



TOOLING  
YOUR  
WORLD.



August 1 – November 30, 2022

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Drilling  
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Choose GS Tooling, the  
**Gold Standard**  
in vises.



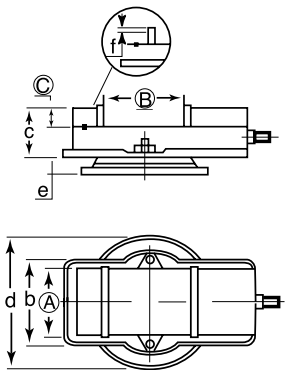
We're changing the color  
on the GS Tooling vises  
you know and trust.



## GS810 8" Precision Milling Machine Vise

- Vises are matched (Bed Height: 3.310")
- An integral key and large fasteners reduce deflection by 50%
- 4-jaw plate positions allow extra capacity with the jaw plates in the outside position
- The swivel base is graduated 360° in one degree increments
- Chip cover protects leadscrew from damage
- The quality movable jaw does not lift off the bed, and the deflection of the stationary jaw is minimized

|                |               |      |        |       |      |      |      |      |               |          | (Inch)        |          |
|----------------|---------------|------|--------|-------|------|------|------|------|---------------|----------|---------------|----------|
| Jaw Width<br>A | Jaw Open<br>B | C    | O.A.L. | b     | c    | d    | e    | f    | Plain Ship Wt | Code No. | Reg. Price \$ | SALE \$  |
| 8              | 10.0          | 2.25 | 21.8   | 11.62 | 5.55 | 15.0 | 1.85 | 0.43 | 158lbs        | 327300   | 2,198.25      | 1,648.69 |



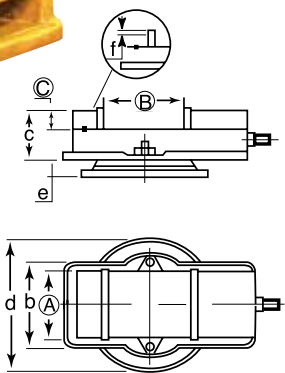
Threading  
Page 7

## GS675 6" Precision Milling Machine Vise



- Vises are matched (Bed Height: 2.875")
- An integral key and large fasteners reduce deflection by 50%
- 4-jaw plate positions allow extra capacity with the jaw plates in the outside position
- The swivel base is graduated 360° in one degree increments
- Chip cover protects leadscrew from damage
- The quality movable jaw does not lift off the bed, and the deflection of the stationary jaw is minimized

|                |               |      |        |      |     |    |      |      |               |          | (Inch)        |         |
|----------------|---------------|------|--------|------|-----|----|------|------|---------------|----------|---------------|---------|
| Jaw Width<br>A | Jaw Open<br>B | C    | O.A.L. | b    | c   | d  | e    | f    | Plain Ship Wt | Code No. | Reg. Price \$ | SALE \$ |
| 6              | 7.5           | 1.77 | 17.2   | 9.13 | 4.6 | 12 | 1.65 | 0.39 | 80lbs         | 327275M  | 698.78        | 524.09  |



Sowa carbide end mills have  
moved to the GS Tooling line.

The only change is the logo.

Call 1-800-265-8221 or visit [www.SowaTool.com](http://www.SowaTool.com) to order.

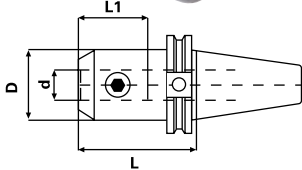
# For everything under your spindle.

## DUAL CONTACT End Mill Holders

- Improves rigidity and reduces vibration allowing for increased feed rates and increased tool life
- DIN coolant option - standard
- All ground body, bore, nose, flange
- TIR, 0.0001" / 0.003mm OD to ID
- AT2 Taper Accuracy
- Certified Steel
- RFID chip hole



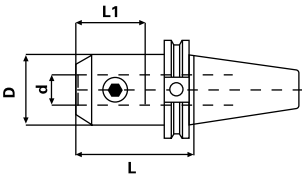
FOR DUAL CONTACT SPINDLES



PREMIUM BALANCE  
G6.3 at 30,000rpm  
CERTIFICATE INCLUDED

### CAT40

| Taper | Hole Dia. (d) | Gauge Length (L) | L1   | D    | Set Screw | Code No. | Reg. Price \$ | SALE \$ |
|-------|---------------|------------------|------|------|-----------|----------|---------------|---------|
| CT40  | 1/2           | 5.00             | 2.56 | 1.38 | 7/16-20   | 521030   | 230.01        | 172.51  |
| CT40  | 1-1/4         | 4.00             | 3.54 | 2.48 | 3/4-16    | 521062   | 232.25        | 174.19  |



PREMIUM BALANCE  
G6.3 at 25,000rpm  
CERTIFICATE INCLUDED

### CAT50

| Taper | Hole Dia. (d) | Gauge Length (L) | L1   | D    | Set Screw | Code No. | Reg. Price \$ | SALE \$ |
|-------|---------------|------------------|------|------|-----------|----------|---------------|---------|
| CT50  | 1/2           | 4.00             | 1.77 | 1.38 | 7/16-20   | 521120   | 325.38        | 244.04  |
| CT50  | 1/2           | 6.00             | 1.77 | 1.38 | 7/16-20   | 521122   | 322.01        | 241.51  |
| CT50  | 5/8           | 4.00             | 1.77 | 1.65 | 9/16-18   | 521130   | 314.16        | 235.62  |
| CT50  | 5/8           | 6.00             | 1.77 | 1.65 | 9/16-18   | 521132   | 392.70        | 294.53  |
| CT50  | 3/4           | 4.00             | 3.86 | 1.89 | 5/8-18    | 521140   | 319.77        | 239.83  |
| CT50  | 3/4           | 6.00             | 3.86 | 1.89 | 5/8-18    | 521142   | 325.38        | 244.04  |
| CT50  | 1             | 4.00             | 4.21 | 2.36 | 3/4-16    | 521154   | 325.38        | 244.04  |
| CT50  | 1             | 6.00             | 4.21 | 2.36 | 3/4-16    | 521156   | 332.11        | 249.08  |
| CT50  | 1-1/2         | 4.50             | 3.15 | 2.99 | 3/4-16    | 521170   | 347.82        | 260.87  |

## Spindle Taper Wipers

- For easily and quickly cleaning spindle holes
- Plastic body, the taper wiper is made of special cotton material therefore not damaging the spindle
- The BT & DIN tapers are the same



| Model No. | Taper | Total Length | Code No. | Reg. Price \$ | SALE \$ |
|-----------|-------|--------------|----------|---------------|---------|
| VTW-30    | #30   | 168mm        | 326210   | 50.16         | 37.62   |
| VTW-40    | #40   | 159mm        | 326215   | 50.16         | 37.62   |
| VTW-50    | #50   | 265mm        | 326220   | 72.71         | 54.53   |

## Retention Knobs



- Ground Pilot
- O-Ring on Pilot to prevent coolant penetration into the spindle

### Can't find your retention knob?

We invite your inquiries. Please have ready the following information when calling:

- Taper of Machine
- Make and Model No. of the Machine
- Draw Bar Thread Diameter and Pitch
- Taper Angle required underneath head of stud



| Taper | Model     | Coolant Through | Thread   | Code No. | Reg. Price \$ | SALE \$ |
|-------|-----------|-----------------|----------|----------|---------------|---------|
| BT30  | GS585X60  | N               | M12x1.75 | 366002   | 31.70         | 23.78   |
| BT40  | GSC444X15 | Y               | M16x2    | 366004   | 42.27         | 31.70   |
| BT40  | GS444X45  | N               | M16x2    | 366006   | 31.08         | 23.31   |
| BT40  | GS444X60  | N               | M16x2    | 366008   | 31.70         | 23.78   |
| BT40  | GSC444X45 | Y               | M16x2    | 366012   | 33.67         | 25.25   |
| BT40  | GSC444X60 | Y               | M16x2    | 366014   | 34.34         | 25.76   |
| BT40  | GSC477    | Y               | M16x2    | 366024   | 39.85         | 29.89   |
| CT40  | GS474     | N               | 5/8x11   | 366036   | 25.90         | 19.43   |
| CT40  | GS532X15  | N               | 5/8x11   | 366048   | 26.42         | 19.82   |
| CT40  | GS532X60  | N               | 5/8x11   | 366052   | 26.42         | 19.82   |
| CT40  | GSC532X60 | Y               | 5/8x11   | 366060   | 26.42         | 19.82   |
| CT40  | GSC532X90 | Y               | 5/8x11   | 366062   | 26.42         | 19.82   |
| BT50  | GS446X45  | N               | M24x3    | 366084   | 62.08         | 46.56   |
| CT50  | GS275     | N               | 1x8      | 366092   | 33.02         | 24.77   |
| CT50  | GS536X45  | N               | 1x8      | 366098   | 33.02         | 24.77   |
| CT50  | GS536X60  | N               | 1x8      | 366100   | 32.37         | 24.28   |
| CT50  | GS536X90  | N               | 1x8      | 366102   | 33.02         | 24.77   |
| CT50  | GSC536X45 | Y               | 1x8      | 366104   | 32.37         | 24.28   |
| CT50  | GSC536X90 | Y               | 1x8      | 366108   | 32.37         | 24.28   |

