

SYNCHROFLEX Increases Tap Life 100% Or More

On Rigid Tapping Applications.

**And...
Improves
Thread Quality.**

**Increases
Production
Through Fewer
Tool Changes.**

**Reduces
Down Time.**



**SFT
ER COLLET CHUCK** Page 7

New SYNCHROFLEX Models



SFT-QC
Dual Purpose Flexibility Accepts Shrink Fit & ER Collet Chuck or Standard Adapters.



SFT TG
"Tremendous Grip" Collet Chuck Recommended For New EX-HPC "Extreme, High-Performance Carbide" Taps.

New SELECTAFLEX with Adjustable Thrust
For additional thrust on difficult to machine materials or hard starting tap geometries.



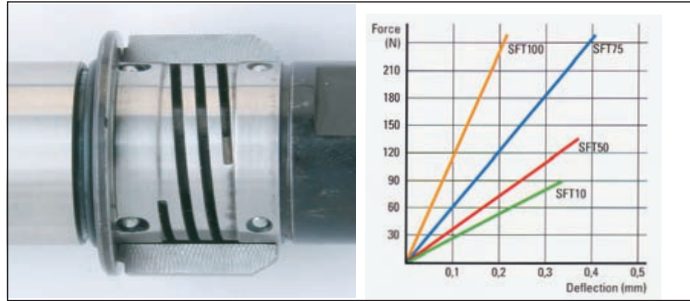
SYNCHROFLEX There Is No Comparison.

Independent Tests By Tap Manufacturers And Real World Applications Confirm SynchroFlex Is Unmatched In Performance.

ONE OF A KIND DESIGN

Only TAPMATIC SYNCHROFLEX's patented, computer generated, Double Flexure produces a progressively higher tap starting force for each .001" (0.025mm) of deflection.

As you would expect, it costs more to manufacture SynchroFlex, but it costs less to use and you get what you pay for- Dependable, Predictable, Long Life Performance under all working conditions. With SynchroFlex you'll save thousands of dollars in tap costs alone.



UNIQUE FUNCTION

Only SYNCHROFLEX compensates both axially and radially for the unavoidable minute discrepancies between the machine's programmed RPM, feed and traverse and the exact thread pitch and precise hole location. The machine can only do its best to move mass in response to electronic impulse. The laws of physics still apply and every machine has its limits. With other holders any discrepancy at all increases the required thrust or tension and torque, reducing tap life and thread quality proportionally.



OTHER "SYNCHRONOUS" TAP DRIVERS use soft plastic components or belleville washers similar to these which deform with use and lose the minimum cushioning effect.

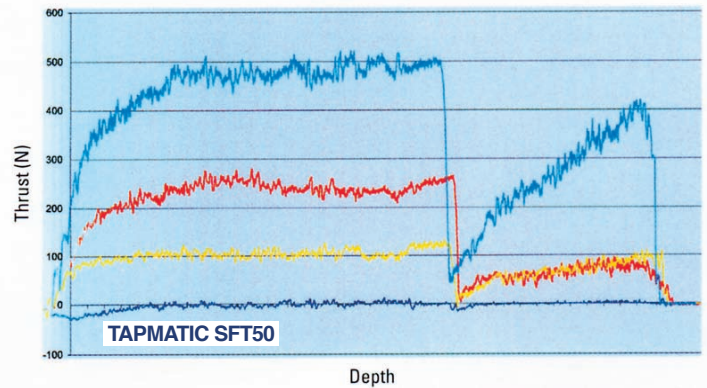
The difference in price between SynchroFlex and the cheapest rigid tap driver available can be recovered in a few days.

SYNCHROFLEX Exerts Lower Thrust And Torque Forces On The Tap For Significantly Longer Tap Life Than Any Other Tap Holder On The Market. In any given material the lower the thrust and torque forces on the tap, the longer the tap life.

THRUST TEST ONE:
10 HOLES,
M6 R45-AL,
2 Flute Tap,
3x Dia.
Deep In AL7075 At 1000 RPM

Graph illustrates the final hole tapped by each tap driver.

