

EMUGE
FRANKEN



EMUGE

MultiTAP™

ONE TAP FOR
MULTIPLE MATERIALS

The Original

MultiTAP™ by EMUGE

From cut taps to form taps, extended lengths to different coatings, EMUGE-FRANKEN, the inventor and leader of the high performance multi-purpose tap, offers the broadest line in the industry.

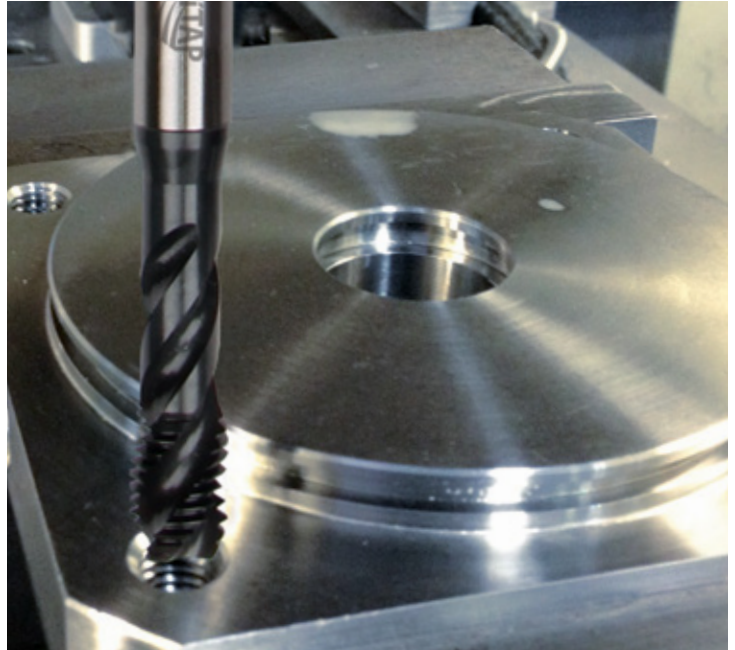
*MultiTAP cuts a wide range of materials – carbon steel, steel alloys, stainless steel, aluminum, cast iron, copper, brass, and bronze. And MultiTAP is uniquely designed to produce threads within both **2B** and **3B** classes of fit, eliminating the guesswork required when calculating H-limits.*

MultiTAP features an innovative geometric design and a special base material and surface treatment, allowing it to handle numerous materials and applications. EMUGE-FRANKEN has designed MultiTAP as an **affordable**, yet high performance tapping solution.

MultiTAP will significantly improve thread quality and boost output while reducing production costs, handling most common materials and applications. **MultiTAP eliminates the need to stock numerous types of taps in the tool crib.**

Since EMUGE-FRANKEN introduced MultiTAP, imitators are trying to follow. But MultiTAP users know what works best. ***MultiTAP is the ONE.***

Made in Germany
by EMUGE-FRANKEN





***MultiTAP™ is
GUARANTEED!***

If MultiTAP doesn't outperform your current taps in a range of common materials, EMUGE will refund your money.

See MultiTAP in action online at: www.emuge.com



- MultiTAP spiral point taps are constructed of a premium Cobalt high speed steel (HSS-E) with optional surface treatment NT2 (nitriding and steam oxidization) or TiCN coating.
- All taps are made with EMUGE's trademark long shanks – **DIN length for extra reach**. UNC and UNF taps are DIN length – ANSI shanks. Metric taps are DIN length – DIN shanks or DIN length – ANSI shanks.

UNC – PLUG STYLE – 2B/3B Class of Fit

| DIN / ANSI | | | | |
|------------|----------|-----------------|--------------------|---------------------|
| Size | OAL (in) | Shank Dia. (in) | NT2 Coated EDP No. | TiCN Coated EDP No. |
| #4-40 | 2.205 | 0.141 | BU497300.5003 | BU499300.5003 |
| #5-40 | 2.205 | 0.141 | BU497300.5004 | BU499300.5004 |
| #6-32 | 2.205 | 0.141 | BU497300.5005 | BU499300.5005 |
| #8-32 | 2.480 | 0.168 | BU497300.5006 | BU499300.5006 |
| #10-24 | 2.756 | 0.194 | BU497300.5007 | BU499300.5007 |
| #12-24 | 3.150 | 0.220 | BU497300.5008 | BU499300.5008 |
| 1/4-20 | 3.150 | 0.255 | BU497300.5009 | BU499300.5009 |
| 5/16-18 | 3.543 | 0.318 | BU497300.5010 | BU499300.5010 |
| 3/8-16 | 3.937 | 0.381 | BU497300.5011 | BU499300.5011 |
| 7/16-14 | 3.937 | 0.323 | CU497300.5012 | CU499300.5012 |
| 1/2-13 | 4.331 | 0.367 | CU497300.5013 | CU499300.5013 |
| 9/16-12 | 4.331 | 0.429 | CU497300.5014 | CU499300.5014 |
| 5/8-11 | 4.331 | 0.480 | CU497300.5015 | CU499300.5015 |
| 3/4-10 | 4.921 | 0.590 | CU497300.5016 | CU499300.5016 |
| 7/8-9 | 5.512 | 0.697 | CU497300.5017 | CU499300.5017 |
| 1"-8 | 6.299 | 0.800 | CU497300.5018 | CU499300.5018 |

