

Metric Products

The entire content of this chapter can be found
in the Metric Catalog.

Use the QR code or the link shown below.



<https://cutting.tools/us/en/digitalcatalogmetric>



| | | | |
|-----------------------------------|----------------|---|-----------|
| Solid drilling and bore machining | Metric Catalog | HSS drilling | 1 |
| | Metric Catalog | Solid carbide drilling | 2 |
| | | Indexable drilling | 3 |
| | | Reaming and Countersinking | 4 |
| | | Indexable Boring | 5 |
| Threading | Metric Catalog | Taps and thread formers | 6 |
| | Metric Catalog | Circular and Thread Milling | 7 |
| | Metric Catalog | Thread turning | 8 |
| Turning | | Indexable Turning | 9 |
| | | Multifunction | 10 |
| | | Parting and Grooving | 11 |
| | Metric Catalog | Miniature turning tools | 12 |
| Milling | Metric Catalog | HSS Milling Cutters | 13 |
| | | Solid Milling | 14 |
| | | Indexable Milling | 15 |
| Clamping technology | | Adaptors and Accessories | 16 |
| | Metric Catalog | Workpiece clamping | 17 |
| | | Material examples and article no. Index | 18 |

Table of contents

| | |
|--|-------|
| Symbol explanation | 4 |
| Tool types/coloured rings | 5 |
| Thread types/chamfer forms/cutting materials | 6 |
| Application areas/special features | 7 |
| Toolfinder | 8+9 |
| Taps Overview | 10–15 |
| Product program | 16–99 |
| Technical Information | |
| Thread core hole diameter for tapered threads | 100 |
| Tapped hole pilot diameter | 101 |
| Thread former pilot hole diameter | 102 |
| Thread tolerances and recommended manufacturing tolerances | 103 |
| Thread formers – further information | 104 |
| Troubleshooting | 105 |
| Coatings | 106 |

WNT \ Performance

Premium quality tools for high performance.



The premium quality tools from the **WNT Performance** product line have been designed for specific applications and are distinguished by their outstanding performance. If you make high demands on the performance of your production and want to achieve the very best results, we recommend the Premium tools in this product line.

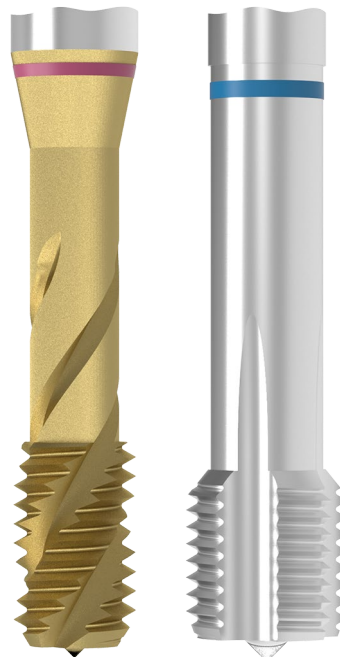
WNT \ Standard




Quality tools for standard applications.


The quality tools of the **WNT Standard** product line are high quality, powerful and reliable and enjoy the highest trust of our customers worldwide. Tools from this product line are the first choice for many standard applications and guarantee optimal results.

Symbol explanation




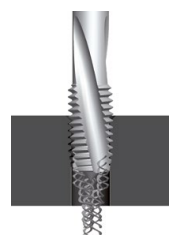



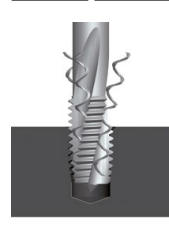

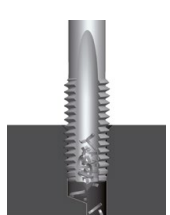


| | |
|---|--|
| M | Thread type Explanation of the thread types can be found on → Page 6 |
| UNI NCW | Application range Special feature An explanation of the areas of application/ special features can be found on → Page 7 |
| C  | Chamfer form An explanation of the chamfer forms can be found on → Page 6 |
| ISO 2 6H | Tolerance Explanation of the tolerances can be found on → Page 103 |
| TiN | Coating An explanation of the coatings can be found on → Page 106 |
|  | Cooling agent supply |












| | |
|---|---|
| Coloured ring An explanation of the coloured rings can be found on → Page 5 | |
| HSS-E | Tool Material An explanation of the cutting materials can be found on → Page 6 |
| FHA 42° | Helix angle |
| ≤ 1100 N/mm ² | Tensile strength |
|  | Through hole thread |
|  | Blind hole thread |
|  | Through hole thread and blind hole thread |

 The cutting data is highly dependent on external conditions, such as stability of the tool and workpiece clamping, material and machine type! The values indicated represent possible cutting data which may need to be corrected depending on operating conditions !