- SOLID HOLDER
- COMPETITOR X
- COMPETITOR Y
- TAPMATIC SFT50



THRUST TEST TWO:
10 HOLES,
M6 R45-AL,
2 Flute Tap,
3x Dia.
Deep In AL7075 At 2000 RPM

HOLDER TYPE	Average Mean THRUST (N)	Average Down Cut THRUST (N) Entering Hole	Average Reverse THRUST (N) Exiting Hole
Steel Collet Holder (Rigid)	1008	1379	930
Competitor X	681	879	445
Competitor Y	320	425	266
TAPMATIC SFT	-12	-29	-31

TORQUE TEST TWO:
10 HOLES,
M6 R45-AL,
2 Flute Tap,
3x Dia.
Deep In AL7075 At 2000 RPM

HOLDER TYPE	Average Mean TORQUE (Ncm)	Average Down Cut TORQUE (Ncm) Entering Hole	Average Reverse TORQUE (Ncm) Exiting Hole
Steel Collet Holder (Rigid)	481	631	-387
Competitor X	593	639	-354
Competitor Y	542	730	-392
TAPMATIC SFT	268	371	-190

Increase Tap Life and Cut Costs By 50% Or More

REAL APPLICATION COST SAVINGS ANALYSIS

Mr. Sean Zeise, Owner, Ziese Products Inc. USA

APPLICATION:

Work Piece Material CF8M (Machines Like Inconel)
Tap Size #10-32



"Hello: Thought you all might want to know the results of my new SFT50. Our part is CF8M castings, which is supposed to be a cast 316SS, but is more like an inconel. We use a #10-32 tap and get 72 holes. So far with your product we are getting 216 holes, and might get more but we're afraid to break anymore taps in our costly parts. Not only are we saving money in taps, but also in change out time due to changing the tap every 6 hours instead of every hour."

1. 67% Tap Cost Savings

Original Tap Life With A Solid Holder	72 Holes Per Tap
New Tap Life With Tapmatic SynchroFlex	216 Holes Per Tap
Original Tap Cost Per Day With Solid Holder	\$77.00 Per Day
New Tap Cost Per Day With Tapmatic SFT	\$25.00 Per Day
Tap Cost Savings	\$52.00 Tap Cost Savings Per Day

2. 87% Reduction In Tap Change Down Time

Original Time Between Tap Changes	1 Hour Of Production
New Time Between Tap Changes With Tapmatic SynchroFlex	6 Hours Of Production
Increased Up Time Cost Savings	\$29.00 Per Day minimum

For Example: If production were down 5 minutes per tap change every hour, that would mean 40 minutes of down time during an 8 hour shift. With Tapmatic SynchroFlex, the tap lasted six hours for only 5 minutes of down time during an 8 hour shift. At a shop hourly rate of \$50.00 per hour, a 35 minute time savings provides an additional savings of \$29.00 per day.

Tapmatic SFT Paid For Itself In 6 Days.

Now See How Quickly SFT Will Pay For Itself On Your Application

SFT50	Example I	Example II	Example III
Tap Cost:	\$32.00	\$32.00	\$84.00
Original Tap Life	300 Holes	3000 Holes	5000 Holes
Tap Cost Per Hole	\$0.11	\$0.01	\$0.017
New Tap Life With Tapmatic SFT	800 Holes	6000 Holes	10,000
New Tap Cost Per Hole	\$0.04	\$0.005	\$0.008
SynchroFlex Cost Savings Per Hole	\$0.07	\$0.005	\$0.009
SynchroFlex (Cost \$400.00) Paid For Itself In	5,714 Holes	80,000 Holes	44,444 Holes

In Addition To Tap Cost Savings You'll Also:

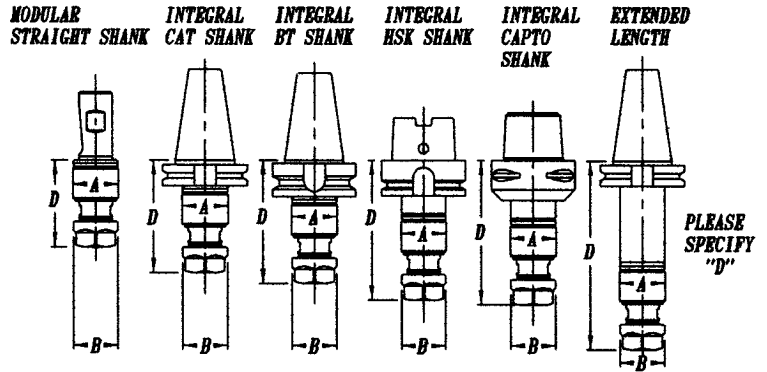
Save Time And Costs From Fewer Tap Changes.