## 4-Flute Long Length Carbide End Mills



Long length end mills combine added flute and overall length for greater reach when deep slotting or milling. These end mills have the capability to mill thicker material in one pass, eliminating the interrupted cut that may be present with regular length end mills.

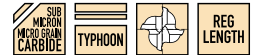


| Cutting Dia.  | Shank Dia. | Flute Length | Overall Length | Bright Code No. | Reg. Price \$ | SALE \$ | TiAlN Code No. | Reg. Price \$ | SALE \$ |
|---------------|------------|--------------|----------------|-----------------|---------------|---------|----------------|---------------|---------|
| <b>Inch</b>   |            |              |                |                 |               |         |                |               |         |
| 1/8           | 1/8        | 3/4          | 2-1/4          | 102981          | 26.47         | 19.85   | 102922         | 30.72         | 23.04   |
| 3/16          | 3/16       | 3/4          | 2-1/4          | 102982          | 29.20         | 21.90   | 102924         | 34.62         | 25.97   |
| 1/4           | 1/4        | 1-1/8        | 3              | 102983          | 33.81         | 25.36   | 102926         | 41.00         | 30.75   |
| 5/16          | 5/16       | 1-1/8        | 3              | 102984          | 41.75         | 31.31   | 102928         | 52.48         | 39.36   |
| 3/8           | 3/8        | 1-1/8        | 3              | 102985          | 46.96         | 35.22   | 102930         | 57.71         | 43.28   |
| 7/16          | 7/16       | 2            | 4              | 102986          | 70.98         | 53.24   | 102932         | 86.76         | 65.07   |
| 1/2           | 1/2        | 2            | 4              | 102987          | 75.49         | 56.62   | 102934         | 91.28         | 68.46   |
| 5/8           | 5/8        | 2-1/4        | 5              | 102988          | 155.59        | 116.69  | 102936         | 181.79        | 136.34  |
| 3/4           | 3/4        | 2-1/4        | 5              | 102989          | 247.85        | 185.89  | 102938         | 278.19        | 208.64  |
| 1             | 1          | 2-1/4        | 5              | 102990          | 421.37        | 316.03  | 102940         | 460.72        | 345.54  |
| <b>Metric</b> |            |              |                |                 |               |         |                |               |         |
| 3             | 3          | 19           | 57             | 101600          | 16.40         | 12.30   | 102901         | 31.33         | 23.50   |
| 4             | 4          | 19           | 57             | 101601          | 17.23         | 12.92   | 102903         | 33.89         | 25.42   |
| 5             | 5          | 25           | 64             | 101602          | 30.74         | 23.06   | 102905         | 37.88         | 28.41   |
| 6             | 6          | 28           | 76             | 101603          | 35.64         | 26.73   | 102907         | 42.76         | 32.07   |
| 8             | 8          | 29           | 76             | 101604          | 43.97         | 32.98   | 102909         | 54.66         | 41.00   |
| 10            | 10         | 32           | 76             | 101605          | 50.99         | 38.24   | 102911         | 63.18         | 47.39   |
| 12            | 12         | 51           | 102            | 101606          | 80.05         | 60.04   | 102913         | 95.83         | 71.87   |
| 14            | 14         | 57           | 127            | 101607          | 109.90        | 82.43   | 102915         | 169.47        | 127.10  |
| 18            | 18         | 57           | 127            | 101609          | 233.92        | 175.44  | 102919         | 181.79        | 136.34  |
| 20            | 20         | 57           | 127            | 101610          | 261.10        | 195.83  | 102917         | 300.49        | 225.37  |
| 25            | 25         | 57           | 127            | 101611          | 402.35        | 301.76  | -              | -             | -       |



### 4-Flute Variable Helix Carbide End Mill — Typhoon

- Helix changes along flutes
- Increased stability during cutting action
- Substantial increase in speed
- Small corner radius for added strength and smoother cutting action
- AlTiN coated for improved tool life and increased production output
- Made from premium sub-micron grain carbide



| Cutting Dia. (in.) | Shank Dia. (in.) | Flute Length (in.) | Overall Length (in.) | Corner Radius | With Radius Code No. | Reg. Price \$ | SALE \$ | Without Radius Code No. | Reg. Price \$ | SALE \$ |
|--------------------|------------------|--------------------|----------------------|---------------|----------------------|---------------|---------|-------------------------|---------------|---------|
| 1/8                | 1/8              | 1/2                | 1-1/2                | 0.010-0.015   | 153000               | 18.50         | 13.88   | 153250                  | 16.44         | 12.33   |
| 3/16               | 3/16             | 3/8                | 1-1/2                | 0.010-0.015   | 153001               | 23.22         | 17.42   | -                       | -             | -       |
| 3/16               | 3/16             | 5/8                | 2                    | 0.015-0.020   | 153002               | 23.22         | 17.42   | 153252                  | 20.73         | 15.55   |
| 1/4                | 1/4              | 1/2                | 2                    | 0.015-0.020   | 153004               | 28.61         | 21.46   | 153254                  | 28.61         | 21.46   |
| 1/4                | 1/4              | 3/4                | 2-1/2                | 0.015-0.020   | 153006               | 31.68         | 23.76   | 153256                  | 27.97         | 20.98   |
| 1/4                | 1/4              | 1-1/8              | 3                    | 0.015-0.020   | 153008               | 46.95         | 35.21   | 153258                  | 46.95         | 35.21   |
| 5/16               | 5/16             | 1/2                | 2                    | 0.015-0.020   | 153010               | 39.08         | 29.31   | 153260                  | 34.09         | 25.57   |
| 5/16               | 5/16             | 13/16              | 2-1/2                | 0.015-0.020   | 153012               | 42.95         | 32.21   | 153262                  | 39.89         | 29.92   |
| 5/16               | 5/16             | 1-1/8              | 3                    | 0.015-0.020   | 153014               | 59.87         | 44.90   | 153264                  | 59.87         | 44.90   |
| 3/8                | 3/8              | 5/8                | 2                    | 0.015-0.020   | 153016               | 46.11         | 34.58   | 153266                  | 47.06         | 35.30   |
| 3/8                | 3/8              | 1                  | 2-1/2                | 0.015-0.020   | 153018               | 50.15         | 37.61   | 153268                  | 47.06         | 35.30   |
| 3/8                | 3/8              | 1-1/8              | 3                    | 0.015-0.020   | 153020               | 65.99         | 49.49   | 153270                  | 65.99         | 49.49   |
| 7/16               | 7/16             | 1                  | 2-3/4                | 0.015-0.020   | 153022               | 60.63         | 45.47   | 153272                  | 56.58         | 42.44   |
| 1/2                | 1/2              | 5/8                | 2-1/2                | 0.025-0.030   | 153024               | 76.64         | 57.48   | 153274                  | 65.89         | 49.42   |
| 1/2                | 1/2              | 1                  | 3                    | 0.025-0.030   | 153026               | 85.53         | 64.15   | 153276                  | 70.38         | 52.79   |
| 1/2                | 1/2              | 1-1/4              | 3                    | 0.025-0.030   | 153027               | 85.53         | 64.15   | 153277                  | 70.38         | 52.79   |
| 1/2                | 1/2              | 2                  | 4                    | 0.025-0.030   | 153028               | 101.08        | 75.81   | 153278                  | 95.26         | 71.45   |
| 5/8                | 5/8              | 3/4                | 3                    | 0.030-0.035   | 153030               | 132.49        | 99.37   | 153280                  | 126.20        | 94.65   |
| 5/8                | 5/8              | 1-1/4              | 3-1/2                | 0.030-0.035   | 153032               | 136.19        | 102.14  | 153282                  | 129.89        | 97.42   |
| 5/8                | 5/8              | 2-1/4              | 5                    | 0.030-0.035   | 153034               | 203.77        | 152.83  | 153284                  | 203.77        | 152.83  |
| 3/4                | 3/4              | 1                  | 3                    | 0.030-0.035   | 153036               | 191.14        | 143.36  | 153286                  | 181.44        | 136.08  |
| 3/4                | 3/4              | 1-1/2              | 4                    | 0.030-0.035   | 153038               | 195.29        | 146.47  | 153288                  | 185.40        | 139.05  |
| 3/4                | 3/4              | 2-1/4              | 5                    | 0.030-0.035   | 153040               | 270.88        | 203.16  | 153290                  | 248.86        | 186.65  |
| 1                  | 1                | 1-1/2              | 4                    | 0.030-0.035   | 153042               | 333.41        | 250.06  | 153292                  | 276.99        | 207.74  |
| 1                  | 1                | 2-1/4              | 5                    | 0.030-0.035   | 153044               | 410.22        | 307.67  | 153293                  | 370.79        | 278.09  |
| 1-1/4              | 1-1/4            | 2-1/4              | 5                    | 0.030-0.035   | 153043               | 888.29        | 666.22  | 153294                  | 710.57        | 532.93  |