UNF – PLUG STYLE – 2B/3B Class of Fit

| | | | | |
|---------|-------|-------|---------------|---------------|
| #4-48 | 2.205 | 0.141 | BU497300.5037 | BU499300.5037 |
| #5-44 | 2.205 | 0.141 | BU497300.5038 | BU499300.5038 |
| #6-40 | 2.205 | 0.141 | BU497300.5039 | BU499300.5039 |
| #8-36 | 2.480 | 0.168 | BU497300.5040 | BU499300.5040 |
| #10-32 | 2.756 | 0.194 | BU497300.5041 | BU499300.5041 |
| #12-28 | 3.150 | 0.220 | BU497300.5042 | BU499300.5042 |
| 1/4-28 | 3.150 | 0.255 | BU497300.5043 | BU499300.5043 |
| 5/16-24 | 3.543 | 0.318 | BU497300.5044 | BU499300.5044 |
| 3/8-24 | 3.937 | 0.381 | BU497300.5045 | BU499300.5045 |
| 7/16-20 | 3.937 | 0.323 | CU497300.5046 | CU499300.5046 |
| 1/2-20 | 3.937 | 0.367 | CU497300.5047 | CU499300.5047 |
| 9/16-18 | 3.937 | 0.429 | CU497300.5048 | CU499300.5048 |
| 5/8-18 | 3.937 | 0.480 | CU497300.5049 | CU499300.5049 |
| 3/4-16 | 4.331 | 0.590 | CU497300.5050 | CU499300.5050 |
| 7/8-14 | 4.921 | 0.697 | CU497300.5051 | CU499300.5051 |
| 1"-12 | 5.512 | 0.800 | CU497300.5052 | CU499300.5052 |

METRIC COARSE – PLUG STYLE – 6H Class of Fit

| DIN / ANSI | | | | | DIN / DIN | | | | |
|-------------|----------|-----------------|--------------------|---------------------|-------------|----------|-----------------|--------------------|---------------------|
| Size | OAL (mm) | Shank Dia. (in) | NT2 Coated EDP No. | TiCN Coated EDP No. | Size | OAL (mm) | Shank Dia. (mm) | NT2 Coated EDP No. | TiCN Coated EDP No. |
| M 4 x 0.7 | 63 | 0.168 | BU497300.0040 | BU499300.0040 | M 4 x 0.7 | 63 | 4.5 | B1577300.0040 | B1579300.0040 |
| M 5 x 0.8 | 70 | 0.194 | BU497300.0050 | BU499300.0050 | M 5 x 0.8 | 70 | 6.0 | B1577300.0050 | B1579300.0050 |
| M 6 x 1.0 | 80 | 0.255 | BU497300.0060 | BU499300.0060 | M 6 x 1.0 | 80 | 6.0 | B1577300.0060 | B1579300.0060 |
| M 8 x 1.25 | 90 | 0.318 | BU497300.0080 | BU499300.0080 | M 8 x 1.25 | 90 | 8.0 | B1577300.0080 | B1579300.0080 |
| M 10 x 1.5 | 100 | 0.381 | BU497300.0100 | BU499300.0100 | M 10 x 1.5 | 100 | 10.0 | B1577300.0100 | B1579300.0100 |
| M 12 x 1.75 | 110 | 0.367 | CU497300.0112 | CU499300.0112 | M 12 x 1.75 | 110 | 9.0 | C1577300.0112 | C1579300.0112 |
| M 16 x 2.0 | 110 | 0.480 | CU497300.0116 | CU499300.0116 | M 16 x 2.0 | 110 | 12.0 | C1577300.0116 | C1579300.0116 |
| M 18 x 2.5 | 125 | 0.542 | CU497300.0118 | CU499300.0118 | M 18 x 2.5 | 125 | 14.0 | C1577300.0118 | C1579300.0118 |
| M 20 x 2.5 | 140 | 0.652 | CU497300.0120 | CU499300.0120 | M 20 x 2.5 | 140 | 16.0 | C1577300.0120 | C1579300.0120 |
| M 24 x 3.0 | 160 | 0.760 | CU497300.0124 | CU499300.0124 | M 24 x 3.0 | 160 | 18.0 | C1577300.0124 | C1579300.0124 |



- MultiTAP spiral flute taps are constructed of a premium Cobalt high speed steel (HSS-E) with optional surface treatment Ne2 (steam oxidation) or TiCN coating.
- All taps are made with EMUGE's trademark long shanks – **DIN length for extra reach**. UNC and UNF taps are DIN length – ANSI shanks. Metric taps are DIN length – DIN shanks or DIN length – ANSI shanks.