Gain Confidence That All Threads Are True To Gage.

SFT With ER Collet Chuck



* Available on Request



SFT Modular Straight Shank With ER Collet Spindle

Capacity In 1010 Mild Steel	Model No.	Mount	Catalog No.	Collet Series	Weight	A	B	D	Axial Comp.
#2-#10-32 M2-M5	SFT10	1" SS	4310111	#11	.8 lb. (.4 Kg.)	.925 (24mm)	.740 (19mm)	2.09 (53mm)	±.020 (±0.5mm)
		25mm SS	43102511						
#8-1/2"-20 M4-M12	SFT50	1" SS	4350120	#20	1.0 lb. (.5 Kg.)	1.362 (35mm)	1.340 (34mm)	2.49 (63mm)	±.020 (±0.5mm)
		25mm SS	43502520						
3/8" - 3/4"-10 M10-M20	SFT75	1" SS	4375125	#25	2.0 lb. (1 Kg.)	1.733 (44mm)	1.650 (42mm)	3.26 (83mm)	±.020 (±0.5mm)
		25mm SS	43752525						
5/8" - 1" M18-M30	SFT100	1"SS	43100140	#40	3.0 lb. (1.5 Kg.)	2.440 (62mm)	2.480 (63mm)	4.39 (112mm)	±.020 (±0.5mm)
		25mmSS	431002540						

SFT Integral Design With ER Collet Spindle

Capacity In 1010 Mild Steel	Model No.	Mount	Catalog No.	Collet Series	Weight	A	B	D	Axial Comp.
#8-1/2"-20 M4-M12	SFT50	CAT40	4350C4020	#20	2.4 lb. (1.1 kg.)	1.362 (35mm)	1.340 (34mm)	3.23 (82mm)	±.020 (±0.5mm)
		CAT50	4350C5020		5.5 lb. (2.5 kg.)			3.23 (82mm)	
		BT40	4350B4020		2.4 lb. (1.1 Kg.)			3.54 (90mm)	
		BT50	4350B5020		5.5 lb. (2.5 Kg.)			3.98 (101mm)	
		HSK63A	4350H6320		2.4 lb. (1.1 Kg.)			4.02 (102mm)	
		HSK100A	4350H10020		6 lb. (2.7 Kg.)			4.29 (109mm)	
3/8" - 3/4"-10 M10-M20	SFT75	CAT40	4375C4025	#25	3.5 lb. (1.6 Kg.)	1.733 (44mm)	1.650 (42mm)	4.02 (102mm)	±.020 (±0.5mm)
		CAT50	4375C5025		6.6 lb. (3.0 Kg.)			4.02 (102mm)	
		BT40	4375B4025		3.5 lb. (1.6 Kg.)			4.33 (110mm)	
		BT50	4375B5025		6.6 lb (3.0 Kg.)			4.76 (121mm)	
		HSK63A	4375H6325		3.6 lb. (1.6 Kg.)			4.80 (122 mm)	
		HSK100A	4375H10025		7 lb. (3.2 Kg.)			5.08 (129mm)	
5/8" - 1" M18-M30	SFT100	HSK63A	43100H6340	#40	4.8 lb. (2.2 Kg.)	2.440 (62mm)	2.480 (63mm)	5.94 (151mm)	±.020 (±0.5mm)
		HSK100A	43100H10040		8.1 lb. (3.7 Kg.)			6.22 (158mm)	

HIGH PRESSURE COOLANT: SFT are also available with balanced high pressure coolant system specified by adding the letter "S" to part number. Pressure up to 80 bar (1120 PSI). Includes seal disk nut. Order seal disks separately. **See page 47**

MINIMUM QUANTITY LUBRICATION: Minimum quantity lubrication through the tool is also available. Please specify by adding "M" to part number.