Tool types

| | | | |
|---|--|--|---|
|  <p>TruTap</p>  | <p>Through hole tap type TruTap</p> <ul style="list-style-type: none"> ▲ For through holes up to 4xD ▲ Lead Form B: 3.5–5 cutting leads, with spiral point ▲ Straight Flutes ▲ Also suitable for synchronised machining, with Weldon flat and with extra long version ▲ Due to the special geometry of the flutes, the chips are removed in the direction of cut |  <p>TruTap DL</p>  | <p>Through hole tap type TruTap DL</p> <ul style="list-style-type: none"> ▲ For through holes up to 4xD ▲ Lead Form C: 3.5–5 cutting leads, without spiral point ▲ 15° left hand helix ▲ Suitable for steel, titanium alloys and Inconel 718 ▲ The chips are discharged in the direction of cut |
|  <p>CavTap</p>  | <p>Blind hole tap type CavTap</p> <ul style="list-style-type: none"> ▲ For blind holes up to 3xD ▲ Lead Form C: 2–3 cutting leads, without spiral point ▲ Lead Form E: 1.5–2 cutting leads, without spiral point ▲ (35°, 42°, 45°, 50°) right hand helix ▲ Also suitable for synchronised machining, with Weldon flat, with extra long version and through coolant ▲ The high helix angle ensures chips are discharged effectively against the direction of cut |  <p>CavTap SL</p>  | <p>Blind hole tap type CavTap SL</p> <ul style="list-style-type: none"> ▲ For blind holes up to 2xD ▲ Lead Form C: 2–3 cutting leads, without spiral point ▲ Lead Form E: 1.5–2 cutting leads, without spiral point ▲ (15°, 25°, 30°) slow right hand helix ▲ For steel, titanium alloys and Inconel 718 ▲ Also suitable for synchronised machining, with extra long version and through coolant ▲ Also suitable for difficult operating conditions such as cross holes |
|  <p>DuoTap</p>  | <p>Through and blind hole tap Type DuoTap</p> <ul style="list-style-type: none"> ▲ For blind and through holes up to 2xD ▲ Lead Form C: 2–3 cutting leads, without spiral point ▲ Lead Form D: 3.5–5 cutting leads, without spiral point ▲ Lead Form E: 1.5–2 cutting leads, without spiral point ▲ Straight Flutes ▲ For steel, short chipping and hardened materials to 55 (62) HRc ▲ Also with extra long version and through coolant |  <p>DuoForm</p>  | <p>Thread former type DuoForm</p> <ul style="list-style-type: none"> ▲ For blind and through holes up to 3xD ▲ Lead Form C: 2–3 cutting leads, without spiral point ▲ For cold formable materials up to 1400 N/mm² ▲ Suitable for synchronised machining, with lubrication grooves and internal cooling |

Coloured rings

| | | |
|---|---|---|
|  <p>ST</p> <p>for steel up to 750 N/mm²</p> <p>ST application area: uncoated taps for steels up to a tensile strength of 750 N/mm²</p> |  <p>VA</p> <p>for corrosion and acid-resistant steels</p> <p>VA application area: for stainless steels</p> |  <p>HT</p> <p>for hardened steels</p> <p>HT application area: for hard machining</p> |
|  <p>ST</p> <p>VG</p> <p>for steel to 1100 N/mm²</p> <p>ST and VG application area: coated taps for steels up to a tensile strength of 1100 N/mm²</p> |  <p>Ti</p> <p>Ni</p> <p>for heat resistant alloys</p> <p>Ti and Ni application area: for heat-resistant steels, titanium and Inconel</p> |  <p>NW</p> <p>Ms</p> <p>Soft</p> <p>AMPCO</p> <p>for aluminium and non-ferrous metal</p> <p>NW, Soft, Ms and AMPCO application area: for aluminium, short-chipping brass and soft materials</p> |
|  <p>HR</p> <p>for steel up to 1400 N/mm²</p> <p>HR application area: for steels up to a tensile strength of 1400 N/mm²</p> |  <p>GG</p> <p>for cast iron materials</p> <p>GG application area: for cast iron materials</p> |  <p>UNI</p> <p>for universal application up to 1100 N/mm²</p> <p>UNI application area: for universal application</p> |

Thread types

| | | |
|---------------|--|--|
| M | ISO metric coarse thread DIN 13 | |
| MF | ISO Metric fine thread DIN 13 | |
| G | Whitworth pipe thread DIN EN ISO 228 | |
| UNC | Unified coarse thread ASME B1.15 and ISO 3161 | |
| UNF | Unified fine thread ASME B1.1 | |
| EG M | ISO Metric coarse thread for wire inserts DIN 8140-2 | |
| EG UNC | EG Unified coarse thread for wire inserts ASME B18.29.1 | |
| EG UNF | EG Unified fine thread for wire inserts ASME B18.29.1 | |
| UNJC | Unified coarse thread ASME B1.15 and ISO 3161 | |
| UNJF | Unified extra fine thread ASME B1.15 and ISO 3161 | |
| BSW | Whitworth thread BS84 | |
| NPT | American taper pipe thread with sealing (1:16) ANSI/ASME B1.20.1 | |
| NPTF | American taper pipe thread with sealing (1:16) ANSI/ASME B1.20.3 | |
| Rc | Whitworth taper pipe thread (1:16) DIN EN 10226-2 (ISO7-1) | |
| Rp | Cylindrical Whitworth coarse thread DIN EN 10226-1 (ISO7-1) | |

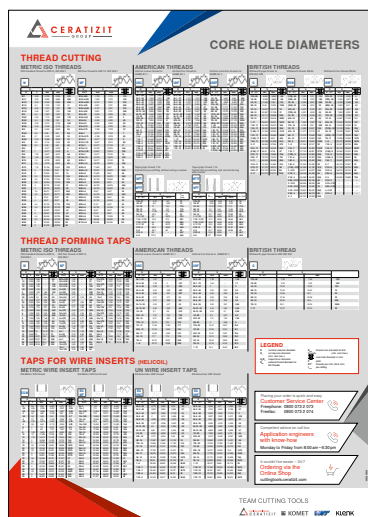
These thread types, as well as hand taps and dies, are available in the online shop.

Chamfer forms

| | |
|--|---|
| | Form B (with spiral point, 4–5 thread lead) |
| | Form C (without spiral point, 2–3 thread lead) |
| | Form D (without spiral point, 4–5 thread lead) |
| | Form E (without spiral point, 1.5–2 thread lead) |

Cutting materials

| | |
|----------------------|--|
| HSS | High-speed steel |
| HSS-E | High-performance high speed steel |
| HSS-E / HM | HSS-E base support material cutting/forming medium: HM |
| HSS-PM | High-performance sintered high-speed steel |
| Solid carbide | Solid carbide |







A must-have for your production processes!

