

FRACTIONAL SPIRAL FLUTE SEMI-BOTTOMING TAPS

Hi-Helix Flutes - Ground Thread - High Speed Steel

- Semi-bottoming style can be used for plug or bottoming applications.
- Helical flutes provides a shear cutting facilitating evacuation of chips from the hole.



**Type 37-AGN - 52°
Titanium Nitride**



**Type 37 - 52°
Bright Finish**

30° Helix Angle - Used where chip disposal is a problem.

- *Spiral flute design effectively draws chips out of the hole.*

- **Recommended** when tapping blind or through holes in a variety of materials.

52° Helix Angle - Can be used for plug or bottoming applications.

- *Allows for threading close to bottom or blind holes.*

- **Recommended** for tapping deep holes in copper, brass, aluminum and other soft ductile materials

Type 36-ACN 30°, 37-ACN 52° - Titanium Carbon Nitride

Titanium Carbon Nitride - coating raises cutting surface hardness greatly increasing resistance to wear.

Type 36-UBN 30°, 37-UBN 52° - Titanium Nitride

Titanium Nitride - coating adds lubricity and hardness, enhancing chip flow, finish hole quality and drill life.

Type 36 30°, Type 37 52° - Bright Finish

Bright Finish - Recommended in aluminum, zinc, cooper, wood, refrigeration die casting, auto hardware and epoxy based plastics.

FRACTIONAL SPIRAL FLUTE SEMI-BOTTOMING TAPS - 30° SPIRAL

| Type 36-ACN Titanium Carbon Nitride Part# | Type 36-UBN Titanium Nitride Part# | Type 36 Bright Part# | Spiral | Size | # of Flutes | H Limit | Qty. per/pack each |
|---|--|----------------------------|--------|---------|----------------|------------|--------------------------|
| 49804 | 49803 | 49802 | 30° | 3-48 | 2 | H2 | 1 |
| 49814 | 49813 | 49812 | 30° | 3-56 | 2 | H2 | 1 |
| 49824 | 49823 | 49822 | 30° | 4-40 | 2 | H2 | 1 |
| 49834 | 49833 | 49832 | 30° | 4-48 | 2 | H2 | 1 |
| 49844 | 49843 | 49842 | 30° | 5-40 | 2 | H2 | 1 |
| 49854 | 49853 | 49852 | 30° | 5-44 | 2 | H2 | 1 |
| 49864 | 49863 | 49862 | 30° | 6-32 | 2 | H3 | 1 |
| 49874 | 49873 | 49872 | 30° | 6-40 | 2 | H2 | 1 |
| 49884 | 49883 | 49882 | 30° | 8-32 | 3 | H3 | 1 |
| 49894 | 49893 | 49892 | 30° | 8-36 | 3 | H2 | 1 |
| 49904 | 49903 | 49902 | 30° | 10-24 | 3 | H3 | 1 |
| 49914 | 49913 | 49912 | 30° | 10-32 | 3 | H3 | 1 |
| 49924 | 49923 | 49922 | 30° | 12-24 | 3 | H3 | 1 |
| 49934 | 49933 | 49932 | 30° | 12-28 | 3 | H3 | 1 |
| 49944 | 49943 | 49942 | 30° | 1/4-20 | 3 | H3 | 1 |
| 49954 | 49953 | 49952 | 30° | 1/4-28 | 3 | H3 | 1 |
| 49964 | 49963 | 49962 | 30° | 5/16-18 | 3 | H3 | 1 |
| 49974 | 49973 | 49972 | 30° | 5/16-24 | 3 | H3 | 1 |
| 49984 | 49983 | 49982 | 30° | 3/8-16 | 3 | H3 | 1 |
| 49994 | 49993 | 49992 | 30° | 3/8-24 | 3 | H3 | 1 |
| 50004 | 50003 | 50002 | 30° | 7/16-14 | 3 | H3 | 1 |
| 50014 | 50013 | 50012 | 30° | 7/16-20 | 3 | H3 | 1 |
| 50024 | 50023 | 50022 | 30° | 1/2-13 | 3 | H3 | 1 |
| 50034 | 50033 | 50032 | 30° | 1/2-20 | 3 | H3 | 1 |
| 50044 | 50043 | 50042 | 30° | 9/16-12 | 4 | H3 | 1 |
| 50054 | 50053 | 50052 | 30° | 9/16-18 | 4 | H3 | 1 |
| 50064 | 50063 | 50062 | 30° | 5/8-11 | 4 | H3 | 1 |
| 50074 | 50073 | 50072 | 30° | 5/8-18 | 4 | H3 | 1 |
| 50084 | 50083 | 50082 | 30° | 3/4-10 | 4 | H3 | 1 |
| 50094 | 50093 | 50092 | 30° | 3/4-16 | 4 | H3 | 1 |

