

TAPMATIC

SYNCHROFLEX™

Thread cutting on numerical control machines



Simply unique

Your investment quickly returned

The CNC machine can only do it's best to move mass in response to electronic impulse. The laws of physics still apply and every machine has it's limits. Any discrepancy at all increases the required thrust or tension and torque, reducing tap life and thread quality proportionally.

SYNCHROFLEX cushions the differences between the computer feed rate and the actual. Compensating for these minimal differences both axial and radial.

The results are

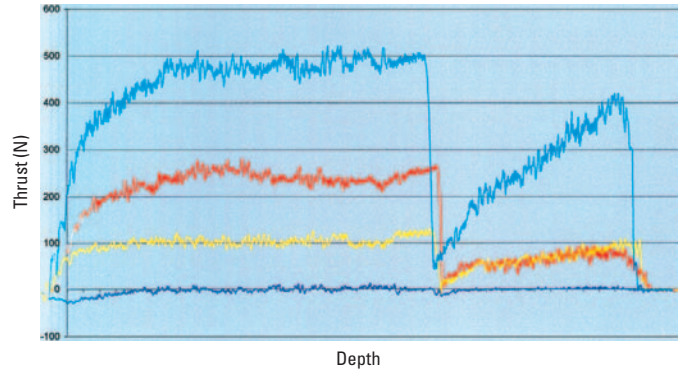
- Tap life has been increased by over 100 %
- Thread quality improved
- Increased production due to less tap breakage
- Fewer down times

Every SYNCHROFLEX tap holder can save up to 10 times it's cost.

The investment in a SYNCHROFLEX tap holder can be recovered in a matter of a few weeks.

Independent test by tap manufacturer

Thrust test 1:10 holes, M6 R45-AL, 2 Flute tap (3XD), AL7075 at 1000 RPM. Graph illustrates the final hole tapped by each tap driver.



- Tapmatic SFT50
- Competitor 2
- Competitor 1
- Rigid Tap Holder

The SYNCHROFLEX success warranty:

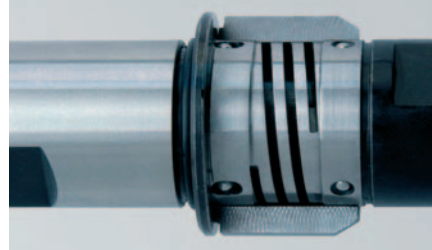
SYNCHROFLEX tap holders maintain the longest service life over all other tap holders on the market today.

Order information														
SFT tools come standard ready for coolant through the spindle. They are also available with balanced high pressure coolant system specified by adding the letter "S" to part number. Minimum quantity lubrication through the tool is also available. Please specify by adding "M" to part number.														
Model	Capacity in steel	Collets	Order Code	Straight Shank Ø mm	A mm	B mm	Order Code	Shank	A mm	B mm	Order Code	Shank	A mm	B mm
SFT10	M2 – M5	ER11	43102511	25	51	19								
SFT50	M5 – M12	ER20	43502520	25	63	34	4350H5020	HSK50A	102	34	4350H63L20	HSK63A	152	34
							4350H6320	HSK63A	102					
							4350H10020	HSK100A	109					
SFT75	M12 – M20	ER25	43752525	25	83	40	4375H5025	HSK50A	122	40	4375H63L25	HSK63A	172	40
							4375H6325	HSK63A	122					
							4375H10025	HSK100A	129					
SFT100	M20 – M25	ER40	431002540	25	112	59	43100H6340	HSK63A	151	59				
							43100H10040	HSK100A	158					

The advantages of SYNCHROFLEX™

The patented double Flexure of the tap holder compensates both axially and radially for the unavoidable discrepancies between the machines programmed RPM, feed and traverse and the exact thread pitch and precise hole location.

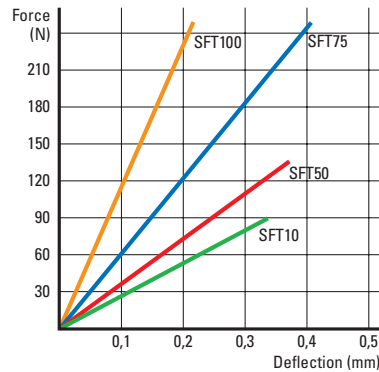
Plastic parts used in other tap holders for minimum cushion. Plastic deforms with which the minimum cushioning disappears.