UNC – SEMI-BOTTOMING STYLE – 2B/3B Class of Fit

| DIN / ANSI | | | | |
|------------|----------|-----------------|--------------------|---------------------|
| Size | OAL (in) | Shank Dia. (in) | Ne2 Coated EDP No. | TiCN Coated EDP No. |
| #4-40 | 2.205 | 0.141 | BU533200.5003 | BU539300.5003 |
| #5-40 | 2.205 | 0.141 | BU533200.5004 | BU539300.5004 |
| #6-32 | 2.205 | 0.141 | BU533200.5005 | BU539300.5005 |
| #8-32 | 2.480 | 0.168 | BU533200.5006 | BU539300.5006 |
| #10-24 | 2.756 | 0.194 | BU533200.5007 | BU539300.5007 |
| #12-24 | 3.150 | 0.220 | BU533200.5008 | BU539300.5008 |
| 1/4-20 | 3.150 | 0.255 | BU533200.5009 | BU539300.5009 |
| 5/16-18 | 3.543 | 0.318 | BU533200.5010 | BU539300.5010 |
| 3/8-16 | 3.937 | 0.381 | BU533200.5011 | BU539300.5011 |
| 7/16-14 | 3.937 | 0.323 | CU533200.5012 | CU539300.5012 |
| 1/2-13 | 4.331 | 0.367 | CU533200.5013 | CU539300.5013 |
| 9/16-12 | 4.331 | 0.429 | CU533200.5014 | CU539300.5014 |
| 5/8-11 | 4.331 | 0.480 | CU533200.5015 | CU539300.5015 |
| 3/4-10 | 4.921 | 0.590 | CU533200.5016 | CU539300.5016 |
| 7/8-9 | 5.512 | 0.697 | CU533200.5017 | CU539300.5017 |
| 1"-8 | 6.299 | 0.800 | CU533200.5018 | CU539300.5018 |

UNF – SEMI-BOTTOMING STYLE – 2B/3B Class of Fit

| | | | | |
|---------|-------|-------|---------------|---------------|
| #4-48 | 2.205 | 0.141 | BU533200.5037 | BU539300.5037 |
| #5-44 | 2.205 | 0.141 | BU533200.5038 | BU539300.5038 |
| #6-40 | 2.205 | 0.141 | BU533200.5039 | BU539300.5039 |
| #8-36 | 2.480 | 0.168 | BU533200.5040 | BU539300.5040 |
| #10-32 | 2.756 | 0.194 | BU533200.5041 | BU539300.5041 |
| #12-28 | 3.150 | 0.220 | BU533200.5042 | BU539300.5042 |
| 1/4-28 | 3.150 | 0.255 | BU533200.5043 | BU539300.5043 |
| 5/16-24 | 3.543 | 0.318 | BU533200.5044 | BU539300.5044 |
| 3/8-24 | 3.937 | 0.381 | BU533200.5045 | BU539300.5045 |
| 7/16-20 | 3.937 | 0.323 | CU533200.5046 | CU539300.5046 |
| 1/2-20 | 3.937 | 0.367 | CU533200.5047 | CU539300.5047 |
| 9/16-18 | 3.937 | 0.429 | CU533200.5048 | CU539300.5048 |
| 5/8-18 | 3.937 | 0.480 | CU533200.5049 | CU539300.5049 |
| 3/4-16 | 4.331 | 0.590 | CU533200.5050 | CU539300.5050 |
| 7/8-14 | 4.921 | 0.697 | CU533200.5051 | CU539300.5051 |
| 1"-12 | 5.512 | 0.800 | CU533200.5052 | CU539300.5052 |