SFT ORDERING INFORMATION. Order Separately:

SFT TAP DRIVER This Page.

Please order by catalog and tap size capacity. Tool capacity must be reduced by 25% when using roll form.

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Use square drive collets whenever possible.

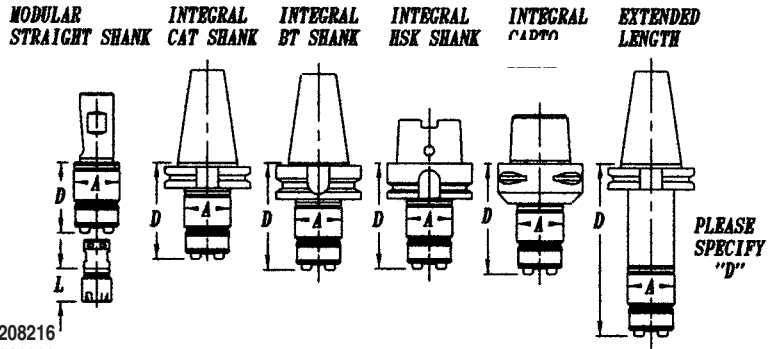


SFTQC Quick-Change Spindle Accepts Shrink Fit, ER Collet Chuck or Standard Adapters



*Available on Request

SFT50 L = .94 (24mm) For Series 16 Collets Order #8208216
 SFT75 L = 1.38 (35mm) For Series 20 Collets Order #8218220
 SFT100 L = 1.50 (38mm) For Series 25 Collets Order #8288225



SFT Modular Straight Shank With Quick-Change Spindle

Capacity In 1010 Mild Steel	Model	Mount	Catalog No.	Adapter Series	Weight	A	D	Axial Comp.
#8-1/2"-20 M4-M12	SFT50 QC	1" SS 25mm SS	43501QC 435025QC	#1	1.0 lb. (.5 Kg.)	1.362 (35mm)	2.05 (52mm)	±.020 (±0.5mm)
5/16" - 9/16" M8-M14 NP 1/8"	SFT75 QC	1" SS 25mm SS	43751QC 437525QC	#1	2.0 lb. (1 Kg.)	1.733 (44mm)	2.75 (70mm)	±.020 (±0.5mm)
1/2"-7/8" M12-M20 NP 1/4", 3/8"	SFT100QC	1" SS 25mm SS	431001QC 4310025QC	#2	3.0 lb. (1.5Kg)	2.440 (62mm)	4.14 (105mm)	±.020 (±0.5mm)

SFT Integral Design With Quick-Change Spindle

Capacity In 1010 Mild Steel	Model	Mount	Catalog No.	Adapter Series	Weight	A	D	Axial Comp.
#8-1/2-20" M4-M12	SFT50QC	CAT40	4350C40QC	#1	2.4 lb. (1.1 Kg.)	1.362 (35mm)	2.80 (71mm)	±.020 (±0.5mm)
		CAT50	4350C50QC		5.5 lb. (2.5 Kg.)		2.80 (71mm)	
		BT40	4350B40QC		2.4 lb. (1.1 Kg.)		3.11 (79mm)	
		BT50	4350B50QC		5.5 lb. (2.5 Kg.)		3.54 (90mm)	
		HSK63A	4350H63QC		2.4 lb. (1.1 Kg.)		3.60 (92mm)	
		HSK100A	4350H100QC		6 lb. (2.7 Kg.)		3.85 (98mm)	
5/16" - 9/16" M8-M14 NP 1/8"	SFT75QC	CAT40	4375C40QC	#1	3.5 lb. (1.6 Kg.)	1.733 (44mm)	3.50 (89mm)	±.020 (±0.5mm)
		CAT50	4375C50QC		6.6 lb. (3.0 Kg.)		3.50 (89mm)	
		BT40	4375B40QC		3.5 lb. (1.6 Kg.)		3.81 (97mm)	
		BT50	4375B50QC		6.6 lb. (3.0 Kg.)		4.24 (108mm)	
		HSK63A	4375H63QC		3.6 lb. (1.6 Kg.)		4.30 (109mm)	
		HSK100A	4375H100QC		7 lb. (3.2 Kg.)		4.55 (116mm)	
1/2"-7/8" M12-M20 NP 1/4", 3/8"	SFT100QC	HSK63A	43100H63QC	#2	4.8 lb (2.2 Kg)	2.440 (62mm)	5.69 (145mm)	±.020 (+0.5mm)
		HSK100A	43100H100QC		8.1 lb (3.7 Kg)		5.97 (152mm)	