### 2-Flute For Aluminum

This carbide aluminum end mill has been designed specially for milling aluminum and all non-ferrous materials. The unique geometry permits much higher speed and feed rates without loading. Spindle and feed rates can be increased by fifty percent for greater productivity with excellent piece/part finishes.



| Cutting Dia. (in.) | Shank Dia. (in.) | Flute Length (in.) | Overall Length (in.) | Code No. | Reg. Price \$ | SALE \$ |
|--------------------|------------------|--------------------|----------------------|----------|---------------|---------|
| <b>Inch</b>        |                  |                    |                      |          |               |         |
| 1/4                | 1/4              | 3/4                | 2-1/2                | 101020   | 20.82         | 15.62   |
| 1/4                | 1/4              | 1-1/2              | 4                    | 101022   | 37.60         | 28.20   |
| 5/16               | 5/16             | 13/16              | 2-1/2                | 101024   | 43.93         | 32.95   |
| 5/16               | 5/16             | 1-5/8              | 4                    | 101026   | 49.03         | 36.77   |
| 3/8                | 3/8              | 1                  | 2-1/2                | 101028   | 36.34         | 27.26   |
| 3/8                | 3/8              | 1-3/4              | 4                    | 101030   | 54.30         | 40.73   |
| 1/2                | 1/2              | 1                  | 3                    | 101032   | 58.23         | 43.67   |
| 1/2                | 1/2              | 2                  | 4                    | 101034   | 79.46         | 59.60   |
| 5/8                | 5/8              | 1-1/4              | 3-1/2                | 101036   | 112.26        | 84.20   |
| 5/8                | 5/8              | 2-1/4              | 5                    | 101038   | 163.78        | 122.84  |
| 3/4                | 3/4              | 1-1/2              | 4                    | 101040   | 164.62        | 123.47  |
| 3/4                | 3/4              | 2-1/4              | 5                    | 101042   | 255.98        | 191.99  |
| 1                  | 1                | 2-1/4              | 5                    | 101044   | 246.23        | 184.67  |
| 1                  | 1                | 3                  | 6                    | 101046   | 443.58        | 332.69  |
| <b>Metric</b>      |                  |                    |                      |          |               |         |
| 6                  | 6                | 38                 | 102                  | 101391   | 38.82         | 29.12   |
| 8                  | 8                | 41                 | 102                  | 101393   | 46.39         | 34.79   |
| 10                 | 10               | 25                 | 70                   | 101394   | 44.24         | 33.18   |
| 10                 | 10               | 51                 | 102                  | 101395   | 67.90         | 50.93   |
| 12                 | 12               | 26                 | 76                   | 101396   | 61.14         | 45.86   |
| 12                 | 12               | 51                 | 102                  | 101397   | 84.23         | 63.17   |
| 16                 | 16               | 32                 | 89                   | 101398   | 117.87        | 88.40   |
| 16                 | 16               | 57                 | 127                  | 101399   | 163.78        | 122.84  |
| 20                 | 20               | 38                 | 102                  | 101400   | 219.76        | 164.82  |
| 20                 | 20               | 57                 | 127                  | 101401   | 274.85        | 206.14  |
| 25                 | 25               | 76                 | 152                  | 101403   | 423.54        | 317.66  |

SOWA > GS TOOLING  
Sowa carbide end mills have moved to the GS Tooling line.

### 52pc Machinist Clamping Kit



**Contains:**

- 24 Studs 4 each 3, 4, 5, 6, 7, 8" lengths
- 6 Flange nuts
- 6 Serrated end clamps
- 6 T-slot nuts
- 4 Coupling nuts
- 1 T-slot cleaner
- 6 Step blocks
- 1 Metal holder

| Table T-Slot Size               | Stud Size | Code No. | Reg. Price \$ | SALE \$ |
|---------------------------------|-----------|----------|---------------|---------|
| With 1" Thick Steel Step Blocks |           |          |               |         |
| 5/8                             | 1/2-13    | 333550   | 153.98        | 115.49  |

Comes with 5/8" height t-nuts



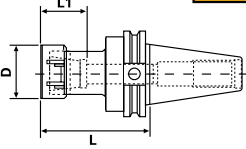
# For everything under your spindle.

## DUAL CONTACT ER Collet Chucks

- Improves rigidity and reduces vibration allowing for increased feed rates and increased tool life
- DIN coolant option - standard
- All ground body
- TIR, 0.0003" at 4xDia.
- AT2 Taper Accuracy
- RFID Chip Hole



FOR DUAL CONTACT SPINDLES



PREMIUM BALANCE  
G2.5 at 30,000rpm  
CERTIFICATE INCLUDED  
CT40

PREMIUM BALANCE  
G2.5 at 25,000rpm  
CERTIFICATE INCLUDED  
CT50

### CT40

| Taper | Collet Series | Collet Range | L    | L1   | D    | Tightening Torque (Nm) | Code No. | Reg. Price \$ | SALE \$ |
|-------|---------------|--------------|------|------|------|------------------------|----------|---------------|---------|
| CT40  | ER32          | 0.078-0.787  | 6.00 | 1.34 | 1.97 | 169.5                  | 521425   | 317.53        | 238.15  |

### CT50

| Taper | Collet Series | Collet Range | L    | L1   | D    | Tightening Torque (Nm) | Code No. | Reg. Price \$ | SALE \$ |
|-------|---------------|--------------|------|------|------|------------------------|----------|---------------|---------|
| CT50  | ER16**        | 0.019-0.406  | 4.12 | 0.87 | 1.26 | 56.9                   | 521432   | 419.63        | 314.72  |
| CT50  | ER16**        | 0.019-0.406  | 6.00 | 0.87 | 1.26 | 56.9                   | 521434   | 438.70        | 329.03  |
| CT50  | ER32          | 0.078-0.787  | 4.00 | 1.34 | 1.97 | 169.5                  | 521454   | 411.77        | 308.83  |
| CT50  | ER32          | 0.078-0.787  | 6.00 | 1.34 | 1.97 | 169.5                  | 521456   | 499.29        | 374.47  |
| CT50  | ER32          | 0.078-0.787  | 8.00 | 1.34 | 1.97 | 169.5                  | 521458   | 481.34        | 361.01  |

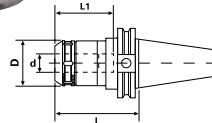
\*\* Hex Nut

## DUAL CONTACT Milling Chucks

- Improves rigidity and reduces vibration allowing for increased feed rates and increased tool life
- DIN coolant through the flange at no extra charge
- Rough milling or 'hogging' operations
- 360° gripping contact
- Improved tool life over regular end mill holders
- Extreme rigidity taper collets
- TIR, 0.0002"
- RFID chip hole
- AT2 Taper Accuracy