Thread core hole diameters at a glance thanks to the CERATIZIT workshop poster!

To receive a copy in your national language, please contact your sales representative.

Application areas

| WNT \ Performance | |
|---|--|
| UNI | for universal application up to 1100 N/mm ² |
| ST | for good quality free machining steel |
| FE | Dies for steel |
| VG | for tempered and heat-resistant steels < 1100 N/mm ² |
| HR | for high-tensile steels < 1400 N/mm ² |
| VA | for stainless and acid-resistant steels up to 1100 N/mm ² |
| GG | for cast iron |
| NW | For aluminium |
| Soft | For soft materials |
| Ms | for short chipping brass |
| AMPCO | For Ampco alloys  |
| Ti | For titanium and titanium alloys |
| Ni | special for Inconel 718 |
| HT | for hardened steel and chilled iron up to 55 HRc |
| EC | DuoForm thread former for universal use |
| NEO | DuoForm thread former for heat-resistant alloys |
| ERGO | Hand Taps for stainless, heat-resistant and heat-treated steels up to 1100 N/mm ²  |
| ERGO F.T. | Hand tap for steel up to 1400 N/mm ² , wolfram, chilled iron  |
|  | Tools for these application areas are available in the online shop. |

| WNT \ Standard | |
|----------------|--|
| UNI | for universal application up to 1000 N/mm ² |
| FE | for steel to 850 N/mm ² |
| FE-HF | for high-tensile steel to 1100 N/mm ² |
| VA | for corrosion and acid-resistant steels |
| GG | for cast iron |
| AL | for aluminium and aluminium alloys |

Special Features

| | |
|------------------------|---|
| AUT | short version for automatic use |
| AZ | with intermittent teeth, reduces friction |
| CNC | for synchronised CNC machining with minimum length compensation chuck |
| DRY | for dry machining or minimum quantity lubrication (MMS) |
| EL | extra long, with double overall length |
| ES | extra short |
| HML | with soldered-in carbide strips for a higher cutting speed |
| LH | for left hand threads |
| MMB | Machine taps |
| NC | for synchronised CNC machining with minimum length compensation chuck |
| NCW | with Weldon flat for synchronised CNC machining without length compensation chuck |
| R_z=1 | Lapped Dies |
| S | with back taper, for deep threads |
| SN | Thread formers with lubrication grooves |
| TS | for high-speed machining, up to 100 m/min. |





Toolfinder


| | Mechining | Application range | WNT \ Standard | | | | |
|--|-----------|-------------------|----------------|----|---|-----|-----|
| | | | M | MF | G | UNC | UNF |


Thread formers

| | | | | | | | | | |
|-----|-----------------------------|---|-----|----|----|--|--|--|--|
| UNI | for cold-formable materials |  | UNI | 54 | 72 | | | | |
|-----|-----------------------------|---|-----|----|----|--|--|--|--|

HSS taps

| | | | | | | | | | |
|-----|---|---|-------|-------|-------|----|----|----|---|
| UNI | for universal use up to 1000 N/mm ² WNT Standard up to 1100 N/mm ² WNT Performance |  | UNI | 26+27 | 59+60 | 74 | 81 | 89 | |
| | |  | UNI | 42+43 | 65 | 77 | 83 | 92 | |
| P | for steels up to 850 N/mm ² WNT Standard up to 1100 N/mm ² WNT Performance |  | FE | 27 | 60 | | | | |
| | |  | FE | 43 | 66 | | | | 23 282... 23 283...  |
| | |  | | | | | | | |
| P | for high-strength steels up to 1100 N/mm ² WNT Standard up to 1400 N/mm ² WNT Performance |  | FE-HF | 27 | | | 81 | | |
| | |  | FE-HF | 43 | | | 83 | | |
| | |  | | | | | | | |
| M | for corrosion and acid-resistant steels |  | VA | 28 | 60 | | 81 | | |
| | |  | VA | 43+44 | 67 | | 83 | 92 | |
| K | for cast iron materials |  | GG | 50 | | | | | |
| N | for aluminium and non-ferrous metal |  | AL | 28 | | | | | |
| | |  | AL | 44 | | | | | |
| | |  | | | | | | | |
| S | for heat-resistant materials |  | | | | | | | |
| | |  | | | | | | | |
| H | Hard materials |  | | | | | | | |

 → Page 10–15
Here you will find the taps overview with tools for other applications.

 This article can be found in our online shop at cuttingtools.ceratizit.com

| | | WNT \ Performance | | | | | | | | | | | | | | |
|-----------|-------------------|-------------------|------|---------------|-------|---------------|--------|------|-----|--------|------|-----|-----|------|----|----------------------------|
| Tool type | Application range | M | EG M | MF | G | UNC | EG UNC | UNJC | UNF | EG UNF | UNJF | BSW | NPT | NPTF | Rp | Rc |
| DuoForm | EC | 51+52 | | 71 | 79 | 84 | | | 93 | | | | | | | |
| TruTap | UNI | 16-18 | 55 | 57+58 | 73 | 80 | 85 | | 88 | 94 | | | | | | 22 626... 22 627... |
| CavTap | UNI | 29-31 | 56 | 61+62 | 75+76 | 82 | 86 | | 90 | 95 | | | | | | 22 628... 22 629... |
| TruTap | ST | 19+20 | | 58 | | | | | | | | | | | | |
| CavTap | ST | 32+33 | | | 76 | | | | | | | | | | | |
| DuoTap | ST | 45+46 | | | | | | | | | | | 98 | | | 22 367... 22 382... |
| | | | | | | | | | | | | | | | | 22 381... |
| | | | | | | | | | | | | | | | | 22 389... |
| TruTap | HR | 20 | | | | | | | | | | | | | | |
| CavTap | HR | 34 | | | | | | | | | | | | | | |
| DuoTap | HR | 45+46 | | 68+69 | 78 | | | | | | | | | | | |
| TruTap | VA | 21 | | | 73 | 80 | | | | | | | | | | |
| CavTap | VA | 35 | | | 76 | 82 | | | 90 | | | | 96 | | | |
| DuoTap | GG | 47 | | 22 173... | | | | | | | | | | | | |
| TruTap | NW | | | | | | | | | | | | | | | |
| CavTap | NW | 36 | | | | | | | | | | | | | | |
| DuoTap | AMPCO | 22 030... | | | | | | | | | | | | | | |
| TruTap | Ti | 22 | | | | 80 | | | | | | | | | | 22 167... |
| CavTap SL | Ti | 37 | | | | 22 262... | | 87 | 91 | | | | | | | 22 168... |
| DuoTap | HT | 48 | | | | | | | | | | | | | | |