HIGH PRESSURE COOLANT: SFT are also available with balanced high pressure coolant system specified by adding the letter "S" to part number. Pressure up to 80 bar (1120 PSI).

SFT ORDERING INFORMATION.
 Order Separately SFT Tap Driver This Page.
 Please order by catalog and tap size capacity. Tool capacity must be reduced by 25% when using roll form.

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QUICK-CHANGE
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SHRINK-FIT
 ADAPTERS
 Please
 Request
 Size



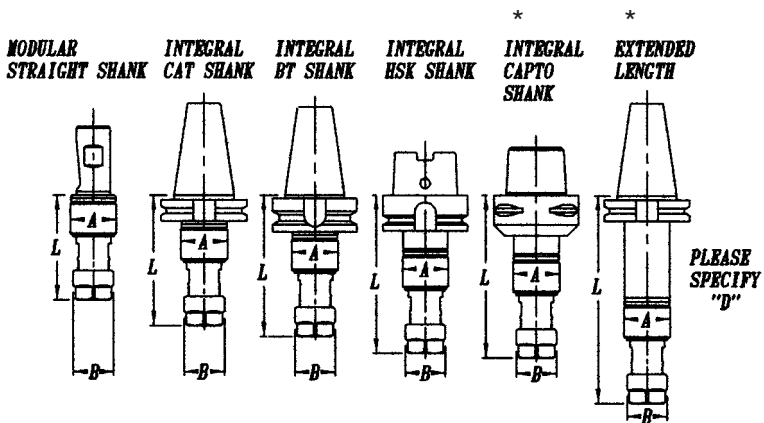
SFT TG With "Tremendous Grip" Collet Chuck



SFT TG

"Tremendous Grip" Collet Chuck
Recommended For New EX-HPC
"Extreme, High-Performance
Carbide" Taps.

* Available
on Request



SFT TG Spindle Modular Straight Shank

Capacity In 1010 Mild Steel	Model No.	Mount	Catalog No.	TG Collet Series	Weight	A	B	D	Axial Comp.
#8-1/2"-20 M4-M12	SFT50 TG	1" SS	43501TG50	50TG	2.4 lb. (1.1 kg.)	1.362	1.180	3.02	±.020 (±0.5mm)
		25mm SS	4350125TG50		5.5 lb. (2.5 kg.)	(35mm)	(30mm)	(77mm)	
5/8" - 1" M18-M30	SFT100 TG	1" SS 25mm SS	431001TG100 4310025TG100	100TG	4.8 lb. (2.2 Kg.)	2.440 (62mm)	2.440 (62mm)	5.71 (145mm)	±.020 (±0.5mm)