FRACTIONAL SPIRAL FLUTE SEMI-BOTTOMING TAPS - 52° SPIRAL

| Type 37-ACN Titanium Carbon Nitride Part# | Type 37-UBN Titanium Nitride Part# | Type 37 Bright Part# | Spiral | Size | # of Flutes | H Limit | Qty. per/pack each |
|---|--|----------------------------|--------|------|----------------|------------|--------------------------|
| 52854 | 52853 | 52852 | 52° | 3-48 | 2 | H2 | 1 |
| 52864 | 52863 | 52862 | 52° | 3-56 | 2 | H2 | 1 |
| 52874 | 52873 | 52872 | 52° | 4-40 | 2 | H2 | 1 |
| 52884 | 52883 | 52882 | 52° | 4-48 | 2 | H2 | 1 |
| 52894 | 52893 | 52892 | 52° | 5-40 | 2 | H2 | 1 |
| 52904 | 52903 | 52902 | 52° | 5-44 | 2 | H2 | 1 |
| 52914 | 52913 | 52912 | 52° | 6-32 | 2 | H3 | 1 |
| 52924 | 52923 | 52922 | 52° | 6-40 | 2 | H2 | 1 |
| 52934 | 52933 | 52932 | 52° | 8-32 | 3 | H3 | 1 |

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FRACTIONAL / METRIC SPIRAL FLUTE SEMI-BOTTOMING TAPS

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30° Helix Angle - *Used where chip disposal is a problem.*

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52° Helix Angle - *Can be used for plug or bottoming applications.*

- *Allows for threading close to bottom or blind holes.*
- **Recommended** for tapping deep holes in copper, brass, aluminum and other soft ductile materials.

Type 37-ACN 52°, Metric Type 38-ACN 30°, Metric 39-ACN 52° - Titanium Carbon Nitride

Titanium Carbon Nitride - coating raises cutting surface hardness greatly increasing resistance to wear.

Type 37-UBN 52°, Metric 38-UBN 30°, Metric 39-UBN 52° - Titanium Nitride

Titanium Nitride - coating adds lubricity and hardness, enhancing chip flow, finish hole quality and drill life.

Type 37 52°, Metric Type 38 30°, Metric Type 39 52° - Bright Finish

Bright Finish - Recommended in aluminum, zinc, copper, wood, refrigeration die casting, auto hardware and epoxy based plastics.