FOR DUAL CONTACT SPINDLES



### CT40

| Taper | Collet Series | Collet Range | d    | L    | L1   | D    | Tightening Torque (Nm) | Code No. | Reg. Price \$ | SALE \$ |
|-------|---------------|--------------|------|------|------|------|------------------------|----------|---------------|---------|
| CT40  | GS 3/4        | 0.125-0.750  | 0.75 | 3.54 | 3.15 | 2.05 | 50-70                  | 521253   | 596.90        | 447.68  |
| CT40  | GS 1          | 0.125-1.00   | 1.00 | 3.54 | 3.15 | 2.41 | 50-70                  | 521255   | 596.90        | 447.68  |
| CT40  | GS 1-1/4      | 0.187-1.25   | 1.25 | 3.54 | 3.34 | 2.88 | 60-80                  | 521257   | 596.90        | 447.68  |

‡ Not DIN Coolant

## Replacement ER Chuck Nuts



Collet Nut for ER32 Shorty Collet Chuck



| Description                                | Steam Oxide |               |         | Balanced & Bright |               |         |
|--|-------------|---------------|---------|-------------------|---------------|---------|
|  | Code No.    | Reg. Price \$ | SALE \$ | Code No.          | Reg. Price \$ | SALE \$ |
| ER11 Nut (Hex)                             | 337680      | 60.72         | 45.54   | 534790            | 36.96         | 27.72   |
| ER16 Nut (Hex)                             | 337389      | 60.72         | 45.54   |                   |               |         |
| ER20 Nut (Hex)                             | 337391      | 60.72         | 45.54   | 534794            | 42.24         | 31.68   |
| ER25 Nut (Notched)                         | 337390      | 66.00         | 49.50   |                   |               |         |
| ER32 Nut (Notched)                         | 337392      | 64.68         | 48.51   | 534798            | 51.48         | 38.61   |
| ER40 Nut (Notched)                         | 337393      | 69.96         | 52.47   |                   |               |         |
| ER50 Nut (Notched)                         | 337385      | 155.76        | 116.82  |                   |               |         |
| <b>ER32 Shorty Collet Nut</b>              |             |               |         |                   |               |         |
| Fits ER32 Shorty Chucks (M40 x 1.5 Thread) |             |               |         | 337411            | 110.13        | 82.60   |

## ER32 Collets

Our ER collet system is made of special alloy steel material under excellent heat treatment and precise grinding process, so it has precise accuracy, powerful clamping ability, and is durable. This collet can clamp for a specific standard size and its next size. It can be widely used for boring, milling, drilling and tapping as well as for grinding operation, and is available for all sizes.



AA Collets have a runout of only 5 microns (0.005mm)

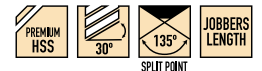
| Size (in.)              | Code No. | Reg. Price \$ | SALE \$ | AA Code No. | Reg. Price \$ | SALE \$ |
|-------------------------|----------|---------------|---------|-------------|---------------|---------|
| 3/32                    |          |               |         | 336851      | 65.05         | 48.79   |
| 1/8                     | 337703*  | 35.57         | 26.68   | 336854*     | 52.85         | 39.64   |
| 5/32                    | 337704*  | 35.57         | 26.68   | 336856*     | 52.85         | 39.64   |
| 3/16                    | 337706*  | 35.57         | 26.68   | 336859*     | 52.85         | 39.64   |
| 7/32                    | 337707*  | 35.57         | 26.68   | 336862*     | 52.85         | 39.64   |
| 1/4                     | 337708*  | 35.57         | 26.68   | 336865*     | 52.85         | 39.64   |
| 9/32                    | 337709*  | 35.57         | 26.68   | 336867*     | 52.85         | 39.64   |
| 5/16                    | 337711*  | 35.57         | 26.68   | 336869*     | 52.85         | 39.64   |
| 11/32                   | 337712*  | 35.57         | 26.68   | 336872*     | 52.85         | 39.64   |
| 3/8                     | 337713*  | 35.57         | 26.68   | 336875*     | 52.85         | 39.64   |
| 13/32                   | 337714*  | 35.57         | 26.68   | 336877*     | 52.85         | 39.64   |
| 7/16                    | 337716*  | 35.57         | 26.68   | 336880*     | 52.85         | 39.64   |
| 15/32                   | 337717*  | 35.57         | 26.68   | 336882*     | 52.85         | 39.64   |
| 1/2                     | 337718*  | 35.57         | 26.68   | 336885*     | 52.85         | 39.64   |
| 17/32                   | 337719*  | 35.57         | 26.68   | 336887*     | 52.85         | 39.64   |
| 9/16                    | 337721*  | 35.57         | 26.68   | 336890*     | 52.85         | 39.64   |
| 19/32                   | 337722*  | 35.57         | 26.68   | 336893*     | 52.85         | 39.64   |
| 5/8                     | 337723*  | 35.57         | 26.68   | 336895*     | 52.85         | 39.64   |
| 21/32                   | 337724*  | 35.57         | 26.68   | 336898*     | 52.85         | 39.64   |
| 11/16                   | 337725*  | 35.57         | 26.68   | 336900*     | 52.85         | 39.64   |
| 23/32                   | 337726*  | 35.57         | 26.68   | 336903*     | 52.85         | 39.64   |
| 3/4                     | 337727*  | 35.57         | 26.68   | 336906*     | 52.85         | 39.64   |
| 25/32                   | 337605   | 35.57         | 26.68   | 336908      | 52.85         | 39.64   |
| <b>21pc Set 1/8-3/4</b> | 337407   | 747.05        | 560.29  | 336996      | 1,109.91      | 832.43  |

\* Part of Set

## Premium HSS Jobber Length Drills



These Premium HSS drills can be used in a variety of applications. Their surface treatment increases abrasion resistance, which reduces the amount of chip welding and improves chip flow.



| Size (in.) | Decimal Equivalent | Flute Length (in.) | Overall Length (in.) | Code No. | Reg. Price \$ | SALE \$ |
|------------|--------------------|--------------------|----------------------|----------|---------------|---------|
| 1/16       | 0.0625             | 7/8                | 1-7/8                | 128001   | 2.59          | 1.94    |
| 5/64       | 0.0781             | 1                  | 2                    | 128002   | 2.59          | 1.94    |
| 3/32       | 0.0938             | 1-1/4              | 2-1/4                | 128003   | 2.59          | 1.94    |
| 7/64       | 0.1094             | 1-1/2              | 2-5/8                | 128004   | 2.95          | 2.21    |
| 1/8        | 0.1250             | 1-5/8              | 2-3/4                | 128005   | 2.95          | 2.21    |
| 9/64       | 0.1406             | 1-3/4              | 2-7/8                | 128006   | 2.93          | 2.20    |
| 5/32       | 0.1562             | 2                  | 3-1/8                | 128007   | 2.93          | 2.20    |
| 11/64      | 0.1719             | 2-1/8              | 3-1/4                | 128008   | 3.08          | 2.31    |
| 3/16       | 0.1875             | 2-5/16             | 3-1/2                | 128009   | 3.44          | 2.58    |
| 13/64      | 0.2031             | 2-7/16             | 3-5/8                | 128010   | 3.83          | 2.87    |
| 7/32       | 0.2188             | 2-1/2              | 3-3/4                | 128011   | 4.43          | 3.32    |
| 15/64      | 0.2344             | 2-5/8              | 3-7/8                | 128012   | 4.80          | 3.60    |
| 1/4        | 0.2500             | 2-3/4              | 4                    | 128013   | 5.06          | 3.80    |
| 17/64      | 0.2656             | 2-7/8              | 4-1/8                | 128014   | 6.40          | 4.80    |
| 9/32       | 0.2812             | 2-15/16            | 4-1/4                | 128015   | 6.40          | 4.80    |
| 19/64      | 0.2969             | 3-1/16             | 4-3/8                | 128016   | 7.51          | 5.63    |
| 5/16       | 0.3125             | 3-3/16             | 4-1/2                | 128017   | 7.87          | 5.90    |
| 21/64      | 0.3281             | 3-5/16             | 4-5/8                | 128018   | 8.86          | 6.65    |
| 11/32      | 0.3438             | 3-7/16             | 4-3/4                | 128019   | 9.57          | 7.18    |
| 23/64      | 0.3594             | 3-1/2              | 4-7/8                | 128020   | 10.69         | 8.02    |
| 3/8        | 0.3750             | 3-5/8              | 5                    | 128021   | 10.96         | 8.22    |
| 25/64      | 0.3906             | 3-3/4              | 5-1/8                | 128022   | 12.79         | 9.59    |
| 13/32      | 0.4062             | 3-7/8              | 5-1/4                | 128023   | 13.02         | 9.77    |
| 27/64      | 0.4219             | 3-15/16            | 5-3/8                | 128024   | 14.75         | 11.06   |
| 7/16       | 0.4375             | 4-1/16             | 5-1/2                | 128025   | 14.87         | 11.15   |
| 29/64      | 0.4531             | 4-3/16             | 5-5/8                | 128026   | 17.49         | 13.12   |
| 15/32      | 0.4688             | 4-5/16             | 5-3/4                | 128027   | 17.94         | 13.46   |
| 31/64      | 0.4844             | 4-3/8              | 5-7/8                | 128028   | 19.07         | 14.30   |
| 1/2        | 0.5000             | 4-1/2              | 6                    | 128029   | 18.93         | 14.20   |