Patented double Flexure is manufactured from a special Alloy developed by NASA.

SYNCHROFLEX utilizes a patented computer generated, precisely manufactured Flexor with exactly defined cushion in axial and radial direction.

- Predictable cut behaviour throughout the entire life of the tool.
- Consistent and predictable tap starting force.
- Independent tests show that Synchroflex exerts lower thrust and torque forces than any other holder on the market.
- Outstanding results with all types of materials and taps.



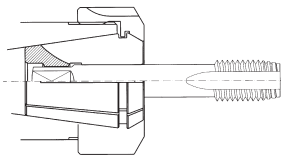
A progressively higher tap starting force for each 0.025 of deflection is predictable and consistent throughout the life of the tool. Max. deflection up to 0.5 mm.

								All SYNCHROFLEX tap holders can be supplied alternatively as QC. (Add QC to the order code).									
Order Code	Shank DIN69871A/D	A mm	B mm	Order Code	Shank MAS BT	A mm	B mm	Order Code	Shrink Fit	D mm	Quick Change						
4350A4020 4350A5020	SK40 SK50	98	34	4350B4020 4350B5020	BT40 BT50	90 95	34	4350H63S..	HSK63A		Quick Change Chuck						
4375A4025 4375A5025	SK40 SK50	118	40	4375B4025 4375B5025	BT40 BT50	110 115	40	4375H63S..	HSK63A								
												<table border="1"> <thead> <tr> <th>Order Code</th> <th>Model</th> <th>Collets</th> </tr> </thead> <tbody> <tr> <td>8208220</td> <td>SFT50 SFT75</td> <td>ER20</td> </tr> </tbody> </table>	Order Code	Model	Collets	8208220	SFT50 SFT75
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8208220	SFT50 SFT75	ER20															

SYNCHROFLEX™ – Suitable for all machines

Collets for SYNCHROFLEX tap holders

Dimensions and prices can be found in our SYNCHROFLEX price list. ER or ER-GB with square drive.



Quick change spindles

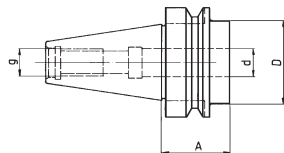
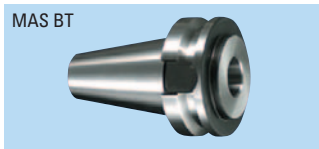
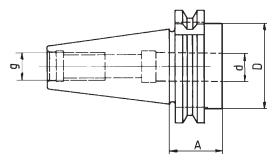
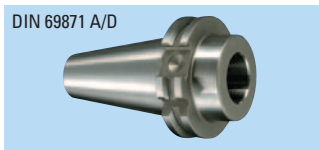
Quick change chucks are available to suit ER collets.

Internal coolant

Standard SYNCHROFLEX tap holders are appropriate for pressures up to 30 bar. For increased pressure (30 to 70 bar) a balanced IK spindle is available. Minimum quantity lubrication through the tool is also available. Please specify by adding "M" to part number.

Short chucks DIN 69871 A/D and MAS BT

Special short NC shanks are available with parallel bores to suit SYNCHROFLEX tap holders.



Order Code	Shank	d mm	A mm	D mm	g
S-242	A40	25	35	44	M16
S-252	A50	25	35	70	M24
S-342	BT40	25	35	55	M16
S-352	BT50	25	40	60	M24

TAPMATIC

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TAPMATIC Post Falls, USA



TAPMATIC Kriessern, Switzerland

Case History

Customer:

Wildhaber AG, mechanical engineering,
Switzerland

Machine:

Horizontal machining centre, Fanuc
control with rigid tapping.



Material:

42CrMo4V steel, heat treated to 650N/mm²

Tap size:

M8 x 1 metric fine.

Thread:

M8 x 1, 10 mm deep through hole.

Speed and Coolant:

500 RPM, cooling by oil emulsion 6 %.

Problem:

Excessive tap wear & breakage after only 1'000 holes resulting in downtime during unmanned shifts.

Solution:

Installed TAPMATIC SFT50 tap holder.

Results:

Tap life increased from 1'000 to between 2'400 & 2'900 HPT (holes per tap). Greater security that all holes are tapped during an unmanned shift. Tap life increased 190 %.



Full Tapmatic catalogue available on request.

Sold through: