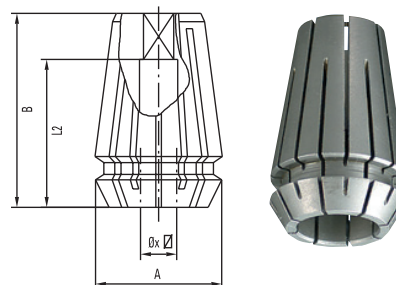
Order code	Tap size	Shank inch	Square inch	A	B	L2
21019	#8	.168	.131	.787	1.240	.709
21020	#10	.194	.152	.787	1.240	.709
21021	#12	.220	.165	.787	1.240	.709
21022	1/4"	.255	.191	.787	1.240	.709
21023	5/16"	.318	.238	.787	1.240	.866
21024	7/16"	.323	.242	.787	1.240	.866
21025	1/2"	.367	.275	.787	1.240	.866
21026	3/8"	.381	.286	.787	1.240	.866
21027	1/16" Pipe	.3125	.234	.787	1.240	.866

ER25GB

Order code	Tap size	Shank inch	Square inch	A	B	L2
21031	1/4"	.255	.191	.984	1.338	.709
21029	5/16"	.318	.238	.984	1.338	.866
21030	7/16"	.323	.242	.984	1.338	.866
21032	1/2"	.367	.275	.984	1.338	.866
21034	3/8"	.381	.286	.984	1.338	.866
21036	9/16"	.429	.322	.984	1.338	.984
21038	5/8"	.480	.360	.984	1.338	.984
21040	11/16"	.542	.406	.984	1.338	.984
21028	1/8" Pipe	.312	.234	.984	1.338	.866
21037	1/8" Pipe	.437	.328	.984	1.338	.984
21043	1/4" Pipe	.562	.421	.984	1.338	.984
21044	3/4"	.590	.442	.984	1.338	.984

ER32GB

Order code	Tap size	Shank inch	Square inch	A	B	L2
21047	1/4"	.255	.191	1.260	1.575	.709
21048	5/16"	.318	.238	1.260	1.575	.866
21049	7/16"	.323	.242	1.260	1.575	.866
21052	3/8"	.381	.286	1.260	1.575	.866
21050	1/2"	.367	.275	1.260	1.575	.866
21054	9/16"	.429	.322	1.260	1.575	.984
21058	5/8"	.480	.360	1.260	1.575	.984
21060	11/16"	.542	.406	1.260	1.575	.984
21064	3/4"	.590	.442	1.260	1.575	.984
21066	13/16"	.652	.489	1.260	1.575	.984
21068	7/8"	.697	.523	1.260	1.575	.984
21056	1/8" Pipe	.437	.328	1.260	1.575	.984
21062	1/4" Pipe	.562	.421	1.260	1.575	.984
21067	1/2" Pipe	.687	.515	1.260	1.575	.984
21070	1"	.800	.600	1.260	1.575	1.102



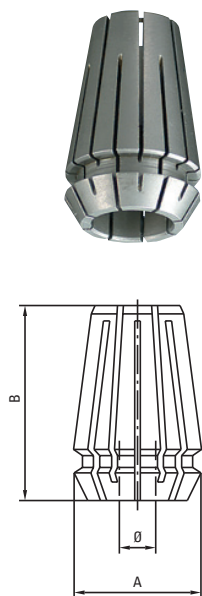
ER40GB

Order code	Tap size	Shank inch	Square inch	A	B	L2
21104	1/2"	.367	.275	1.575	1.811	.866
21105	3/8"	.381	.286	1.575	1.811	.866
21106	9/16"	.429	.322	1.575	1.811	.984
21107	5/8"	.480	.360	1.575	1.811	.984
21108	11/16"	.542	.406	1.575	1.811	.984
21109	3/4"	.590	.442	1.575	1.811	.984
21110	13/16"	.652	.489	1.575	1.811	.984
21111	7/8"	.697	.523	1.575	1.811	.984
21112	15/16"	.760	.570	1.575	1.811	.984
21113	1"	.800	.600	1.575	1.811	1.102
21117	1 1/8"	.896	.672	1.575	1.811	1.102
21114	1/4" Pipe	.562	.421	1.575	1.811	.984
21115	3/8" Pipe	.700	.531	1.575	1.811	.984
21116	1/2" Pipe	.687	.515	1.575	1.811	.984

ER50GB

Order code	Tap size	Shank inch	Square inch
21137	1"	.800	.600
21138	1 1/8"	.896	.672
21139	1 3/16"	1.021	.766
21140	1 5/16"	1.108	.831
21141	1 7/16"	1.233	.925
21170	1/2" Pipe	.687	.515
21171	3/8" Pipe	.700	.531
21172	3/4" Pipe	.906	.679
21136	1" Pipe	1.125	.843

Steel collets ER acc. to DIN 6499B without inner square

**ER8**

A = 8.5 mm B = 12.0 mm

Order code	Capacity Shank Ø mm
20910	1.5–1.0
20911	2.0–1.5
20912	2.5–2.0
20913	3.0–2.5
20915	3.5–3.0
20916	4.0–3.5
20918	4.5–4.0

ER11

A = 11.5 mm B = 17.0 mm

Order code	Capacity Shank Ø mm
20929	3.0–2.5
20930	3.5–3.0
20931	4.0–3.5
20932	4.5–4.0
20934	5.0–4.5
20933	5.5–5.0
20935	6.0–5.5
20936	6.5–6.0

ER16

A = 17.0 mm B = 27.5 mm

Order code	Capacity Shank Ø mm
20940	4.0–3.0
20943	5.0–4.0
20945	6.0–5.0
20946	7.0–6.0
20949	8.0–7.0
20950	9.0–8.0
20953	10.0–9.0

ER20

A = 21.0 mm B = 31.5 mm

Order code	Capacity Shank Ø mm
20983	4.0–3.0
20984	5.0–4.0
20985	6.0–5.0
20977	7.0–6.0
20986	8.0–7.0
20978	9.0–8.0
20979	10.0–9.0
20980	11.0–10.0
20981	12.0–11.0
20982	13.0–12.0

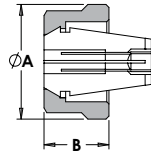
ER25

A = 26.0 mm B = 34.0 mm

Order code	Capacity Shank Ø mm
20963	5.0–4.0
20965	7.0–6.0
20968	9.0–8.0
20969	10.0–9.0
20970	11.0–10.0
20971	12.0–11.0
20973	13.0–12.0
20974	14.0–13.0
20975	15.0–14.0
20976	16.0–15.0

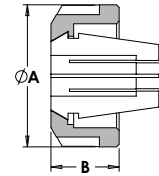
Please note that these collets *do not* include a square drive.
For tapping we recommend the use of ERGB collets, with inner square, whenever possible.
All dimensions are shown in mm. 25.4mm = 1"

Clamping nuts acc. to DIN 6499 standard without internal coolant sealing



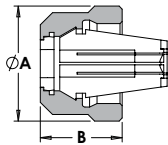
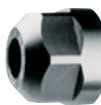
Note: For recommended tightening torque, please see page 56.

Order code	Type	A mm	B mm
69318	ER11	19	11.3
69518	ER16	28	17.5
70018	ER20	34	19.0

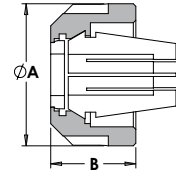


Order code	Type	A mm	B mm
69918	ER25	42	20.0
71118	ER32	50	22.5
71318	ER40	63	25.5
66018	ER50	78	35.3

Clamping nuts to DIN 6499 for internal coolant system, for use with sealing disks



Order code	Type	A mm	B mm
70116	ER16	28	22.5
70120	ER20	34	24.5



Order code	Type	A mm	B mm
70125	ER25	42	25.0
70132	ER32	50	27.5
70140	ER40	63	30.5
66050	ER50	78	42.5

Steel collet seals for use with coolant through steel collet models and sealing disk nuts.

Description #16 Series Seals	
Size	Catalog No.
Complete Set	70117
3-3.5mm (.118-.138)	70117-35
3.5-4mm (.138-.157)	70117-40
4-4.5mm (.157-.177)	70117-45
4.5-5mm (.177-.197)	70117-50
5-5.5mm (.197-.217)	70117-55
5.5-6mm (.217-.236)	70117-60
6-6.5mm (.236-.256)	70117-65
6.5-7mm (.256-.276)	70117-70
7-7.5mm (.276-.295)	70117-75
7.5-8mm (.295-.315)	70117-80
8-8.5mm (.315-.335)	70117-85
8.5-9mm (.335-.354)	70117-90
9-9.5mm (.354-.374)	70117-95
9.5-10mm (.374-.394)	70117-100

Description #20 Series Seals	
Size	Catalog No.
Complete Set	70121
3-3.5mm (.118-.138)	70121-35
3.5-4mm (.138-.157)	70121-40
4-4.5mm (.157-.177)	70121-45
4.5-5mm (.177-.197)	70121-50
5-5.5mm (.197-.217)	70121-55
5.5-6mm (.217-.236)	70121-60
6-6.5mm (.236-.256)	70121-65
6.5-7mm (.256-.276)	70121-70
7-7.5mm (.276-.295)	70121-75
7.5-8mm (.295-.315)	70121-80
8-8.5mm (.315-.335)	70121-85
8.5-9mm (.335-.354)	70121-90
9-9.5mm (.354-.374)	70121-95
9.5-10mm (.374-.394)	70121-100
10-10.5mm (.394-.413)	70121-105
10.5-11mm (.416-.433)	70121-110
11-11.5mm (.433-.453)	70121-115
11.5-12mm (.453-.472)	70121-120
12-12.5mm (.472-.492)	70121-125

Description #25 Series Seals	
Size	Catalog No.
Complete Set	70126
3-3.5mm (.118-.138)	70126-35
3.5-4mm (.138-.157)	70126-40
4-4.5mm (.157-.177)	70126-45
4.5-5mm (.177-.197)	70126-50
5-5.5mm (.197-.217)	70126-55
5.5-6mm (.217-.236)	70126-60
6-6.5mm (.236-.256)	70126-65
6.5-7mm (.256-.276)	70126-70
7-7.5mm (.276-.295)	70126-75
7.5-8mm (.295-.315)	70126-80
8-8.5mm (.315-.335)	70126-85
8.5-9mm (.335-.354)	70126-90
9-9.5mm (.354-.374)	70126-95
9.5-10mm (.374-.394)	70126-100
10-10.5mm (.394-.413)	70126-105
10.5-11mm (.416-.433)	70126-110
11-11.5mm (.433-.453)	70126-115
11.5-12mm (.453-.472)	70126-120
12-12.5mm (.472-.492)	70126-125
12.5-13mm (.492-.512)	70126-130
13-13.5mm (.512-.531)	70126-135
13.5-14mm (.531-.551)	70126-140
14-14.5mm (.551-.571)	70126-145
14.5-15mm (.571-.591)	70126-150
15-15.5mm (.591-.610)	70126-155
15.5-16mm (.610-.630)	70126-160

Description #32 Series Seals	
Size	Catalog No.
Complete Set	70133
3-3.5mm (.118-.138)	70133-35
3.5-4mm (.138-.157)	70133-40
4-4.5mm (.157-.177)	70133-45
4.5-5mm (.177-.197)	70133-50
5-5.5mm (.197-.217)	70133-55
5.5-6mm (.217-.236)	70133-60
6-6.5mm (.236-.256)	70133-65
6.5-7mm (.256-.276)	70133-70
7-7.5mm (.276-.295)	70133-75
7.5-8mm (.295-.315)	70133-80
8-8.5mm (.315-.335)	70133-85
8.5-9mm (.335-.354)	70133-90
9-9.5mm (.354-.374)	70133-95
9.5-10mm (.374-.394)	70133-100
10-10.5mm (.394-.413)	70133-105
10.5-11mm (.416-.433)	70133-110
11-11.5mm (.433-.453)	70133-115
11.5-12mm (.453-.472)	70133-120
12-12.5mm (.472-.492)	70133-125
12.5-13mm (.492-.512)	70133-130
13-13.5mm (.512-.531)	70133-135
13.5-14mm (.531-.551)	70133-140
14-14.5mm (.551-.571)	70133-145
14.5-15mm (.571-.591)	70133-150
15-15.5mm (.591-.610)	70133-155
15.5-16mm (.610-.630)	70133-160
16-16.5mm (.630-.650)	70133-165
16.5-17mm (.650-.670)	70133-170
17-17.5mm (.670-.690)	70133-175
17.5-18mm (.690-.710)	70133-180
18-18.5mm (.710-.730)	70133-185
18.5-19mm (.730-.748)	70133-190
19-19.5mm (.749-.767)	70133-195
19.5-20mm (.767-.787)	70133-200



Note: #40 and #50 seals also available on request

Also available, coolant flush disks for directing coolant down the tap shank.



■ on request

Torque wrenches. For recommended tightening torque, please see page 56



Order code	Model
84.600.00	Power-Collet Torque wrench incl. case, no inserts
84.620.16	ER 16 insert
84.620.25	ER 25 insert
84.620.32	ER 32 insert

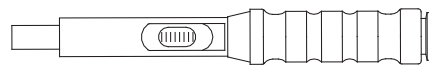
Clamping device for ER collet chuck SFT Tools



For easy and controlled tightening of nuts for collet chuck holders, without damaging the tool. For use with SFT10, 50, 75 and 100.

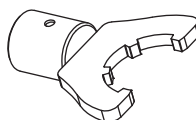
Order code	Length mm
28SFT132	132
28SFT240	240

Holds collet chuck allowing you to tighten collet nut with a torque wrench.

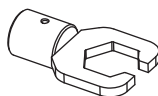


Order code	Model
7150.02025	Torco-Fix 0
7150.05050	Torco-Fix I
7150.20200	Torco-Fix II
7150.60300	Torco-Fix III
7159.09000	TSD 0.9

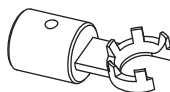
Clip-on wrenches for torque wrench



Order code	Model
7151.16000	A-E 16
7151.20000	A-E 20
7151.25000	A-E 25
7151.32000	A-E 32
7151.40000	A-E 40
7151.50000	A-E 50



Order code	Model
7152.11010	A-E 11 P
7152.16010	A-E 16 P
7152.20010	A-E 20 P



Order code	Model
7153.08000	A-E 8 M
7153.11000	A-E 11 M
7153.16000	A-E 16 M
7153.20000	A-E 20 M
7153.25000	A-E 25 M

Quill Mount Torque Bars – clamp around quill of machine for use with Manual Tapping



Order code	Diameter	Capacity
V-Typ		
29099	38–60 mm 1 1/2"–2 3/8"	M16 1/2"
290991	60–114 mm 2 3/8"–4 1/2"	M18 3/4"

Always mount a torque bar to hold the tapping attachment's stop arm from rotating. The stop arm should not be installed permanently, not under any circumstances be held by hand or fastened with wire. The torque bar must be mounted securely to the table or quill of your machine. The torque bar installation must be stronger than the largest tap in the capacity range of your tapping attachment. Please order Tapmatic torque bars shown.

Table Mount Torque Bars – mount to the «T» slots of table

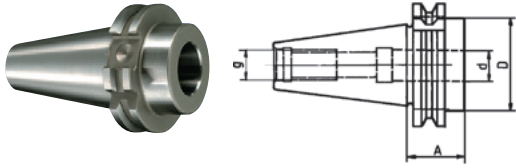


Order code	Tap capacity
29096	M33 1 3/4"



Order code	Tap capacity
29097	M18 3/4"

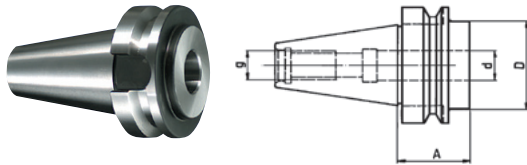
NC shanks DIN 69871A/D and CAT



Order code	Shank	Bore d mm	Dimensions mm			Weight kg
DIN 69871			D	A	g	
S-241	SK40	20	45	35	M16	0.9
S-242	SK40	25	45	35	M16	0.8
S-244	SK40	40	90	122	M16	2.6
S-251	SK50	20	72	35	M24	2.9
S-252	SK50	25	72	35	M24	2.8
S-254	SK50	40	90	112	M24	4.9