→ Page 99
Here you will find shank extensions for taps.

Thread-cutting oils can be found in our online shop at cuttingtools.ceratizit.com

Taps Overview

| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated <input checked="" type="checkbox"/> uncoated <input type="checkbox"/> | Coolant | WNT \ Performance | WNT \ Standard |
|-------------------------------------|-----------------------------------|--------------|---------------------------------|-----------------|--|---------|----------------------|----------------|
| M | Metric ISO standard thread | | | | | | | |
| | UNI – Through hole thread | | | | | | | |
| UNI | TruTap | B 4-5 | ISO 2 6H ISO 3 6G 7G | HSS-E | <input checked="" type="checkbox"/> | | 16+17 | |
| UNI CNC | TruTap | B 4-5 | ISO 2X 6HX ISO 3X 6GX 7GX | HSS-E | <input checked="" type="checkbox"/> | | 18 | |
| UNI NCW | TruTap | B 4-5 | ISO 2 6H | HSS-PM | <input checked="" type="checkbox"/> | | 18 | |
| UNI EL | TruTap | B 4-5 | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | | 24 | |
| UNI | | B 4-5 | ISO 2 6H | HSS-E HSS-PM | <input checked="" type="checkbox"/> | | 26 | |
| UNI NC | | B 4-5 | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | | 27 | |
| UNI NCW | | B 4-5 | ISO 2 6H | HSS-PM | <input checked="" type="checkbox"/> | | 27 | |
| | UNI – Blind hole thread | | | | | | | |
| UNI | CavTap | C 2-3 | ISO 2 6H 7G | HSS-E | <input checked="" type="checkbox"/> | | 29 | |
| UNI | CavTap | E 1,5-2 | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | | 30 | |
| UNI | | C 2-3 | ISO 2 6H | HSS-E HSS-PM | <input checked="" type="checkbox"/> | | 42 | |
| UNI NC | | C 2-3 | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | | 42 | |
| UNI NCW | CavTap | C 2-3 | ISO 2 6H | HSS-PM | <input checked="" type="checkbox"/> | | 30 | |
| UNI NCW | | C 2-3 | ISO 2 6H | HSS-PM | <input checked="" type="checkbox"/> | | 43 | |
| UNI CNC | CavTap | C 2-3 | ISO 2X 6HX ISO 2 6H 7G | HSS-E | <input checked="" type="checkbox"/> | | 31 | |
| UNI CNC | CavTap | E 1,5-2 | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | | 31 | |
| UNI CNC | CavTap | C 2-3 | ISO 3 6G | HSS-E | <input checked="" type="checkbox"/> | | 22 588..., 22 589... | |
| UNI | CavTap | C 2-3 | ISO 1 4H | HSS-E | <input checked="" type="checkbox"/> | | 22 528... | |
| UNI | CavTap | E 1,5-2 | ISO 3 6G | HSS-E | <input checked="" type="checkbox"/> | | 22 530... | |
| UNI S | CavTap | C 2-3 | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | | 22 536..., 22 537... | |
| UNI ES | CavTap | E 1,5-2 | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | | 38 | |
| UNI EL | CavTap | C 2-3 | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | | 40 | |
| UNI | CavTap SL | C 2-3 | ISO 2 6H | HSS-E | <input type="checkbox"/> | | 22 516... | |

| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated <input checked="" type="checkbox"/> uncoated <input type="checkbox"/> | Coolant | WNT \ Performance | WNT \ Standard |
|-------------------------------------|-----------------------------------|--------------|------------|---------------|--|--------------------------|----------------------|----------------|
| M | Metric ISO standard thread | | | | | | | |
| | P – Through hole thread | | | | | | | |
| ST | TruTap | B 4-5 | ISO 2 6H | HSS-E | <input type="checkbox"/> | | 19 | |
| ST LH | TruTap | B 4-5 | ISO 2 6H | HSS-E | <input type="checkbox"/> | | 19 | |
| ST | TruTap | B 4-5 | ISO 1 4H | HSS-E | <input type="checkbox"/> | | 22 002..., 22 003... | |
| ST | TruTap | B 4-5 | ISO 3 6G | HSS-E | <input type="checkbox"/> | | 22 004... | |
| ST TS | TruTap | B 4-5 | ISO 2X 6HX | HSS-E | <input checked="" type="checkbox"/> | | 20 | |
| HR | TruTap | B 4-5 | ISO 2X 6HX | HSS-PM | <input checked="" type="checkbox"/> | | 20 | |
| VG | TruTap | B 4-5 | ISO 2X 6HX | HSS-E | <input checked="" type="checkbox"/> | | 20 | |
| ST EL | TruTap | B 4-5 | ISO 2 6H | HSS-E | <input type="checkbox"/> | | 24 | |
| ST MMB | | ≈ 20 | ISO 2 6H | HSS-E | <input type="checkbox"/> | | 25 | |
| FE | | B 4-5 | ISO 2 6H | HSS-E | <input type="checkbox"/> | | 27 | |
| FE-HF | | B 4-5 | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | | 27 | |
| | P – Blind hole thread | | | | | | | |
| ST | CavTap | C 2-3 | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 33 | |
| ST | CavTap | C 2-3 | ISO 3 6G | HSS-E | <input type="checkbox"/> | | 22 134..., 22 135... | |
| ST CNC | CavTap SL | C 2-3 | ISO 2X 6HX | HSS-E | <input checked="" type="checkbox"/> | | 32 | |
| ST ES | CavTap SL | C 2-3 | ISO 2 6H | HSS-E | <input type="checkbox"/> | | 39 | |
| ST EL | CavTap | C 2-3 | ISO 2 6H | HSS-E | <input type="checkbox"/> | | 40 | |
| ST EL | CavTap SL | E 1,5-2 | ISO 2 6H | HSS-E | <input type="checkbox"/> | | 41 | |
| HR | CavTap SL | C 2-3 | ISO 2 6H | HSS-PM | <input checked="" type="checkbox"/> | | 32 | |
| HR | CavTap | C 2-3 | ISO 2 6H | HSS-PM | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 34 | |