METRIC COARSE – SEMI-BOTTOMING STYLE – 6H Class of Fit

| DIN / ANSI | | | | | DIN / DIN | | | | |
|-------------|----------|-----------------|--------------------|---------------------|-------------|----------|-----------------|--------------------|---------------------|
| Size | OAL (mm) | Shank Dia. (in) | Ne2 Coated EDP No. | TiCN Coated EDP No. | Size | OAL (mm) | Shank Dia. (mm) | Ne2 Coated EDP No. | TiCN Coated EDP No. |
| M 4 x 0.7 | 63 | 0.168 | BU533200.0040 | BU539300.0040 | M 4 x 0.7 | 63 | 4.5 | B4933200.0040 | B4939300.0040 |
| M 5 x 0.8 | 70 | 0.194 | BU533200.0050 | BU539300.0050 | M 5 x 0.8 | 70 | 6.0 | B4933200.0050 | B4939300.0050 |
| M 6 x 1.0 | 80 | 0.255 | BU533200.0060 | BU539300.0060 | M 6 x 1.0 | 80 | 6.0 | B4933200.0060 | B4939300.0060 |
| M 8 x 1.25 | 90 | 0.318 | BU533200.0080 | BU539300.0080 | M 8 x 1.25 | 90 | 8.0 | B4933200.0080 | B4939300.0080 |
| M 10 x 1.5 | 100 | 0.381 | BU533200.0100 | BU539300.0100 | M 10 x 1.5 | 100 | 10.0 | B4933200.0100 | B4939300.0100 |
| M 12 x 1.75 | 110 | 0.367 | CU533200.0112 | CU539300.0112 | M 12 x 1.75 | 110 | 9.0 | C4933200.0112 | C4939300.0112 |
| M 16 x 2.0 | 110 | 0.480 | CU533200.0116 | CU539300.0116 | M 16 x 2.0 | 110 | 12.0 | C4933200.0116 | C4939300.0116 |
| M 18 x 2.5 | 125 | 0.542 | CU533200.0118 | CU539300.0118 | M 18 x 2.5 | 125 | 14.0 | C4933200.0118 | C4939300.0118 |
| M 20 x 2.5 | 140 | 0.652 | CU533200.0120 | CU539300.0120 | M 20 x 2.5 | 140 | 16.0 | C4933200.0120 | C4939300.0120 |
| M 24 x 3.0 | 160 | 0.760 | CU533200.0124 | CU539300.0124 | M 24 x 3.0 | 160 | 18.0 | C4933200.0124 | C4939300.0124 |


Spiral Point
UNC – PLUG STYLE – 2B/3B Class of Fit

| DIN / ANSI | | | |
|------------|----------|-----------------|--------------------|
| Size | OAL (in) | Shank Dia. (in) | NT2 Coated EDP No. |
| #6-32 | 4.409 | 0.141 | BU797300.5005 |
| #8-32 | 4.921 | 0.168 | BU797300.5006 |
| #10-24 | 5.512 | 0.194 | BU797300.5007 |
| 1/4-20 | 6.299 | 0.255 | BU797300.5009 |
| 5/16-18 | 7.087 | 0.318 | BU797300.5010 |
| 3/8-16 | 7.087 | 0.381 | BU797300.5011 |
| 7/16-14 | 7.874 | 0.323 | CU797300.5012 |
| 1/2-13 | 8.819 | 0.367 | CU797300.5013 |
| 5/8-11 | 8.819 | 0.480 | CU797300.5015 |

UNF – PLUG STYLE – 2B/3B Class of Fit

| | | | |
|---------|-------|-------|---------------|
| #6-40 | 4.409 | 0.141 | BU797300.5039 |
| #8-36 | 4.921 | 0.168 | BU797300.5040 |
| #10-32 | 5.512 | 0.194 | BU797300.5041 |
| 1/4-28 | 6.299 | 0.255 | BU797300.5043 |
| 5/16-24 | 7.087 | 0.318 | BU797300.5044 |
| 3/8-24 | 7.087 | 0.381 | BU797300.5045 |
| 7/16-20 | 7.874 | 0.323 | CU797300.5046 |
| 1/2-20 | 7.874 | 0.367 | CU797300.5047 |
| 5/8-18 | 7.874 | 0.480 | CU797300.5049 |

METRIC COARSE – PLUG STYLE – 6H Class of Fit

| DIN / DIN | | | |
|-------------|----------|-----------------|--------------------|
| Size | OAL (mm) | Shank Dia. (mm) | NT2 Coated EDP No. |
| M 3 x 0.5 | 100 | 3.5 | B1667300.0030 |
| M 4 x 0.7 | 125 | 4.5 | B1667300.0040 |
| M 5 x 0.8 | 140 | 6.0 | B1667300.0050 |
| M 6 x 1.0 | 160 | 6.0 | B1667300.0060 |
| M 8 x 1.25 | 180 | 8.0 | B1667300.0080 |
| M 10 x 1.5 | 200 | 7.0 | C1667300.0100 |
| M 12 x 1.75 | 224 | 9.0 | C1667300.0112 |
| M 14 x 2.0 | 224 | 11.0 | C1667300.0114 |
| M 16 x 2.0 | 224 | 12.0 | C1667300.0116 |
| M 18 x 2.5 | 250 | 14.0 | C1667300.0118 |
| M 20 x 2.5 | 280 | 16.0 | C1667300.0120 |