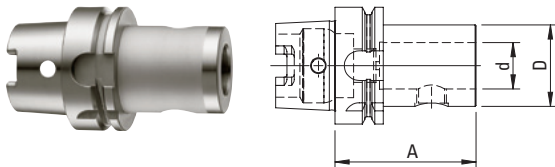
Order code	Shank	Bore d mm	Dimension			Weight kg
CAT			D	A	g	
23951	CAT40	1"	1.75"	1.38"	5/8"-11	0.7
23947	CAT40	25mm	45mm	35mm	5/8"-11	0.7
23954	CAT45	1"	2.25"	1.38"	3/4"-10	1.6
23953	CAT50	1"	2.75"	1.38"	1"-8	2.7
23948	CAT50	25mm	70mm	35mm	1"-8	2.7
23957	CAT50	1 1/2"	2.75"	2.00"	1"-8	2.7
23964	CAT50	40mm	70mm	75mm	1"-8	4.9

NC shanks MAS-BT



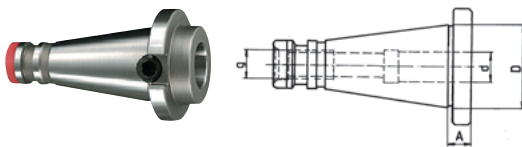
Order code	Arbors	Bore d mm	Dimensions mm			Weight kg
BT			D	A	g	
23949	BT30	1"	1.81"	1.50"	M12	0.4
23958	BT35	1"	1.50"	1.38"	M16	0.4
23943	BT40	25mm	45mm	35mm	M16	0.8
23952	BT40	1"	1.75"	1.38"	M16	0.8
23955	BT50	1"	2.75"	1.88"	M24	3.6
23945	BT50	25mm	70mm	48mm	M24	3.6
S-354	BT50	40mm	90mm	110mm	M24	5.3

Modular NC shanks HSK-A



Order code	Shank HSK-A	Bore d mm	Dimensions mm			Weight kg
			D	A	g	
S-451	HSK50	25	44	76		0.8
S-461	HSK63	25	44	76		1.0
S-463	HSK63A	40	72	120		2.6
S-481	HSK80	25	65	100		2.7
S-411	HSK100	25	65	100		3.5
S-413	HSK100A	40	80	105		4.7

NC shanks DIN 2080 and NMTB



Order code	Shank	Bore d mm	Dimensions mm			Weight kg
DIN 2080			D	A	g	
S-141	SK40	20	44	24	M16	0.7
S-142	SK40	25	44	24	M16	0.6
S-151	SK50	20	65	34	M24	2.5
S-152	SK50	25	65	34	M24	2.4

Order code	Shank	Bore d mm	Dimensions			Weight kg
NMTB			D	A	g	
23950	NMTB40	1"	1.75"	.039"	5/8"-11	0.5

NMTB with threaded mount



Order code	NMTB	Thread
23050	NMTB-30	1/2-20
24050	NMTB-40	1/2-20
23087	NMTB-30	7/8-20
24087	NMTB-40	7/8-20
23015	NMTB-30	1 1/2-18
24015	NMTB-40	1 1/2-18
25015	NMTB-50	1 1/2-18
29106	NMTB-50	2 1/4-10

Reducing sleeve

Order code	Outside Ø	Inside Ø
23921	1"	3/4"

R8 arbors to Jacobs taper



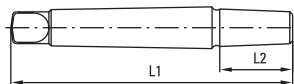
Order code	R8	Jacobs Taper
20833	R-8 Bridgeport	#33 J.T.
20803	R-8 Bridgeport	#3 J.T.
20804	R-8 Bridgeport	#4 J.T.

R8 arbors with threaded mount



Order code	R8	Thread
20887	R-8 Bridgeport	7/8"-20
20815	R-8 Bridgeport	1 1/2"-18

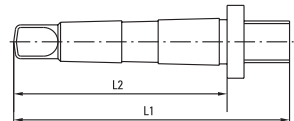
Morse taper arbors to JACOBS taper



Order code	Morse taper	DIN Taper	Length mm	
			L1	L2
20112	MK1	B12	91	22
20116	MK1	B16	98	29
20212	MT2	B12	107	22
20216	MK2	B16	114	29
20218	MK2	B18	122	37
20312	MK3	B12	126	22
20316	MK3	B16	133	29
20318	MK3	B18	141	37
20416	MK4	B16	160	29
20418	MK4	B18	168	37

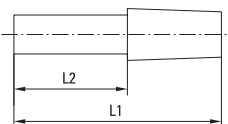
Order code	Morse taper	JACOBS taper	Length mm	
			L1	L2
20101	MT1	1	86	18
20133	MT1	33	96	26
20206	MT2	6	96	26
20201	MT2	1	103	18
20233	MT2	33	111	26
20203	MT2	3	117	32
20306	MT3	6	117	43
20301	MT3	1	122	18
20333	MT3	33	130	26
20303	MT3	3	136	32
20304	MT3	4	147	43
20433	MT4	33	157	26
20403	MT4	3	162	32
20404	MT4	4	173	43
20504	MT5	4	205	43

Morse taper arbors with threaded mount



Order code	Morse taper	Thread	Length mm	
			L1	L2
20150	MT1	1/2-20	87	65.5
20250	MT2	1/2-20	103	80
20287	MT2	7/8-20	100	80
20387	MT3	7/8-20	116	99
20315	MT3	1 1/2-18	118	99
20487	MT4	7/8-20	142	124
20415	MT4	1 1/2-18	118	99
20515	MT5	1 1/2-18		
29104	MT4	2 1/4-10		
29105	MT5	2 1/4-10		

Straight shank arbors to JACOBS taper



Order code	Straight shank Ø mm	JACOBS taper	Length mm	
			L1	L2
10-33	10	33	64	35
12-33	12	33	64	35
16-33	16	33	64	35

Order code	Straight shank Ø inch	JACOBS taper		
25001	1/2"	1		
25006	1/2"	6		
25033	1/2"	33		
25003	1/2"	3		
26233	5/8"	33		
26203	5/8"	3		
27533	3/4"	33		
27503	3/4"	3		
20003	1"	3		

Straight shank arbors with threaded mount



Order code	Straight shank Ø inch	Thread
25037	1/2" S.S.	3/8-24
25087	1/2" S.S.	7/8-20
26287	5/8" S.S.	7/8-20
27587	3/4" S.S.	7/8-20
28787	7/8" S.S.	7/8-20
20087	1" S.S.	7/8-20
20015	1" S.S.	1 1/2-18

