



suttontools

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TOOL HOLDING

- For improved thread quality
- CNC rigid tapping
- Extended tool life of taps



Synchro Tapping Attachment with unique Double Flexure

Unlike other "synchronous" tap drivers that use soft plastic components or belleville washers similar as above, to cushion the taps' entry into the hole, Synchro utilizes a (computer generated, precisely machined, special steel alloy) Double Flexure between the mount and the chuck.

It compensates both axially for the unavoidable discrepancies between the machine's programmed RPM, feed and traverse and the exact thread pitch and precise hole location.

The Synchro is dependable and predictable. You can expect long life performance under all working conditions. What's more, you'll make significant savings when it comes to tap costs.

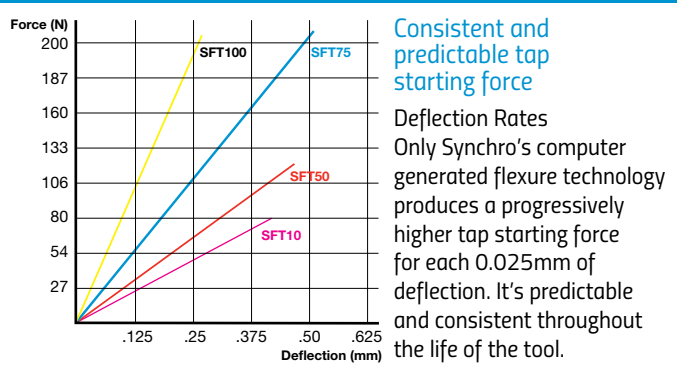


Synchro Proven Results

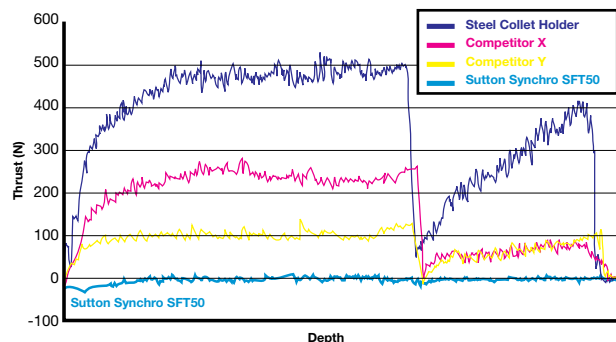
Independent tests in real world applications confirm Synchro is unmatched in performance

- Tap life increased by 100% or more
- Thread quality improved
- Increased production due to less tap breakage
- Less down time
- Reduced costs. The most economical rigid tapping

Synchro exerts lower thrust and torque forces 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.



Test One (Thrust): 10 holes, M6 R45A1, 2 flute tap, 3x Dia. deep in AL7075 at 1000 RPM



Graph illustrates the final hole tapped by each tap driver.

| Holder Type | Average 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 |
| Synchro | -12 | -29 | -31 |

Test Two (Torque): 10 holes, M6 R45A1, 2 flute tap, 3x Dia. deep in AL7075 at 2000 RPM

| Holder Type | Average 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 |
| Synchro | 268 | 371 | -190 |



- For the best rigid tapping results
- Holder designed for machines with rigid tapping
- Machine reversal required
- Increases tap life by 100% or more
- Improve thread quality
- Flexure design, acts like shock absorber



Appareil à tarauder CNC, pour taraudage rigide

- Pour de meilleurs résultats en taraudage
- Adapté pour le taraudage rigide sur machine CNC
- Machines à inversion recommandées
- Jusqu'à 100% de durée de vie supplémentaire
- Meilleure qualité de taraudage
- Absorbeur de chocs



Maschiatore CNC – Maschiatura rigida

- Per la miglior soluzione di maschiatura rigida
- Utensile progettato per macchine predisposte alla maschiatura rigida
- Invertitore richiesto
- Può aumentare la vita utensile del 100% e oltre
- Migliora la qualità del filetto
- Progettato per essere flessibile e assorbire eventuali stop improvvisi



Roscador CNC - Roscado Rígido

- Para los mejores resultados en roscado rígido
- Soporte diseñado para máquinas con roscado rígido
- Se requiere inversión en la máquina.
- Aumenta la vida útil del macho en un 100% o más
- Mejora la calidad de rosca
- Diseño flexible, actúa como corrector.