SFT TG Spindle Integral Design

Capacity In 1010 Mild Steel	Model No.	Mount	Catalog No.	TG Collet Series	Weight	A	B	D	Axial Comp.
#8-1/2"-20 M4-M12	SFT50 TG	CAT40	4350C40TG50	50TG	2.4 lb. (1.1 kg.)	1.362	1.180	3.76 (96mm)	±.020 (±0.5mm)
		CAT50	4350C50TG50		5.5 lb. (2.5 kg.)	(35mm)	(30mm)	3.76 (96mm)	
		BT40	4350B40TG50		2.4 lb. (1.1 Kg.)			4.07 (103mm)	
		BT50	4350B50TG50		5.5 lb. (2.5 Kg.)			4.51 (115mm)	
		HSK63A	4350H63TG50		2.4 lb. (1.1 Kg.)			4.55 (116mm)	
		HSK100A	4350H100TG50		6 lb. (2.7 Kg.)			4.82 (122mm)	
3/8" - 3/4"-10 M10-M20	SFT75 TG	CAT40	4375C40TG75	75TG	3.5 lb. (1.6 Kg.)	1.740	1.870	4.96 (126mm)	±.020 (±0.5mm)
		CAT50	4375C50TG75		6.6 lb. (3.0 Kg.)	(44mm)	(48mm)	4.96 (126mm)	
		BT40	4375B40TG75		3.5 lb. (1.6 Kg.)			5.27 (134mm)	
		BT50	4375B50TG75		6.6 lb. (3.0 Kg.)			5.70 (145mm)	
		HSK63A	4375H63TG75		3.6 lb. (1.6 Kg.)			5.76 (146 mm)	
		HSK100A	4375H100TG75		7 lb. (3.2 Kg.)			6.02 (153mm)	
5/8" - 1" M18-M30	SFT100 TG	HSK63A	43100H63TG100	100TG	4.8 lb. (2.2 Kg.)	2.440	2.440	7.26 (184mm)	±.020 (±0.5mm)
		HSK100A	43100H100TG100		8.1 lb. (3.7 Kg.)	(62mm)	(62mm)	7.54 (192mm)	

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MINIMUM QUANTITY LUBRICATION: Minimum quantity lubrication through the tool is also available. Please specify by adding "M" to part number.

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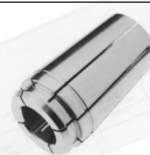
SFT TAP DRIVER This Page

Please order by catalog and tap size capacity. Tool capacity must be reduced by 25% when using roll form.

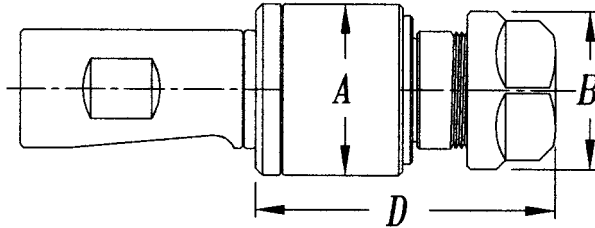
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NEW SELECTAFLEX With Adjustable Thrust and ER Collet Chuck



APPLICATIONS

For Rigid Tapping On CNC Machining Centers

FEATURES And PERFORMANCE ADVANTAGES

Similar benefits to SYNCHROFLEX *plus*

Adjustable Thrust for additional thrust on difficult to machine materials or hard starting tap geometries.

SX ER Collet Spindle With Adjustable Thrust Feature

Capacity In 1010 Mild Steel	Model No.	Mount	Catalog No.	Collet Series	Weight	A	B	D	Axial Comp.
#2-#10-32 M2-M5	SX 10	1" SS 25mm SS	4410111 44102511	#11	.8 lb. (.4 Kg.)	1.014 (26mm)	.740 (19mm)	2.02 (51mm)	±.020 (±0.5mm)
#8-1/2"-20 M4-M12	SX 50	1" SS 25mm SS	4450120 44502520	#20	1.0 lb. (.5 Kg.)	1.445 (37mm)	1.340 (34mm)	2.49 (63mm)	±.020 (±0.5mm)
3/8" - 3/4"-10 M10-M20	SX 75	1" SS 25mm SS	4475125 44752525	#25	2.0 lb. (1 Kg.)	1.733 (44mm)	1.650 (42mm)	3.26 (83mm)	±.020 (±0.5mm)
5/8" - 1" M18-M30	SX 100	1"SS 25mmSS	44100140 441002540	#40	3.01 lb. (1.5 Kg.)	2.480 (63mm)	2.480 (63mm)	4.39 (112mm)	±.020 (±0.5mm)

HIGH PRESSURE COOLANT: SX are also available with balanced high pressure coolant system specified by adding the letter "S" to part number. Pressure up to 80 bar (1120 PSI). Includes seal disk nut. Order seal disks separately. **See page 47.**

ORDERING INFORMATION- Order Separately:

SX TAP DRIVER This Page.

Please order by catalog and tap size capacity. Tool capacity must be reduced by 25% when using roll form.

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