Standard Taps

www.tapmatic.com

TAPMATIC

	Low Carbon Steel, Medium Carbon Steel	High Carbon Steel, High Strength Steel, Tool Steel	High Strength Steel, Tool Steel Hardened	Stainless 303, 304, 316	Stainless 410, 430, 17-4 Hardened	Stainless 17-4 Annealed	Titanium Alloys	Nickel Base Alloys	Aluminium Alloys	Aluminium Die Cast	Magnesium	Brass, Bronze	Copper	Cast Iron
A) m/min	10–20	8–12	4–6	6–12	3–5	6–12	4–8	3–5	15–25	10–15	15–25	15–25	8–12	10–20
B) m/min	20–40	15–25	12–18	8–15	4–10	8–20	8–15	5–10	40–60	30–40	40–60	40–60	15–25	20–30
Tap size	A) rpm for HSS-E uncoated taps B) rpm for HSS-E coated taps													
M2 (#2)	1600–3200 3200–6350	1250–1900 2400–4000	640–800 1900–2850	800–1900 1250–2400	480–800 640–1600	800–1900 1250–3200	640–1250 1250–2400	480–800 800–1600	2400–4000 6350–9550	1600–2400 4750–6350	2400–4000 6350–9550	2400–4000 6350–9550	1250–1900 2400–4000	1600–3200 3200–4750
M3 (#5)	1050–2100 2100–4250	850–1250 1600–2650	420–530 1250–1900	530–1250 850–1600	320–530 420–1050	530–1250 850–2100	420–850 850–1600	320–530 530–1050	1600–2650 4250–6350	1050–1600 3200–4250	1600–2650 4250–6350	1600–2650 4250–6350	850–1250 1600–2650	1050–2100 2100–3200
M4 (#8)	800–1600 1600–3200	640–950 1200–2000	320–400 950–1450	400–950 640–1200	240–400 320–800	400–950 640–1600	320–640 640–1200	240–400 400–800	1200–2000 3200–4750	800–1200 2400–3200	1200–2000 3200–4750	1200–2000 3200–4750	640–950 1200–2000	800–1600 1600–2400
M5 (#10)	640–1250 1250–2550	510–760 950–1600	250–320 760–1150	320–760 510–950	190–320 250–640	320–760 510–1250	250–510 510–950	190–320 320–640	950–1600 2550–3800	640–950 1900–2550	950–1600 2550–3800	950–1600 2550–3800	510–760 950–1600	640–1250 1250–1900
M6 (1/4)	530–1050 1050–2100	420–640 800–1350	210–270 640–950	270–640 420–800	160–270 210–530	270–640 420–1050	210–420 420–800	160–270 270–530	800–1350 2100–3200	530–800 1600–2100	800–1350 2100–3200	800–1350 2100–3200	420–640 800–1350	530–1050 1050–1600
M7	450–910 910–1800	360–550 680–1150	180–230 550–820	230–550 360–680	140–230 180–450	230–550 360–910	180–360 360–680	140–230 230–450	680–1150 1800–2750	450–1150 1350–1800	680–1150 1800–2750	680–680 1800–2750	360–550 680–1150	450–910 910–1350
M8 (5/16)	400–800 800–1600	320–480 600–990	160–200 480–720	200–480 320–600	120–200 160–400	200–480 320–800	160–320 320–600	120–200 200–400	600–990 1600–2400	400–600 1200–1600	600–990 1600–2400	600–990 1600–2400	320–480 600–990	400–800 800–1200
M9	350–710 710–1400	280–420 530–880	140–180 420–640	180–420 280–530	110–180 140–350	180–420 280–710	140–280 280–530	110–180 180–350	530–880 1400–2100	350–530 1050–1400	530–880 1400–2100	530–880 1400–2100	280–420 530–880	350–710 710–1050
M10 (3/8)	320–640 640–1250	250–380 480–800	130–160 380–570	160–380 250–480	100–160 130–320	160–380 250–640	130–250 250–480	100–160 160–320	480–800 1250–1900	320–480 950–1250	480–800 1250–1900	480–800 1250–1900	250–380 480–800	320–640 640–950
M12 (1/2)	270–530 530–1050	210–320 400–660	110–130 320–480	130–320 210–400	80–130 110–270	130–320 210–530	110–210 210–400	80–130 130–270	400–660 1050–1600	270–400 800–1050	400–660 1050–1600	400–660 1050–1600	210–320 400–660	270–530 530–800
M14 (9/16)	230–450 450–910	180–270 340–570	90–110 270–410	110–270 180–340	70–110 90–230	110–270 180–450	90–180 180–340	70–110 110–230	340–570 910–1350	230–340 680–910	340–570 910–1350	340–570 910–1350	180–270 340–570	230–450 450–680
M16 (5/8)	200–400 400–800	160–240 300–500	80–100 240–360	100–240 160–300	60–100 80–200	100–240 160–400	80–160 160–300	60–100 100–200	300–500 800–1200	200–300 600–800	300–500 800–1200	300–500 800–1200	160–240 300–500	200–400 400–600
M18 (11/16)	180–350 350–710	140–210 270–440	70–90 210–320	90–210 140–270	50–90 70–180	90–210 140–350	70–140 140–270	50–90 90–180	270–440 710–1050	180–270 530–710	270–440 710–1050	270–440 710–1050	140–210 270–440	180–350 350–530
M20 (3/4)	160–320 320–640	130–190 240–400	60–80 190–290	80–190 130–240	50–80 60–160	80–190 130–320	60–130 130–240	50–80 80–160	240–400 640–950	160–240 480–640	240–400 640–950	240–400 640–950	130–190 240–400	160–320 320–480
M22 (7/8)	140–290 290–580	120–170 220–360	60–70 170–260	70–170 120–220	40–70 60–140	70–170 120–290	60–120 120–220	40–70 70–140	220–360 580–870	140–220 430–580	220–360 580–870	220–360 580–870	120–170 220–360	140–290 290–430
M24 (15/16)	130–270 270–530	110–160 200–330	50–70 160–240	70–160 110–200	40–70 50–130	70–160 110–270	50–110 110–200	40–70 70–130	200–330 530–800	130–200 400–530	200–330 530–800	200–330 530–800	110–160 200–330	130–270 270–400
M25 (1)	130–250 250–510	100–150 190–320	50–60 150–230	60–150 100–190	40–60 50–130	60–150 100–250	50–100 100–190	40–60 60–130	190–320 510–760	130–190 380–510	190–320 510–760	190–320 510–760	100–150 190–320	130–250 250–380
M26	120–240 240–490	100–150 180–310	50–60 150–220	60–150 100–180	40–60 50–120	60–150 100–240	50–100 100–180	40–60 60–120	180–310 490–730	120–180 370–490	180–310 490–730	180–310 490–730	100–150 180–310	120–240 240–370
M27 (1 1/16)	120–240 240–470	90–140 180–290	50–60 140–210	60–140 90–180	40–60 50–120	60–140 90–240	50–90 90–180	40–60 60–120	180–290 470–710	120–180 350–470	180–290 470–710	180–290 470–710	90–140 180–290	120–240 240–350
M28 (1 1/8)	110–230 230–450	90–140 170–280	50–60 140–200	60–140 90–170	30–60 50–110	60–140 90–230	50–90 90–170	30–60 60–110	170–280 450–680	110–170 340–450	170–280 450–680	170–280 450–680	90–140 170–280	110–230 230–340
M30 (1 3/16)	110–210 210–420	80–130 160–270	40–50 130–190	50–130 80–160	30–50 40–110	50–130 80–210	40–80 80–160	30–50 50–110	160–270 420–640	110–160 320–420	160–270 420–640	160–270 420–640	80–130 160–270	110–210 210–320
M32 (1 1/4)	100–200 200–400	80–120 150–250	40–50 120–180	50–120 80–150	30–50 40–100	50–120 80–200	40–80 80–150	30–50 50–100	150–250 400–600	100–150 300–400	150–250 400–600	150–250 400–600	80–120 150–250	100–200 200–300
M33 (1 5/16)	100–190 190–390	80–120 140–240	40–50 120–170	50–120 80–140	30–50 40–100	50–120 80–190	40–80 80–140	30–50 50–100	140–240 390–580	100–140 290–390	140–240 390–580	140–240 390–580	80–120 140–240	100–190 190–290
M36 (1 7/16)	90–180 180–350	70–110 130–220	40–40 110–160	40–110 70–130	30–40 40–90	40–110 70–180	40–70 70–130	30–40 40–90	130–220 350–530	90–130 270–350	130–220 350–530	130–220 350–530	70–110 130–220	90–180 180–270
M39 (1 5/8)	80–160 160–330	70–100 120–200	30–40 100–150	40–100 70–120	20–40 30–80	40–100 70–160	30–70 70–120	20–40 40–80	120–200 330–490	80–120 240–330	120–200 330–490	120–200 330–490	70–100 120–200	80–160 160–240
M40	80–160 160–320	60–100 120–200	30–40 100–140	40–100 60–120	20–40 30–80	40–100 60–160	30–60 60–120	20–40 40–80	120–200 320–480	80–120 240–320	120–200 320–480	120–200 320–480	60–100 120–200	80–160 160–240
M42 (1 3/4)	80–150 150–300	60–90 110–190	30–40 90–140	40–90 60–110	20–40 30–80	40–90 60–150	30–60 60–110	20–40 40–80	110–190 300–450	80–110 230–300	110–190 300–450	110–190 300–450	60–90 110–190	80–150 150–230

Calculation:

Example: M8 with 25 m/min

Tapping speed
RPM
Diameter

vc = m/min
n = U/min
d = mm

$$n = \frac{vc \times 1000}{d \times \pi}$$

$$n = \frac{25 \times 1000}{8 \times 3.14} = 995 \text{ U/min (RPM)}$$

- The speed given are guide values acc. to general information and can vary depending on tap manufacturer.
- For optimal production and correct speed, we suggest following the specifications of the tap manufacturer.
- Furthermore, the maximum speed of the tapping attachment must not be exceeded.