This article can be found in our online shop at cuttingtools.ceratizit.com

Taps Overview

| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated uncoated | Coolant | WNT \ Performance | WNT \ Standard |
|-------------------------------------|--|--------------|------------|-----------------|-------------------------------------|--------------------------|-------------------|----------------------|
| M | Metric ISO standard thread | | | | | | | |
| FE | | | ISO 2 6H | HSS-E | <input type="checkbox"/> | | | 43 |
| FE-HF | | | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | | | 43 |
| | P – Blind hole thread | | | | | | | |
| ST | DuoTap | | ISO 2X 6HX | HSS-E | <input type="checkbox"/> | | | 45+46 |
| ST AZ | DuoTap | | ISO 2X 6HX | HSS-E | <input type="checkbox"/> | | | 22 111..., 22 113... |
| HR | DuoTap | | ISO 2X 6HX | HSS-E | <input checked="" type="checkbox"/> | | | 45+46 |
| HR EL | DuoTap | | ISO 2X 6HX | HSS-E | <input checked="" type="checkbox"/> | | | 49 |
| | M – Through hole thread | | | | | | | |
| VA | TruTap | | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | | | 21 |
| VA | | | ISO 2 6H | HSS-PM HSS-E | <input checked="" type="checkbox"/> | | | 28 |
| | M – Blind hole thread | | | | | | | |
| VA | CavTap | | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | | | 35 |
| VA | CavTap | | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | | | 35 |
| VA | | | ISO 2 6H | HSS-E HSS-PM | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | 43+44 |
| | K – Through hole thread and blind hole thread | | | | | | | |
| GG | DuoTap | | ISO 2X 6HX | HSS-E | <input checked="" type="checkbox"/> | | | 47 |
| GG | | | ISO 2X 6HX | HSS-E | <input checked="" type="checkbox"/> | | | 50 |
| | N – Through hole thread | | | | | | | |
| Soft | TruTap | | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | | | 22 305... |
| AL | | | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | 28 |
| | N – Blind hole thread | | | | | | | |
| Soft | CavTap | | ISO 2 6H | HSS-E | <input type="checkbox"/> | | | 36 |
| NW | CavTap | | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | | | 36 |
| AL | | | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | 44 |

| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated uncoated | Coolant | WNT \ Performance | WNT \ Standard |
|-------------------------------------|--|--------------|--------------------------|---------------|-------------------------------------|---------|-------------------|----------------|
| M | Metric ISO standard thread | | | | | | | |
| | N – Through hole thread and blind hole thread | | | | | | | |
| AMPCO | DuoTap | | ISO 2X 6HX | HSS-PM | <input type="checkbox"/> | | | 22 030... |
| Ms | DuoTap | | ISO 2X 6HX | HSS-E | <input type="checkbox"/> | | | 22 119... |
| | S – Through hole thread | | | | | | | |
| Ti | TruTap | | ISO 1X 4HX ISO 2X 6HX | HSS-PM | <input checked="" type="checkbox"/> | | | 22 |
| Ti | TruTap DL | | ISO 2X 6HX | HSS-E | <input checked="" type="checkbox"/> | | | 23 |
| Ni | TruTap DL | | ISO 2X 6HX | HSS-E | <input checked="" type="checkbox"/> | | | 23 |
| | S – Blind hole thread | | | | | | | |
| Ti | CavTap SL | | ISO 2X 6HX | HSS-PM | <input checked="" type="checkbox"/> | | | 37 |
| Ni | CavTap SL | | ISO 2X 6HX | HSS-PM | <input checked="" type="checkbox"/> | | | 37 |
| | H – Through hole thread and blind hole thread | | | | | | | |
| HT | DuoTap | | ISO 2X 6HX | VHM | <input checked="" type="checkbox"/> | | | 48 |
| HT | DuoTap | | ISO 2X 6HX | HSS-PM | <input checked="" type="checkbox"/> | | | 48 |
| | Machine thread formers | | | | | | | |
| EC | DuoForm | | ISO 2X 6HX | HSS-E | <input checked="" type="checkbox"/> | | | 51 |
| EC SN | DuoForm | | ISO 2X 6HX ISO 3X 6GX | HSS-E | <input checked="" type="checkbox"/> | | | 52 |
| NW HML | DuoForm | | ISO 2X 6HX | HSS-E | <input type="checkbox"/> | | | 51 |
| NEO SN | DuoForm | | ISO 2X 6HX | HSS-PM | <input checked="" type="checkbox"/> | | | 53 |
| UNI | | | ISO 2X 6HX | HSS-E | <input checked="" type="checkbox"/> | | | 54 |
| UNI SN | | | ISO 2X 6HX | HSS-E | <input checked="" type="checkbox"/> | | | 54 |
| | Hand taps | | | | | | | |
| ST | | | ISO 2X 6HX | VHM | <input type="checkbox"/> | | | 22 800... |
| ST | | | ISO 2X 6HX | HSS-E | <input type="checkbox"/> | | | 22 010... |
| ERGO | | | ISO 2X 6HX | HSS-E | <input type="checkbox"/> | | | 22 012... |
| ERGO F.T. | | | ISO 2X 6HX | HSS-E | <input checked="" type="checkbox"/> | | | 22 013... |

Taps Overview

| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated uncoated | Coolant | WNT \ Performance | WNT \ Standard |
|-------------------------------------|-----------------------------------|------------------|-----------|--------------------------|--------------------------|----------------------|-------------------|----------------|
| M | Metric ISO standard thread | | | | | | | |
| | Dies | | | | | | | |
| FE | | ISO 6g ISO 6e | HSS | <input type="checkbox"/> | <input type="checkbox"/> | 22 700..., 22 701... | | |
| FE | | ISO 6g | HSS | <input type="checkbox"/> | <input type="checkbox"/> | 23 910... | | |
| FE LH | | ISO 6g | HSS | <input type="checkbox"/> | <input type="checkbox"/> | 22 702... | | |
| VA | | ISO 6g | HSS-E | <input type="checkbox"/> | <input type="checkbox"/> | 22 704... | | |
| VA R _z =1 | | ISO 6g | HSS-E | <input type="checkbox"/> | <input type="checkbox"/> | 22 705... | | |

| | | | | | | | | |
|-------------|--|--|--------|-------|-------------------------------------|----|--|--|
| EG M | ISO metric coarse thread for wire inserts | | | | | | | |
| | UNI – Through hole thread | | | | | | | |
| UNI | TruTap | | 6H mod | HSS-E | <input checked="" type="checkbox"/> | 55 | | |
| | UNI – Blind hole thread | | | | | | | |
| UNI | CavTap | | 6H mod | HSS-E | <input checked="" type="checkbox"/> | 56 | | |

| | | | | | | | | |
|-----------|----------------------------------|--|----------------------|-----------------|-------------------------------------|-----------|--|--|
| MF | Metric ISO fine thread | | | | | | | |
| | UNI – Through hole thread | | | | | | | |
| UNI | TruTap | | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | 57+58 | | |
| UNI | TruTap | | ISO 3 6G | HSS-E | <input checked="" type="checkbox"/> | 22 599... | | |
| UNI | | | ISO 2 6H | HSS-PM HSS-E | <input checked="" type="checkbox"/> | 59+60 | | |
| | UNI – Blind hole thread | | | | | | | |
| UNI | CavTap | | ISO 2 6H ISO 3 6G | HSS-E | <input checked="" type="checkbox"/> | 61 | | |
| UNI | CavTap | | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | 62 | | |
| UNI | | | ISO 2 6H | HSS-PM HSS-E | <input checked="" type="checkbox"/> | 65+66 | | |

| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated uncoated | Coolant | WNT \ Performance | WNT \ Standard |
|-------------------------------------|--|--------------|----------------|---------------|-------------------------------------|-----------|-------------------|----------------|
| MF | Metric ISO fine thread | | | | | | | |
| UNI CNC | CavTap | | ISO 3 6G | HSS-E | <input checked="" type="checkbox"/> | 22 561... | | |
| UNI CNC | CavTap | | ISO 2 6H 7G | HSS-E | <input checked="" type="checkbox"/> | 62 | | |
| UNI NC | | | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | 66 | | |
| | P – Through hole thread | | | | | | | |
| ST TS | TruTap | | ISO 2X 6HX | HSS-E | <input checked="" type="checkbox"/> | 58 | | |
| FE | | | ISO 2 6H | HSS-E | <input type="checkbox"/> | 60 | | |
| | P – Blind hole thread | | | | | | | |
| ST TS | CavTap | | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | 22 216... | | |
| ST | CavTap SL | | ISO 2 6H | HSS-E | <input type="checkbox"/> | 63 | | |
| FE | | | ISO 2 6H | HSS-E | <input type="checkbox"/> | 66 | | |
| | P – Through hole thread and blind hole thread | | | | | | | |
| ST | DuoTap | | ISO 2X 6HX | HSS-E | <input type="checkbox"/> | 22 171... | | |
| ST ES | DuoTap | | ISO 2X 6HX | HSS-E | <input type="checkbox"/> | 70 | | |
| ST LH/ES | DuoTap | | ISO 2X 6HX | HSS-E | <input type="checkbox"/> | 70 | | |
| HR | DuoTap | | ISO 2X 6HX | HSS-E | <input checked="" type="checkbox"/> | 68+69 | | |
| | M – Through hole thread | | | | | | | |
| VA | | | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | 60 | | |
| | M – Blind hole thread | | | | | | | |
| VA | CavTap | | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | 64 | | |
| VA | | | ISO 2 6H | HSS-E | <input checked="" type="checkbox"/> | 67 | | |