## Centre Drills HSS

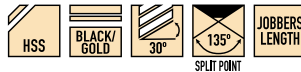
These drills are used for starting and centering screw machine operations. Their short flute and overall length increase rigidity while minimizing runout.



| Size  | Decimal Equiv. (in.) | Flute Length (in.) | Overall Length (in.) | HSS Code No. | Reg. Price \$ | SALE \$ |
|-------|----------------------|--------------------|----------------------|--------------|---------------|---------|
| #56   | 0.0465               | 3/8                | 1-3/16               | 116358       | 3.77          | 2.83    |
| 1/16  | 0.0625               | 3/8                | 1-3/16               | 116359       | 3.77          | 2.83    |
| 5/64  | 0.0781               | 3/4                | 1-1/4                | 116360       | 3.77          | 2.83    |
| 3/32  | 0.0938               | 3/4                | 1-1/4                | 116361       | 4.21          | 3.16    |
| #41   | 0.0960               | 3/4                | 1-1/4                | 116362       | 4.21          | 3.16    |
| #40   | 0.0980               | 3/4                | 1-1/4                | 116363       | 4.66          | 3.50    |
| 7/64  | 0.1094               | 3/4                | 1-1/4                | 116364       | 4.21          | 3.16    |
| 1/8   | 0.1250               | 3/4                | 1-1/4                | 116365       | 3.44          | 2.58    |
| #30   | 0.1285               | 3/4                | 1-1/4                | 116366       | 3.67          | 2.75    |
| 9/64  | 0.1406               | 3/4                | 1-1/4                | 116367       | 5.55          | 4.16    |
| 5/32  | 0.1562               | 1                  | 1-1/2                | 116368       | 6.10          | 4.58    |
| #21   | 0.1590               | 1                  | 1-1/2                | 116369       | 6.10          | 4.58    |
| #20   | 0.1610               | 1                  | 1-1/2                | 116370       | 6.10          | 4.58    |
| 11/64 | 0.1719               | 1                  | 1-1/2                | 116371       | 6.10          | 4.58    |
| 3/16  | 0.1875               | 1                  | 1-1/2                | 116372       | 6.10          | 4.58    |
| 13/64 | 0.2031               | 1                  | 1-1/2                | 116373       | 6.10          | 4.58    |
| #5    | 0.2055               | 1                  | 1-1/2                | 116374       | 6.10          | 4.58    |
| 7/32  | 0.2188               | 1                  | 1-1/2                | 116375       | 6.10          | 4.58    |
| 1/4   | 0.2500               | 1                  | 1-1/2                | 116376       | 6.76          | 5.07    |
| 9/32  | 0.2812               | 1                  | 1-1/2                | 116377       | 9.31          | 6.98    |
| 5/16  | 0.3125               | 1                  | 1-1/2                | 116378       | 11.08         | 8.31    |
| 29/64 | 0.4531               | 1                  | 1-1/2                | 116379       | 17.85         | 13.39   |

## Black/Gold Jobber Length Drills

- Black/Gold finish extends tool life
- 135° split point penetrates faster and prevents bit "walk"



| Size (in.) | Decimal Equivalent | Flute Length (in.) | Overall Length (in.) | Code No. | Reg. Price \$ | SALE \$ |
|------------|--------------------|--------------------|----------------------|----------|---------------|---------|
| 1/16       | 0.0625             | 7/8                | 1-7/8                | 105381   | 0.96          | 0.72    |
| 5/64       | 0.0781             | 1                  | 2                    | 105382   | 0.96          | 0.72    |
| 3/32       | 0.0938             | 1-1/4              | 2-1/4                | 105383   | 1.13          | 0.85    |
| 7/64       | 0.1094             | 1-1/2              | 2-5/8                | 105384   | 1.15          | 0.86    |
| 1/8        | 0.1250             | 1-5/8              | 2-3/4                | 105385   | 1.39          | 1.04    |
| 9/64       | 0.1406             | 1-3/4              | 2-7/8                | 105386   | 1.32          | 0.99    |
| 5/32       | 0.1562             | 2                  | 3-1/8                | 105387   | 1.40          | 1.05    |
| 11/64      | 0.1719             | 2-1/8              | 3-1/4                | 105388   | 1.45          | 1.09    |
| 3/16       | 0.1875             | 2-5/16             | 3-1/2                | 105389   | 1.86          | 1.40    |
| 13/64      | 0.2031             | 2-7/16             | 3-5/8                | 105390   | 1.93          | 1.45    |
| 7/32       | 0.2188             | 2-1/2              | 3-3/4                | 105391   | 2.11          | 1.58    |
| 15/64      | 0.2344             | 2-5/8              | 3-7/8                | 105392   | 2.38          | 1.79    |
| 1/4        | 0.2500             | 2-3/4              | 4                    | 105393   | 2.64          | 1.98    |
| 17/64      | 0.2656             | 2-7/8              | 4-1/8                | 105394   | 3.13          | 2.35    |
| 9/32       | 0.2812             | 2-15/16            | 4-1/4                | 105395   | 3.37          | 2.53    |
| 19/64      | 0.2969             | 3-1/16             | 4-3/8                | 105396   | 3.53          | 2.65    |
| 5/16       | 0.3125             | 3-3/16             | 4-1/2                | 105397   | 3.78          | 2.84    |
| 21/64      | 0.3281             | 3-5/16             | 4-5/8                | 105398   | 4.27          | 3.20    |
| 11/32      | 0.3438             | 3-7/16             | 4-3/4                | 105399   | 5.18          | 3.89    |
| 23/64      | 0.3594             | 3-1/2              | 4-7/8                | 105400   | 5.28          | 3.96    |
| 3/8        | 0.3750             | 3-5/8              | 5                    | 105401   | 5.96          | 4.47    |
| 25/64      | 0.3906             | 3-3/4              | 5-1/8                | 105402   | 5.83          | 4.37    |
| 13/32      | 0.4062             | 3-7/8              | 5-1/4                | 105403   | 6.46          | 4.85    |
| 27/64      | 0.4219             | 3-15/16            | 5-3/8                | 105404   | 7.29          | 5.47    |
| 7/16       | 0.4375             | 4-1/16             | 5-1/2                | 105405   | 7.46          | 5.60    |
| 29/64      | 0.4531             | 4-3/16             | 5-5/8                | 105406   | 7.59          | 5.69    |
| 15/32      | 0.4688             | 4-5/16             | 5-3/4                | 105407   | 8.24          | 6.18    |
| 31/64      | 0.4844             | 4-3/8              | 5-7/8                | 105408   | 9.34          | 7.01    |
| 1/2        | 0.5000             | 4-1/2              | 6                    | 105409   | 9.93          | 7.45    |

Full range on promotion. Visit [SovaTool.com](http://SovaTool.com) or see page B15 of our new catalogue.

## ER Chuck Nut Wrenches



Wrench for ER32 Shorty Collet Chuck



| Description                     | Code No. | Reg. Price \$ | SALE \$ |
|---------------------------------|----------|---------------|---------|
| Fits ER11 Chucks (Hex)          | 337388   | 25.08         | 18.81   |
| Fits ER16 Chucks (Hex)          | 337395   | 25.08         | 18.81   |
| Fits ER20 Chucks (Hex)          | 337397   | 36.96         | 27.72   |
| Fits ER25 Chucks (Notched)      | 337396   | 30.36         | 22.77   |
| Fits ER32 Chucks (Notched)      | 337398   | 36.96         | 27.72   |
| Fits ER40 Chucks (Notched)      | 337399   | 43.56         | 32.67   |
| <b>ER32 Shorty Chuck Wrench</b> |          |               |         |
| Fits ER32 Shorty Chucks         | 337381   | 118.89        | 89.17   |

## M1 Oil – All Purpose Lubricant – Aerosol Can



- Dries to leave a dry-lubricating, surface-protecting film
- Prevents short circuits caused by moisture
- Prevents rust and stops squeaks

| Size   | Code No. | Reg. Price \$ | SALE \$ |
|--------|----------|---------------|---------|
| 12 oz. | 629428   | 14.50         | 10.88   |

## Air Blow Gun

- 4" nozzle length
- Recommended air pressure: 75-120 psi
- Max 150 psi
- Air inlet: 1/4"



| Model No. | Code No. | Reg. Price \$ | SALE \$ |
|-----------|----------|---------------|---------|
| BG2504    | 174068   | 16.90         | 12.68   |

## Air Blow Gun

- 13" bent steel nozzle
- Recommended air pressure: 75-120 psi
- Max 150 psi
- Air inlet: 1/4"



| Model No. | Code No. | Reg. Price \$ | SALE \$ |
|-----------|----------|---------------|---------|
| BG25013   | 174070   | 23.30         | 17.48   |

## Air Micro Die Grinder

- Contains:
- 1pc TP-501-1 Grinder
  - 1pc 3 mm collet
  - 10pcs 1/8" (3 mm) grinding stones
  - 2pcs spanners
  - 1pc blow case



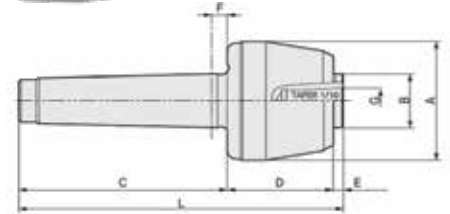
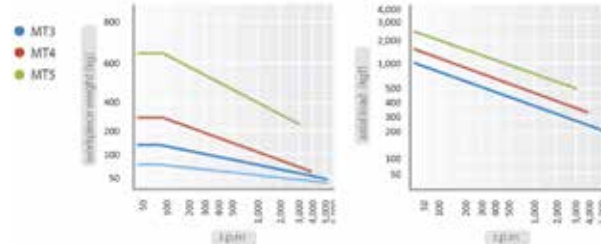
| Description          | Code No. | Reg. Price \$ | SALE \$ |
|----------------------|----------|---------------|---------|
| 1/8" die grinder kit | 174002   | 253.18        | 189.89  |



### Interchangeable Points Live Centres

Each holder comes with the 60° H insert. Other inserts available individually below.

- Accuracy for centre inner diameter guaranteed to 0.003mm
- Accuracy after point locking guaranteed to 0.005mm
- Excellent for individual production of various workpieces through different insert shafts
- Heat treated point to 60±2HRC
- 4 types of standard point are available
- 4-Bearing System: a double row angular contact bearing, a radial ball bearing, and a rear needle roller bearing combine to provide excellent rigidity and superior performance
- Because of the insert shafts the allowed workpiece weight is limited
- Mounting taper of point is 1/10
- Drop forged (50±2HRC) body
- Shaft borehole for easy, efficient dismounting



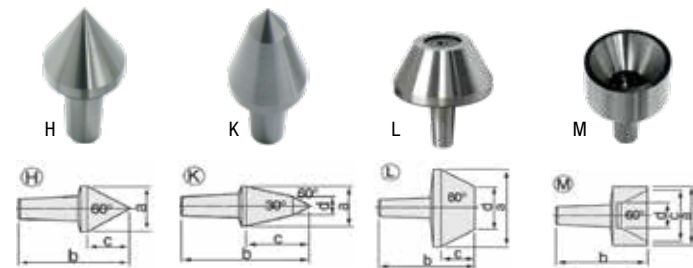
### Dimensions

| MT | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | G (mm) | L (mm) | Workpiece Weight | Max RPM | Weight | Max Runout | Code No. | Reg. Price \$ | SALE \$ |
|----|--------|--------|--------|--------|--------|--------|--------|--------|------------------|---------|--------|------------|----------|---------------|---------|
| 3  | 50     | 25     | 85     | 43.5   | 5      | 6      | 12     | 133.5  | 150 kg           | 5,000   | 0.8 kg | 0.005mm    | 311020   | 675.38        | 506.54  |
| 4  | 69     | 32     | 108    | 55     | 5      | 8      | 15     | 168    | 250 kg           | 3,800   | 1.7 kg | 0.005mm    | 311021   | 776.00        | 582.00  |
| 5  | 88     | 40     | 136    | 70     | 6      | 8      | 22     | 212    | 650 kg           | 3,000   | 3.9 kg | 0.005mm    | 311022   | 840.79        | 630.59  |

### Individual Interchangeable Points

Each holder comes with the 60° H insert and a point lever.

- Accuracy for centre inner diameter guaranteed to 0.003mm
- Accuracy after point locking guaranteed to 0.005mm
- Mounting taper of point is 1/10



| MT | Inserts            | a (mm) | b (mm) | c (mm) | d (mm) | Code No. | Reg. Price \$ | SALE \$ |
|----|--------------------|--------|--------|--------|--------|----------|---------------|---------|
| 3  | H                  | 24     | 51.5   | 20     | -      | 311037   | 57.17         | 42.88   |
|    | K                  | 18     | 54     | 25     | 8      | 311038   | 57.17         | 42.88   |
|    | L                  | 45     | 51     | 17.5   | 25     | 311039   | 66.87         | 50.15   |
|    | M                  | 22     | 60     | 18     | 6.5    | 311040   | 143.93        | 107.95  |
|    | Disassembling Tool |        |        |        |        | 311068   | 27.91         | 20.93   |
| 4  | H                  | 28     | 61.5   | 23.5   | -      | 311041   | 76.38         | 57.29   |
|    | K                  | 26     | 73     | 36     | 12     | 311042   | 91.88         | 68.91   |
|    | L                  | 55     | 61.5   | 21.5   | 30.2   | 311043   | 107.36        | 80.52   |
|    | M                  | 40     | 55     | 35     | 16.5   | 311044   | 192.25        | 144.19  |
|    | Disassembling Tool |        |        |        |        | 311069   | 27.91         | 20.93   |
| 5  | H                  | 38     | 78     | 32     | -      | 311045   | 95.61         | 71.71   |
|    | K                  | 32     | 90     | 46     | 13     | 311046   | 115.01        | 86.26   |
|    | L                  | 70     | 74     | 20     | 40     | 311047   | 134.40        | 100.80  |
|    | M                  | 52     | 65     | 45     | 25.4   | 311048   | 241.59        | 181.19  |
|    | Disassembling Tool |        |        |        |        | 311070   | 27.91         | 20.93   |

### 3-Jaw F/A Precision Steel Body Scroll Chucks — 2pc Hard Rev. Jaws

#### Features:

- 3-Jaw, self-centering scroll chuck
- Steel body extends machine life while providing higher rigidity and greater wear resistance
- Hardened and ground working surfaces ensure longer life with maintained accuracy and repeatability
- Balanced scroll plate and chuck allows higher rotation speeds without excess vibration
- Repeatability: 0.0006"
- Superior accuracy: small screws on the outside enable the chuck to be adjusted to position with nearly zero runout (adjusting accuracy within 0.0002")
- The clamped workpiece is adjusted to the required concentricity by means of 4 (8 for sizes 16", 20" & 25") radially arranged adjusting screws

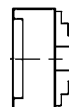


#### Application:

- This precision chuck, with increased gripping accuracy, is made for universal use, but particularly advantageous for grinding machines, indexing heads, and lathes
- Especially suitable for machining parts with top concentricity