FRACTIONAL SPIRAL FLUTE SEMI-BOTTOMING TAPS - 52° SPIRAL

| Type 37-ACN Titanium Carbon Nitride Part # | Type 37-UBN Titanium Nitride Part # | Type 37 Bright Part # | Spiral | Size | # of Flutes | H Limit | Qty. per/pack each |
|--|---|-----------------------------|--------|---------|----------------|------------|--------------------------|
| 52944 | 52943 | 52942 | 52° | 8-36 | 3 | H2 | 1 |
| 52954 | 52953 | 52952 | 52° | 10-24 | 3 | H3 | 1 |
| 52964 | 52963 | 52962 | 52° | 10-32 | 3 | H3 | 1 |
| 52974 | 52973 | 52972 | 52° | 12-24 | 3 | H3 | 1 |
| 52984 | 52983 | 52982 | 52° | 12-28 | 3 | H3 | 1 |
| 52994 | 52993 | 52992 | 52° | 1/4-20 | 3 | H3 | 1 |
| 53004 | 53003 | 53002 | 52° | 1/4-28 | 3 | H3 | 1 |
| 53014 | 53013 | 53012 | 52° | 5/16-18 | 3 | H3 | 1 |
| 53024 | 53023 | 53022 | 52° | 5/16-24 | 3 | H3 | 1 |
| 53034 | 53033 | 53032 | 52° | 3/8-16 | 3 | H3 | 1 |
| 53044 | 53043 | 53042 | 52° | 3/8-24 | 3 | H3 | 1 |
| 53054 | 53053 | 53052 | 52° | 7/16-14 | 3 | H3 | 1 |
| 53064 | 53063 | 53062 | 52° | 7/16-20 | 3 | H3 | 1 |
| 53074 | 53073 | 53072 | 52° | 1/2-13 | 3 | H3 | 1 |
| 53084 | 53083 | 53082 | 52° | 1/2-20 | 3 | H3 | 1 |
| 50094 | 53093 | 53092 | 52° | 9/16-12 | 4 | H3 | 1 |
| 53104 | 53103 | 53102 | 52° | 9/16-18 | 4 | H3 | 1 |
| 53114 | 53113 | 53112 | 52° | 5/8-11 | 4 | H3 | 1 |
| 53124 | 53123 | 53122 | 52° | 5/8-18 | 4 | H3 | 1 |
| 53134 | 53133 | 53132 | 52° | 3/4-10 | 4 | H3 | 1 |
| 53144 | 53143 | 53142 | 52° | 3/4-16 | 4 | H3 | 1 |

METRIC

SPIRAL FLUTE SEMI-BOTTOMING TAPS - 30° SPIRAL

| Type 38-ACN Titanium Carbon Nitride Part # | Type 38-UBN Titanium Nitride Part # | Type 38 Bright Part # | Spiral | Size | # of Flutes | D Limit | Qty. per/pack each |
|--|---|-----------------------------|--------|--------------|----------------|------------|--------------------------|
| 69014 | 69013 | 69012 | 30° | 3.00 x .50 | 2 | D3 | 1 |
| 69024 | 69023 | 69022 | 30° | 3.50 x .60 | 2 | D4 | 1 |
| 69034 | 69033 | 69032 | 30° | 4.00 x .70 | 3 | D4 | 1 |
| 69044 | 69043 | 69042 | 30° | 4.50 x .75 | 3 | D4 | 1 |
| 69054 | 69053 | 69052 | 30° | 5.00 x .80 | 3 | D4 | 1 |
| 69064 | 69063 | 69062 | 30° | 6.00 x 1.00 | 3 | D5 | 1 |
| 69074 | 69073 | 69072 | 30° | 8.00 x 1.25 | 3 | D5 | 1 |
| 69084 | 69083 | 69082 | 30° | 10.00 x 1.50 | 3 | D6 | 1 |
| 69094 | 69093 | 69092 | 30° | 12.00 x 1.75 | 3 | D6 | 1 |

METRIC

SPIRAL FLUTE SEMI-BOTTOMING TAPS - 52° SPIRAL

| Type 39-ACN Titanium Carbon Nitride Part # | Type 39-UBN Titanium Nitride Part # | Type 39 Bright Part # | Spiral | Size | # of Flutes | D Limit | Qty. per/pack each |
|--|---|-----------------------------|--------|--------------|----------------|------------|--------------------------|
| 69314 | 69313 | 69312 | 52° | 3.00 x .50 | 2 | D3 | 1 |
| 69324 | 69323 | 69322 | 52° | 3.50 x .60 | 2 | D4 | 1 |
| 69334 | 69333 | 69332 | 52° | 4.00 x .70 | 3 | D4 | 1 |
| 69344 | 69343 | 69342 | 52° | 4.50 x .75 | 3 | D4 | 1 |
| 69354 | 69353 | 69352 | 52° | 5.00 x .80 | 3 | D4 | 1 |
| 69364 | 69363 | 69362 | 52° | 6.00 x 1.00 | 3 | D5 | 1 |
| 69374 | 69373 | 69372 | 52° | 8.00 x 1.25 | 3 | D5 | 1 |
| 69384 | 69383 | 69382 | 52° | 10.00 x 1.50 | 3 | D6 | 1 |
| 69394 | 69393 | 69392 | 52° | 12.00 x 1.75 | 3 | D6 | 1 |

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