

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.



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.

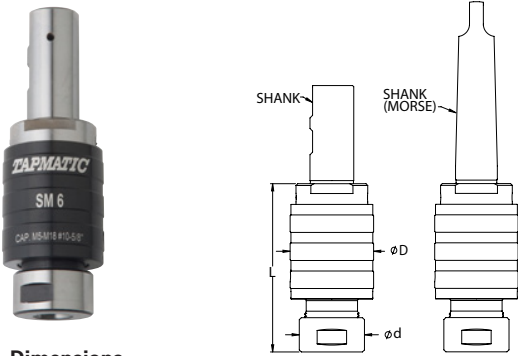


NC150
Large capacity ER50

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

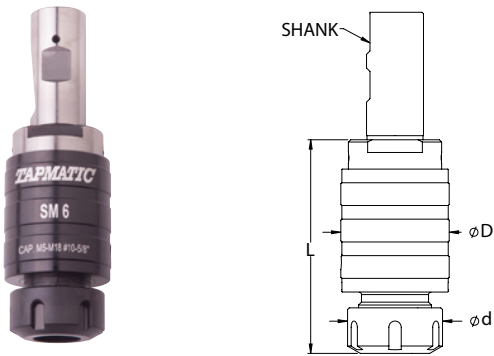
How to Order

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"			

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(C) Interchangeable Steep Tapers



RF Multi-range Collets

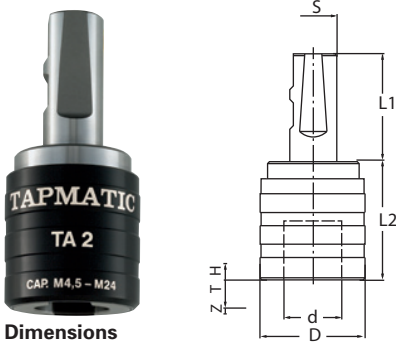


Steel collets



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

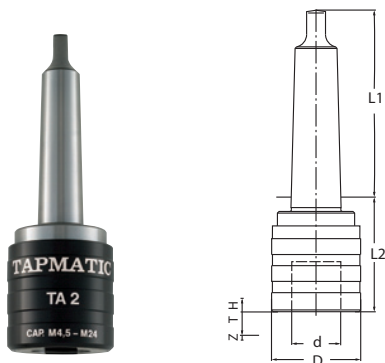
How to Order

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



Dimensions

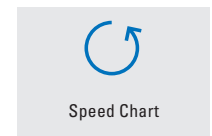
Model	D	d	L1	L2
TA0-MT1	29	13	62.0	43.5
TA0-MT2	29	13	75.0	45.0
TA1-MT2	39	19	75.0	47.0
TA2-MT3	56	31	94.0	71.0
TA3-MT4	81	48	117.5	105.0
TA4-MT5	99	60	149.5	116.5

How to Order

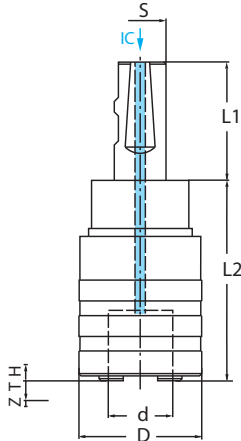
Please select the tap chuck (A) to fit your application. Please order quick change tap adapters separately.

(A) Model	Order code	Capacity (steel)	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

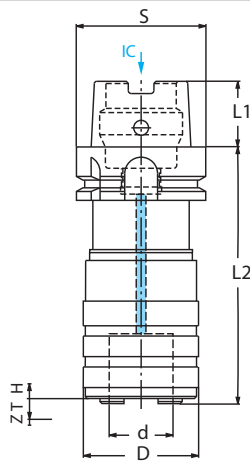
Model	D mm	d mm	L1 mm	L2 mm
TIC1-025	43	19	57	62
TIC2-025	59	31	57	98
TIC3-032	80	48	61	147

(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

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



How to Order

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

L2 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

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

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(C)



Interchangeable Steep Taper



Quick-Change Adapters

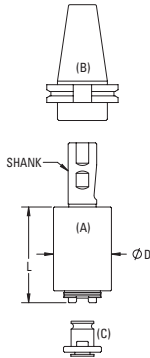


Speed Chart

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

The **NC SeriesTools** 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

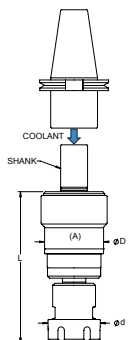
Please select the tapping chuck (A) and CAT, SK or BT shank (B), to fit your application. Standard adapters (C) shown in accessories section.

Tension/Compression

(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	Compression
NC150	3415040	M22-M48	40 mm	ER50	4.0	88	78	227	5	9

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