Mounting  
3565  
Plain Back



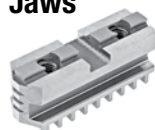
| Chuck Size    | 6"       | 8"       | 10"      |
|---------------|----------|----------|----------|
| Hole Size     | 1.6535   | 2.1653   | 2.9921   |
| Weight lbs.   | 20       | 35       | 57       |
| Code No.      | 435625   | 435630   | 435635   |
| Reg. Price \$ | 1,912.28 | 2,092.33 | 2,374.02 |
| SALE \$       | 1,434.21 | 1,569.25 | 1,780.52 |

### Hard Top Jaws 3pc set



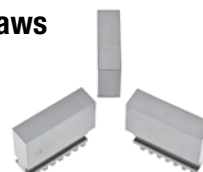
| Chuck Dia. | 3-Jaw Code No. | Reg. Price \$ | SALE \$ |
|------------|----------------|---------------|---------|
| 6          | 460710         | 416.72        | 312.54  |
| 8          | 460715         | 442.86        | 332.15  |
| 10         | 460720         | 482.06        | 361.55  |

### Hard Master Jaws 3pc set



| Chuck Dia. | 3-Jaw Code No. | Reg. Price \$ | SALE \$ |
|------------|----------------|---------------|---------|
| 6          | 467360         | 418.18        | 313.64  |
| 8          | 467365         | 454.48        | 340.86  |
| 10         | 467370         | 514.01        | 385.51  |

### Soft Solid Jaws Sold in sets



| Chuck Dia. | Code No. | Reg. Price \$ | SALE \$ |
|------------|----------|---------------|---------|
| 6          | 467760   | 187.31        | 140.48  |
| 10         | 467770   | 312.18        | 234.14  |

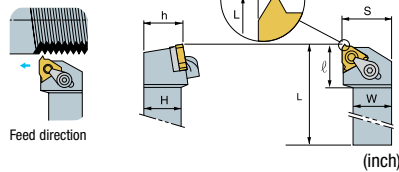
### Wrenches



| Wrench 3 & 6-Jaw |          |               |         |             |
|------------------|----------|---------------|---------|-------------|
| Chuck Dia.       | Code No. | Reg. Price \$ | SALE \$ | Square Size |
| 6                | 460415   | 92.93         | 69.70   | 0.43        |
| 8                | 460415   | 92.93         | 69.70   | 0.43        |
| 10               | 460425   | 113.26        | 84.95   | 0.55        |

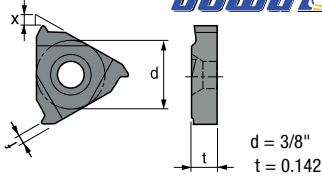
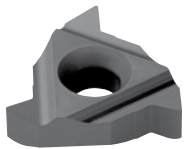


External Threading Holders  
ETH3



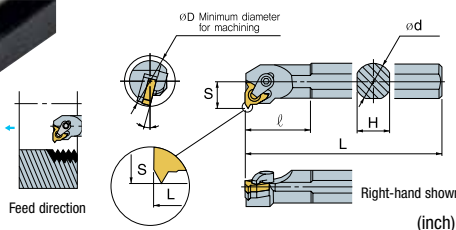
| Ref     | Holder Style |               |         | Application        |       |       |       |       |
|---------|--------------|---------------|---------|--------------------|-------|-------|-------|-------|
| Comment |              |               |         | External Threading |       |       |       |       |
| ETH3    | Code No.     | Reg. Price \$ | SALE \$ | H=(h)              | W     | L     | S     | ℓ     |
| 3/4"    | 146708       | 115.66        | 86.75   | 0.750              | 0.750 | 6.000 | 1.205 | 1.100 |
| 1"      | 146290       | 128.86        | 96.65   | 1.000              | 1.000 | 6.000 | 1.205 | 1.100 |

External Threading Inserts  
ECTR



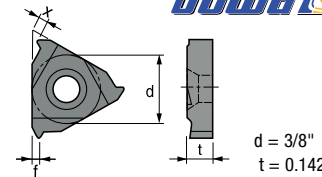
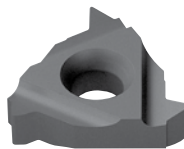
|               | Coated Carbide | Reg. Price \$ | SALE \$ | (inch) |       |     |       |              |
|---------------|----------------|---------------|---------|--------|-------|-----|-------|--------------|
| Designation   | PM30P          |               |         | Pitch  | f     | θ   | x     | Cutting Edge |
| ECTR 20UN     | 146524         | 48.34         | 36.26   | 20     | 0.039 | 60° | 0.051 | A            |
| ECTR 16UN     | 146489         | 39.11         | 29.33   | 16     | 0.039 | 60° | 0.051 | A            |
| ECTR 10UN     | 146249         | 48.34         | 36.26   | 10     | 0.059 | 60° | 0.059 | A            |
| ECTR 300 8-28 | 146597         | 48.34         | 36.26   | 28-8   | 0.039 | 60° | 0.051 | D            |

Internal Threading Holders  
ITH3



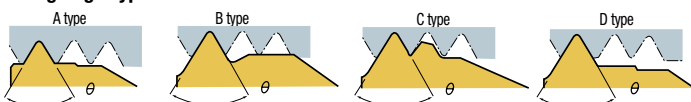
| Ref     | Holder Style |               |         | Application        |       |       |       |      |       |
|---------|--------------|---------------|---------|--------------------|-------|-------|-------|------|-------|
| Comment |              |               |         | Internal Threading |       |       |       |      |       |
| ITH3    | Code No.     | Reg. Price \$ | SALE \$ | øD                 | ød    | H     | L     | ℓ    | S     |
| 3/4"    | 146255       | 175.45        | 131.59  | 0.950              | 0.750 | 0.625 | 7.00  | 2.00 | 0.520 |
| 1"      | 146254       | 208.52        | 156.39  | 1.150              | 1.000 | 0.750 | 8.00  | 2.50 | 0.650 |
| 1.25"   | 146256       | 276.80        | 207.60  | 1.460              | 1.250 | 1.250 | 10.00 | 2.50 | 0.780 |

Internal Threading Inserts  
ICTR



|               | Coated Carbide | Reg. Price \$ | SALE \$ | (inch) |       |     |       |              |
|---------------|----------------|---------------|---------|--------|-------|-----|-------|--------------|
| Designation   | PM30P          |               |         | Pitch  | f     | θ   | x     | Cutting Edge |
| ICTR 16UN     | 146514         | 40.26         | 30.20   | 16     | 0.039 | 60° | 0.051 | A            |
| ICTR 10UN     | 146252         | 48.34         | 36.26   | 10     | 0.059 | 60° | 0.059 | A            |
| ICTR 300 8-28 | 146610         | 48.34         | 36.26   | 28-8   | 0.039 | 60° | 0.051 | D            |

Cutting Edge Type



Yellow Ring HSSE-V3 DIN Length  
ANSI Shank Spiral Point Taps



- HSSE-V3% Vanadium
- Superior performance in hardened tool steels such as 4140, 4340, H13, D2
- Up to 35HRC

These taps combine ANSI shank specifications with advantage of DIN lengths for added reach.



• 4.5 Pitch lead (Intermediate)

| Tap     | No. Flutes | Thread Limits | Overall Length (in.) | Thread Length (in.) | Code No. | Reg. Price \$ | SALE \$ |
|---------|------------|---------------|----------------------|---------------------|----------|---------------|---------|
| 10-24   | 3          | H3            | 2.756                | 0.591               | 124820   | 12.68         | 9.51    |
| 1/4-20  | 3          | H3            | 3.150                | 0.669               | 124822   | 14.00         | 10.50   |
| 5/16-18 | 3          | H3            | 3.543                | 0.669               | 124824   | 15.65         | 11.74   |
| 3/8-16  | 3          | H3            | 3.937                | 0.787               | 124826   | 28.55         | 21.41   |
| 7/16-14 | 3          | H3            | 3.937                | 0.866               | 124828   | 23.04         | 17.28   |
| 1/2-13  | 3          | H3            | 4.331                | 0.984               | 124830   | 26.68         | 20.01   |
| 5/8-11  | 3          | H3            | 4.331                | 1.063               | 124832   | 48.39         | 36.29   |
| 3/4-10  | 3          | H3            | 4.921                | 1.181               | 124834   | 75.85         | 56.89   |

Yellow Ring HSSE-V3 DIN Length  
ANSI Shank Spiral Flute Taps



- HSSE-V3% Vanadium
- Superior performance in hardened tool steels such as 4140, 4340, H13, D2
- Up to 35HRC

These taps combine ANSI shank specifications with advantage of DIN lengths for added reach.



• 2.5 Pitch lead (Bottoming)

| Tap     | No. Flutes | Thread Limits | Overall Length (in.) | Thread Length (in.) | Code No. | Reg. Price \$ | SALE \$ |
|---------|------------|---------------|----------------------|---------------------|----------|---------------|---------|
| 10-24   | 3          | H3            | 2.756                | 0.417               | 124800   | 18.52         | 13.89   |
| 1/4-20  | 3          | H3            | 3.150                | 0.500               | 124802   | 20.06         | 15.05   |
| 5/16-18 | 3          | H3            | 3.543                | 0.556               | 124804   | 24.59         | 18.44   |
| 3/8-16  | 3          | H3            | 3.937                | 0.625               | 124806   | 28.55         | 21.41   |
| 7/16-14 | 3          | H3            | 3.937                | 0.714               | 124808   | 42.66         | 32.00   |
| 1/2-13  | 3          | H3            | 4.331                | 0.769               | 124810   | 50.27         | 37.70   |
| 5/8-11  | 4          | H3            | 4.331                | 0.909               | 124812   | 88.52         | 66.39   |
| 3/4-10  | 4          | H3            | 4.921                | 1.000               | 124814   | 113.88        | 85.41   |

Die Stocks



| Tool No. | (mm)        | (in.)       | Length (mm) | Code No. | Reg. Price \$ | SALE \$ |
|----------|-------------|-------------|-------------|----------|---------------|---------|
| 13/16    | 20.6 x 6.35 | 13/16 x 1/4 | 200         | 113750   | 17.12         | 12.84   |
| 1        | 25.4 x 9.5  | 1 x 3/8     | 224         | 113755   | 17.87         | 13.40   |
| 1 1/2    | 38.1 x 12.7 | 1-1/2 x 1/2 | 315         | 113760   | 29.39         | 22.04   |
| 2        | 50.8 x 15.9 | 2 x 5/8     | 560         | 113765   | 65.23         | 48.92   |

HSS Adjustable Round Split Dies — Inch



QUALITY IMPORT

Coarse Threads

| Size        | TPI  | Code No. | Reg. Price \$ | SALE \$ |
|-------------|------|----------|---------------|---------|
| 1" O.D.     | 5/16 | 140385   | 23.90         | 17.93   |
|             | 3/8  | 140390   | 23.90         | 17.93   |
| 1-1/2" O.D. | 3/8  | 140415   | 40.18         | 30.14   |
|             | 1/2  | 140425   | 40.18         | 30.14   |
|             | 5/8  | 140435   | 40.18         | 30.14   |
| 2" O.D.     | 3/4  | 140445   | 68.76         | 51.57   |

Outside Micrometers Sets — Inch

ASIMETO

- Locking clamp
- Carbide faces
- Satin chrome finish



| Range        | Grad.   | Notes                                     | Code No. | Reg. Price \$ | SALE \$ |
|--------------|---------|---|----------|---------------|---------|
| 0-3" (3pc)   | 0.0001" | 0-1"+1-2" Friction 2-3" Ratchet           | 7101637  | 151.57        | 113.68  |
| 0-6" (6pc)   | 0.0001" | 0-1"+1-2" Friction 2-3" to 5-6" Ratchet   | 7101667  | 371.65        | 278.74  |
| 6-12" (6pc)  | 0.0001" | All Ratchet Stop                          | 7101827  | 1,259.58      | 944.69  |
| 0-12" (12pc) | 0.0001" | 0-1"+1-2" Friction 2-3" to 11-12" Ratchet | 7101727  | 899.00        | 674.25  |

Dial Calipers — Stainless Steel

ASIMETO

- Hardened Stainless Steel
- Preloaded dual pinions eliminate backlash and provides better repeatability



| Range | Graduation | Range per Rev | Accuracy | Code No. | Reg. Price \$ | SALE \$ |
|-------|------------|---------------|----------|----------|---------------|---------|
| 0-6"  | 0.001"     | 0.100"        | ±0.001"  | 7303061  | 87.15         | 65.36   |
| 0-8"  | 0.001"     | 0.100"        | ±0.0015" | 7303081  | 115.42        | 86.57   |
| 0-12" | 0.001"     | 0.100"        | ±0.0015" | 7303121  | 211.20        | 158.40  |

Holders With Fine Adjustment On Top

NOGA

New Fine Adjustment on top with universal clamp.

- Holds 6mm, 3/8", dovetail and lug back
- Unique central locking mechanism with spring loaded bearing
- Dial gauge holder is 3 dimensional
- Powerful on/off magnetic base
- Instant fixation in any position
- Fast and easy to set up gauges into required position
- Black finished arms



| Model   | Arm Length and Diameter |                    | Code No. | Reg. Price \$ | SALE \$ |
|---------|-------------------------|--------------------|----------|---------------|---------|
|         | Bottom Arm Length(mm)   | Top Arm Length(mm) |          |               |         |
| NF61003 | 56                      | 51                 | 165498   | 199.74        | 149.81  |
| DG61003 | 110                     | 101                | 165500   | 252.45        | 189.34  |
| MG61003 | 133                     | 113                | 165502   | 317.01        | 237.76  |

AGD2 Dial Indicators

ASIMETO

- Dial face dia. 2.20"
- Lug Back
- Easy to read dial face



7402265

| Range       | Grad.   | Dial Reading | Range per Rev. | Stem Dia. | Code No. | Reg. Price \$ | SALE \$ |
|-------------|---------|--------------|----------------|-----------|----------|---------------|---------|
| <b>Inch</b> |         |              |                |           |          |               |         |
| 0-0.05"     | 0.0001" | 0-50-0       | 0.01"          | 3/8       | 7402013  | 132.21        | 99.16   |
| 0-0.05"     | 0.0001" | 10-0         | 0.01"          | 3/8       | 7402011  | 132.21        | 99.16   |
| 0-0.05"     | 0.0001" | 0-5-0        | 0.01"          | 3/8       | 7402015  | 166.23        | 124.67  |
| 0-0.25"     | 0.0005" | 0-25-0       | 0.05"          | 3/8       | 7402065  | 79.99         | 59.99   |
| 0-0.5"      | 0.0005" | 0-50         | 0.05"          | 3/8       | 7402125  | 61.98         | 46.49   |
| 0-1"        | 0.0005" | 0-50         | 0.05"          | 3/8       | 7402265  | 63.80         | 47.85   |
| 0-0.25"     | 0.001"  | 0-100        | 0.1"           | 3/8       | 7402061  | 53.62         | 40.22   |
| 0-0.25"     | 0.001"  | 0-50-0       | 0.1"           | 3/8       | 7402063  | 79.99         | 59.99   |
| 0-0.5"      | 0.001"  | 0-100        | 0.1"           | 3/8       | 7402121  | 56.27         | 42.20   |
| 0-0.5"      | 0.001"  | 0-50-0       | 0.1"           | 3/8       | 7402123  | 63.56         | 47.67   |
| 0-1"        | 0.001"  | 0-100        | 0.1"           | 3/8       | 7402261  | 45.27         | 33.95   |
| 0-1"        | 0.001"  | 0-50-0       | 0.1"           | 3/8       | 7402263  | 63.80         | 47.85   |
| 0-2"        | 0.001"  | 0-100        | 0.1"           | 3/8       | 7402511  | 122.99        | 92.24   |

Single Beam Digital Height Gauges With Hand Wheel

ASIMETO

- Large LCD display
- Hand wheel design for fine adjustment
- Inch/Metric conversion
- Carbide tipped scriber
- Zero setting on any position



| Range           | Resolution       | Accuracy        | Code No. | Reg. Price \$ | SALE \$ |
|-----------------|------------------|-----------------|----------|---------------|---------|
| 0-12" / 0-300mm | 0.0005" / 0.01mm | ±0.0015"/0.04mm | 7626120  | 699.00        | 524.25  |
| 0-18" / 0-450mm | 0.0005" / 0.01mm | ±0.0015"/0.04mm | 7626180  | 1,029.68      | 772.26  |
| 0-24" / 0-600mm | 0.0005" / 0.01mm | ±0.0020"/0.05mm | 7626240  | 999.00        | 749.25  |

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