RDT15	RDT25	RDT50 RCT50 RCTXT50	RDT50 RCT50 RCTXT50	RCT85	RCT85	RCT100	RCT150
		sintered gears	cut gears				

	Low Carbon Steel, Medium Carbon Steel	High Carbon Steel, High Strength Steel, Tool Steel	High Strength Steel, Tool Steel Hardened	Stainless 303, 304, 316	Stainless 410, 430, 17-4 Hardened	Stainless 17-4 Annealed	Titanium Alloys	Nickel Base Alloys	Aluminium Alloys	Aluminium Die Cast	Magnesium	Brass, Bronze	Copper	Cast Iron
A) m/min	50-70	20-30	15-20	10-15	6-10	10-15	12-15	6-12	50-70	40-50	50-70	30-70	20-30	25-40
B) m/min	—	40-60	30-50	—	—	—	—	—	60-80	50-70	40-80	60-80	30-50	30-50
Tap size	A) rpm for HSS-E uncoated taps B) rpm for HSS-E coated taps													
M2 (#2)	7950-11150	3200-4750	2400-3200	1600-2400	800-1600	1600-2400	1900-2400	800-1900	7950-11150	6350-7950	7950-11150	4750-11150	3200-4750	4000-6350
	640-800	6350-9550	4750-7950	640-800	640-800	640-800	—	—	9550-12750	7950-11150	6350-12750	9550-12750	4750-7950	4750-7950
M3 (#5)	5300-7450	2100-3200	1600-2100	1050-1600	530-1050	1050-1600	1250-1600	530-1250	5300-7450	4250-5300	5300-7450	3200-7450	2100-3200	2650-4250
	420-530	4250-6350	3200-5300	420-530	420-530	420-530	—	—	6350-8500	5300-7450	4250-8500	6350-8500	3200-5300	3200-5300
M4 (#8)	4000-5550	1600-2400	1200-1600	800-1200	400-800	800-1200	950-1200	400-950	4000-5550	3200-4000	4000-5550	2400-5550	1600-2400	2000-3200
	320-600	3200-4750	2400-4000	320-400	320-400	320-400	—	—	4750-6350	4000-5550	3200-6350	4750-6350	2400-4000	2400-4000
M5 (#10)	3200-4450	1250-1900	950-1250	640-950	320-640	640-950	760-950	320-760	3200-4450	2550-3200	3200-4450	1900-4450	1250-1900	1600-2550
	250-320	2550-3800	1900-3200	250-320	250-320	250-320	—	—	3800-5100	3200-4450	2550-5100	3800-5100	1900-3200	1900-3200
M6 (1/4)	2650-3700	1050-1600	800-1050	530-800	270-530	530-800	640-800	270-640	2650-3700	2100-2650	2650-3700	1600-3700	1050-1600	1350-2100
	210-270	2100-3200	1600-2650	210-270	210-270	210-270	—	—	3200-4250	2650-3700	2100-4250	3200-4250	1600-2650	1600-2650
M7	2250-3200	910-1350	680-910	450-680	230-450	450-680	550-680	230-550	2250-3200	1800-2250	2250-3200	1350-3200	910-1350	1150-1800
	180-230	1800-2750	1350-2250	180-230	180-230	180-230	—	—	2750-3650	2250-3200	1800-3650	2750-3650	1350-2250	1350-2250
M8 (5/16)	2000-2800	800-1200	600-800	400-600	200-400	400-600	480-600	200-480	2000-2800	1600-2000	2000-2800	1200-2800	800-1200	990-1600
	160-200	1600-2400	1200-2000	160-200	160-200	160-200	—	—	2400-3200	2000-2800	1600-3200	2400-3200	1200-2000	1200-2000
M9	1750-2500	710-1050	530-710	350-530	180-350	350-530	420-530	180-420	1750-2500	1400-1750	1750-2500	1050-2500	710-1050	880-1400
	140-180	1400-2100	1050-1750	140-180	140-180	140-180	—	—	2100-2850	1750-2500	1400-2850	2100-2850	1050-1750	1050-1750
M10 (3/8)	1600-2250	640-950	480-640	320-480	160-320	320-480	380-480	160-380	1600-2250	1250-1600	1600-2250	950-2250	640-950	800-1250
	130-160	1250-1900	950-1600	130-160	130-160	130-160	—	—	1900-2550	1600-2250	1250-2550	1900-2550	950-1600	950-1600
M12 (1/2)	1350-1850	530-800	400-530	270-400	130-270	270-400	320-400	130-320	1350-1850	1050-1350	1350-1850	800-1850	530-800	660-1050
	110-130	1050-1600	800-1350	110-130	110-130	110-130	—	—	1600-2100	1350-1850	1050-2100	1600-2100	800-1350	800-1350
M14 (9/16)	1150-1600	450-680	340-450	230-340	110-230	230-340	270-340	110-270	1150-1600	910-1150	1150-1600	680-1600	450-680	570-910
	90-110	910-1350	680-1150	90-110	90-110	90-110	—	—	1350-1800	1150-1600	910-1800	1350-1800	680-1150	680-1150
M16 (5/8)	990-1400	400-600	300-400	200-300	100-200	200-300	240-300	100-240	990-1400	800-990	990-1400	600-1400	400-600	500-800
	80-100	800-1200	600-990	80-100	80-100	80-100	—	—	1200-1600	800-1400	800-1600	1200-1600	600-990	600-990
M18 (11/16)	880-1250	350-530	270-350	180-270	90-180	180-270	210-270	90-210	880-1250	710-880	880-1250	530-1250	350-530	440-710
	70-90	710-1050	530-880	70-90	70-90	70-90	—	—	1050-1400	880-1250	710-1400	1050-1400	530-880	530-880
M20 (3/4)	800-1100	320-480	240-320	160-240	80-160	160-240	190-240	80-190	800-1100	640-800	800-1100	480-1100	320-480	400-640
	60-80	640-950	480-800	60-80	60-80	60-80	—	—	950-1250	800-1100	640-1250	950-1250	480-800	480-800
M22 (7/8)	720-1000	290-430	220-290	140-220	70-140	140-220	170-220	70-170	720-1000	580-720	720-1000	430-1000	290-430	360-580
	60-70	580-870	430-720	60-70	60-70	60-70	—	—	870-1150	580-720	430-1150	580-1150	430-720	430-720
M24 (15/16)	660-930	270-400	200-270	130-200	70-130	130-200	160-200	70-160	660-930	530-660	660-930	400-930	270-400	330-530
	50-70	530-800	400-660	50-70	50-70	50-70	—	—	800-1050	530-660	400-1050	800-1050	400-660	400-660
M25 (1)	640-890	250-380	190-250	130-190	60-130	130-190	150-190	60-150	640-890	510-640	640-890	380-890	250-380	320-510
	50-60	510-760	380-640	50-60	50-60	50-60	—	—	760-1000	510-640	400-1000	760-1000	380-640	380-640
M26	610-860	240-370	180-240	120-180	60-120	120-180	150-180	60-150	610-860	490-610	610-860	370-860	240-370	310-490
	50-60	490-730	370-610	50-60	50-60	50-60	—	—	730-980	490-610	370-980	730-980	370-610	370-610
M27 (1 1/16)	590-830	240-350	180-240	120-180	60-120	120-180	140-180	60-140	590-830	470-590	590-830	350-830	240-350	290-470
	50-60	470-710	350-590	50-60	50-60	50-60	—	—	710-940	470-590	350-940	710-940	350-590	350-590
M28 (1 1/8)	570-800	230-340	170-230	110-170	60-110	110-170	140-170	60-140	570-800	450-570	570-800	340-800	230-340	280-450
	50-60	450-680	340-570	50-60	50-60	50-60	—	—	680-910	450-570	340-910	680-910	340-570	340-570
M30 (1 3/16)	530-740	210-320	160-210	110-160	50-110	110-160	130-160	50-130	530-740	420-530	530-740	320-740	210-320	270-420
	40-50	420-640	320-530	40-50	40-50	40-50	—	—	640-850	420-530	320-850	640-850	320-530	320-530
M32 (1 1/4)	500-700	200-300	150-200	100-150	50-100	100-150	120-150	50-120	500-700	400-500	500-700	300-700	200-300	250-400
	40-50	400-600	300-500	40-50	40-50	40-50	—	—	600-800	400-500	300-800	600-800	300-500	300-500
M33 (1 5/16)	480-680	190-290	140-190	100-140	50-100	100-140	120-140	50-120	480-680	390-480	480-680	290-680	190-290	240-390
	40-50	390-580	290-480	40-50	40-50	40-50	—	—	580-770	390-480	290-770	580-770	290-480	290-480
M36 (1 7/16)	440-620	180-270	130-180	90-130	40-90	90-130	110-130	40-110	440-620	350-440	440-620	270-620	180-270	220-350
	40-40	350-530	270-440	40-40	40-40	40-40	—	—	530-710	350-440	270-710	530-710	270-440	270-440
M39 (1 5/8)	410-570	160-240	120-160	80-120	40-80	80-120	100-120	40-100	410-570	330-410	410-570	240-570	160-240	200-330
	30-40	330-490	240-410	30-40	30-40	30-40	—	—	490-650	330-410	240-650	490-650	240-410	240-410
M40	400-560	160-240	120-160	80-120	40-80	80-120	100-120	40-100	400-560	320-400	400-560	240-560	160-240	200-320
	30-40	320-480	240-400	30-40	30-40	30-40	—	—	480-640	320-400	240-640	480-640	240-400	240-400
M42 (1 3/4)	380-530	150-230	110-150	80-110	40-80	80-110	90-110	40-90	380-530	300-380	380-530	230-530	150-230	190-300
	30-40	300-450	230-380	30-40	30-40	30-40	—	—	450-610	300-380	230-610	450-610	230-380	230-380

Calculation: Example: M8 with 40 m/min

Tapping speed
RPM
Diameter

vc = m/min
n = U/min
d = mm

$$n = \frac{vc \times 1000}{d \times \pi} = \frac{40 \times 1000}{8 \times 3.14} = 1592 \text{ U/min (RPM)}$$

- The speed given are guide values acc. to general information and can vary depending on tap manufacturer.
- For optimal production and correct speed, we suggest following the specifications of the tap manufacturer.
- Furthermore, the maximum speed of the tapping attachment must not be exceeded.

RDT15	RDT25	RDT50 RCT50 RCTXT50	RDT50 RCT50 RCTXT50	RCT85	RCT85	RCT100	RCT150
		sintered gears	cut gears				

Roll From Taps

www.tapmatic.com



	Low Carbon Steel, Medium Carbon Steel	High Carbon Steel, High Strength Steel, Tool Steel	High Strength Steel, Tool Steel Hardened	Stainless 303, 304, 316	Stainless 17-4 Annealed	Titanium Alloys	Nickel Base Alloys	Aluminium Alloys	Aluminium Die Cast	Copper
A) m/min	30–40	20–30	15–25	10–15	10–15	5–15	3–5	30–60	20–40	15–25
B) m/min	40–60	30–50	25–40	12–20	—	—	8–12	50–70	30–50	25–50
Tap size	A) rpm for HSS-E uncoated taps B) rpm for HSS-E coated taps									
M2 (#2)	4750–6350 6350–9550	3200–4750 4750–7950	2400–4000 4000–6350	1600–2400 1900–3200	1600–2400 —	800–2400 320–1600	480–800 1250–1900	4750–9550 7950–11150	3200–6350 4750–7950	2400–4000 4000–7950
M3 (#5)	3200–4250 4250–6350	2100–3200 3200–5300	1600–2650 2650–4250	1050–1600 1250–2100	1050–1600 —	530–1600 210–1050	320–530 850–1250	3200–6350 5300–7450	2100–4250 3200–5300	1600–2650 2650–5300
M4 (#8)	2400–3200 3200–4750	1600–2400 2400–4000	1200–2000 2000–3200	800–1200 950–1600	800–1200 —	400–1200 160–800	240–400 640–950	2400–4750 4000–5550	1600–3200 2400–4000	1200–2000 2000–4000
M5 (#10)	1900–2550 2550–3800	1250–1900 1900–3200	950–1600 1600–2550	640–950 760–1250	640–950 —	320–950 130–640	190–320 510–760	1900–3800 3200–4450	1250–2550 1900–3200	950–1600 1600–3200
M6 (1/4)	1600–2100 2100–3200	1050–1600 1600–2650	800–1350 1350–2100	530–800 640–1050	530–800 —	270–800 110–530	160–270 420–640	1600–3200 2650–3700	1050–2100 1600–2650	800–1350 1350–2650
M7	1350–1800 1800–2750	910–1350 1350–2250	680–1150 1150–1800	450–680 550–910	450–680 —	230–680 90–450	140–230 360–550	1350–2750 2250–3200	910–1800 1350–2250	650–1150 1150–2250
M8 (5/16)	1200–1600 1600–2400	800–1200 1200–2000	600–990 990–1600	400–600 480–800	400–600 —	200–600 80–400	120–200 320–480	1200–2400 2000–2800	800–1600 1200–2000	600–990 990–2000
M9	1050–1400 1400–2100	710–1050 1050–1750	530–880 880–1400	350–530 420–710	350–530 —	180–530 70–350	110–180 280–420	1050–2100 1750–2500	710–1400 1050–1750	530–880 880–1750
M10 (3/8)	950–1250 1250–1900	640–950 950–1600	480–800 800–1250	320–480 380–640	320–480 —	160–480 60–320	100–160 250–380	950–1900 1600–2250	640–1250 950–1600	480–800 800–1600
M12 (1/2)	800–1050 1050–1600	530–800 800–1350	400–660 660–1050	270–400 320–530	270–400 —	130–400 50–270	80–130 210–320	800–1600 1350–1850	530–1050 800–1350	400–660 660–1350
M14 (9/16)	680–910 910–1350	450–680 680–1150	340–570 570–910	230–340 270–450	230–340 —	110–340 50–230	70–110 180–270	680–1350 1150–1600	450–910 680–1150	340–570 570–1150
M16 (5/8)	600–800 800–1200	400–600 600–990	300–500 500–800	200–300 240–400	200–300 —	100–300 40–200	60–100 160–240	600–1200 990–1400	400–800 600–990	300–500 500–990
M18 (11/16)	530–710 710–1050	350–530 530–880	270–440 440–710	180–270 210–350	180–270 —	90–270 40–180	50–90 140–210	530–1050 880–1250	350–710 530–880	270–440 440–880
M20 (3/4)	480–640 640–950	320–480 480–800	240–400 400–640	160–240 190–320	160–240 —	80–240 30–160	50–80 130–190	480–950 800–1100	320–640 480–800	240–400 400–800
M22 (7/8)	430–580 580–870	290–430 430–720	220–360 360–580	140–220 170–290	140–220 —	70–220 30–140	40–70 120–170	430–870 720–1000	290–580 430–720	220–360 360–720
M24 (15/16)	400–530 530–800	270–400 400–660	200–330 330–530	130–200 160–270	130–200 —	70–200 30–130	40–70 110–160	400–800 660–930	270–530 400–660	200–330 330–660
M25 (1)	380–510 510–760	250–380 380–640	190–320 320–510	130–190 150–250	130–190 —	60–190 30–130	40–60 100–150	380–760 640–890	250–510 380–640	190–320 320–640
M26	370–490 490–730	240–370 370–610	180–310 310–490	120–180 150–240	120–180 —	60–180 20–120	40–60 100–150	370–730 610–860	240–490 370–610	180–310 310–610
M27 (1 1/16)	350–470 470–710	240–350 350–590	180–290 290–470	120–180 140–240	120–180 —	60–180 20–120	40–60 90–140	350–710 590–830	240–470 350–590	180–290 290–590
M28 (1 1/8)	340–450 450–680	230–340 340–570	170–280 280–450	110–170 140–230	110–170 —	60–170 20–110	30–60 90–140	340–680 570–800	230–450 340–570	170–280 280–570
M30 (1 3/16)	320–420 420–640	210–320 320–530	160–270 270–420	110–160 130–210	110–160 —	50–160 20–110	30–50 80–130	320–640 530–740	210–420 320–530	160–270 270–530
M32 (1 1/4)	300–400 400–600	200–300 300–500	150–250 250–400	100–150 120–200	100–150 —	50–150 20–100	30–50 80–120	300–600 500–700	200–400 300–500	150–250 250–500
M33 (1 5/16)	290–390 390–580	190–290 290–480	140–240 240–390	100–140 120–190	100–140 —	50–140 20–100	30–50 80–120	290–580 480–680	190–390 290–480	140–240 240–480

Calculation:

Example: M8 with 30 m/min

Tapping speed
RPM
Diameter

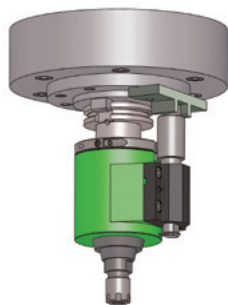
vc = m/min
n = U/min
d = mm

$$n = \frac{vc \times 1000}{d \times \pi}$$

$$n = \frac{30 \times 1000}{8 \times 3.14} = 1194 \text{ U/min (RPM)}$$

- The speed given are guide values acc. to general information and can vary depending on tap manufacturer.
- For optimal production and correct speed, we suggest following the specifications of the tap manufacturer.
- Furthermore, the maximum speed of the tapping attachment must not be exceeded.

RDT15	RDT25	RDT50 RCT50 RCTXT50	RDT50 RCT50 RCTXT50	RCT85	RCT85	RCT100	RCT150
		sintered gears	cut gears				



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.

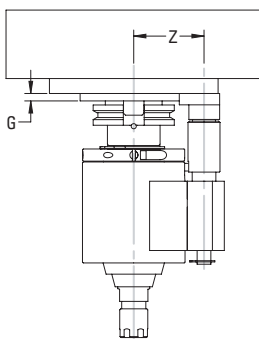
My machine already has a stop block

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 =

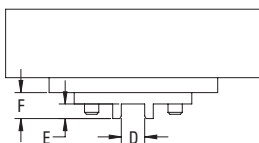
Machine Spindle Taper

(SK, BT, CAT, HSK...)

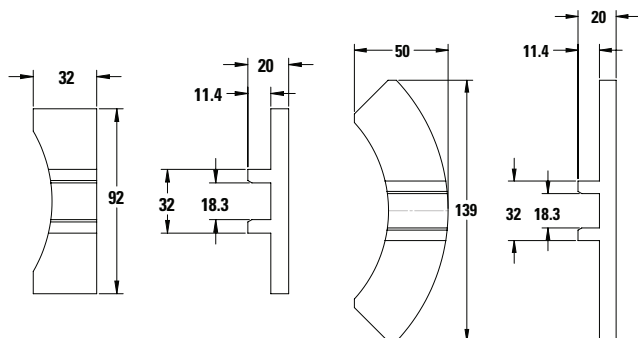
Shank =

Machine Manufacturer and

Model =



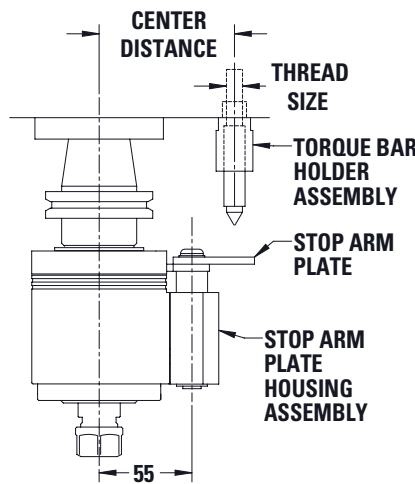
Standard stop blocks are available if you would like to design your own installation. These blank stop blocks can be modified to fit the bolt pattern of your machine.



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

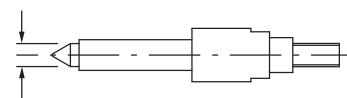
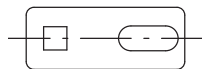
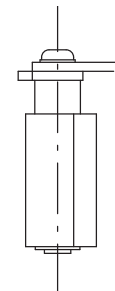
Stop arm plate

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

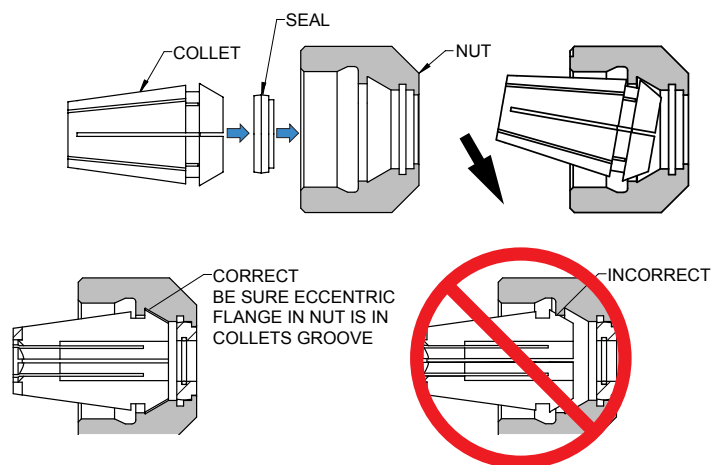
Torque bar holder assemblies

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

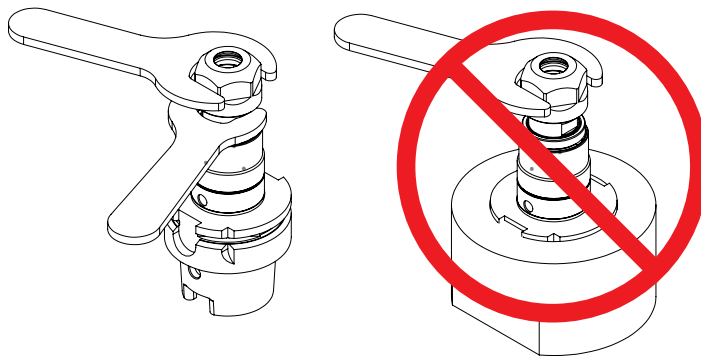
Order code	Bolt size	Order code	Bolt size
69383A	M6	69389A	5/16"-18
69384A	M8	69390A	5/16"-24
69385A	M10	69391A	3/8"-16
69386A	M12	69392A	3/8"-24
69387A	1/4"-20	69393A	1/2"-13
69388A	1/4"-28	69394A	1/2"-20



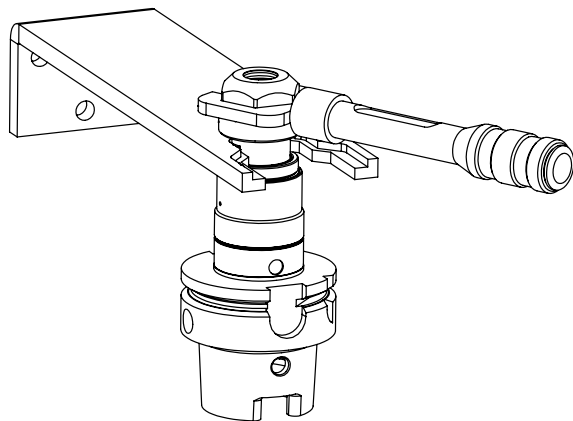
Installing Collet in Nut



Tightening



Using a Torque Wrench

Recommended clamping torque
in Nm for collets

GB Tap Collets (With Square) should be used whenever possible

Type	Shank Ø	GB Collets (With Square)	Collets (Without Square)
ER 8	1.0 - 5.0 (.039 - .196")	-	6
ER 11	1.0 - 2.9 (.039 - .098)	8	8
Hi-Q	3.0 - 7.0 (.118 - .256")	16	24
ER 16	4.0 - 4.5 (.157 - .177")	40	Not Recommended
Hi-Q/ER C	5.0 - 10.0 (.197 - .394")	44	Not Recommended
ER 20	1.5 - 6.5 (.059 - .256")	32	Not Recommended
Hi-Q/ER C	7.0 - 13.0 (.276 - .512")	35	Not Recommended
ER 25	5.0 - 7.5 (.196 - .295")	80	Not Recommended
Hi-Q/ER C	8.0 - 17.0 (.315 - .669")	80	Not Recommended
ER 32	8.0 - 22.0 (.315 - .787")	136	Not Recommended
Hi-Q/ER C			
ER 40	6.0 - 26.0 (.236 - 1.023")	176	Not Recommended
Hi-Q/ER C			
ER 50	6.0 - 36.0 (.236 - 1.417")	300	See Note 2
Hi-Q/ER C			

Note 1: Maximum torque must not be more than 25% higher than above values

Note 2: For large taps with 36mm shank, a collet without square is used. There is a 29mm socket inside holder

WARNING

To Avoid Serious Injury And Ensure Best Results For Your Tapping Operation, Please Read Carefully All Operator And Safety Instructions Provided For This Tapping Unit as well as all other safety instructions that are applicable, especially those for your machine tool.