This article can be found in our online shop at cuttingtools.ceratizit.com

Taps Overview

| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated uncoated | Coolant | WNT \ Performance | WNT \ Standard |
|-------------------------------------|-------------------------------|--------------|------------|---------------|--------------------|---------|-------------------|----------------|
| MF | Metric ISO fine thread | | | | | | | |
| | Machine thread formers | | | | | | | |
| EC SN | DuoForm | | ISO 2X 6HX | HSS-E | ■ | | 71 | |
| EC HML | DuoForm | | ISO 2X 6HX | HSS-E | ■ | ☑ | 71 | |
| UNI SN | | | ISO 2X 6HX | HSS-E | ■ | | | 72 |
| | Dies | | | | | | | |
| FE | | | ISO 6g | HSS | □ | | 22 711... | |
| VA | | | ISO 6g | HSS-E | □ | | 22 714... | |

| | | | | | | | | |
|----------------|----------------------------------|--|------------------------|-------|---|--|----|----|
| G | Whitworth pipe thread | | | | | | | |
| | UNI - Through hole thread | | | | | | | |
| UNI | TruTap | | ISO 228 | HSS-E | ■ | | 73 | |
| UNI | | | ISO 228 | HSS-E | ■ | | | 74 |
| | UNI - Blind hole thread | | | | | | | |
| UNI | CavTap | | ISO 228 | HSS-E | ■ | | 75 | |
| UNI | CavTap | | ISO 228, ISO 228 +0,05 | HSS-E | ■ | | 75 | |
| UNI CNC | CavTap | | ISO 228 | HSS-E | ■ | | 76 | |
| UNI | | | ISO 228 | HSS-E | ■ | | | 77 |

| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated uncoated | Coolant | WNT \ Performance | WNT \ Standard |
|-------------------------------------|--|--------------|-----------|---------------|--------------------|---------|-------------------|----------------|
| G | Whitworth pipe thread | | | | | | | |
| | P - Through hole thread | | | | | | | |
| FE | | | ISO 228 | HSS-E | □ | | 23 260... | |
| | P - Blind hole thread | | | | | | | |
| ST | CavTap | | ISO 228 | HSS-E | □ | | 76 | |
| ST | CavTap SL | | ISO 228 | HSS-E | □ | | 22 353... | |
| FE | | | ISO 228 | HSS-E | □ | | 23 261... | |
| | P - Through hole thread and blind hole thread | | | | | | | |
| HR | DuoTap | | ISO 228X | HSS-E | ■ | | 78 | |
| | M - Through hole thread | | | | | | | |
| VA | TruTap | | ISO 228 | HSS-E | ■ | | 73 | |
| | M - Blind hole thread | | | | | | | |
| VA | CavTap | | ISO 228 | HSS-E | ■ | | 76 | |
| | K - Through hole thread and blind hole thread | | | | | | | |
| GG | DuoTap | | ISO 228X | HSS-E | ■ | | 22 348... | |
| | Machine thread formers | | | | | | | |
| EC SN | DuoForm | | ISO 228 | HSS-E | ■ | | 79 | |
| | Dies | | | | | | | |
| FE | | | ISO 228A | HSS | □ | | 22 741... | |

6

This article can be found in our online shop at cuttingtools.ceratizit.com

Taps Overview

| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated <input checked="" type="checkbox"/> uncoated <input type="checkbox"/> | Coolant | WNT \ Performance | WNT \ Standard |
|-------------------------------------|-----------|--------------|-----------|---------------|--|-------------------------------------|-------------------|----------------|
| UNC Unified coarse thread | | | | | | | | |
| UNI – Through hole thread | | | | | | | | |
| UNI | TruTap | B 4-5 | 2B | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 80 | |
| UNI | | B 4-5 | 2B | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 81 | |
| UNI – Blind hole thread | | | | | | | | |
| UNI | CavTap | C 2-3 | 2B | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 82 | |
| UNI | | C 2-3 | 2B | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 83 | |
| P – Through hole thread | | | | | | | | |
| FE-HF | | B 4-5 | 2B | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 81 | |
| P – Blind hole thread | | | | | | | | |
| ST | CavTap | C 2-3 | 2B | HSS-E | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 22 264... | |
| FE-HF | | C 2-3 | 2B | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 83 | |
| M – Through hole thread | | | | | | | | |
| VA | TruTap | B 4-5 | 2B | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 80 | |
| VA | | B 4-5 | 2B | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 81 | |
| M – Blind hole thread | | | | | | | | |
| VA | CavTap | C 2-3 | 2B | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 82 | |
| VA | | C 2-3 | 2B | HSS-E | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 83 | |
| S – Through hole thread | | | | | | | | |
| Ti | TruTap | B 4-5 | 2BX | HSS-PM | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 80 | |
| S – Blind hole thread | | | | | | | | |
| TI | CavTap SL | C 2-3 | 2BX | HSS-PM | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 22 262... | |
| Machine thread formers | | | | | | | | |
| EC | DuoForm | C 2-3 | 2BX | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 22 270... | |
| EC SN | DuoForm | C 2-3 | 2BX | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 84 | |

| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated <input checked="" type="checkbox"/> uncoated <input type="checkbox"/> | Coolant | WNT \ Performance | WNT \ Standard |
|-------------------------------------|-----------|--------------|-----------|---------------|--|-------------------------------------|-------------------|----------------|
| UNC Unified coarse thread | | | | | | | | |
| Dies | | | | | | | | |
| FE | | 1,5-2 | 2A | HSS | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 22 721... | |





| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated <input checked="" type="checkbox"/> uncoated <input type="checkbox"/> | Coolant | WNT \ Performance | WNT \ Standard |
|--|-----------|--------------|-----------|---------------|--|--------------------------|-------------------|----------------|
| EG UNC Unified coarse thread for wire inserts | | | | | | | | |
| UNI – Through hole thread | | | | | | | | |
| UNI | TruTap | B 4-5 | 2B mod | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 85 | |
| UNI – Blind hole thread | | | | | | | | |
| UNI | CavTap | E 1,5-2 | 2B mod | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 86 | |





| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated <input checked="" type="checkbox"/> uncoated <input type="checkbox"/> | Coolant | WNT \ Performance | WNT \ Standard |
|-------------------------------------|-----------|--------------|-----------|---------------|--|--------------------------|-------------------|----------------|
| UNJC Unified coarse thread | | | | | | | | |
| S – Blind hole thread | | | | | | | | |
| Ti | CavTap SL | C 2-3 | 3BX | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 87 | |







| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated <input checked="" type="checkbox"/> uncoated <input type="checkbox"/> | Coolant | WNT \ Performance | WNT \ Standard |
|-------------------------------------|-----------|--------------|-----------|---------------|--|-------------------------------------|-------------------|----------------|
| UNF Unified fine thread | | | | | | | | |
| UNI – Through hole thread | | | | | | | | |
| UNI | TruTap | B 4-5 | 2B | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 88 | |
| UNI | | B 4-5 | 2B | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 89 | |
| UNI – Blind hole thread | | | | | | | | |
| UNI | CavTap | C 2-3 | 2B | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 90 | |
| UNI | CavTap | E 1,5-2 | 2B +0,05 | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 90 | |
| UNI | | C 2-3 | 2B | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 92 | |
| M – Blind hole thread | | | | | | | | |
| VA | CavTap | E 1,5-2 | 2B | HSS-E | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 90 | |
| VA | | C 2-3 | 2B | HSS-E | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 92 | |







This article can be found in our online shop at cuttingtools.ceratizit.com









Taps Overview








| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated uncoated | Coolant | WNT \ Performance | WNT \ Standard |
|---|------------------------------|---|------------|---------------|--------------------|---------|-------------------|----------------|
| UNF | Unified fine thread | | | | | | | |
|  | S – Blind hole thread | | | | | | | |
| Ti | CavTap SL |  | 2BX 3BX | HSS-PM | ■ | | 91 | |
|  | Thread formers | | | | | | | |
| EC SN | DuoForm |  | 2BX | HSS-E | ■ | | 93 | |




| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated uncoated | Coolant | WNT \ Performance | WNT \ Standard |
|---|---|---|-----------|---------------|--------------------|---------|-------------------|----------------|
| EG UNF | Unified Fine Thread for wire inserts | | | | | | | |
|  | UNI – Through hole thread | | | | | | | |
| UNI | TruTap |  | 2B | HSS-E | ■ | | 94 | |
|  | UNI – Blind hole thread | | | | | | | |
| UNI | CavTap |  | 2B | HSS-E | ■ | | 95 | |




| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated uncoated | Coolant | WNT \ Performance | WNT \ Standard |
|---|----------------------------------|---|-----------|---------------|--------------------|---------|--|----------------|
| UNJF | Unified extra-fine thread | | | | | | | |
|  | S – Through hole thread | | | | | | | |
| Ti | TruTap DL |  | 3BX | HSS-E | ■ | | 22 167...  | |
|  | S – Blind hole thread | | | | | | | |
| Ti | CavTap SL |  | 3BX | HSS-E | ■ | | 22 168...  | |

| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated uncoated | Coolant | WNT \ Performance | WNT \ Standard |
|---|----------------------------------|---|-----------|---------------|--------------------|---------|---|----------------|
| BSW | Whitworth thread | | | | | | | |
|  | UNI – Through hole thread | | | | | | | |
| UNI | TruTap |  | med. | HSS-E | ■ | | 22 626..., 22 627...  | |
|  | UNI – Blind hole thread | | | | | | | |
| UNI | CavTap |  | med. | HSS-E | ■ | | 22 628..., 22 629...  | |



| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated uncoated | Coolant | WNT \ Performance | WNT \ Standard |
|---|--|--|-----------|---------------|--------------------|---------|---|----------------|
| NPT | American taper pipe thread | | | | | | | |
|  | P – Through hole thread and blind hole thread | | | | | | | |
| ST ES | DuoTap |  | | HSS-E | □ | | 98 | |
| VG | DuoTap |  | | HSS-E | □ | | 97 | |
| VG AZ | DuoTap |  | | HSS-E | □ | | 22 377..., 22 378...  | |
|  | M – Blind hole thread | | | | | | | |
| VA | CavTap |  | | HSS-E | ■ | | 96 | |
| VA | CavTap |  | | HSS-E | ■ | | 96 | |


| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated uncoated | Coolant | WNT \ Performance | WNT \ Standard |
|---|--|--|-----------|---------------|--------------------|---------|--|----------------|
| NPTF | American taper pipe thread | | | | | | | |
|  | P – Through hole thread and blind hole thread | | | | | | | |
| ST | DuoTap |  | | HSS-E | □ | | 22 382...  | |
| VG | DuoTap |  | | HSS-E | □ | | 22 380...  | |
| ST ES | DuoTap |  | | HSS-E | □ | | 22 367...  | |

| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated uncoated | Coolant | WNT \ Performance | WNT \ Standard |
|---|--|--|-----------|---------------|--------------------|---------|--|----------------|
| Rp | Cylindrical Whitworth thread | | | | | | | |
|  | P – Through hole thread and blind hole thread | | | | | | | |
| ST | DuoTap |  | X | HSS-E | □ | | 22 381...  | |

| Application Area / Special Features | Tool type | Chamfer form | Tolerance | Tool Material | coated uncoated | Coolant | WNT \ Performance | WNT \ Standard |
|---|--|--|-----------|---------------|--------------------|---------|--|----------------|
| Rc | Tapered Whitworth thread | | | | | | | |
|  | P – Through hole thread and blind hole thread | | | | | | | |
| ST | DuoTap |  | | HSS-E | □ | | 22 389...  | |

Accessories

| | |
|-------------------------------------|--|
| Shank extensions for taps | 99 |
| Thread cutting oil, chlorine free | 22 950...  |
| Thread cutting paste, chlorine free |  |

 This article can be found in our online shop at cuttingtools.ceratzit.com