ER25 Collet (Sq. Drive)



Patented Flexure Design



Collet SFT50



Collet SFT100

| Size Ref. | Description | Size Capacity | Mount | Collet Series | Ref Code | Item # |
|--|----------------|------------------------------|---------|---------------|-----------|-------------|
| Tapping Attachments (Discount Group Z1104) | | | | | | Z101 |
| SFT10 | Synchro SFT10 | M1-M6 #2-#10 | 25mm SS | ER11 | 43102511 | Z101 SFT10 |
| SFT50 | Synchro SFT50 | M4-M12 #8-1/2 | 25mm SS | ER20 | 43502520 | Z101 SFT50 |
| SFT75 | Synchro SFT75 | M4-M16 3/8 - 3/4 | 25mm SS | ER25 | 43752525 | Z101 SFT75 |
| SFT100 | Synchro SFT100 | M8-M30 | 25mm SS | ER40 | 431002540 | Z101 SFT100 |
| Collets - SFT10 (Round Drive) (Discount Group Z1110) | | | | | | Z110 |
| 0025 | 2-2.5mm | M1-1.8 | - | ER11 | - | Z110 0025 |
| 0030 | 2.5-3mm | M2-2.6 | - | ER11 | - | Z110 0030 |
| 0035 | 3-3.5mm | M3 | - | ER11 | - | Z110 0035 |
| 0040 | 3.5-4mm | M3.5 | - | ER11 | - | Z110 0040 |
| 0045 | 4-4.5mm | M4 | - | ER11 | - | Z110 0045 |
| 0050 | 4.5-5mm | M4 JIS | - | ER11 | - | Z110 0050 |
| 0055 | 5-5.5mm | M5 JIS | - | ER11 | - | Z110 0055 |
| 0060 | 5.5-6mm | M5/M6 / M2-M6 Synchro | - | - | - | Z110 0060 |
| Collets - SFT50 (Square Drive) (Discount Group Z1110) | | | | | | Z111 |
| 0045 | Ø 4.5mm | M4 DIN371 | - | ER20 | - | Z111 0045 |
| 0050 | Ø 5mm | ISO | - | ER20 | - | Z111 0050 |
| 0060 | Ø 6mm | M5/M6 DIN371 / M2-M6 Synchro | - | ER20 | - | Z111 0060 |
| 0070 | Ø 7mm | M10 DIN376 | - | ER20 | - | Z111 0070 |
| 0080 | Ø 8mm | M8 DIN371 / M8 Synchro | - | ER20 | - | Z111 0080 |
| 0090 | Ø 9mm | M12 DIN376 | - | ER20 | - | Z111 0090 |
| 0100 | Ø 10mm | M10 DIN371 / M10 Synchro | - | ER20 | - | Z111 0100 |
| Collets - SFT75 (Square Drive) (Discount Group Z1110) | | | | | | Z112 |
| 0045 | Ø 4.5mm | M4 DIN371 | - | ER25 | - | Z112 0045 |
| 0060 | Ø 6mm | M5/M6 DIN371 / M2-M6 Synchro | - | ER25 | - | Z112 0060 |
| 0070 | Ø 7mm | M10 DIN371 | - | ER25 | - | Z112 0070 |
| 0080 | Ø 8mm | M8 DIN371 / M8 Synchro | - | ER25 | - | Z112 0080 |
| 0090 | Ø 9mm | M12 DIN376 | - | ER25 | - | Z112 0090 |
| 0100 | Ø 10mm | M10 DIN371 / M10 Synchro | - | ER25 | - | Z112 0100 |
| 0110 | Ø 11mm | M14 DIN376 | - | ER25 | - | Z112 0110 |
| 0120 | Ø 12mm | M16 DIN376 / M12 Synchro | - | ER25 | - | Z112 0120 |



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BT-40 Arbor



ER25 Collet (Sq. Drive)

| Size Ref. | Description | Size Capacity | Mount | Collet Series | Ref Code | Item # |
|---|-------------------------|--------------------------|-------|---------------|----------|-------------|
| Collets - SFT100 (Square Drive) (Discount Group Z1110) | | | | | | Z113 |
| 0080 | Ø 8mm | M8 DIN371 / M8 Synchro | - | ER40 | | Z113 0080 |
| 0100 | Ø 10mm | M10 DIN371 / M10 Synchro | - | ER40 | | Z113 0100 |
| 0120 | Ø 12mm | M16 DIN376 / M12 Synchro | - | ER40 | | Z113 0120 |
| 0140 | Ø 14mm | M18 DIN376 / M14 Synchro | - | ER40 | | Z113 0140 |
| 0160 | Ø 16mm | M20 DIN376 / M16 Synchro | - | ER40 | | Z113 0160 |
| Accessories (Discount Group Z1108) | | | | | | Z130 |
| 3943 | BT-40 Arbor W/25mm Bore | | - | - | 23943 | Z130 3943 |
| 3945 | BT-50 Arbor W/25mm Bore | | - | - | 23945 | Z130 3945 |
| | | | | | | Z135 |
| BT40 | Pull stud BT40 | - | - | - | | Z135 BT40 |
| BT50 | Pull stud BT50 | - | - | - | | Z135 BT50 |