Spiral Flute
UNC – SEMI-BOTTOMING – 2B/3B Class of Fit

| DIN / ANSI | | | |
|------------|----------|-----------------|--------------------|
| Size | OAL (in) | Shank Dia. (in) | Ne2 Coated EDP No. |
| #6-32 | 4.409 | 0.141 | BU783200.5005 |
| #8-32 | 4.921 | 0.168 | BU783200.5006 |
| #10-24 | 5.512 | 0.194 | BU783200.5007 |
| 1/4-20 | 6.299 | 0.255 | BU783200.5009 |
| 5/16-18 | 7.087 | 0.318 | BU783200.5010 |
| 3/8-16 | 7.087 | 0.381 | BU783200.5011 |
| 7/16-14 | 7.874 | 0.323 | CU783200.5012 |
| 1/2-13 | 8.819 | 0.367 | CU783200.5013 |
| 5/8-11 | 8.819 | 0.480 | CU783200.5015 |

UNF – SEMI-BOTTOMING – 2B/3B Class of Fit

| | | | |
|---------|-------|-------|---------------|
| #6-40 | 4.409 | 0.141 | BU783200.5039 |
| #8-36 | 4.921 | 0.168 | BU783200.5040 |
| #10-32 | 5.512 | 0.194 | BU783200.5041 |
| 1/4-28 | 6.299 | 0.255 | BU783200.5043 |
| 5/16-24 | 7.087 | 0.318 | BU783200.5044 |
| 3/8-24 | 7.087 | 0.381 | BU783200.5045 |
| 7/16-20 | 7.874 | 0.323 | CU783200.5046 |
| 1/2-20 | 7.874 | 0.367 | CU783200.5047 |
| 5/8-18 | 7.874 | 0.480 | CU783200.5049 |

METRIC COARSE – SEMI-BOTTOMING – 6H Class of Fit

| DIN / DIN | | | |
|-------------|----------|-----------------|--------------------|
| Size | OAL (mm) | Shank Dia. (mm) | Ne2 Coated EDP No. |
| M 3 x 0.5 | 100 | 3.5 | B5863200.0030 |
| M 4 x 0.7 | 125 | 4.5 | B5863200.0040 |
| M 5 x 0.8 | 140 | 6.0 | B5863200.0050 |
| M 6 x 1.0 | 160 | 6.0 | B5863200.0060 |
| M 8 x 1.25 | 180 | 8.0 | B5863200.0080 |
| M 10 x 1.5 | 200 | 7.0 | C5863200.0100 |
| M 12 x 1.75 | 224 | 9.0 | C5863200.0112 |
| M 14 x 2.0 | 224 | 11.0 | C5863200.0114 |
| M 16 x 2.0 | 224 | 12.0 | C5863200.0116 |
| M 18 x 2.5 | 250 | 14.0 | C5863200.0118 |
| M 20 x 2.5 | 280 | 16.0 | C5863200.0120 |



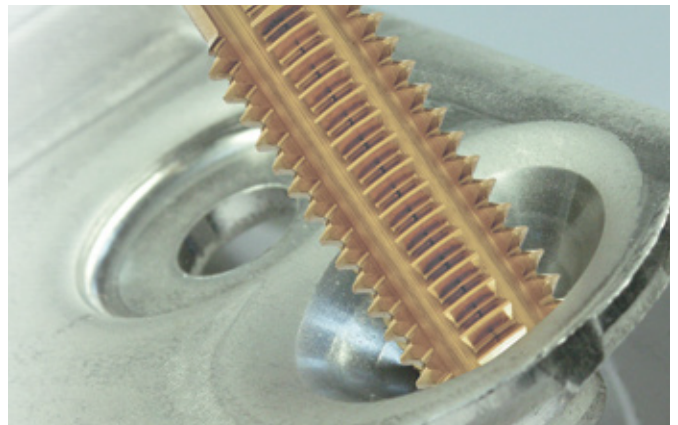


The industry's first general purpose tap is also available in a full line of form taps featuring innovative geometric design, special base material and coatings to handle numerous materials and applications at ***unsurpassed performance levels.***

- Constructed of a premium Cobalt high speed steel (HSS-E) and TIN or TiCN coated for exceptionally long life and versatility
- Short chamfer lead of 1.5-2 pitch, ideal for bottom tapping
- Lubrication grooves allow coolant flow-to-form action, ideal for holes with long thread length
- **Form both 2B and 3B threads with the same tap**, eliminating the guesswork of calculating H-limits
- **All taps made with EMUGE's trademark long shanks – *DIN length for extra reach.*** UNC and UNF taps are DIN length – ANSI shanks. Metric taps are DIN length – DIN shanks

Making threads without chips has advantages:

- Excellent thread surface quality
- No risk of poor threads due to axial "miscutting"
- Increased static and dynamic strength of thread
- Elevated tapping speeds are possible



TIN Coated



TICN Coated



UNC – MultiTAP-FORM – 2B/3B Class of Fit

| DIN / ANSI | | | | |
|------------|----------|-----------------|--------------------|---------------------|
| Size | OAL (in) | Shank Dia. (in) | TIN Coated EDP No. | TICN Coated EDP No. |
| #4-40 | 2.205 | 0.141 | BU591410.5003 | BU599010.5003 |
| #5-40 | 2.205 | 0.141 | BU591410.5004 | BU599010.5004 |
| #6-32 | 2.205 | 0.141 | BU591410.5005 | BU599010.5005 |
| #8-32 | 2.480 | 0.168 | BU591410.5006 | BU599010.5006 |
| #10-24 | 2.756 | 0.194 | BU591410.5007 | BU599010.5007 |
| #12-24 | 3.150 | 0.220 | BU591410.5008 | BU599010.5008 |
| 1/4-20 | 3.150 | 0.255 | BU591410.5009 | BU599010.5009 |
| 5/16-18 | 3.543 | 0.318 | BU591410.5010 | BU599010.5010 |
| 3/8-16 | 3.937 | 0.381 | BU591410.5011 | BU599010.5011 |
| 7/16-14 | 3.937 | 0.323 | CU031410.5012 | CU039010.5012 |
| 1/2-13 | 4.331 | 0.367 | CU031410.5013 | CU039010.5013 |

UNF – MultiTAP-FORM – 2B/3B Class of Fit

| DIN / ANSI | | | | |
|------------|----------|-----------------|--------------------|---------------------|
| Size | OAL (in) | Shank Dia. (in) | TIN Coated EDP No. | TICN Coated EDP No. |
| #4-48 | 2.205 | 0.141 | BU591410.5037 | BU599010.5037 |
| #5-44 | 2.205 | 0.141 | BU591410.5038 | BU599010.5038 |
| #6-40 | 2.205 | 0.141 | BU591410.5039 | BU599010.5039 |
| #8-36 | 2.480 | 0.168 | BU591410.5040 | BU599010.5040 |
| #10-32 | 2.756 | 0.194 | BU591410.5041 | BU599010.5041 |
| #12-28 | 3.150 | 0.220 | BU591410.5042 | BU599010.5042 |
| 1/4-28 | 3.150 | 0.255 | BU591410.5043 | BU599010.5043 |
| 5/16-24 | 3.543 | 0.318 | BU591410.5044 | BU599010.5044 |
| 3/8-24 | 3.937 | 0.381 | BU591410.5045 | BU599010.5045 |
| 7/16-20 | 3.937 | 0.323 | CU031410.5046 | CU039010.5046 |
| 1/2-20 | 3.937 | 0.367 | CU031410.5047 | CU039010.5047 |

METRIC – MultiTAP-FORM – DIN / DIN – 6H Class of Fit

| DIN / DIN | | | | |
|------------|----------|-----------------|--------------------|---------------------|
| Size | OAL (mm) | Shank Dia. (mm) | TIN Coated EDP No. | TICN Coated EDP No. |
| M 2 x 0.4 | 45 | 2.8 | B5991400.0020 | B5999000.0020 |
| M 3 x 0.5 | 56 | 3.5 | B5991400.0030 | B5999000.0030 |
| M 4 x 0.7 | 63 | 4.5 | B5991400.0040 | B5999000.0040 |
| M 5 x 0.8 | 70 | 6.0 | B5991400.0050 | B5999000.0050 |
| M 6 x 1.0 | 80 | 6.0 | B5991400.0060 | B5999000.0060 |
| M 8 x 1.25 | 90 | 8.0 | B5991400.0080 | B5999000.0080 |
| M 10 x 1.5 | 100 | 10.0 | B5991400.0100 | B5999000.0100 |

TAP DRILL SIZE RECOMMENDATIONS

MultiTAP

| Size | Recommended Drill Size (in) | Size | Recommended Drill Size (in) |
|-------------|-----------------------------|------------------------|-----------------------------|
| #4-40 UNC | 0.0890 | 1/4-28 UNF | 0.2165 |
| #5-40 UNC | 0.1015 | 5/16-24 UNF | 0.2717 |
| #6-32 UNC | 0.1110 | 3/8-24 UNF | 0.3346 |
| #8-32 UNC | 0.1360 | 7/16-20 UNF | 0.3898 |
| #10-24 UNC | 0.1520 | 1/2-20 UNF | 0.4528 |
| #12-24 UNC | 0.1770 | 9/16-18 UNF | 0.5118 |
| 1/4-20 UNC | 0.2040 | 5/8-18 UNF | 0.5709 |
| 5/16-18 UNC | 0.2610 | 3/4-16 UNF | 0.6890 |
| 3/8-16 UNC | 0.3160 | 7/8-14 UNF | 0.8071 |
| 7/16-14 UNC | 0.3680 | 1"-12 UNF | 0.9219 |
| 1/2-13 UNC | 0.4219 | METRIC MultiTAP | |
| 9/16-12 UNC | 0.4844 | | |
| 5/8-11 UNC | 0.5313 | M 4 x 0.7 | 3.30 mm |
| 3/4-10 UNC | 0.6563 | M 5 x 0.8 | 4.20 mm |
| 7/8-9 UNC | 0.7656 | M 6 x 1.0 | 5.00 mm |
| 1"-8 UNC | 0.8750 | M 8 x 1.25 | 6.80 mm |
| #4-48 UNF | 0.0945 | M 10 x 1.5 | 8.50 mm |
| #5-44 UNF | 0.1063 | M 12 x 1.75 | 10.20 mm |
| #6-40 UNF | 0.1181 | M 16 x 2.0 | 14.00 mm |
| #8-36 UNF | 0.1378 | M 18 x 2.5 | 15.50 mm |
| #10-32 UNF | 0.1614 | M 20 x 2.5 | 17.50 mm |
| #12-28 UNF | 0.1820 | M 24 x 3.0 | 21.00 mm |

MultiTAP-FORM

| Size | Recommended Drill Size (in) | Size | Recommended Drill Size (in) |
|-------------|-----------------------------|-----------------------------|-----------------------------|
| #4-40 UNC | 0.1004 | #12-28 UNF | 0.2008 |
| #5-40 UNC | 0.1142 | 1/4-28 UNF | 0.2343 |
| #6-32 UNC | 0.1240 | 5/16-24 UNF | 0.2933 |
| #8-32 UNC | 0.1496 | 3/8-24 UNF | 0.3563 |
| #10-24 UNC | 0.1713 | 7/16-20 UNF | 0.4154 |
| #12-24 UNC | 0.1969 | 1/2-20 UNF | 0.4783 |
| 1/4-20 UNC | 0.2264 | METRIC MultiTAP-FORM | |
| 5/16-18 UNC | 0.2874 | | |
| 3/8-16 UNC | 0.3465 | M 2 x .04 | 1.85 mm |
| 7/16-14 UNC | 0.4035 | M 3 x .05 | 2.80 mm |
| 1/2-13 UNC | 0.4646 | M 4 x .07 | 3.70 mm |
| #4-48 UNF | 0.1031 | M 5 x .08 | 4.65 mm |
| #5-44 UNF | 0.1150 | M 6 x 1.0 | 5.60 mm |
| #6-40 UNF | 0.1268 | M 8 x 1.25 | 7.45 mm |
| #8-36 UNF | 0.1516 | M 10 x 1.5 | 9.35 mm |
| #10-32 UNF | 0.1752 | | |



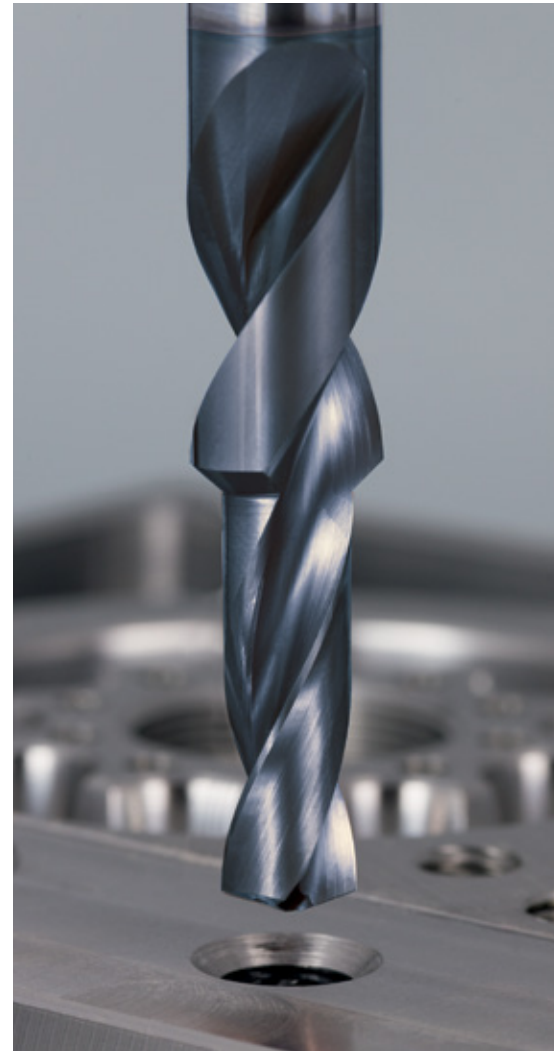
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MultiTAP SFM SPECIFICATIONS

| | Material Group | Hardness Range | | | Material Example | MULTITAP | MULTITAP-Form | |
|---------------------------------------------|----------------|------------------------------------------------------------------------------------------------|------|-------|------------------|--------------------------------------------------------------------------------|---------------|----------|
| | | HRC | BHN | N/mm2 | | | | |
| Steel materials | | | | | | | | |
| P | 1.1 | Cold-extrusion steels, Magnetic soft iron | - | ≤ 120 | ≤ 400 | 1008 / 1010 | 25 - 60 | 35 - 85 |
| | 2.1 | Free cutting steels, General construction steels | - | ≤ 180 | ≤ 600 | 1008 / 1010 / 12L14 / A36 11L17 / 1149 / 12L15 | 25 - 60 | 35 - 85 |
| | 3.1 | Free cutting steels, Construction steels, Alloyed steels, Steel castings | ≤ 25 | ≤ 250 | ≤ 850 | 1018 / 1060 / 4130 / 4140 / 41L30 41L45 / 86L20 / 86L40 / 1045 | 15 - 40 | 35 - 75 |
| | 4.1 | Crume alloy steel, Cold work steels, Heat-treatable steels, Nitriding steels | ≤ 36 | ≤ 320 | ≤ 1100 | 5115 / A29 / A519 / J404 / 4130 / 8030 4140 / 4330 / Nitrally 125, 135, 230 | 10 - 35 | 15 - 40 |
| Stainless Steel materials | | | | | | | | |
| M | 1.1 | Corrosion/ acid-proof steels, Heat-resistant steels | ≤ 25 | ≤ 250 | ≤ 850 | 303 / 304 / 316 / 316L / 416 / 420 | 10 - 30 | 15 - 45 |
| | 2.1 | Corrosion/ acid-proof steels, Heat-resistant steels | ≤ 35 | ≤ 320 | ≤ 1100 | 410 / 420 / Cf8m / 17- 4PH | 10 - 25 | 15 - 45 |
| Cast materials | | | | | | | | |
| K | 1.1 | Cast iron | - | ≤ 280 | - | ASTM A48 / SAE J431c / 1800 | 35 - 65 | N/A |
| | 2.1 | Cast iron with nodular graphite | - | - | ≤ 1000 | ASTM A48 class 20, 30, 35 , 40 | 15 - 50 | N/A |
| | 3.1 | Cast iron with vermicular graphite | - | ≤ 280 | - | - | 15 - 50 | N/A |
| | 4.1 | Malleable cast iron | - | - | ≤ 700 | ASTM A47 grade 32510, 35018 | 35 - 65 | N/A |
| Non-ferrous materials | | | | | | | | |
| Aluminum Alloys | | | | | | | | |
| N | 1.1 | Aluminum wrought alloys | - | - | - | 2014 / 2117 / 5050 / 6061 / 7004 | 35 - 65 | 35 - 100 |
| | 1.2 | Aluminum cast alloys ≤ 5% Si | - | - | - | 201 / 213 / 295 / 435.3 / 511.0 | 35 - 65 | 35 - 100 |
| | 1.3 | Aluminum cast alloys 5% < Si ≤ 12% | - | - | - | 319 / 333 / 343 / 356 / 369 / 380 | 35 - 65 | 35 - 100 |
| | 1.4 | Aluminum cast alloys 12% < Si ≤ 1 | - | - | - | 390 / 393 / 413 | 20 - 50 | 35 - 85 |
| Copper, Copper Alloys, Bronze, Brass | | | | | | | | |
| N | 2.1 | Pure Copper and low alloyed copper | - | ≤ 150 | ≤ 500 | - | 15 - 40 | 35 - 100 |
| | 2.2 | Copper-zinc alloys (brass, long chipping) | - | - | - | - | 35 - 80 | 35 - 100 |
| | 2.3 | Copper-zinc alloys (brass, short chipping) | - | - | - | - | 35 - 80 | 35 - 100 |
| | 2.4 | Copper-aluminum alloys (alubronze, long chipping) Copper-tin alloys (bronze, long chipping) | - | - | - | - | 10 - 35 | 20 - 50 |
| | 2.5 | Copper-tin alloys (bronze, short chipping) | - | - | - | - | 15 - 45 | 35 - 85 |



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