- **1. Proper clothing:** The rotating spindle of a machine tool can snag loose fitting clothing, jewelry or long hair. Never wear jewelry, long sleeves, neckties, gloves or anything else that could become caught when operating a machine tool. Long hair must be restrained or netted to prevent it from becoming entangled in rotating spindle.
- **2. Proper eye protection:** Always wear safety glasses with side shields to protect your eyes from flying particles.
- **3. Proper work piece fixation:** Never hold the work piece or the vise it is held in, by hand. Never fasten it with wire or anything similar! The work piece must be clamped firmly to the table of the machine so that it cannot move, rotate or lift.
- **4. On machining centers:** The same rule for stop arm and stop block installation applies «Always be sure that the installation is stronger than the largest tap.» Automatic tool changes should only be made on enclosed machines.
- **5. The tapping attachment housing, drive spindle and tap itself can become hot to the touch after operation. Use caution when removing the attachment from the machine or handling.**



- **6. Always be aware of the potential hazards of a machining operation:** Sometimes working with your machine can seem routine. You may find that you are no longer concentrating on the operation. A feeling of false security can lead to serious injury. Always be alert to the dangers of the machines with which you work. Always keep hands, body parts, clothing, jewelry and hair out of the areas of operation, when the machine spindle is rotating. Areas of operation include the immediate point of machining and all transmission components including the tapping attachment. Never bring your hand, other body parts or anything attached to your body into any of these areas until the machine spindle is completely stopped.

- **7. Be aware of any other applicable safety instructions/requirements.**

Check List for good tapping

1. Never use this unit before reading all safety instructions for this attachment as well as the machine it is to be used on.
2. Is tap sharp and of correct design for current job?
3. Is tap in proper alignment with drilled hole?
4. Is machine speed correct?
5. Is machine feed correct?
6. Is machine stop set properly so tap releases in neutral rather than bottoming in work piece or fixture?
7. Is drilled hole the correct size?
8. Is clearance between the drilled hole and tap sufficient at start position to allow the tap to clear the hole upon retraction?
9. Is the stop arm of the tapping attachment held rigidly against rotation. Stop Arm installation must be stronger than largest tap.
10. Is the proper cutting fluid or coolant being used for lubricating the tap?
11. If a bottom hole is being tapped is there sufficient chip clearance?
12. Is the correct Tapmatic model for the specific job requirement being used? (Capacity should be reduced by 25% for roll form taps.)

TAPMATIC Warranty Policy

Tapmatic Corporation warrants to original equipment manufacturers, distributors and industrial users of its products, that each new product manufactured or supplied by Tapmatic Corporation shall be free from defects in material and workmanship. Tapmatic Corporation's obligation under this warranty is limited to repairing any product which shall, within one year from the date of sale, be returned freight prepaid to Tapmatic Corporation, Post Falls, Idaho.

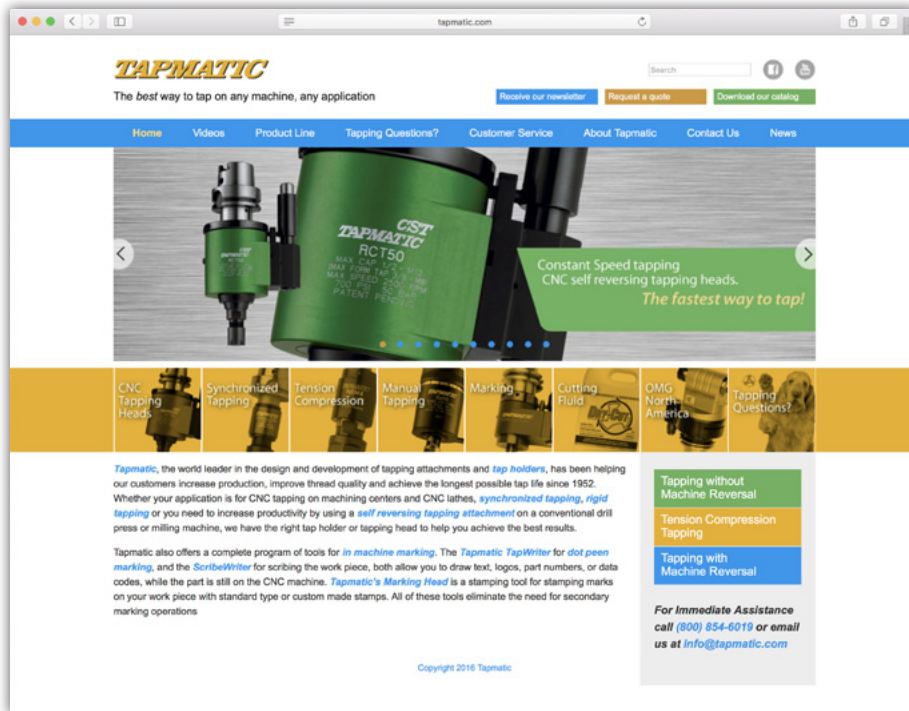
Any product returned for inspection for warranty repair consideration must be returned complete with chuck nut, back jaw and if the tool is a reversing unit, stop arm, as well as, complete information as to operating conditions, machine set up and application of cutting fluid.

The provision of this warranty shall not apply to any parts of a Tapmatic product subject to conditions, machine setup or application of cutting fluid or which has been repaired or altered if such repair or alteration, which in the judgement of Tapmatic Corporation, would adversely affect the performance of the product.

This warranty is in lieu of all other warranties, express or implied, including any implied warranty of merchantability or fitness for particular purpose. Tapmatic Corporation shall have no liability or responsibility on any claim of any kind, whether in contract, tort, or otherwise, for any loss or damage arising out of, connected with, or resulting from the manufacture, sale, delivery or use of any products sold hereunder in excess of the cost of repair as provided herein. In no event shall Tapmatic Corporation be liable for any special, incidental, or consequential damages.

Tapmatic Corporation makes no other warranties, express or implied, except as set forth above and Tapmatic Corporation neither assumes nor authorizes any other person or entity to assume for it any other obligation or liability in connection with any of its products.

24 hours a day, information is only a mouse click away



Our websites are a giant database with many useful features like:

- product information with detailed downloads
- general technical information about tapping, which will help you get the best possible results
- video demonstration of our tools in action
- the newest applications and innovations
- contact information of your local Tapmatic representative

Visit www.tapmatic.com

Customer: _____ Date: _____

Contact person: _____ Department: _____

Address: _____

City: _____ State: _____ Postal Code: _____

Phone: _____ E-Mail: _____

Machine: _____

Model/Description: _____

☐ vertical☐ horizontal

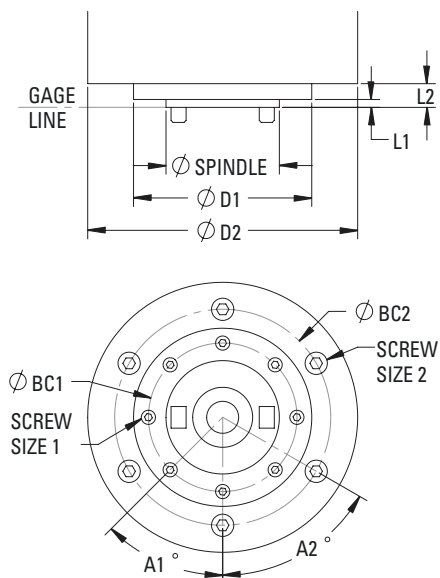
Shank type: _____ TAPMATIC Model: _____

Thread: ☐ forming ☐ cuttingQuantity: ☐ through hole ☐ bottom hole

Drill depth: _____ Tap Depth: _____ RPM: _____ Feed: _____

Material: _____ Internal coolant: ☐ Yes ☐ No

Remarks: _____



Machine Manufacturer	
Machine Model	
Machine Spindle Type	
Ø-Spindle	
Ø D1	
L1	
Ø BC1	
Screw Size 1	
Angle A1°	
Only if Applicable	
Ø D2	
L2	
Ø BC2	
Screw Size 2	
Angle A2°	



TAPMATIC is represented throughout the world.
Please find your local dealer on:
www.tapmatic.com



TAPMATIC Post Falls, USA

Headquarters:

TAPMATIC Corporation

802 Clearwater Loop, Post Falls, Idaho 83854, USA
Phone 001-208-773 29 51, Fax 001-208-773 30 21
info@tapmatic.com, www.tapmatic.com

European Service Center:

TAPMATIC UK

Millers Close Industrial Estate
Fakenham Norfolk NR21 8NW
Phone +44 1328 863676, Fax +44 1328 856118
info@tapmatic.co.uk

Sold through: