

GUIDE TO SMALL TOOLS

● Section organization

- ① Organized according to cutting mode of small tools.
(Refer to the index on the next page.)
- ② In order of Turning→External Grooving→External Cutting Off→Threading→Boring.

TYPE OF TOOL HOLDER indicates the first four letters of the order number, as well as cutting applications.

APPLICATION PRODUCT SECTION

FIGURE SHOWING TOOLING APPLICATION uses illustrations and arrows to depict the available machining applications such as external turning, copying, facing, and chamfering together with cutting edge lead angles.

GEOMETRY CHIP BREAKER BY CUTTING APPLICATION

SMALL TOOLS

FRONT TURNING TOOLS (FOR GANG TYPE TOOL POSTS)

INCH STANDARD

SCAC-SM Without off set

| Order Number | Stock | Insert Number | Dimensions (inch) | | | | | | | | | | Insert Screw | Wrench |
|---------------|-------|---------------|-------------------|-----|-----|-------|-----|-----|-----|---|-------|--------|--------------|--------|
| | | | H1 | B | L1 | L2 | L3 | H2 | S1 | R | | S2 | | |
| SCACR/L-062SM | R/L | CCET | 21.5 | 375 | 375 | 4.921 | — | — | 375 | 0 | TS254 | TKY08R | | |
| -063SM | | CCGT | 32.5 | 375 | 375 | 4.921 | 680 | 156 | 375 | 0 | TS43 | TKY15R | | |
| -083SM | | CCGW | 32.5 | 500 | 500 | 5.906 | 504 | 031 | 500 | 0 | TS43 | TKY15R | | |
| -103SM | | CCMW | 32.5 | 500 | 500 | 5.906 | — | — | 625 | 0 | TS43 | TKY15R | | |
| | | NP-CCGW | 32.5 | 625 | 625 | 5.906 | — | — | 625 | 0 | TS43 | TKY15R | | |

* Clamp Torque (ft-in) : TS254=4.9, TS43=31

SCLC-SM Without off set

| Order Number | Stock | Insert Number | Dimensions (inch) | | | | | | | | | | Insert Screw | Wrench |
|--------------|-------|---------------|-------------------|-----|-----|-------|-----|-----|-----|---|-------|--------|--------------|--------|
| | | | H1 | B | L1 | L2 | L3 | H2 | S1 | R | | S2 | | |
| SCLCRA-062SM | R/L | CCET | 21.5 | 375 | 375 | 4.921 | — | — | 375 | 0 | TS254 | TKY08R | | |
| -063SM | | CCGT | 32.5 | 375 | 375 | 4.921 | 807 | 176 | 375 | 0 | TS43 | TKY15R | | |
| -083SM | | CCGW | 32.5 | 500 | 500 | 5.906 | 685 | 051 | 500 | 0 | TS43 | TKY15R | | |
| -103SM | | CCMW | 32.5 | 500 | 500 | 5.906 | — | — | 625 | 0 | TS43 | TKY15R | | |
| | | NP-CCGW | 32.5 | 625 | 625 | 5.906 | — | — | 625 | 0 | TS43 | TKY15R | | |

* Clamp Torque (ft-in) : TS254=4.9, TS43=31

INCH STANDARD

SDJC-SM Without off set

| Order Number | Stock | Insert Number | Dimensions (inch) | | | | | | | | | | Insert Screw | Wrench |
|---------------|-------|---------------|-------------------|-----|-----|-------|-----|-----|-----|---|-------|--------|--------------|--------|
| | | | H1 | B | L1 | L2 | L3 | H2 | S1 | R | | S2 | | |
| SDJCR/L-062SM | R/L | DCET | 21.5 | 375 | 375 | 4.921 | — | — | 375 | 0 | TS254 | TKY08R | | |
| -063SM | | DCGT | 32.5 | 375 | 375 | 4.921 | 865 | 176 | 375 | 0 | TS43 | TKY15R | | |
| -083SM | | DCGW | 32.5 | 500 | 500 | 5.906 | 843 | 051 | 500 | 0 | TS43 | TKY15R | | |
| -103SM | | DCMW | 32.5 | 500 | 500 | 5.906 | — | — | 625 | 0 | TS43 | TKY15R | | |
| | | NP-DCGW | 32.5 | 625 | 625 | 5.906 | — | — | 625 | 0 | TS43 | TKY15R | | |
| | | NP-DCMW | 32.5 | 625 | 625 | 5.906 | — | — | 625 | 0 | TS43 | TKY15R | | |

* Clamp Torque (ft-in) : TS254=4.9, TS43=31

SDNC-SM Neutral edge with handed holder Without off set

| Order Number | Stock | Insert Number | Dimensions (inch) | | | | | | | | | | Insert Screw | Wrench |
|---------------|-------|---------------|-------------------|-----|-----|-------|-----|-----|-----|-----|-------|--------|--------------|--------|
| | | | H1 | B | L1 | L2 | L3 | H2 | S1 | R | | S2 | | |
| SDNCR/L-062SM | R/L | DCET | 21.5 | 375 | 375 | 4.921 | — | — | 375 | 118 | TS254 | TKY08R | | |
| -063SM | | DCGT | 32.5 | 375 | 375 | 4.921 | 865 | 097 | 375 | 197 | TS43 | TKY15R | | |
| -083SM | | DCGW | 32.5 | 500 | 500 | 5.906 | — | — | 500 | 197 | TS43 | TKY15R | | |
| -103SM | | DCMW | 32.5 | 500 | 500 | 5.906 | — | — | 625 | 197 | TS43 | TKY15R | | |
| | | NP-DCGW | 32.5 | 625 | 625 | 5.906 | — | — | 625 | 197 | TS43 | TKY15R | | |
| | | NP-DCMW | 32.5 | 625 | 625 | 5.906 | — | — | 625 | 197 | TS43 | TKY15R | | |

* Clamp Torque (ft-in) : TS254=4.9, TS43=31

RECOMMENDED CUTTING CONDITIONS

| Work Material | Grade | Cutting Speed (SFM) | Feed (IPR) |
|------------------------------|---------------|---------------------|------------|
| P Carbon Steel - Alloy Steel | VP15TF/AE6020 | 165-490 | .0004-.006 |
| | VP15TF | 100-590 | .0004-.006 |
| Free Cutting Carbon Steel | AP25N | 165-820 | .0004-.006 |
| | VP15TF | 165-395 | .0008-.004 |
| M Stainless Steel | VP15TF | 165-395 | .0008-.004 |
| N Non-Ferrous Metal | HT10RT9005 | 230-755 | .0012-.006 |

D008 ● Inventory maintained.

SCAC-SM type inserts > A101 - A106
SCLC-SM type inserts > A109 - A108
CEN & PCO inserts > B038 - B040, B058

SDJC-SM type inserts > A109 - A113
SDNC-SM type inserts > A109 - A113
CEN & PCO inserts > B042, B043, B051

SPARE PARTS > M001
TECHNICAL DATA > N001

LEGEND FOR STOCK STATUS MARK
is shown on the left hand page of each double-page spread.

REFERENCE PAGE FOR APPLICABLE INSERTS
indicates reference pages giving details of inserts that are applicable to the product.

PAGE REFERENCE - SPARE PARTS - TECHNICAL DATA
indicates reference pages, including the above, on the right hand page of each double-page spread.

PRODUCT STANDARDS
indicates order numbers, stock status (per right/left hand), applicable inserts, dimensions, and spare parts.

RECOMMENDED CUTTING CONDITIONS
for each work material classification, indicates recommended cutting conditions according to the ISO categories for cutting grades, P, M and N.

● To Order : Please specify order number and hand of tool (right/left).

TURNING SMALL TOOLS

*Arranged by Alphabetical order

| | |
|------|---|
| D016 | BTAH (INCH STANDARD) |
| D019 | BTAH (METRIC STANDARD) |
| D016 | BTAT INSERTS |
| D017 | BTBT INSERTS |
| D018 | BTVH (INCH STANDARD) |
| D021 | BTVH (METRIC STANDARD) |
| D018 | BTVT INSERTS |
| D041 | CSVH (INCH STANDARD) |
| D044 | CSVH (METRIC STANDARD) |
| D042 | CSVTB INSERTS |
| D042 | CSVTBXL INSERTS |
| D042 | CSVTC INSERTS |
| D041 | CSVTF INSERTS |
| D041 | CSVTFXL INSERTS |
| D043 | CSVTG INSERTS |
| D043 | CSVTT INSERTS |
| D026 | CTAH (INCH STANDARD) |
| D028 | CTAH (METRIC STANDARD) |
| D026 | CTAH-S (INCH STANDARD) |
| D028 | CTAH-S (METRIC STANDARD) |
| D027 | CTAT INSERTS |
| D017 | CTBH (INCH STANDARD) |
| D030 | CTBH (INCH STANDARD) |
| D020 | CTBH (METRIC STANDARD) |
| D031 | CTBH (METRIC STANDARD) |
| D030 | CTBT INSERTS |
| D032 | CTCH (METRIC STANDARD) |
| D032 | CTCT INSERTS |
| D033 | CTDH (METRIC STANDARD) |
| D033 | CTDT INSERTS |
| D034 | CTEH (METRIC STANDARD) |
| D034 | CTET INSERTS |
| D022 | GTAH/GTBH/GTCH (INCH STANDARD) |
| D024 | GTAH/GTBH/GTCH (METRIC STANDARD) |
| D022 | GAT/GTBT/GTCT INSERTS |
| D038 | MMTE (INCH STANDARD) |
| D047 | SBAH (METRIC STANDARD) |
| D047 | SBAT INSERTS |
| D008 | SCAC-SM (INCH STANDARD) |
| D012 | SCAC-SM (METRIC STANDARD) |
| D008 | SCLC-SM (INCH STANDARD) |
| D012 | SCLC-SM (METRIC STANDARD) |
| D009 | SDJC-SM (INCH STANDARD) |
| D013 | SDJC-SM (METRIC STANDARD) |
| D009 | SDNC-SM (INCH STANDARD) |
| D013 | SDNC-SM (METRIC STANDARD) |
| D039 | SH (INCH STANDARD) |
| D040 | SH (METRIC STANDARD) |
| D010 | SVJB-SM (INCH STANDARD) |
| D014 | SVJB-SM (METRIC STANDARD) |
| D010 | SVLP-SM (INCH STANDARD) |
| D014 | SVLP-SM (METRIC STANDARD) |
| D015 | SVPP-SM (METRIC STANDARD) |
| D011 | SVVB-SM (INCH STANDARD) |
| D015 | SVVB-SM (METRIC STANDARD) |
| D035 | TTAH (INCH STANDARD) |
| D036 | TTAH (METRIC STANDARD) |
| D035 | TTAT INSERTS |

| | |
|-------------------------------------|------|
| OUTLINE OF SMALL TOOLS | D002 |
| CLASSIFICATION | D004 |

STANDARD

GANG TYPE TOOL POSTS

FRONT TURNING TOOLS

| | INCH | METRIC |
|----------------------|------|--------|
| SCAC-SM | D008 | D012 |
| SCLC-SM | D008 | D012 |
| SDJC-SM | D009 | D013 |
| SDNC-SM | D009 | D013 |
| SVLP-SM | D010 | D014 |
| SVJB-SM | D010 | D014 |
| SVVB-SM | D011 | D015 |
| SVPP-SM | — | D015 |

BACK TURNING TOOLS

| | | |
|-------------------|------|------|
| BTAH | D016 | D019 |
| CTBH | D017 | D020 |
| BTVH | D018 | D021 |

GROOVING TOOLS

| | | |
|---------------------------------|------|------|
| GTAH / GTBH / GTCH | D022 | D024 |
|---------------------------------|------|------|

CUTTING OFF TOOLS

| | | |
|----------------------------|------|------|
| CTAH / CTAH-S | D026 | D028 |
| CTBH | D030 | D031 |
| CTCH | D032 | |
| CTDH | D033 | |
| CTEH | D034 | |

THREADING TOOLS

| | | |
|-------------------|------|------|
| TTAH | D035 | D036 |
| MMTE | D038 | — |

BORING TOOLS

| | | |
|-------------------|------|--|
| SBAH | D047 | |
|-------------------|------|--|

OPPOSITE TOOL POSTS

DIMPLE SLEEVE HOLDER

| | | |
|-----------------|------|------|
| SH | D039 | D040 |
|-----------------|------|------|

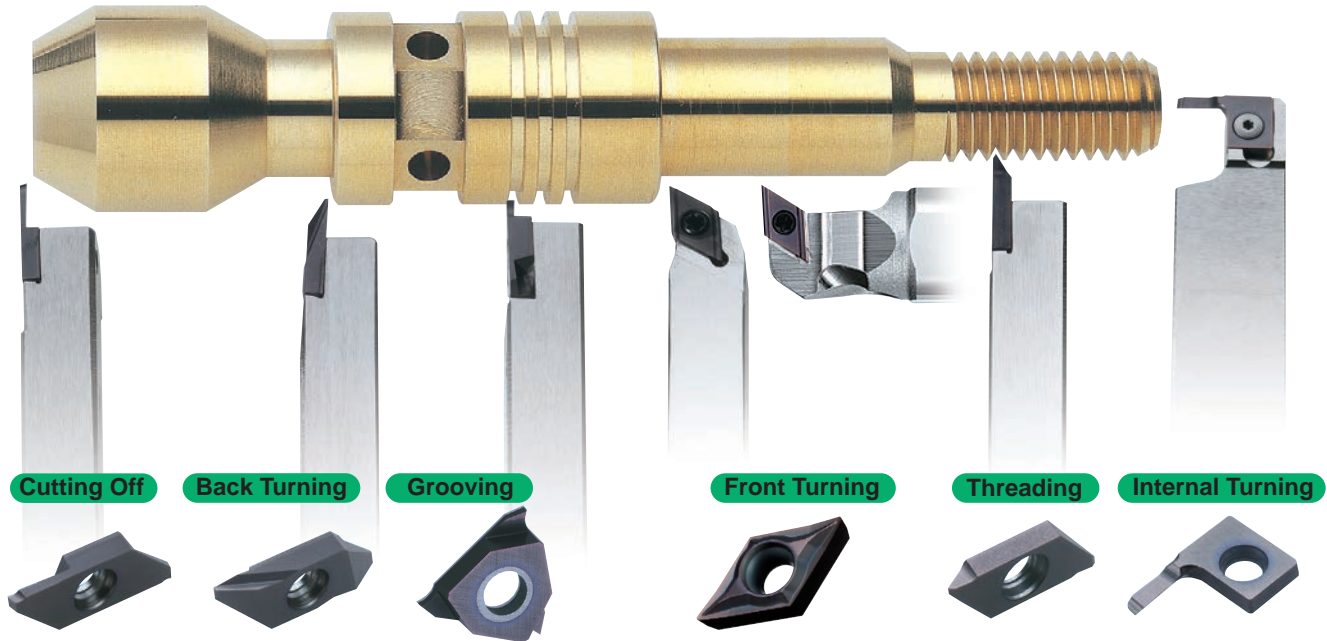
RADIAL TYPE TOOL POSTS

| | | |
|----------------------|------|------|
| CSVH | D041 | D044 |
| CSVTF | D041 | D044 |
| CSVTFXL | D041 | D044 |
| CSVTC | D042 | D045 |
| CSVTB | D042 | D045 |
| CSVTBXL | D042 | D045 |
| CSVTG | D043 | D046 |
| CSVTT | D043 | D046 |

OUTLINE OF SMALL TOOLS

TOOLS FOR GANG TYPE TOOL POSTS

SMALL TOOLS

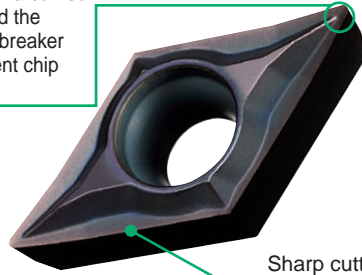


● SMG Breaker Insert

Corner radii designed with minus tolerance

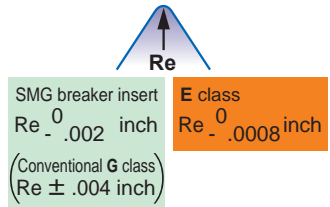
- Suitable for precision parts applications that often require minus tolerance dimensions.
- The order number is shown with the letter "M" that indicates minus tolerance. ex) DCGT21.51MSMG
- The radius value is printed on the side of the insert label for easy recognition.

A combination of a curved cutting edge and the protrusion type breaker promotes efficient chip breaking.

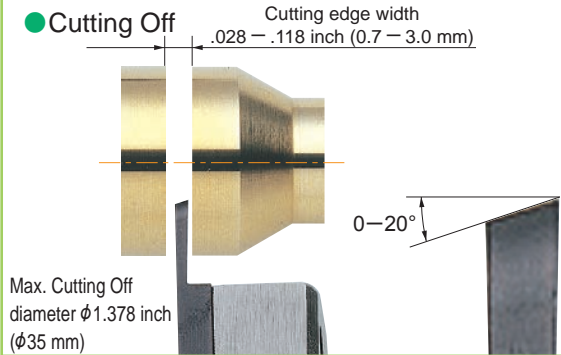


Sharp cutting edge

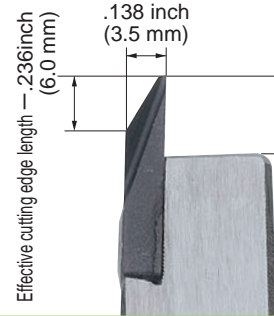
● Tolerance Corner R



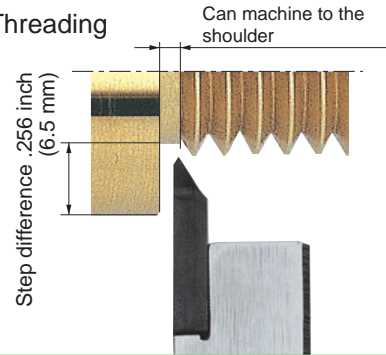
● Cutting Off



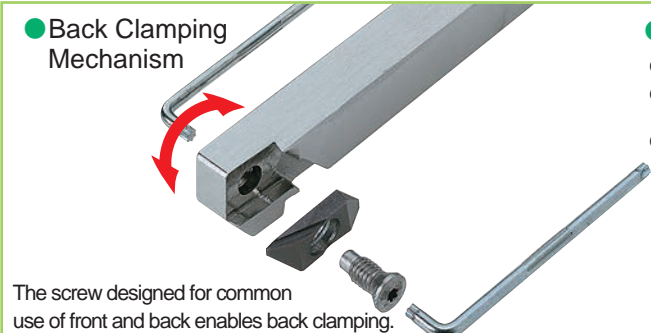
● Back Turning



● Threading

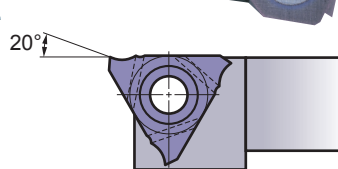


● Back Clamping Mechanism



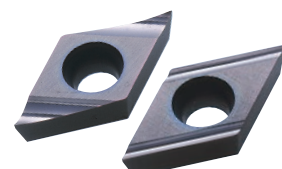
● Grooving

- 3-cornered
- Groove width $.012 - .118 \text{ inch (0.3 - 3.0 mm)}$
- Profiling possible



● Front Turning

- ISO E class insert
- A wide variety of small corner R
- Rake angle 30°



Tools responding to a wide range of small parts machining operations

| | |
|-------------------------|---|
| External Turning | Tools for front turning, back turning, grooving, threading, and cutting off |
| Internal Turning | Tools for boring, internal grooving, and internal threading |
| Drilling | Drills |
| End Milling | End mills |

Tools for front turning, back turning, grooving, threading, and cutting off

| | |
|-----------------------|---|
| Tool Post Type | Gang type, Turret type Radial type |
| Tool Size | Square holder : .375—.625 inch (8 – 16 mm) Round holder : ≤ ϕ1 inch (ϕ25.4 mm) |

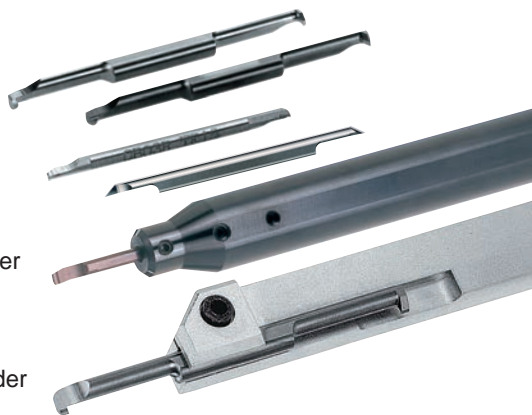
Indexable inserts developed under the concept of "high quality, high efficiency, and long tool life."

| | |
|------------------------|--|
| High Quality | E class tolerance, sharp cutting edge, high accuracy small corner R, smooth surface finish. |
| Long Tool Life | Miracle Coating (VP15TF), cermet (NX2525), cemented carbide (HTi10). |
| High Efficiency | Regrinding not necessary due to the employment of indexable inserts. A wide variety of top cutting edge geometries. |

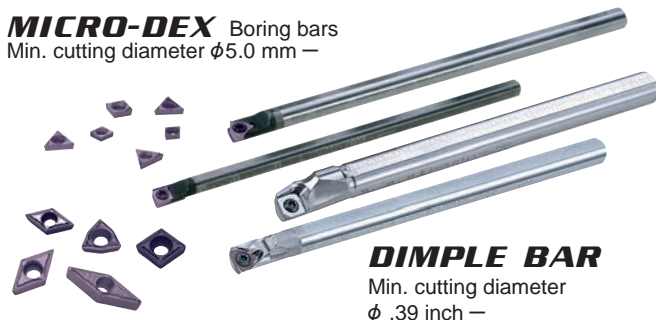
INTERNAL TURNING TOOLS

MICRO-MINI TWIN Boring bars
Min. cutting diameter ϕ2.2 mm –

Boring
Grooving
Threading



MICRO-DEX Boring bars
Min. cutting diameter ϕ5.0 mm –



TOOLS FOR SWISS STYLE LATHES WITH RADIAL TOOL POSTS

- The most suitable for swiss style lathes with radial tool posts.
- The most suitable for machining of small parts with work diameter ϕ5 mm (.197 inch) or smaller.
- Single holder responds to front turning, back turning, grooving, threading, and cutting off operations.



SMALL TOOLS

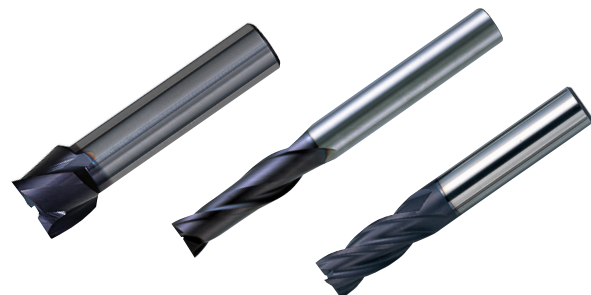
DRILLING TOOLS

- Solid Carbide Drills



END MILLING TOOLS

- Solid Carbide End Mills



CLASSIFICATION (EXTERNAL TURNING)

GANG TYPE TOOL POSTS

FRONT TURNING

| Name of Tool Holder | Tool Size (H x W x L) | | Geometry |
|--|-----------------------|---------------|-------------|
| | Inch | Metric | |
| SCAC-SM | .375 x .375 x 4.921 | 8 x 8 x 125 | |
| | .500 x .500 x 5.906 | 10 x 10 x 125 | |
| | .625 x .625 x 5.906 | 12 x 12 x 150 | |
| Inch → D008 Metric → D012 | | | 90° |
| SCLC-SM | .375 x .375 x 4.921 | 8 x 8 x 125 | |
| | .500 x .500 x 5.906 | 10 x 10 x 125 | |
| | .625 x .625 x 5.906 | 12 x 12 x 150 | |
| Inch → D008 Metric → D012 | | | 95° |
| SDJC-SM | .375 x .375 x 4.921 | 8 x 8 x 125 | |
| | .500 x .500 x 5.906 | 10 x 10 x 125 | |
| | .625 x .625 x 5.906 | 12 x 12 x 150 | |
| Inch → D009 Metric → D013 | | | 93° |
| SDNC-SM | .375 x .375 x 4.921 | 8 x 8 x 125 | |
| | .500 x .500 x 5.906 | 10 x 10 x 125 | |
| | .625 x .625 x 5.906 | 12 x 12 x 150 | |
| Inch → D009 Metric → D013 | | | 62° 30° |
| SVLP-SM | .375 x .375 x 5.000 | 10 x 10 x 125 | |
| | .500 x .500 x 6.000 | 12 x 12 x 150 | |
| | .625 x .625 x 6.000 | 16 x 16 x 150 | |
| Inch → D010 Metric → D014 | | | 95° |
| SVJB-SM | .375 x .375 x 4.921 | 10 x 10 x 125 | |
| | .500 x .500 x 5.906 | 12 x 12 x 150 | |
| | .625 x .625 x 5.906 | 16 x 16 x 150 | |
| Inch → D010 Metric → D014 | | | 93° |
| SVPP-SM | - | 10 x 10 x 125 | |
| | - | 12 x 12 x 150 | |
| | - | 16 x 16 x 150 | |
| Metric → D015 | | | 117° 30° |
| SVVB-SM | .375 x .375 x 4.921 | 10 x 10 x 125 | |
| | .500 x .500 x 5.906 | 12 x 12 x 150 | |
| | .625 x .625 x 5.906 | 16 x 16 x 150 | |
| Inch → D011 Metric → D015 | | | 72° 30° |

BACK TURNING

| Name of Tool Holder | Tool Size (H x W x L) | | Geometry |
|---|-----------------------|---------------|----------|
| | Inch | Metric | |
| BTAH (Edge Length) .110, .138, .197 inch 2.8, 3.5, 5.0 mm | .375 x .375 x 4.724 | 8 x 10 x 120 | |
| | .500 x .500 x 4.724 | 10 x 10 x 120 | |
| | .625 x .625 x 4.724 | 12 x 12 x 120 | |
| Inch → D016 Metric → D019 | | | |
| CTBH (Edge Length) .177, .236 inch 4.5, 6.0 mm | .375 x .375 x 4.724 | 10 x 10 x 120 | |
| | .500 x .500 x 4.724 | 12 x 12 x 120 | |
| | .625 x .625 x 4.724 | 16 x 16 x 120 | |
| Inch → D017 Metric → D020 | | | |
| BTVH (Edge Length) .295 inch 7.5 mm | .375 x .375 x 4.724 | 10 x 10 x 120 | |
| | .500 x .500 x 4.724 | 12 x 12 x 120 | |
| | .625 x .625 x 4.724 | 16 x 16 x 120 | |
| Inch → D018 Metric → D021 | | | 53° |

THREADING

| Name of Tool Holder | Tool Size (H x W x L) | | Geometry |
|--|-----------------------|---------------|----------|
| | Inch | Metric | |
| TTAH | .375 x .375 x 4.724 | 8 x 10 x 120 | |
| | .500 x .500 x 4.724 | 10 x 10 x 120 | |
| | .625 x .625 x 4.724 | 12 x 12 x 120 | |
| Inch → D035 Metric → D036 | | | |
| MMTE <small>NEW</small> | .375 x .375 x 4.724 | - | |
| | .500 x .500 x 4.724 | - | |
| Inch → D038 | | | |

GROOVING

| Name of Tool Holder | Tool Size (H x W x L) | | Geometry |
|--|-----------------------|---------------|----------|
| | Inch | Metric | |
| GTAH (Grooving Width) .012-.055 inch 0.3-3.0 mm | .375 x .375 x 3.150 | 8 x 8 x 80 | |
| | .500 x .500 x 3.150 | 8 x 8 x 120 | |
| | .500 x .500 x 4.724 | 10 x 10 x 80 | |
| | .625 x .625 x 4.724 | 10 x 10 x 120 | |
| Inch → D022 Metric → D024 | | | |
| | | | |
| GTBH (Grooving Width) .057-.089 inch 1.45-3.0 mm | .375 x .375 x 3.150 | 10 x 10 x 80 | |
| | .375 x .375 x 4.724 | 10 x 10 x 120 | |
| | .500 x .500 x 4.724 | 12 x 12 x 120 | |
| | .625 x .625 x 4.724 | 16 x 16 x 120 | |
| Inch → D022 Metric → D024 | | | |
| | | | |
| GTCH (Grooving Width) .098-.118 inch 2.5-3.0 mm | .375 x .375 x 3.150 | 10 x 10 x 80 | |
| | .375 x .375 x 4.724 | 10 x 10 x 120 | |
| Inch → D022 Metric → D024 | | | |
| | | | |

CUTTING OFF

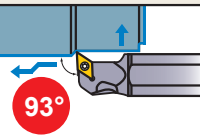
| Name of Tool Holder | Tool Size (H x W x L) | | Geometry |
|--|-----------------------|---------------|----------|
| | Inch | Metric | |
| CTAH (Max.Cut Off Diameter) .472 inch 12 mm | .375 x .375 x 4.724 | 8 x 10 x 120 | |
| | .500 x .500 x 4.724 | 10 x 10 x 120 | |
| | .625 x .625 x 4.724 | 12 x 12 x 120 | |
| Inch → D026 Metric → D028 | | | |
| | | | |
| CTAH-S (Max.Cut Off Diameter) .472 inch 12 mm | .375 x .375 x 3.150 | 10 x 10 x 80 | |
| | .500 x .500 x 3.150 | | |
| Inch → D026 Metric → D028 | | | |
| | | | |
| CTBH (Max.Cut Off Diameter) .630 inch 16 mm | .375 x .375 x 4.724 | 10 x 10 x 120 | |
| | .500 x .500 x 4.724 | 12 x 12 x 120 | |
| | .625 x .625 x 4.724 | 16 x 16 x 120 | |
| Inch → D030 Metric → D031 | | | |
| | | | |
| CTCH (Max.Cut Off Diameter) .787 inch 20 mm | - | 10 x 10 x 120 | |
| | - | 12 x 12 x 120 | |
| Metric → D032 | | | |
| CTDH (Max.Cut Off Diameter) .906-1.378 inch 23-35 mm | - | 16 x 16 x 120 | |
| | - | 16 x 16 x 125 | |
| Metric → D033 | | | |
| CTEH (Max.Cut Off Diameter) .906-1.378 inch 23-35 mm | - | 16 x 16 x 120 | |
| | - | 16 x 16 x 125 | |
| Metric → D034 | | | |

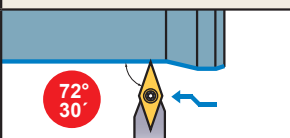
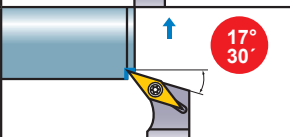
SMALL TOOLS



OPPOSITE TOOL POSTS

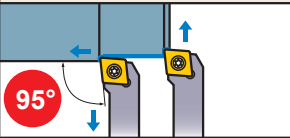
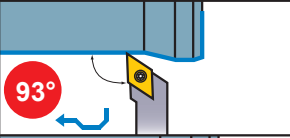
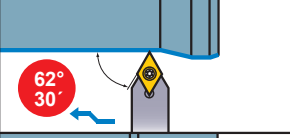
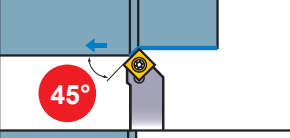
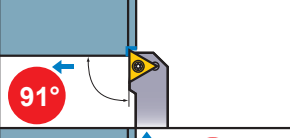
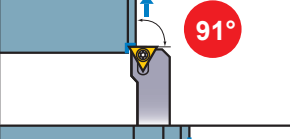


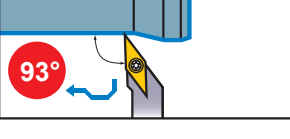
● DIMPLE SLEEVE HOLDER

| Name of Tool Holder | Shank Size (D x L) | | Geometry |
|----------------------|--------------------|---------------|---|
| | Inch | Metric | |
| SH | .625 x 3.937 | φ15.875 x 100 |  |
| | .750 x 4.921 | φ19.05 x 125 | |
| | .787 x 4.921 | φ20 x 125 | |
| | .866 x 4.921 | φ22 x 125 | |
| | 1.000 x 5.906 | φ25.4 x 150 | |
| Inch → D039 | | | |
| Metric → D040 | | | |

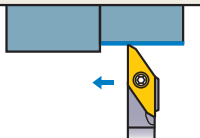
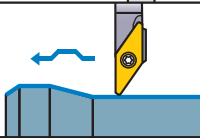
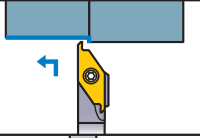
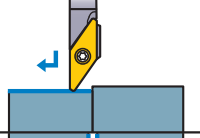
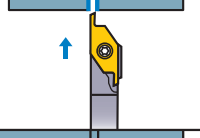
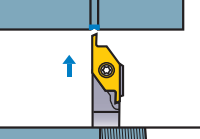
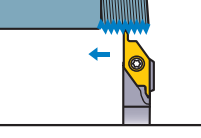
| Name of Tool Holder | Shank Size (inch) (H x W x L) | Geometry |
|---------------------|-------------------------------|---|
| SVVB | .375 x .375 x 2.500 |  |
| | .500 x .500 x 3.000 | |
| | .625 x .625 x 4.000 | |
| Inch → C028 | | |
| SVHB | .375 x .375 x 2.500 |  |
| | .500 x .500 x 3.500 | |
| | .625 x .625 x 4.000 | |
| Inch → C029 | | |

TURRET TYPE TOOL POSTS

● FRONT TURNING

| Name of Tool Holder | Shank Size (inch) (H x W x L) | Geometry |
|---------------------|-------------------------------|---|
| SCLC | .375 x .375 x 2.500 |  |
| | .500 x .500 x 3.500 | |
| SDJC | .375 x .375 x 2.500 |  |
| | .500 x .500 x 3.500 | |
| SDNC | .375 x .375 x 2.500 |  |
| | .500 x .500 x 3.500 | |
| SSSC | .500 x .500 x 3.500 |  |
| | .625 x .625 x 4.000 | |
| STGC | .375 x .375 x 2.500 |  |
| | .500 x .500 x 3.500 | |
| STFC | .375 x .375 x 2.500 |  |
| | .500 x .500 x 3.500 | |
| SVJC | .375 x .375 x 2.500 |  |
| | .500 x .500 x 3.500 | |
| SVPC | .500 x .500 x 3.500 |  |
| | .625 x .625 x 4.000 | |
| SVJB | .375 x .375 x 2.500 |  |
| | .500 x .500 x 3.500 | |
| Inch → C030 | | |
| | | |
| Inch → C031 | | |
| | | |
| Inch → C031 | | |
| | | |
| Inch → C034 | | |
| | | |
| Inch → C035 | | |
| | | |
| Inch → C035 | | |
| | | |
| Inch → C036 | | |
| | | |
| Inch → C036 | | |
| | | |
| Inch → C028 | | |
| | | |

RADIAL TYPE TOOL POSTS

| Name of Tool Holder | Tool Size (H x W x L) | | Geometry |
|--------------------------------|-----------------------|-----------------|---|
| | Inch | Metric | |
| CSVH (Front Turning) | .375 x .375 x 5.512 | 7 x 7 x 140 |  |
| | .500 x .500 x 5.512 | 8 x 8 x 140 | |
| | | 9.5 x 9.5 x 140 | |
| | | 10 x 10 x 140 | |
| Inch → D041 | | | |
| | | | |
| | | | |
| | | | |
| CSVH (Front Copying) | .375 x .375 x 5.512 | 7 x 7 x 140 |  |
| | .500 x .500 x 5.512 | 8 x 8 x 140 | |
| | | 9.5 x 9.5 x 140 | |
| | | 10 x 10 x 140 | |
| Inch → D041 | | | |
| | | | |
| | | | |
| | | | |
| CSVH (Back Turning) | .375 x .375 x 5.512 | 7 x 7 x 140 |  |
| | .500 x .500 x 5.512 | 8 x 8 x 140 | |
| | | 9.5 x 9.5 x 140 | |
| | | 10 x 10 x 140 | |
| Inch → D042 | | | |
| | | | |
| | | | |
| | | | |
| CSVH (Back Turning) | .375 x .375 x 5.512 | 7 x 7 x 140 |  |
| | .500 x .500 x 5.512 | 8 x 8 x 140 | |
| | | 9.5 x 9.5 x 140 | |
| | | 10 x 10 x 140 | |
| Inch → D042 | | | |
| | | | |
| | | | |
| | | | |
| CSVH (Cutting Off) | .375 x .375 x 5.512 | 7 x 7 x 140 |  |
| | .500 x .500 x 5.512 | 8 x 8 x 140 | |
| | | 9.5 x 9.5 x 140 | |
| | | 10 x 10 x 140 | |
| Inch → D042 | | | |
| | | | |
| | | | |
| | | | |
| CSVH (Grooving) | .375 x .375 x 5.512 | 7 x 7 x 140 |  |
| | .500 x .500 x 5.512 | 8 x 8 x 140 | |
| | | 9.5 x 9.5 x 140 | |
| | | 10 x 10 x 140 | |
| Inch → D043 | | | |
| | | | |
| | | | |
| | | | |
| CSVH (Threading) | .375 x .375 x 5.512 | 7 x 7 x 140 |  |
| | .500 x .500 x 5.512 | 8 x 8 x 140 | |
| | | 9.5 x 9.5 x 140 | |
| | | 10 x 10 x 140 | |
| Inch → D043 | | | |
| | | | |
| | | | |
| | | | |
| Metric → D046 | | | |
| | | | |
| | | | |
| | | | |

SMALL TOOLS

CLASSIFICATION (INTERNAL TURNING)

SMALL TOOLS

| Min. Cutting Dia. | Name of Tool Holder | Features | $\theta = 75^\circ$ | $\theta = 93^\circ$ | |
|--|---|---|---------------------|---------------------|--|
| | | | | | |
| $\phi 3.0\text{mm}$ ($\phi .118$ inch) | For Gang Type Tool Posts SBAH | <ul style="list-style-type: none"> The minimum cutting diameter is $\phi 3\text{mm}$ (.118inch). Tools for Gang type Swiss type lathes. | | | SBAH E047 |
| $\phi 2.2\text{mm}$ $\phi 7.2\text{mm}$ ($\phi .087$ inch) ($\phi .283$ inch) | MICRO-MINI TWIN Boring Bars (Solid Carbide) | <ul style="list-style-type: none"> The minimum cutting diameter is $\phi 2.2\text{mm}$ (.087inch). Two cutting edges type. Continuous cutting from boring to facing. With or without a chip breaker. | | | |
| $\phi 3.2\text{mm}$ $\phi 5.2\text{mm}$ ($\phi .126$ inch) ($\phi .205$ inch) | MICRO-MINI Boring Bars (Solid Carbide) | <ul style="list-style-type: none"> The minimum cutting diameter is from $\phi 3.2\text{mm}$ (.126inch). Single cutting edge type. l/d is 5 times the diameter. Cutting edge can be shaped according to the application. Thus, it covers a wide cutting range. (threading, grooving, copying, etc.) | | | FR-BLS E031 |
| $\phi 5.0\text{mm}$ $\phi 8.0\text{mm}$ ($\phi .197$ inch) ($\phi .315$ inch) | MICRO-DEX Boring Bars | <ul style="list-style-type: none"> The minimum cutting diameter is from $\phi 5\text{mm}$ (.197inch). 7° positive insert. Carbide shank type. Easy-to-use tool geometries. Suitable for small workpiece. l/d is 5 times the diameter. | | | SWUB E029 |
| $\phi .390$ inch $\phi .977$ inch | SCREW CLAMP DIMPLE BAR (Heavy Metal Shank) (Steel Shank) | <ul style="list-style-type: none"> The minimum cutting diameter is $\phi .390\text{inch}$. 7°, 11° positive insert. Excellent vibration resistance due to light dimple head. Coolant thru type. | | | M-FSDUC E008 M/S-FSTUP M E007 S E007 M-FSVUB/C E009 M-FSWUB/P E009 |
| $\phi .228$ inch $\phi .937$ inch | Screw Clamp Type Boring Bars (Steel Shank) | <ul style="list-style-type: none"> Two wall pocket. 7° positive insert, low cutting force. Screw clamp type. Steel, heavy metal and carbide shanks are available in various diameters. | | | S-SSKC E015 S-SDUC E014 S-STUC E015 S-SWUC E019 |
| $\phi .200$ inch $\phi .750$ inch | Screw Clamp Type Boring Bars (Heavy Metal Shank) | | | | |
| $\phi .228$ inch $\phi .797$ inch | Screw Clamp Type Boring Bars (Carbide Shank) | | | | C-STUC E016 |
| $\phi .390$ inch $\phi .790$ inch | SL5 Type Boring Bars | <ul style="list-style-type: none"> Multi-functional bar for threading, grooving and boring. Minimum bore $\phi .390\text{inch}$. Rigid insert retention. | | | |
| $\phi 10\text{mm}$ $\phi 20\text{mm}$ ($\phi .394$ inch) ($\phi .787$ inch) | F Type Boring Bars (FSL51,52) | <ul style="list-style-type: none"> The minimum cutting diameter is $\phi 10\text{mm}$ (.394inch). Single holder can be equipped with grooving inserts and threading inserts. | | | |

(Note 1) Products with blue color symbol have carbide shank.

SMALL TOOLS

FRONT TURNING TOOLS (FOR GANG TYPE) TOOL POSTS

INCH STANDARD

SMALL TOOLS

SCAC-SM Without off set

| Order Number | Stock | | Insert Number | Dimensions (inch) | | | | | | | | Insert Screw * | Wrench |
|----------------------|-------|---|---------------|-------------------|------|------|-------|------|------|------|---|----------------|--------|
| | R | L | | H1 | B | L1 | L2 | L9 | H2 | S1 | | | |
| SCACR/L-062SM | ● | ● | CCET | 21.5 | .375 | .375 | 4.921 | — | — | .375 | 0 | TS254 | TKY08R |
| -063SM | ● | ● | CCGT CCGW | 32.5 | .375 | .375 | 4.921 | .630 | .156 | .375 | 0 | TS43 | TKY15R |
| -083SM | ● | ● | CCMT CCMW | 32.5 | .500 | .500 | 5.906 | .504 | .031 | .500 | 0 | TS43 | TKY15R |
| -103SM | ● | ● | NP-CCGW | 32.5 | .625 | .625 | 5.906 | — | — | .625 | 0 | TS43 | TKY15R |

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

SCLC-SM Without off set

| Order Number | Stock | | Insert Number | Dimensions (inch) | | | | | | | | Insert Screw * | Wrench |
|----------------------|-------|---|---------------|-------------------|------|------|-------|------|------|------|---|----------------|--------|
| | R | L | | H1 | B | L1 | L2 | L9 | H2 | S1 | | | |
| SCLCR/L-062SM | ● | ● | CCET | 21.5 | .375 | .375 | 4.921 | — | — | .375 | 0 | TS254 | TKY08R |
| -063SM | ● | ● | CCGT CCGW | 32.5 | .375 | .375 | 4.921 | .807 | .176 | .375 | 0 | TS43 | TKY15R |
| -083SM | ● | ● | CCMT CCMW | 32.5 | .500 | .500 | 5.906 | .685 | .051 | .500 | 0 | TS43 | TKY15R |
| -103SM | ● | ● | NP-CCGW | 32.5 | .625 | .625 | 5.906 | — | — | .625 | 0 | TS43 | TKY15R |

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

(Note) Insert photo is an example. Letters show chip breaker style, figures show inscribed circle.



- SCAC-SM type inserts > A101–A106
- SCLC-SM type inserts > A101–A106
- CBN & PCD inserts > B038–B040, B058

D008



● : Inventory maintained.



INCH STANDARD

| Order Number | | Stock | | Insert Number | Dimensions (inch) | | | | | | *   | | |
|----------------------|-----|-------|--------------------|---------------|-------------------|------|-------|------|------|------|---|--------------|--------|
| | | | | | H1 | B | L1 | L2 | L9 | H2 | S1 | Insert Screw | Wrench |
| SDJCR/L-062SM | ● ● | ● ● | DCET DCGT | 21.5 | .375 | .375 | 4.921 | — | — | .375 | 0 | TS254 | TKY08R |
| -063SM | ● ● | ● ● | DCGW DCMT | 32.5 | .375 | .375 | 4.921 | .965 | .176 | .375 | 0 | TS43 | TKY15R |
| -083SM | ● ● | ● ● | DCMW NP-DCGW | 32.5 | .500 | .500 | 5.906 | .843 | .051 | .500 | 0 | TS43 | TKY15R |
| -103SM | ● ● | ● ● | NP-DCMT NP-DCMW | 32.5 | .625 | .625 | 5.906 | — | — | .625 | 0 | TS43 | TKY15R |

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

| Order Number | | Stock | | Insert Number | Dimensions (inch) | | | | | | *   | | |
|----------------------|-----|-------|--------------------|---------------|-------------------|------|-------|------|------|------|---|--------------|--------|
| | | | | | H1 | B | L1 | L2 | L9 | H2 | S1 | Insert Screw | Wrench |
| SDNCR/L-062SM | ● ● | ● ● | DCET DCGT | 21.5 | .375 | .375 | 4.921 | — | — | .375 | .118 | TS254 | TKY08R |
| -063SM | ● ● | ● ● | DCGW DCMT | 32.5 | .375 | .375 | 4.921 | .965 | .097 | .375 | .197 | TS43 | TKY15R |
| -083SM | ● ● | ● ● | DCMW NP-DCGW | 32.5 | .500 | .500 | 5.906 | — | — | .500 | .197 | TS43 | TKY15R |
| -103SM | ● ● | ● ● | NP-DCMT NP-DCMW | 32.5 | .625 | .625 | 5.906 | — | — | .625 | .197 | TS43 | TKY15R |

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

RECOMMENDED CUTTING CONDITIONS

| | Work Material | Grade | Cutting Speed (SFM) | Feed (IPR) |
|----------|----------------------------|----------------------|---------------------|-------------|
| P | Carbon Steel · Alloy Steel | VP15TF/UE6020 | 165—490 | .0004— .006 |
| | Free Cutting Carbon Steel | VP15TF | 100—590 | .0004— .006 |
| | | AP25N | 165—820 | .0004— .006 |
| M | Stainless Steel | VP15TF | 165—395 | .0008— .004 |
| N | Non-Ferrous Metal | HTi10/RT9005 | 230—755 | .0012— .006 |

SDJC-SM type inserts > A109—A113
 SDNC-SM type inserts > A109—A113
 CBN & PCD inserts > B042, B043, B059

SPARE PARTS > M001
 TECHNICAL DATA > N001

SMALL TOOLS

SMALL TOOLS

FRONT TURNING TOOLS (FOR GANG TYPE) TOOL POSTS

INCH STANDARD

SVLP-SM NEW Without off set

95°

Right hand tool holder shown.

| Order Number | Stock | | Insert Number | Dimensions (inch) | | | | | Insert Screw * | Wrench | |
|---------------|-------|---|---------------|---------------------|------|------|-------|------|----------------|--------|--------|
| | R | L | | H1 | B | L1 | H2 | S1 | | | |
| SVLPR-061.5SM | ● | | VPET VPGT | 1.51.5 [○] | .375 | .375 | 5.000 | .375 | 0 | TS202 | TKY06R |
| -081.5SM | ● | | | 1.51.5 [○] | .500 | .500 | 6.000 | .500 | 0 | TS202 | TKY06R |
| SVLPR/L-062SM | ● | ● | | 22 [○] | .375 | .375 | 5.000 | .375 | 0 | TS255 | TKY08R |
| -082SM | ● | ● | | 22 [○] | .500 | .500 | 6.000 | .500 | 0 | TS255 | TKY08R |
| -102SM | ● | ● | | 22 [○] | .625 | .625 | 6.000 | .625 | 0 | TS255 | TKY08R |

* Clamp Torque (lbf-in) : TS202=5.3, TS255=8.9

SVJB-SM Without off set

93°

Right hand tool holder shown.

| Order Number | Stock | | Insert Number | Dimensions (inch) | | | | | Insert Screw * | Wrench | |
|---------------|-------|---|----------------------|-------------------|------|------|-------|------|----------------|--------|--------|
| | R | L | | H1 | B | L1 | H2 | S1 | | | |
| SVJBR/L-062SM | ● | ● | VBET VBGT VBMT | 22 [○] | .375 | .375 | 4.921 | .375 | 0 | TS255 | TKY08R |
| -082SM | ● | ● | | 22 [○] | .500 | .500 | 5.906 | .500 | 0 | TS255 | TKY08R |
| -102SM | ● | ● | | 22 [○] | .625 | .625 | 5.906 | .625 | 0 | TS255 | TKY08R |

* Clamp Torque (lbf-in) : TS255=8.9

(Note) Insert photo is an example. Letters show chip breaker style, figures show inscribed circle.

- SVLP-SM type inserts > A131
- SVJB-SM type inserts > A125-A127
- CBN & PCD inserts > B047, B063

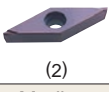
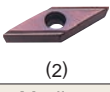
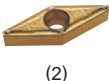
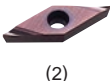
D010



● : Inventory maintained.



INCH STANDARD

SVVB-SM Neutral edge with handed holder

| | |
|---|---|
| Finish | Medium |
| R/L-F | R/L-SN |
|  (2) |  (2) |
| Medium | Medium |
| MV | R/L-SR |
|  (2) |  (2) |

| Order Number | Stock | | Insert Number | Dimensions (inch) | | | | | *   | | |
|----------------------|-------|---|----------------------|-------------------|------|------|-------|------|---|--------|--------|
| | R | L | | H1 | B | L1 | H2 | S1 | Insert Screw | Wrench | |
| SVVBR/L-062SM | ● | ● | VBET VBGT VBMT | 22 | .375 | .375 | 4.921 | .375 | .118 | TS255 | TKY08R |
| -082SM | ● | ● | | 22 | .500 | .500 | 5.906 | .500 | .118 | TS255 | TKY08R |
| -102SM | ● | ● | | 22 | .625 | .625 | 5.906 | .625 | .118 | TS255 | TKY08R |

* Clamp Torque (lbf-in) : TS255=8.9

SMALL TOOLS

RECOMMENDED CUTTING CONDITIONS

| | Work Material | Grade | Cutting Speed (SFM) | Feed (IPR) |
|----------|----------------------------|----------------------|---------------------|------------|
| P | Carbon Steel · Alloy Steel | VP15TF/UE6020 | 165–490 | .0004–.006 |
| | Free Cutting Carbon Steel | VP15TF | 100–590 | .0004–.006 |
| | | AP25N | 165–820 | .0004–.006 |
| M | Stainless Steel | VP15TF | 165–395 | .0008–.004 |
| N | Non-Ferrous Metal | HTi10/RT9005 | 230–755 | .0012–.006 |

SVVB-SM type inserts > A125–A127

SPARE PARTS > M001
TECHNICAL DATA > N001

D011

SMALL TOOLS

FRONT TURNING TOOLS (FOR GANG TYPE) TOOL POSTS

METRIC STANDARD

SMALL TOOLS

SCAC-SM

Without off set

| Order Number | Stock | | Insert Number | Dimensions (mm) | | | | | | | | Insert Screw * | Wrench |
|-------------------|-------|---|---|-----------------|----|----|-----|----|-----|----|---|----------------|--------|
| | R | L | | H1 | B | L1 | L2 | L9 | H2 | S1 | | | |
| SCACR/L0808K06-SM | ● | ● | CCET CCGT CCGW CCMT CCMW NP-CCGW | 21.5 | 8 | 8 | 125 | 11 | 1.6 | 8 | 0 | TS254 | TKY08R |
| 1010K06-SM | ● | ● | | 21.5 | 10 | 10 | 125 | — | — | 10 | 0 | TS254 | TKY08R |
| 1010K09-SM | ● | ● | | 32.5 | 10 | 10 | 125 | 16 | 3.5 | 10 | 0 | TS43 | TKY15R |
| 1212M09-SM | ● | ● | | 32.5 | 12 | 12 | 150 | 14 | 1.5 | 12 | 0 | TS43 | TKY15R |
| 1616M09-SM | ● | ● | | 32.5 | 16 | 16 | 150 | — | — | 16 | 0 | TS43 | TKY15R |

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

SCLC-SM

Without off set

| Order Number | Stock | | Insert Number | Dimensions (mm) | | | | | | | | Insert Screw * | Wrench |
|-------------------|-------|---|---|-----------------|----|----|-----|----|-----|----|---|----------------|--------|
| | R | L | | H1 | B | L1 | L2 | L9 | H2 | S1 | | | |
| SCLCR/L0808K06-SM | ● | ● | CCET CCGT CCGW CCMT CCMW NP-CCGW | 21.5 | 8 | 8 | 125 | 11 | 2.1 | 8 | 0 | TS254 | TKY08R |
| 1010K06-SM | ● | ● | | 21.5 | 10 | 10 | 125 | — | — | 10 | 0 | TS254 | TKY08R |
| 1010K09-SM | ● | ● | | 32.5 | 10 | 10 | 125 | 20 | 4 | 10 | 0 | TS43 | TKY15R |
| 1212M09-SM | ● | ● | | 32.5 | 12 | 12 | 150 | 18 | 2 | 12 | 0 | TS43 | TKY15R |
| 1616M09-SM | ● | ● | | 32.5 | 16 | 16 | 150 | — | — | 16 | 0 | TS43 | TKY15R |

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

(Note) Insert photo is an example. Letters show chip breaker style, figures show inscribed circle.

- SCAC-SM type inserts > A101–A106
- SCLC-SM type inserts > A101–A106
- CBN & PCD inserts > B038–B040, B058

D012

● : Inventory maintained.

METRIC STANDARD

| SDJC-SM Without off set | | | | Finish | | Finish | | Light | | Medium | | | |
|--------------------------------|-------|---|--------------------|--------------------|-----|--------|------|--------|----------|-------------------|--------------|--------|--------|
| | | | | SMG | R-F | R-SS | R-SN | Medium | Flat Top | Non-Ferrous Metal | CBN/PCD | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Order Number | Stock | | Insert Number | Dimensions (mm) | | | | | | | | * | |
| | R | L | | H1 | B | L1 | L2 | L9 | H2 | S1 | Insert Screw | Wrench | |
| SDJCR/L0808K07-SM | ● | ● | DCET | 21.5 \varnothing | 8 | 8 | 125 | 15 | 2 | 8 | 0 | TS254 | TKY08R |
| 1010K07-SM | ● | ● | DCGT DCGW | 21.5 \varnothing | 10 | 10 | 125 | — | — | 10 | 0 | TS254 | TKY08R |
| 1010K11-SM | ● | ● | DCMT DCMW | 32.5 \varnothing | 10 | 10 | 125 | 24 | 4 | 10 | 0 | TS43 | TKY15R |
| 1212M11-SM | ● | ● | NP-DCGW NP-DCMT | 32.5 \varnothing | 12 | 12 | 150 | 22 | 2 | 12 | 0 | TS43 | TKY15R |
| 1616M11-SM | ● | ● | NP-DCMW | 32.5 \varnothing | 16 | 16 | 150 | — | — | 16 | 0 | TS43 | TKY15R |

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

| SDNC-SM Neutral edge with handed holder Without off set | | | | Finish | | Finish | | Light | | Medium | | | |
|--|-------|---|--------------------|--------------------|-----|--------|------|--------|----------|-------------------|--------------|--------|--------|
| | | | | SMG | R-F | R-SS | R-SN | Medium | Flat Top | Non-Ferrous Metal | CBN/PCD | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Order Number | Stock | | Insert Number | Dimensions (mm) | | | | | | | | * | |
| | R | L | | H1 | B | L1 | L2 | L9 | H2 | S1 | Insert Screw | Wrench | |
| SDNCR/L0808K07-SM | ● | ● | DCET | 21.5 \varnothing | 8 | 8 | 125 | — | — | 8 | 3 | TS254 | TKY08R |
| 1010K07-SM | ● | ● | DCGT DCGW | 21.5 \varnothing | 10 | 10 | 125 | — | — | 10 | 3 | TS254 | TKY08R |
| 1010K11-SM | ● | ● | DCMT DCMW | 32.5 \varnothing | 10 | 10 | 125 | 24 | 2 | 10 | 5 | TS43 | TKY15R |
| 1212M11-SM | ● | ● | NP-DCGW NP-DCMT | 32.5 \varnothing | 12 | 12 | 150 | — | — | 12 | 5 | TS43 | TKY15R |
| 1616M11-SM | ● | ● | NP-DCMW | 32.5 \varnothing | 16 | 16 | 150 | — | — | 16 | 5 | TS43 | TKY15R |

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

SDJC-SM type inserts > A109–A113
 SDNC-SM type inserts > A109–A113
 CBN & PCD inserts > B042, B043, B059

SPARE PARTS > M001
 TECHNICAL DATA > N001

SMALL TOOLS

SMALL TOOLS

FRONT TURNING TOOLS (FOR GANG TYPE TOOL POSTS)

METRIC STANDARD

SVLP-SM NEW Without off set

95°

Right hand tool holder shown.

| Order Number | Stock | | Insert Number | Dimensions (mm) | | | | | Insert Screw | Wrench | |
|--------------------------|-------|---|---------------|-----------------|----|----|-----|----|--------------|--------|--------|
| | R | L | | H1 | B | L1 | H2 | S1 | | | |
| SVLPR/L1010K08-SM | ● | ● | VPET VPGT | 1.51.5 | 10 | 10 | 125 | 10 | 0 | TS202 | TKY06R |
| 1212M08-SM | ● | ● | | 1.51.5 | 12 | 12 | 150 | 12 | 0 | TS202 | TKY06R |
| 1010K11-SM | ● | ● | | 22 | 10 | 10 | 125 | 10 | 0 | TS255 | TKY08R |
| 1212M11-SM | ● | ● | | 22 | 12 | 12 | 150 | 12 | 0 | TS255 | TKY08R |
| 1616M11-SM | ● | ● | | 22 | 16 | 16 | 150 | 16 | 0 | TS255 | TKY08R |

Finish: R/L-SRF (1.5, 2)
Finish: SMG (1.5, 2)

* Clamp Torque (lbf-in) : TS202=5.3, TS255=8.9

SVJB-SM Without off set

93°

Right hand tool holder shown.

| Order Number | Stock | | Insert Number | Dimensions (mm) | | | | | Insert Screw | Wrench | |
|--------------------------|-------|---|----------------------|-----------------|----|----|-----|----|--------------|--------|--------|
| | R | L | | H1 | B | L1 | H2 | S1 | | | |
| SVJBR/L1010K11-SM | ● | ● | VBET VBGT VBMT | 22 | 10 | 10 | 125 | 10 | 0 | TS255 | TKY08R |
| 1212M11-SM | ● | ● | | 22 | 12 | 12 | 150 | 12 | 0 | TS255 | TKY08R |
| 1616M11-SM | ● | ● | | 22 | 16 | 16 | 150 | 16 | 0 | TS255 | TKY08R |

Finish: R/L-F (2), Medium (2), MV (2), R/L-SR (2)

* Clamp Torque (lbf-in) : TS255=8.9



(Note) Insert photo is an example. Letters show chip breaker style, figures show inscribed circle.

- SVLP-SM type inserts > A131
- SVJB-SM type inserts > A125-A127
- CBN & PCD inserts > B047, B063



D014

● : Inventory maintained.

METRIC STANDARD

| Order Number | | Stock | | Insert Number | | Dimensions (mm) | | | | | *   | |
|--------------------------|-----|-------|------|---------------|----|-----------------|-----|----|----|-------|---|--------|
| | | | | | | H1 | B | L1 | H2 | S1 | Insert Screw | Wrench |
| SVVBR/L1010K11-SM | ● ● | ● ● | VBET | 22 | 10 | 10 | 125 | 10 | 3 | TS255 | TKY08R | |
| 1212M11-SM | ● ● | ● ● | VBGT | 22 | 12 | 12 | 150 | 12 | 3 | TS255 | TKY08R | |
| 1616M11-SM | ● ● | ● ● | VBMT | 22 | 16 | 16 | 150 | 16 | 3 | TS255 | TKY08R | |

* Clamp Torque (lbf-in) : TS255=8.9

| Order Number | | Stock | | Insert Number | | Dimensions (mm) | | | | | | | *   | |
|--------------------------|-----|-------|------|---------------|----|-----------------|-----|----|----|----|----|-------|---|--------|
| | | | | | | H1 | B | L1 | L2 | L3 | H2 | S1 | Insert Screw | Wrench |
| SVPPR/L1010K11-SM | ● ● | ● ● | VPET | 22 | 10 | 10 | 125 | 17 | 20 | 10 | 0 | TS255 | TKY08R | |
| 1212M11-SM | ● ● | ● ● | VPGT | 22 | 12 | 12 | 150 | 17 | 20 | 12 | 0 | TS255 | TKY08R | |
| 1616M11-SM | ● ● | ● ● | | 22 | 16 | 16 | 150 | 17 | - | 16 | 0 | TS255 | TKY08R | |

* Clamp Torque (lbf-in) : TS255=8.9

RECOMMENDED CUTTING CONDITIONS

| | Work Material | Grade | Cutting Speed (SFM) | Feed (IPR) |
|----------|----------------------------|----------------------|---------------------|------------|
| P | Carbon Steel · Alloy Steel | VP15TF/UE6020 | 165-490 | .0004-.006 |
| | | VP15TF | 100-590 | .0004-.006 |
| | Free Cutting Carbon Steel | AP25N | 165-820 | .0004-.006 |
| M | Stainless Steel | VP15TF | 165-395 | .0008-.004 |
| N | Non-Ferrous Metal | HTi10 | 230-755 | .0012-.006 |

SVVB-SM type inserts > A125-A127
SVPP-SM type inserts > A131

SPARE PARTS > M001
TECHNICAL DATA > N001

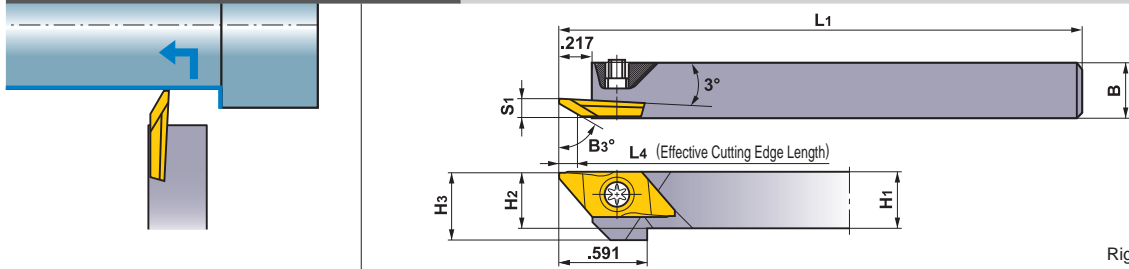
SMALL TOOLS

SMALL TOOLS

BACK TURNING TOOLS (FOR GANG TYPE) TOOL POSTS

INCH STANDARD

BTAH



Right hand tool holder shown.

| Order Number | Stock | | Insert Number | Dimensions (inch) | | | | | | Insert Screw * | Wrench | |
|--------------------|-------|---|---------------|-------------------|------|------|-------|------|------|----------------|--------|--------|
| | R | L | | H1 | B | L1 | H2 | H3 | S1 | | | |
| BTAHR/L-062 | ● | ● | BTAT | 5528○○R/L-B | .375 | .375 | 4.724 | .375 | .500 | .138 | NS402W | NKY15R |
| -082 | ● | ● | | 6035○○R/L-B | .500 | .500 | 4.724 | .500 | — | .138 | NS403W | NKY15R |
| -102 | ● | ● | | 605000RX | .625 | .625 | 4.724 | .625 | — | .138 | NS403W | NKY15R |

(Note 1) Please use right hand insert for right hand holder and left hand insert for left hand holder.

(Note 2) Set the maximum depth of cut at under 60% of the effective cutting edge length.

* Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

INSERTS

| Order Number | Hand | Coated VP15TF | Dimensions (inch) | | Effective Cutting Edge Length L4 (inch) * | Geometry |
|----------------------|------|------------------|-------------------|------|---|---------------------|
| | | | B3 * | Re | | |
| BTAT552800R-B | R | ● | 55° | 0 | .110 | With Breaker |
| 552800L-B | L | ● | 55° | 0 | .110 | |
| 552801R-B | R | ● | 55° | .004 | .110 | |
| 552801L-B | L | ● | 55° | .004 | .110 | |
| 603500R-B | R | ● | 60° | 0 | .138 | Without Breaker |
| 603500L-B | L | ● | 60° | 0 | .138 | |
| 603501R-B | R | ● | 60° | .004 | .138 | |
| 603501L-B | L | ● | 60° | .004 | .138 | |
| BTAT605000RX | R | ● | 60° | 0 | .197 | |

Right hand insert shown.

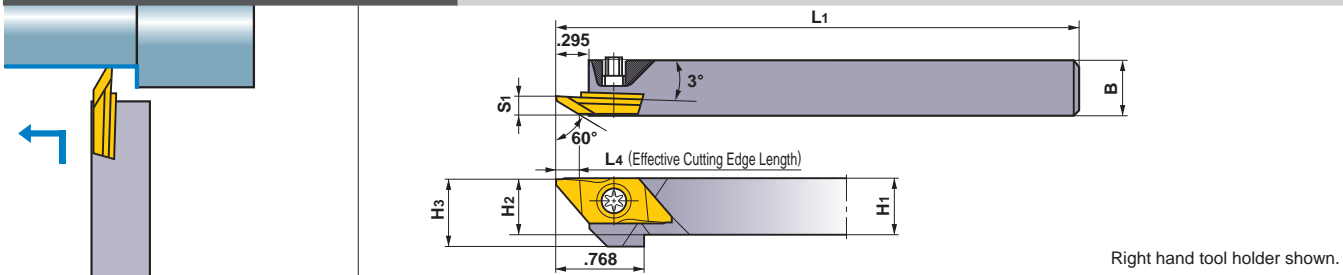
* Numeric value set insert on holder.

D016

● : Inventory maintained. (5 inserts in one case)

INCH STANDARD

CTBH



| Order Number | Stock | | Insert Number | Dimensions (inch) | | | | | | Insert Screw * | Wrench | |
|--------------------|-------|---|---------------|-------------------------|------|------|-------|------|------|----------------|--------|--------|
| | R | L | | H1 | B | L1 | H2 | H3 | S1 | | | |
| CTBHR/L-062 | ● | ● | BTBT | 60450R/L-B 606000R/L | .375 | .375 | 4.724 | .375 | .500 | .133 | NS402W | NKY15R |
| -082 | ● | ● | | | .500 | .500 | 4.724 | .500 | — | .133 | NS403W | NKY15R |
| -102 | ● | ● | | | .625 | .625 | 4.724 | .625 | — | .133 | NS403W | NKY15R |

(Note 1) Please use right hand insert for right hand holder and left hand insert for left hand holder.

(Note 2) Set the maximum depth of cut at under 60% of the effective cutting edge length.

* Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

INSERTS

| Order Number | Hand | Coated | Dimensions (inch) | | Effective Cutting Edge Length L4 (inch)* | Geometry |
|----------------------|------|--------|-------------------|------|--|---------------------|
| | | VP15TF | Re * | S2 | | |
| BTBT604500R-B | R | ● | 0 | .008 | .177 | With Breaker |
| 604500L-B | L | ● | 0 | .008 | .177 | |
| 604501R-B | R | ● | .004 | .012 | .177 | |
| 604501L-B | L | ● | .004 | .012 | .177 | |
| BTBT606000R | R | ● | 0 | .008 | .236 | Without Breaker |
| 606000L | L | ● | 0 | .008 | .236 | |

* Numeric value set insert on holder.

RECOMMENDED CUTTING CONDITIONS

| | Work Material | Grade | Cutting Speed (SFM) | Feed (IPR) |
|----------|----------------------------|--------|---------------------|------------|
| P | Carbon Steel · Alloy Steel | VP15TF | 165—490 | .0004—.006 |
| | Free Cutting Carbon Steel | VP15TF | 100—590 | .0004—.006 |
| M | Stainless Steel | VP15TF | 165—395 | .0008—.004 |
| N | Non-Ferrous Metal | VP15TF | 230—755 | .0012—.006 |

SPARE PARTS > M001
TECHNICAL DATA > N001

D017

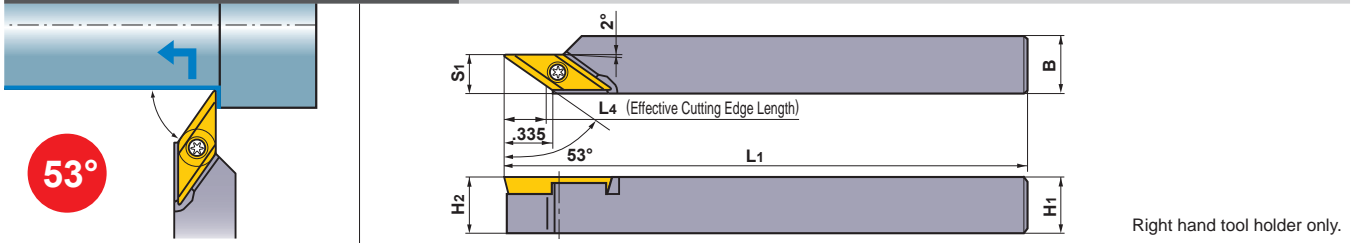
SMALL TOOLS

SMALL TOOLS

BACK TURNING TOOLS (FOR GANG TYPE) TOOL POSTS

INCH STANDARD

BTVH



Right hand tool holder only.

| Order Number | Stock | Insert Number | Dimensions (inch) | | | | | Insert Screw * | Wrench | |
|------------------|-------|---------------|-------------------|------|------|-------|------|----------------|--------|--------|
| | R | | H1 | B | L1 | H2 | S1 | | | |
| BTVHR-062 | ● | BTVT | 537501R-B | .375 | .375 | 4.724 | .375 | .295 | NS251 | NKY15R |
| -082 | ● | | | .500 | .500 | 4.724 | .500 | .295 | NS251 | NKY15R |
| -102 | ● | | | .625 | .625 | 4.724 | .625 | .295 | NS251 | NKY15R |

(Note) Set the maximum depth of cut at under 30% of the effective cutting edge length.

* Clamp Torque (lbf-in) : NS251=6.2

INSERTS

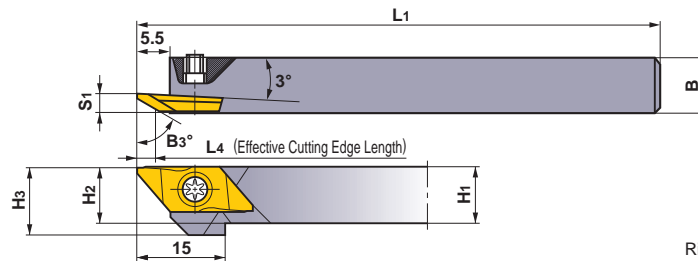
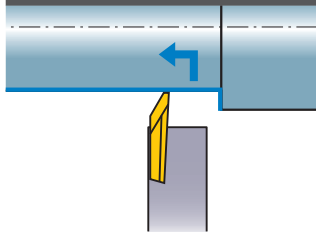
| Order Number | Hand | Coated | Dimensions (inch) | | | Effective Cutting Edge Length L4 (inch) | Geometry |
|----------------------|------|--------|-------------------|------|------|---|------------------|
| | | VP15TF | D1 | S1 | Re | | |
| BTVT5375V5R-B | R | ● | .250 | .125 | .002 | .295 | With Breaker |
| 537501R-B | R | ● | .250 | .125 | .004 | .295 | |

D018

● : Inventory maintained. (5 inserts in one case)

METRIC STANDARD

BTAH



Right hand tool holder shown.

| Order Number | Stock | | Insert Number | Dimensions (mm) | | | | | | Insert Screw * | Wrench |
|-----------------------|-------|---|--|-----------------|----|-----|----|----|-----|----------------|--------|
| | R | L | | H1 | B | L1 | H2 | H3 | S1 | | |
| BTAHR/L0810-50 | ● | ● | BTAT 5528○R/L-B 6035○R/L-B 605000RX | 8 | 10 | 120 | 8 | 12 | 3.5 | NS402W | NKY15R |
| 1010-50 | ● | ● | | 10 | 10 | 120 | 10 | 12 | 3.5 | NS402W | NKY15R |
| 1212-50 | ● | ● | | 12 | 12 | 120 | 12 | — | 3.5 | NS403W | NKY15R |
| 1616-50 | ● | ● | | 16 | 16 | 120 | 16 | — | 3.5 | NS403W | NKY15R |

(Note 1) Please use right hand insert for right hand holder and left hand insert for left hand holder.

(Note 2) Set the maximum depth of cut at under 60% of the effective cutting edge length.

* Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

INSERTS

| Order Number | Hand | Coated | Dimensions (mm) | | Effective Cutting Edge Length L4 (mm) * | Geometry |
|----------------------|------|--------|-----------------|-----|---|---------------------|
| | | VP15TF | B3 * | Re | | |
| BTAT552800R-B | R | ● | 55° | 0 | 2.8 | With Breaker |
| 552800L-B | L | ● | 55° | 0 | 2.8 | |
| 552801R-B | R | ● | 55° | 0.1 | 2.8 | |
| 552801L-B | L | ● | 55° | 0.1 | 2.8 | |
| 603500R-B | R | ● | 60° | 0 | 3.5 | |
| 603500L-B | L | ● | 60° | 0 | 3.5 | |
| 603501R-B | R | ● | 60° | 0.1 | 3.5 | |
| 603501L-B | L | ● | 60° | 0.1 | 3.5 | |
| BTAT605000RX | R | ● | 60° | 0 | 5.0 | Without Breaker |

* Numeric value set insert on holder.

RECOMMENDED CUTTING CONDITIONS

| | Work Material | Grade | Cutting Speed (SFM) | Feed (IPR) |
|----------|----------------------------|--------|---------------------|------------|
| P | Carbon Steel · Alloy Steel | VP15TF | 165—490 | .0004—.006 |
| | Free Cutting Carbon Steel | VP15TF | 100—590 | .0004—.006 |
| M | Stainless Steel | VP15TF | 165—395 | .0008—.004 |
| N | Non-Ferrous Metal | VP15TF | 230—755 | .0012—.006 |

SPARE PARTS > M001
TECHNICAL DATA > N001

SMALL TOOLS

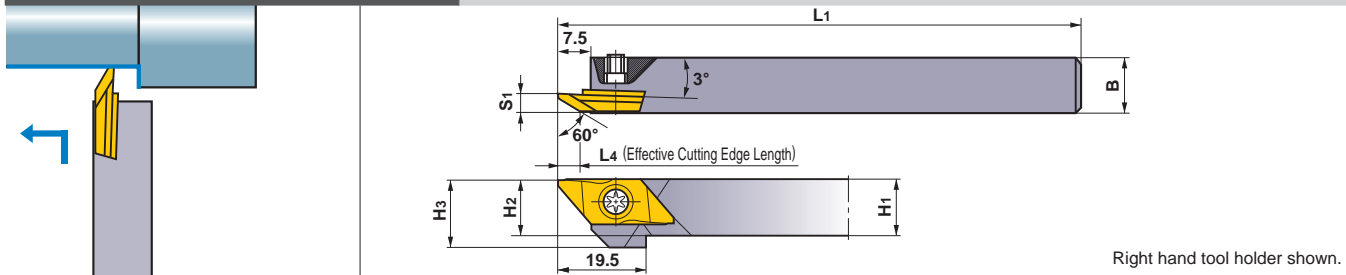
D019

SMALL TOOLS

BACK TURNING TOOLS (FOR GANG TYPE TOOL POSTS)

METRIC STANDARD

CTBH



SMALL TOOLS

| Order Number | Stock | | Insert Number | Dimensions (mm) | | | | | | Insert Screw * | Wrench |
|-----------------|-------|---|---------------------------------|-----------------|----|-----|----|----|-----|----------------|--------|
| | R | L | | H1 | B | L1 | H2 | H3 | S1 | | |
| CTBHR/L1010-160 | ● | ● | BTBT 60450R/L-B 606000R/L | 10 | 10 | 120 | 10 | 12 | 3.4 | NS402W | NKY15R |
| 1212-160 | ● | ● | | 12 | 12 | 120 | 12 | — | 3.4 | NS403W | NKY15R |
| 1616-160 | ● | ● | | 16 | 16 | 120 | 16 | — | 3.4 | NS403W | NKY15R |

(Note 1) Please use right hand insert for right hand holder and left hand insert for left hand holder.

(Note 2) Set the maximum depth of cut at under 60% of the effective cutting edge length.

* Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

INSERTS

| Order Number | Hand | Coated | Dimensions (mm) | | Effective Cutting Edge Length L4 (mm)* | Geometry |
|---------------|------|--------|-----------------|-----|--|---------------------|
| | | VP15TF | Re * | S2 | | |
| BTBT604500R-B | R | ● | 0 | 0.2 | 4.5 | With Breaker |
| 604500L-B | L | ● | 0 | 0.2 | 4.5 | |
| 604501R-B | R | ● | 0.1 | 0.3 | 4.5 | |
| 604501L-B | L | ● | 0.1 | 0.3 | 4.5 | |
| BTBT606000R | R | ● | 0 | 0.2 | 6.0 | Without Breaker |
| 606000L | L | ● | 0 | 0.2 | 6.0 | |

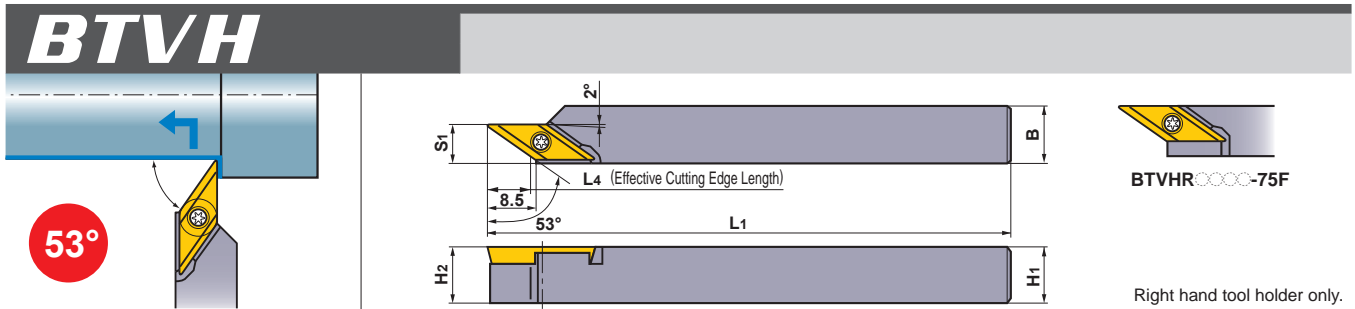
* Numeric value set insert on holder.

D020

● : Inventory maintained. (5 inserts in one case)



METRIC STANDARD



| Order Number | Stock | Insert Number | Dimensions (mm) | | | | | Insert Screw * | Wrench |
|---------------------|-------|--------------------|-----------------|----|-----|----|------|----------------|--------|
| | R | | H1 | B | L1 | H2 | S1 | | |
| BTVHR1010-75 | ● | BTVT 5375-75R-B | 10 | 10 | 120 | 10 | 7.5 | NS251 | NKY15R |
| 1212-75 | ● | | 12 | 12 | 120 | 12 | 7.5 | NS251 | NKY15R |
| 1616-75 | ● | | 16 | 16 | 120 | 16 | 7.5 | NS251 | NKY15R |
| 1010-75F | ● | | 10 | 10 | 120 | 10 | 10.0 | NS251 | NKY15R |
| 1212-75F | ● | | 12 | 12 | 120 | 12 | 10.0 | NS251 | NKY15R |
| 1616-75F | ● | | 16 | 16 | 120 | 16 | 10.0 | NS251 | NKY15R |

(Note 1) Set the maximum depth of cut at under 30% of the effective cutting edge length.
 (Note 2) For high load machining, F type is recommended.
 * Clamp Torque (lbf-in) : NS251=6.2

SMALL TOOLS

INSERTS

| Order Number | Hand | Coated | Dimensions (mm) | | | Effective Cutting Edge Length L4 (mm) | Geometry |
|----------------------|------|--------|-----------------|------|------|---------------------------------------|------------------|
| | | VP15TF | D1 | S1 | Re | | |
| BTVT5375V5R-B | R | ● | 6.35 | 3.18 | 0.05 | 7.5 | With Breaker |
| 537501R-B | R | ● | 6.35 | 3.18 | 0.1 | 7.5 | |

RECOMMENDED CUTTING CONDITIONS

| | Work Material | Grade | Cutting Speed (SFM) | Feed (IPR) |
|----------|----------------------------|--------|---------------------|------------|
| P | Carbon Steel · Alloy Steel | VP15TF | 165-490 | .0004-.006 |
| | Free Cutting Carbon Steel | VP15TF | 100-590 | .0004-.006 |
| M | Stainless Steel | VP15TF | 165-395 | .0008-.004 |
| N | Non-Ferrous Metal | VP15TF | 230-755 | .0012-.006 |

SPARE PARTS > M001
 TECHNICAL DATA > N001

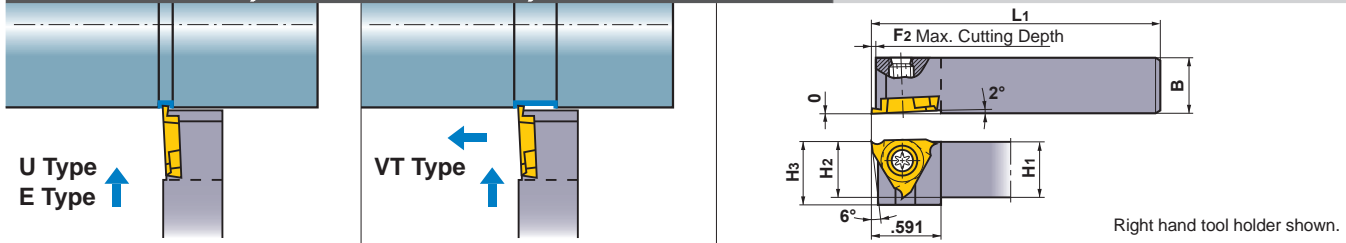
D021

SMALL TOOLS

GROOVING TOOLS (FOR GANG TYPE TOOL POSTS)

INCH STANDARD

GTAH, GTBH, GTCH



SMALL TOOLS

| | Order Number | Stock | | Insert Number | Dimensions (inch) | | | | | Cutting Width (inch) | Insert Screw *2 | Wrench | | |
|----------------|--------------|-------------------------------------|-------------------------------------|--------------------------|-------------------|------|------|------|-------|----------------------|-----------------|-----------|--------|--------|
| | | R | L | | H1 | B | H2 | L1 | F2*1 | | | | H3 | |
| Standard Shank | GTAHR/L-063S | <input type="checkbox"/> | <input type="checkbox"/> | GTAT GTBT*1 GTCT*1 | ○○○○ | .375 | .375 | .375 | 3.150 | .079 | .531 | .012-.118 | NS404W | NKY15R |
| | -083S | <input type="checkbox"/> | <input type="checkbox"/> | GTAT GTBT*1 GTCT*1 | ○○○○ | .500 | .500 | .500 | 3.150 | .079 | .520 | .012-.118 | NS404W | NKY15R |
| | GTBHR/L-063S | <input type="checkbox"/> | <input type="checkbox"/> | GTBT. GTCT | ○○○○ | .375 | .375 | .375 | 3.150 | .118 | .531 | .057-.118 | NS404W | NKY15R |
| | GTCHR/L-063S | <input type="checkbox"/> | <input type="checkbox"/> | GTCT | ○○○○ | .375 | .375 | .375 | 3.150 | .118 | .531 | .098-.118 | NS404W | NKY15R |
| Long Shank | GTAHR/L-063 | <input type="checkbox"/> | <input type="checkbox"/> | GTAT GTBT*1 GTCT*1 | ○○○○ | .375 | .375 | .375 | 4.724 | .079 | .531 | .012-.118 | NS404W | NKY15R |
| | -083 | <input type="checkbox"/> | <input type="checkbox"/> | GTAT GTBT*1 GTCT*1 | ○○○○ | .500 | .500 | .500 | 4.724 | .079 | .520 | .012-.118 | NS404W | NKY15R |
| | -103 | <input type="checkbox"/> | <input type="checkbox"/> | GTAT GTBT*1 GTCT*1 | ○○○○ | .625 | .625 | .625 | 4.724 | .079 | — | .012-.118 | NS404W | NKY15R |
| | GTBHR/L-063 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | GTBT. GTCT | ○○○○ | .375 | .375 | .375 | 4.724 | .118 | .531 | .057-.118 | NS404W | NKY15R |
| | -083 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | GTBT. GTCT | ○○○○ | .500 | .500 | .500 | 4.724 | .118 | .520 | .057-.118 | NS404W | NKY15R |
| | -103 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | GTBT. GTCT | ○○○○ | .625 | .625 | .625 | 4.724 | .118 | — | .057-.118 | NS404W | NKY15R |
| | GTCHR/L-063 | <input type="checkbox"/> | <input type="checkbox"/> | GTCT | ○○○○ | .375 | .375 | .375 | 4.724 | .118 | .531 | .098-.118 | NS404W | NKY15R |

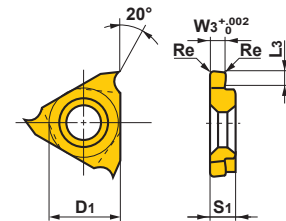
(Note) Please use right hand insert for right hand holder and left hand insert for left hand holder.

*1 If the insert dimension L3 exceeds the holder dimension F2, it is impossible to machine the depths over F2.

*2 Clamp Torque (lbf-in) : NS404W=6.2

INSERTS

| Order Number | Hand | Coated | Dimensions (inch) | | | | | Geometry (inch) |
|----------------|------|--------|-------------------|------|------|------|------|--|
| | | VP15TF | W3 | L3*1 | Re | D1 | S1 | |
| GTA03006V3R-U | R | ● | .012 | .024 | .001 | .375 | .125 | U Type Breaker (Grooving) For general use |
| 03006V3L-U | L | ● | .012 | .024 | .001 | .375 | .125 | |
| 05012V5R-U | R | ● | .020 | .047 | .002 | .375 | .125 | |
| 05012V5L-U | L | ● | .020 | .047 | .002 | .375 | .125 | |
| 07520V5R-U | R | ● | .030 | .079 | .002 | .375 | .125 | |
| 07520V5L-U | L | ● | .030 | .079 | .002 | .375 | .125 | |
| 09520V5R-U | R | ● | .037 | .079 | .002 | .375 | .125 | |
| 09520V5L-U | L | ● | .037 | .079 | .002 | .375 | .125 | |
| 10020V5R-U | R | ● | .039 | .079 | .002 | .375 | .125 | |
| 10020V5L-U | L | ● | .039 | .079 | .002 | .375 | .125 | |
| 10320V5R-U | R | ● | .041 | .079 | .002 | .375 | .125 | |
| 12520V5R-U | R | ● | .049 | .079 | .002 | .375 | .125 | |
| 12520V5L-U | L | ● | .049 | .079 | .002 | .375 | .125 | |
| GTBT14530V5R-U | R | ● | .057 | .118 | .002 | .375 | .125 | |
| 14530V5L-U | L | ● | .057 | .118 | .002 | .375 | .125 | |
| 15030V5R-U | R | ● | .059 | .118 | .002 | .375 | .125 | |
| 15030V5L-U | L | ● | .059 | .118 | .002 | .375 | .125 | |
| 17530V5R-U | R | ● | .069 | .118 | .002 | .375 | .125 | |
| 17530V5L-U | L | ● | .069 | .118 | .002 | .375 | .125 | |
| 20030V5R-U | R | ● | .079 | .118 | .002 | .375 | .125 | |
| 20030V5L-U | L | ● | .079 | .118 | .002 | .375 | .125 | |
| GTCT25030V5R-U | R | ● | .098 | .118 | .002 | .375 | .125 | |
| 25030V5L-U | L | ● | .098 | .118 | .002 | .375 | .125 | |



Right hand insert shown.

D022

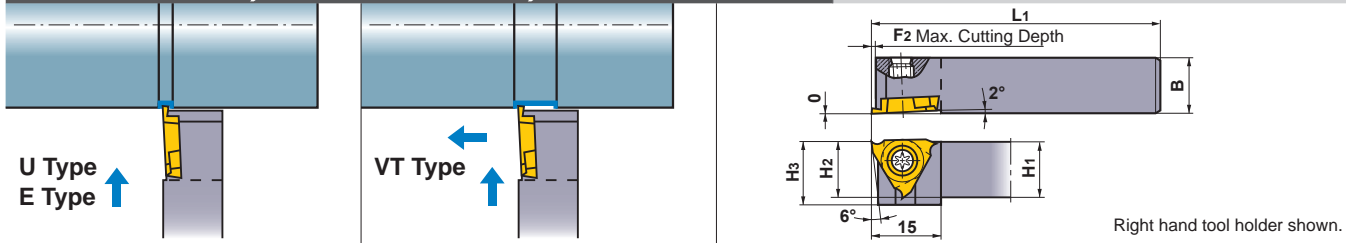
● : Inventory maintained. □ : Non stock, produced to order only.
(5 inserts in one case)

SMALL TOOLS

GROOVING TOOLS (FOR GANG TYPE TOOL POSTS)

METRIC STANDARD

GTAH, GTBH, GTCH



Right hand tool holder shown.

SMALL TOOLS

| | Order Number | Stock | | Insert Number | Dimensions (mm) | | | | | | Cutting Width (mm) | *2 | |
|----------------|-----------------|-------|---|---------------|-----------------|----|----|-----|------|----|--------------------|--------------|--------|
| | | R | L | | H1 | B | H2 | L1 | F2*1 | H3 | | Insert Screw | Wrench |
| Standard Shank | GTAHR/L0808-20S | ★ | ★ | GTAT | 8 | 8 | 8 | 80 | 2 | 13 | 0.3-3.0 | NS404W | NKY15R |
| | 1010-20S | ★ | ★ | GTBT*1 | 10 | 10 | 10 | 80 | 2 | 13 | 0.3-3.0 | NS404W | NKY15R |
| | 1212-20S | ★ | ★ | GTCT*1 | 12 | 12 | 12 | 80 | 2 | 13 | 0.3-3.0 | NS404W | NKY15R |
| | GTBHR/L1010-30S | ★ | ★ | GTBT, GTCT | 10 | 10 | 10 | 80 | 3 | 13 | 1.45-3.0 | NS404W | NKY15R |
| | GTCHR/L1010-30S | ★ | ★ | GTCT | 10 | 10 | 10 | 80 | 3 | 13 | 2.5-3.0 | NS404W | NKY15R |
| Long Shank | GTAHR/L0808-20 | ★ | ★ | GTAT | 8 | 8 | 8 | 120 | 2 | 13 | 0.3-3.0 | NS404W | NKY15R |
| | 1010-20 | ★ | ★ | GTBT*1 | 10 | 10 | 10 | 120 | 2 | 13 | 0.3-3.0 | NS404W | NKY15R |
| | 1212-20 | ★ | ★ | GTCT*1 | 12 | 12 | 12 | 120 | 2 | 13 | 0.3-3.0 | NS404W | NKY15R |
| | 1616-20 | ★ | ★ | GTCT*1 | 16 | 16 | 16 | 120 | 2 | - | 0.3-3.0 | NS404W | NKY15R |
| | GTBHR/L1010-30 | ● | ● | GTBT, GTCT | 10 | 10 | 10 | 120 | 3 | 13 | 1.45-3.0 | NS404W | NKY15R |
| | 1212-30 | ● | ● | GTBT, GTCT | 12 | 12 | 12 | 120 | 3 | 13 | 1.45-3.0 | NS404W | NKY15R |
| | 1616-30 | ● | ● | GTCT | 16 | 16 | 16 | 120 | 3 | 16 | 1.45-3.0 | NS404W | NKY15R |
| | GTCHR/L1010-30 | ★ | ★ | GTCT | 10 | 10 | 10 | 120 | 3 | 13 | 2.5-3.0 | NS404W | NKY15R |

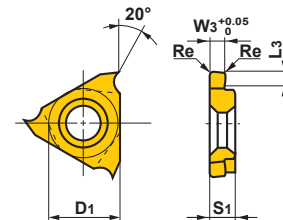
(Note) Please use right hand insert for right hand holder and left hand insert for left hand holder.

*1 If the insert dimension L3 exceeds the holder dimension F2, it is impossible to machine the depths over F2.

*2 Clamp Torque (lb·in) : NS404W=6.2

INSERTS

| Order Number | Hand | Coated | Dimensions (mm) | | | | | Geometry (mm) |
|----------------|------|--------|-----------------|------|------|-------|------|--|
| | | VP15TF | W3 | L3*1 | Re | D1 | S1 | |
| GTAT03006V3R-U | R | ● | 0.3 | 0.6 | 0.03 | 9.525 | 3.18 | U Type Breaker (Grooving) For general use |
| 03006V3L-U | L | ● | 0.3 | 0.6 | 0.03 | 9.525 | 3.18 | |
| 05012V5R-U | R | ● | 0.5 | 1.2 | 0.05 | 9.525 | 3.18 | |
| 05012V5L-U | L | ● | 0.5 | 1.2 | 0.05 | 9.525 | 3.18 | |
| 07520V5R-U | R | ● | 0.75 | 2.0 | 0.05 | 9.525 | 3.18 | |
| 07520V5L-U | L | ● | 0.75 | 2.0 | 0.05 | 9.525 | 3.18 | |
| 09520V5R-U | R | ● | 0.95 | 2.0 | 0.05 | 9.525 | 3.18 | |
| 09520V5L-U | L | ● | 0.95 | 2.0 | 0.05 | 9.525 | 3.18 | |
| 10020V5R-U | R | ● | 1.0 | 2.0 | 0.05 | 9.525 | 3.18 | |
| 10020V5L-U | L | ● | 1.0 | 2.0 | 0.05 | 9.525 | 3.18 | |
| 10320V5R-U | R | ● | 1.03 | 2.0 | 0.05 | 9.525 | 3.18 | |
| 12520V5R-U | R | ● | 1.25 | 2.0 | 0.05 | 9.525 | 3.18 | |
| 12520V5L-U | L | ● | 1.25 | 2.0 | 0.05 | 9.525 | 3.18 | |
| GTBT14530V5R-U | R | ● | 1.45 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 14530V5L-U | L | ● | 1.45 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 15030V5R-U | R | ● | 1.5 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 15030V5L-U | L | ● | 1.5 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 17530V5R-U | R | ● | 1.75 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 17530V5L-U | L | ● | 1.75 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 20030V5R-U | R | ● | 2.0 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 20030V5L-U | L | ● | 2.0 | 3.0 | 0.05 | 9.525 | 3.18 | |
| GTCT25030V5R-U | R | ● | 2.5 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 25030V5L-U | L | ● | 2.5 | 3.0 | 0.05 | 9.525 | 3.18 | |



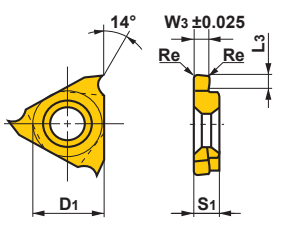
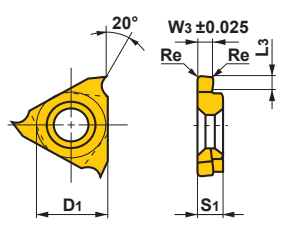
Right hand insert shown.

● : Inventory maintained. ★ : Inventory maintained in Japan.
(5 inserts in one case)



INSERTS

| Order Number | Hand | Coated | | Dimensions (mm) | | | | | Geometry |
|------------------------|------|--------|--------|-----------------|----------------|------|----------------|----------------|--|
| | | VP15TF | VP15KZ | W ₃ | L ₃ | Re | D ₁ | S ₁ | |
| GTAT03306V3R-E | R | ● | | 0.33 | 0.6 | 0.03 | 9.525 | 3.18 | E Type Breaker (Grooving) For precision cutting |
| 03306V3L-E | L | ● | | 0.33 | 0.6 | 0.03 | 9.525 | 3.18 | |
| 04312V3R-E | R | ● | | 0.43 | 1.2 | 0.03 | 9.525 | 3.18 | |
| 04312V3L-E | L | ● | | 0.43 | 1.2 | 0.03 | 9.525 | 3.18 | |
| 05312V5R-E | R | ● | | 0.53 | 1.2 | 0.05 | 9.525 | 3.18 | |
| 05312V5L-E | L | ● | | 0.53 | 1.2 | 0.05 | 9.525 | 3.18 | |
| 07520V5R-E | R | ● | | 0.75 | 2.0 | 0.05 | 9.525 | 3.18 | |
| 07520V5L-E | L | ● | | 0.75 | 2.0 | 0.05 | 9.525 | 3.18 | |
| 09520V5R-E | R | ● | | 0.95 | 2.0 | 0.05 | 9.525 | 3.18 | |
| 09520V5L-E | L | ● | | 0.95 | 2.0 | 0.05 | 9.525 | 3.18 | |
| 10020V5R-E | R | ● | | 1.0 | 2.0 | 0.05 | 9.525 | 3.18 | |
| 10020V5L-E | L | ● | | 1.0 | 2.0 | 0.05 | 9.525 | 3.18 | |
| 1002001R-E | R | ● | | 1.0 | 2.0 | 0.1 | 9.525 | 3.18 | |
| 1002001L-E | L | ● | | 1.0 | 2.0 | 0.1 | 9.525 | 3.18 | |
| 12020V5R-E | R | ● | | 1.2 | 2.0 | 0.05 | 9.525 | 3.18 | |
| 12020V5L-E | L | ● | | 1.2 | 2.0 | 0.05 | 9.525 | 3.18 | |
| 1202001R-E | R | ● | | 1.2 | 2.0 | 0.1 | 9.525 | 3.18 | |
| 1202001L-E | L | ● | | 1.2 | 2.0 | 0.1 | 9.525 | 3.18 | |
| 14020V5R-E | R | ● | | 1.4 | 2.0 | 0.05 | 9.525 | 3.18 | |
| 14020V5L-E | L | ● | | 1.4 | 2.0 | 0.05 | 9.525 | 3.18 | |
| GTBT15030V5R-E | R | ● | | 1.5 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 15030V5L-E | L | ● | | 1.5 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 1503001R-E | R | ● | | 1.5 | 3.0 | 0.1 | 9.525 | 3.18 | |
| 1503001L-E | L | ● | | 1.5 | 3.0 | 0.1 | 9.525 | 3.18 | |
| 18030V5R-E | R | ● | | 1.8 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 18030V5L-E | L | ● | | 1.8 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 20030V5R-E | R | ● | | 2.0 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 20030V5L-E | L | ● | | 2.0 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 2003001R-E | R | ● | | 2.0 | 3.0 | 0.1 | 9.525 | 3.18 | |
| 2003001L-E | L | ● | | 2.0 | 3.0 | 0.1 | 9.525 | 3.18 | |
| 22530V5R-E | R | ● | | 2.25 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 22530V5L-E | L | ● | | 2.25 | 3.0 | 0.05 | 9.525 | 3.18 | |
| GTCT25030V5R-E | R | ● | | 2.5 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 25030V5L-E | L | ● | | 2.5 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 27530V5R-E | R | ● | | 2.75 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 27530V5L-E | L | ● | | 2.75 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 30030V5R-E | R | ● | | 3.0 | 3.0 | 0.05 | 9.525 | 3.18 | |
| 30030V5L-E | L | ● | | 3.0 | 3.0 | 0.05 | 9.525 | 3.18 | |
| GTAT0330600R-VT | R | | ● | 0.33 | 0.6 | 0 | 9.525 | 3.18 | VT Type Breaker (Grooving, Profiling) |
| 0431200R-VT | R | | ● | 0.43 | 1.2 | 0 | 9.525 | 3.18 | |
| 0532000R-VT | R | | ● | 0.53 | 2.0 | 0 | 9.525 | 3.18 | |
| 0652000R-VT | R | | ● | 0.65 | 2.0 | 0 | 9.525 | 3.18 | |
| 0752000R-VT | R | | ● | 0.75 | 2.0 | 0 | 9.525 | 3.18 | |
| 0802000R-VT | R | | ● | 0.8 | 2.0 | 0 | 9.525 | 3.18 | |
| 0852000R-VT | R | | ● | 0.85 | 2.0 | 0 | 9.525 | 3.18 | |
| 0952000R-VT | R | | ● | 0.95 | 2.0 | 0 | 9.525 | 3.18 | |
| 1002000R-VT | R | | ● | 1.0 | 2.0 | 0 | 9.525 | 3.18 | |
| 1102000R-VT | R | | ● | 1.1 | 2.0 | 0 | 9.525 | 3.18 | |
| 1202000R-VT | R | | ● | 1.2 | 2.0 | 0 | 9.525 | 3.18 | |
| 1302000R-VT | R | | ● | 1.3 | 2.0 | 0 | 9.525 | 3.18 | |
| 1402000R-VT | R | | ● | 1.4 | 2.0 | 0 | 9.525 | 3.18 | |
| GTBT1503000R-VT | R | | ● | 1.5 | 3.0 | 0 | 9.525 | 3.18 | |
| 2003000R-VT | R | | ● | 2.0 | 3.0 | 0 | 9.525 | 3.18 | |



SMALL TOOLS

Right hand insert shown.

Max. Depth of Cut (mm)

RECOMMENDED CUTTING CONDITIONS

| | Work Material | Grade | Cutting Speed (SFM) | Feed (IPR) |
|----------|----------------------------|----------------------|---------------------|-------------|
| P | Carbon Steel · Alloy Steel | VP15TF/VP15KZ | 165–490 | .0004–.0035 |
| | Free Cutting Carbon Steel | VP15TF/VP15KZ | 100–590 | .0004–.0035 |
| M | Stainless Steel | VP15TF/VP15KZ | 165–395 | .0008–.002 |
| N | Non-Ferrous Metal | VP15TF/VP15KZ | 230–755 | .0012–.004 |

SPARE PARTS > M001
TECHNICAL DATA > N001

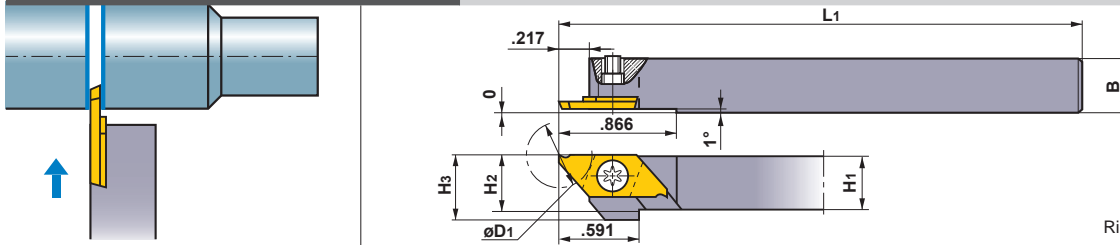
D025

SMALL TOOLS

CUTTING OFF TOOLS (FOR GANG TYPE TOOL POSTS)

INCH STANDARD

CTAH

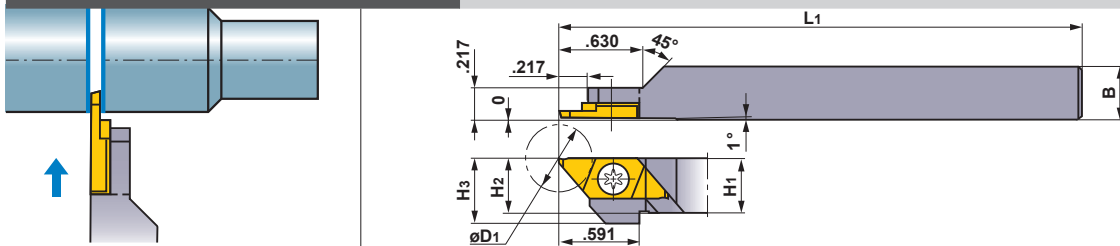


Right hand tool holder shown.

| Order Number | Stock | | Insert Number | Dimensions (inch) | | | | | Max. Cut Off Diameter (inch) D1 | Insert Screw *2 | Wrench | |
|--------------|-------|---|---------------|-------------------|------|------|------|-------|---------------------------------|------------------|--------|--------|
| | R | L | | H1 | B | H2 | L1 | H3 | | | | |
| CTAHR/L-062 | ● | ● | CTAT | ○ ○ ○ ○ | .375 | .375 | .375 | 4.724 | .500 | .472 (.315)*1 | NS402W | NKY15R |
| -082 | ● | ● | | ○ ○ ○ ○ | .500 | .500 | .500 | 4.724 | — | | NS403W | NKY15R |
| -102 | ● | ● | | ○ ○ ○ ○ | .625 | .625 | .625 | 4.724 | — | | NS403W | NKY15R |

*1 When the width of cutting off is .028inch.
*2 Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

CTAH-S



Right hand tool holder only.

| Order Number | Stock | Insert Number | Dimensions (inch) | | | | | Max. Cut Off Diameter (inch) D1 | Insert Screw *2 | Wrench | |
|--------------|-------|---------------|-------------------|------|------|------|-------|---------------------------------|------------------|--------|--------|
| | R | | H1 | B | H2 | L1 | H3 | | | | |
| CTAHR-062S | ● | CTAT | ○ ○ ○ ○ | .375 | .375 | .375 | 3.150 | .500 | .472 (.315)*1 | NS401 | NKY25R |
| -082S | ● | | ○ ○ ○ ○ | .500 | .500 | .500 | 3.150 | — | | NS401 | NKY25R |

*1 When the width of cutting off is .028inch.
*2 Clamp Torque (lbf-in) : NS401=31

RECOMMENDED CUTTING CONDITIONS

| | Work Material | Grade | Cutting Speed (SFM) | Feed (IPR) |
|---|----------------------------|--------|---------------------|--------------|
| P | Carbon Steel · Alloy Steel | VP15TF | 165—490 | .0008— .0035 |
| | Free Cutting Carbon Steel | VP15TF | 100—590 | .0004— .0035 |
| M | Stainless Steel | VP15TF | 165—395 | .0008— .0019 |
| N | Non-Ferrous Metal | VP15TF | 230—755 | .0012— .0043 |

D026

● : Inventory maintained. (5 inserts in one case)



INSERTS

| Holder | Setting Geometry | Breaker | Geometry | Insert Geometry | Order Number | Hand | Coated | Dimensions (inch) | | | Max. Cut Off Diameter (inch) | |
|----------------|------------------|-----------------|---------------|------------------|-----------------|------------------|--------|-------------------|----------------|------|------------------------------|------|
| | | | | | | | VP15TF | W ₃ | L ₃ | Re | | |
| Right Hand (R) | 16° | With Breaker | | | CTAT07080V5RR-B | R | ● | .028 | .177 | .002 | .315 | |
| | | | | | 10120V5RR-B | R | ● | .039 | .264 | .002 | .472 | |
| | | | | | 15120V5RR-B | R | ● | .059 | .264 | .002 | .472 | |
| | 16° | | | Strong Edge Type | | CTAT15120V5RR-BX | R | ● | .059 | .264 | .002 | .472 |
| | | | | | | 20120V5RR-BX | R | ● | .079 | .264 | .002 | .472 |
| | | | | | | | | | | | | |
| | 0° | | | | CTAT10120V5RN-B | N | ● | .039 | .264 | .002 | .472 | |
| | | | | | 15120V5RN-B | N | ● | .059 | .264 | .002 | .472 | |
| | | | | | 20120V5RN-B | N | ● | .079 | .264 | .002 | .472 | |
| | 0° | | | Strong Edge Type | | CTAT15120V5RN-BX | N | ● | .059 | .264 | .002 | .472 |
| | | | | | | 20120V5RN-BX | N | ● | .079 | .264 | .002 | .472 |
| | | | | | | | | | | | | |
| 16° | | CTAT10110V5RL-B | L | ● | .039 | .264 | .002 | .433 | | | | |
| | | 15110V5RL-B | L | ● | .059 | .264 | .002 | .433 | | | | |
| | | 20110V5RL-B | L | ● | .079 | .264 | .002 | .433 | | | | |
| 20° | Without Breaker | | CTAT1012000RR | R | ● | .039 | .264 | 0 | .472 | | | |
| | | | 1512000RR | R | ● | .059 | .264 | 0 | .472 | | | |
| | | | 2012000RR | R | ● | .079 | .264 | 0 | .472 | | | |
| Left Hand (L) | 16° | With Breaker | | | CTAT07080V5LL-B | L | ● | .028 | .177 | .002 | .315 | |
| | | | | | 10120V5LL-B | L | ● | .039 | .264 | .002 | .472 | |
| | | | | | 15120V5LL-B | L | ● | .059 | .264 | .002 | .472 | |
| | 0° | | | | CTAT10120V5LN-B | N | ● | .039 | .264 | .002 | .472 | |
| | | | | | 15120V5LN-B | N | ● | .059 | .264 | .002 | .472 | |
| | | | | | 20120V5LN-B | N | ● | .079 | .264 | .002 | .472 | |
| | 16° | | | | CTAT10110V5LR-B | R | ● | .039 | .264 | .002 | .433 | |
| | | | | | 15110V5LR-B | R | ● | .059 | .264 | .002 | .433 | |
| | | | | | 20110V5LR-B | R | ● | .079 | .264 | .002 | .433 | |
| | 20° | | | Without Breaker | | CTAT1012000LL | L | ● | .039 | .264 | 0 | .472 |
| | | | | | | 1512000LL | L | ● | .059 | .264 | 0 | .472 |
| | | | | | | 2012000LL | L | ● | .079 | .264 | 0 | .472 |

SMALL TOOLS

Right hand insert shown.

SPARE PARTS > M001
TECHNICAL DATA > N001

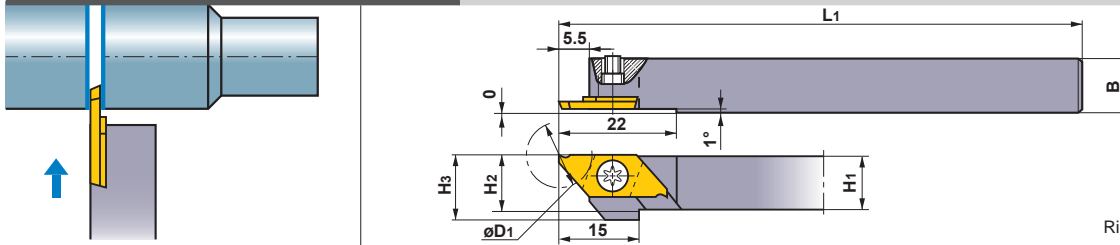
D027

SMALL TOOLS

CUTTING OFF TOOLS (FOR GANG TYPE TOOL POSTS)

METRIC STANDARD

CTAH



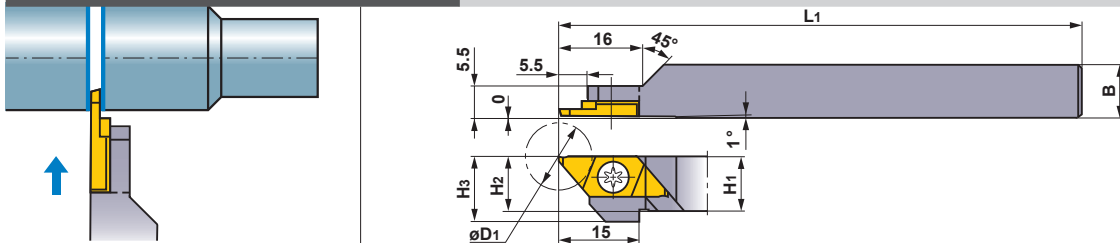
Right hand tool holder shown.

| Order Number | Stock | | Insert Number | Dimensions (mm) | | | | | Max. Cut Off Diameter (mm) D1 | Insert Screw *2 | Wrench |
|-----------------|-------|---|---------------|-----------------|---|----|----|----|-------------------------------|-----------------|--------|
| | R | L | | H1 | B | H2 | L1 | H3 | | | |
| CTAHR/L0810-120 | ● | ● | CTAT | ○ | ○ | ○ | ○ | ○ | 12 (8) *1 | NS402W | NKY15R |
| 1010-120 | ● | ● | | ○ | ○ | ○ | ○ | ○ | | | |
| 1212-120 | ● | ● | | ○ | ○ | ○ | ○ | ○ | | | |
| 1616-120 | ● | ● | | ○ | ○ | ○ | ○ | ○ | | | |

*1 When the width of cutting off is 0.7mm.

*2 Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

CTAH-S



Right hand tool holder only.

| Order Number | Stock | Insert Number | Dimensions (mm) | | | | | Max. Cut Off Diameter (mm) D1 | Insert Screw *2 | Wrench | |
|----------------|-------|---------------|-----------------|---|----|----|----|-------------------------------|-----------------|--------|--------|
| | R | | H1 | B | H2 | L1 | H3 | | | | |
| CTAHR1010-120S | ★ | CTAT | ○ | ○ | ○ | ○ | ○ | ○ | 12 (8) *1 | NS401 | NKY25R |

*1 When the width of cutting off is 0.7mm.

*2 Clamp Torque (lbf-in) : NS401=31

RECOMMENDED CUTTING CONDITIONS

| | Work Material | Grade | Cutting Speed (SFM) | Feed (IPR) |
|----------|----------------------------|--------|---------------------|-------------|
| P | Carbon Steel · Alloy Steel | VP15TF | 165-490 | .0008-.0035 |
| | Free Cutting Carbon Steel | VP15TF | 100-590 | .0004-.0035 |
| M | Stainless Steel | VP15TF | 165-395 | .0008-.0019 |
| N | Non-Ferrous Metal | VP15TF | 230-755 | .0012-.0043 |

D028

● : Inventory maintained. ★ : Inventory maintained in Japan.
(5 inserts in one case)



INSERTS

| Holder | Setting Geometry | Breaker | Geometry | Insert Geometry | Order Number | Hand | Coated | Dimensions (mm) | | | Max. Cut Off Diameter (mm) | |
|----------------|------------------|--------------|---------------|------------------|-----------------|------------------|--------|-----------------|----------------|------|----------------------------|----|
| | | | | | | | VP15TF | W ₃ | L ₃ | Re | | |
| Right Hand (R) | 16° | With Breaker | | | CTAT07080V5RR-B | R | ● | 0.7 | 4.5 | 0.05 | 8 | |
| | | | | | 10120V5RR-B | R | ● | 1.0 | 6.7 | 0.05 | 12 | |
| | | | | | 15120V5RR-B | R | ● | 1.5 | 6.7 | 0.05 | 12 | |
| | 16° | | | Strong Edge Type | | CTAT15120V5RR-BX | R | ● | 1.5 | 6.7 | 0.05 | 12 |
| | | | | | | 20120V5RR-BX | R | ● | 2.0 | 6.7 | 0.05 | 12 |
| | | | | | | | | | | | | |
| | 0° | | | | CTAT10120V5RN-B | N | ● | 1.0 | 6.7 | 0.05 | 12 | |
| | | | | | 15120V5RN-B | N | ● | 1.5 | 6.7 | 0.05 | 12 | |
| | | | | | 20120V5RN-B | N | ● | 2.0 | 6.7 | 0.05 | 12 | |
| | 0° | | | Strong Edge Type | | CTAT15120V5RN-BX | N | ● | 1.5 | 6.7 | 0.05 | 12 |
| | | | | | | 20120V5RN-BX | N | ● | 2.0 | 6.7 | 0.05 | 12 |
| | 16° | | | | | CTAT10110V5RL-B | L | ● | 1.0 | 6.7 | 0.05 | 11 |
| 15110V5RL-B | | L | ● | | | 1.5 | 6.7 | 0.05 | 11 | | | |
| 20110V5RL-B | | L | ● | | | 2.0 | 6.7 | 0.05 | 11 | | | |
| 20° | Without Breaker | | CTAT1012000RR | R | ● | 1.0 | 6.7 | 0 | 12 | | | |
| | | | 1512000RR | R | ● | 1.5 | 6.7 | 0 | 12 | | | |
| | | | 2012000RR | R | ● | 2.0 | 6.7 | 0 | 12 | | | |
| Left Hand (L) | 16° | With Breaker | | | CTAT07080V5LL-B | L | ● | 0.7 | 4.5 | 0.05 | 8 | |
| | | | | | 10120V5LL-B | L | ● | 1.0 | 6.7 | 0.05 | 12 | |
| | | | | | 15120V5LL-B | L | ● | 1.5 | 6.7 | 0.05 | 12 | |
| | 0° | | | | CTAT10120V5LN-B | N | ● | 1.0 | 6.7 | 0.05 | 12 | |
| | | | | | 15120V5LN-B | N | ● | 1.5 | 6.7 | 0.05 | 12 | |
| | | | | | 20120V5LN-B | N | ● | 2.0 | 6.7 | 0.05 | 12 | |
| | 16° | | | | CTAT10110V5LR-B | R | ● | 1.0 | 6.7 | 0.05 | 11 | |
| | | | | | 15110V5LR-B | R | ● | 1.5 | 6.7 | 0.05 | 11 | |
| | | | | | 20110V5LR-B | R | ● | 2.0 | 6.7 | 0.05 | 11 | |
| | 20° | | | Without Breaker | | CTAT1012000LL | L | ● | 1.0 | 6.7 | 0 | 12 |
| | | | | | | 1512000LL | L | ● | 1.5 | 6.7 | 0 | 12 |
| | | | | | | 2012000LL | L | ● | 2.0 | 6.7 | 0 | 12 |

Right hand insert shown.

SMALL TOOLS

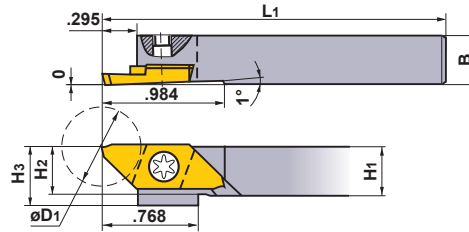
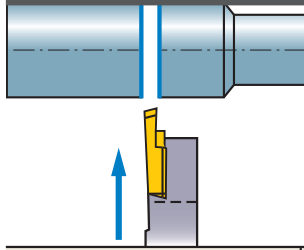
SPARE PARTS > M001
TECHNICAL DATA > N001

SMALL TOOLS

CUTTING OFF TOOLS (FOR GANG TYPE TOOL POSTS)

INCH STANDARD

CTBH



Right hand tool holder shown.

| Order Number | Stock | | Insert Number | Dimensions (inch) | | | | | Max. Cut Off Diameter (inch) D1 | Insert Screw * | Wrench | |
|--------------------|-------|---|---------------|-------------------|------|------|------|-------|---------------------------------|----------------|--------|--------|
| | R | L | | H1 | B | H2 | L1 | H3 | | | | |
| CTBHR/L-062 | ● | ● | CTBT | ○○○○ | .375 | .375 | .375 | 4.724 | .500 | .630 | NS402W | NKY15R |
| -082 | ● | ● | | ○○○○ | .500 | .500 | .500 | 4.724 | — | .630 | NS403W | NKY15R |
| -102 | ● | ● | | ○○○○ | .625 | .625 | .625 | 4.724 | — | .630 | NS403W | NKY15R |

* Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

INSERTS

| Holder | Setting Geometry | Breaker | Geometry | Insert Geometry | Order Number | Hand | Coated | Dimensions (inch) | | Max. Cut Off Diameter (inch) |
|----------------|------------------|--------------|----------|-----------------|------------------------|------|--------|-------------------|------|------------------------------|
| | | | | | | | VP15TF | W3 | Re | |
| Right Hand (R) | | | | | CTBT15160V5RR-B | R | ● | .059 | .002 | .630 |
| | | | | | 20160V5RR-B | R | ● | .079 | .002 | .630 |
| Left Hand (L) | | With Breaker | | | CTBT20160V5RN-B | N | ● | .079 | .002 | .630 |
| | | | | | CTBT20160V5LL-B | L | ● | .079 | .002 | .630 |
| | | | | | CTBT20160V5LN-B | N | ● | .079 | .002 | .630 |
| | | | | | CTBT20145V5LR-B | R | ● | .079 | .002 | .571 |

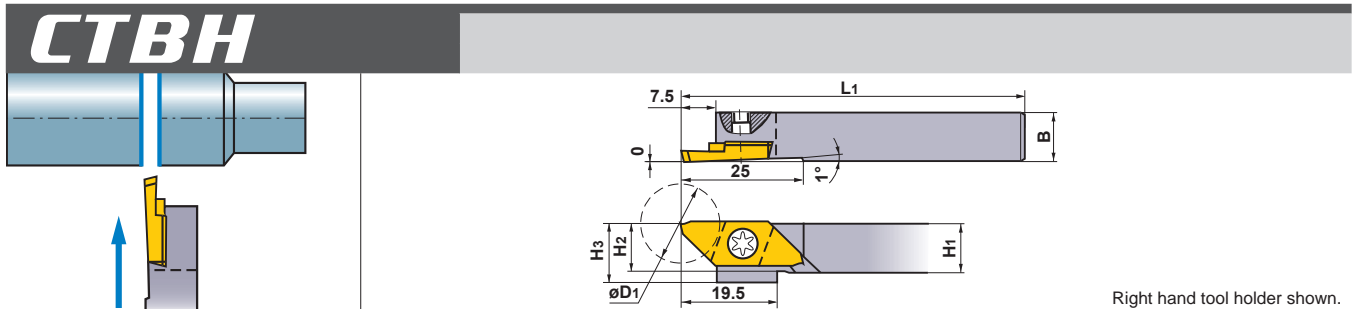
Right hand insert shown.

D030

● : Inventory maintained. (5 inserts in one case)



METRIC STANDARD



| Order Number | Stock | | Insert Number | Dimensions (mm) | | | | | Max. Cut Off Diameter (mm) D1 | Insert Screw * | Wrench | |
|------------------------|-------|---|---------------|-----------------|----|----|----|-----|-------------------------------|----------------|--------|--------|
| | R | L | | H1 | B | H2 | L1 | H3 | | | | |
| CTBHR/L1010-160 | ● | ● | CTBT | ○ ○ ○ ○ | 10 | 10 | 10 | 120 | 12 | 16 | NS402W | NKY15R |
| 1212-160 | ● | ● | | ○ ○ ○ ○ | 12 | 12 | 12 | 120 | — | 16 | NS403W | NKY15R |
| 1616-160 | ● | ● | | ○ ○ ○ ○ | 16 | 16 | 16 | 120 | — | 16 | NS403W | NKY15R |

* Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

SMALL TOOLS

INSERTS

| Holder | Setting Geometry | Breaker | Geometry | Insert Geometry | Order Number | Hand | Coated | Dimensions (mm) | | Max. Cut Off Diameter (mm) |
|----------------|------------------|--------------|----------|-----------------|------------------------|------|--------|-----------------|------|----------------------------|
| | | | | | | | VP15TF | W3 | Re | |
| Right Hand (R) | 16° | With Breaker | | | CTBT15160V5RR-B | R | ● | 1.5 | 0.05 | 16 |
| | 0° | | | | 20160V5RR-B | R | ● | 2.0 | 0.05 | 16 |
| Left Hand (L) | 16° | | | | CTBT20160V5RN-B | N | ● | 2.0 | 0.05 | 16 |
| | 0° | | | | CTBT20160V5LL-B | L | ● | 2.0 | 0.05 | 16 |
| | 16° | | | | CTBT20160V5LN-B | N | ● | 2.0 | 0.05 | 16 |
| | 0° | | | | CTBT20145V5LR-B | R | ● | 2.0 | 0.05 | 14.5 |

RECOMMENDED CUTTING CONDITIONS

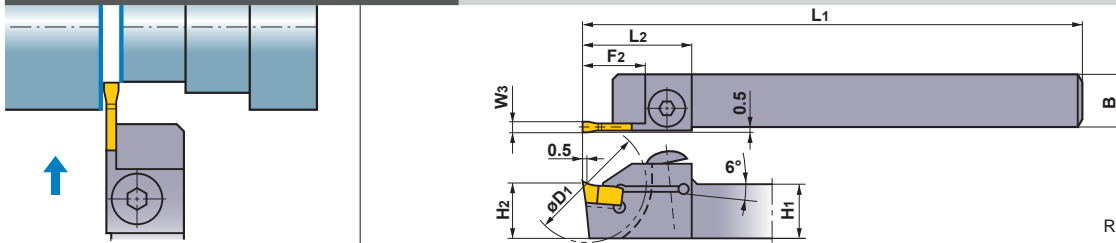
| | Work Material | Grade | Cutting Speed (SFM) | Feed (IPR) |
|----------|----------------------------|--------|---------------------|--------------|
| P | Carbon Steel · Alloy Steel | VP15TF | 165—490 | .0008— .0035 |
| | Free Cutting Carbon Steel | VP15TF | 100—590 | .0004— .0035 |
| M | Stainless Steel | VP15TF | 165—395 | .0008— .0019 |
| N | Non-Ferrous Metal | VP15TF | 230—755 | .0012— .0043 |

SPARE PARTS > M001
TECHNICAL DATA > N001

D031

METRIC STANDARD

CTDH



Right hand tool holder shown.

| Order Number | Stock | | Insert Number | Dimensions (mm) | | | | | | | | Max. Cut Off Diameter (mm) D1 | * Clamp Screw | Wrench |
|------------------------|-------|---|---------------|-----------------|----|----|----|-----|----|------|----|----------------------------------|------------------|--------|
| | R | L | | H1 | B | H2 | L1 | L2 | F2 | | | | | |
| CTDHR/L1616-230 | ● | | CTDT | 2535 | 16 | 16 | 16 | 125 | 24 | 12.2 | 23 | HBH06020 | HKY40R | |
| 1616-280 | ● | | | 2535 | 16 | 16 | 16 | 120 | 25 | 15 | 28 | NS502W | HKY25R | |
| 1616-350 | ● | ● | | 2535 | 16 | 16 | 16 | 125 | 32 | 18.5 | 35 | HBH06020 | HKY40R | |

* Clamp Torque (lbf-in) : HBH06020=62, NS502W=19

SMALL TOOLS

INSERTS

| Breaker | Order Number | Hand | Coated | Dimensions (mm) | | | Max. Cut Off Diameter (mm) | Geometry |
|--------------|-----------------------|------|--------|-----------------|-----|--------|----------------------------|----------|
| | | | VP15TF | W3 | B9 | Re | | |
| | CTDT2535002N-B | N | ● | 2.5 | 0° | 0.2 | 23-35 | |
| With Breaker | 25350V5R-B | R | ● | 2.5 | 8° | ≤ 0.05 | 23-35 | |
| | 25350V5R-BS | R | ● | 2.5 | 17° | ≤ 0.05 | 23-35 | |
| | 2535002R-B | R | ● | 2.5 | 8° | 0.2 | 23-35 | |

RECOMMENDED CUTTING CONDITIONS

| | Work Material | Grade | Cutting Speed (SFM) | Feed (IPR) |
|----------|----------------------------|--------|---------------------|-------------|
| P | Carbon Steel · Alloy Steel | VP15TF | 165-490 | .0008-.0035 |
| | Free Cutting Carbon Steel | VP15TF | 100-590 | .0004-.0035 |
| M | Stainless Steel | VP15TF | 165-395 | .0008-.0019 |
| N | Non-Ferrous Metal | VP15TF | 230-755 | .0012-.0043 |

SPARE PARTS > M001
TECHNICAL DATA > N001

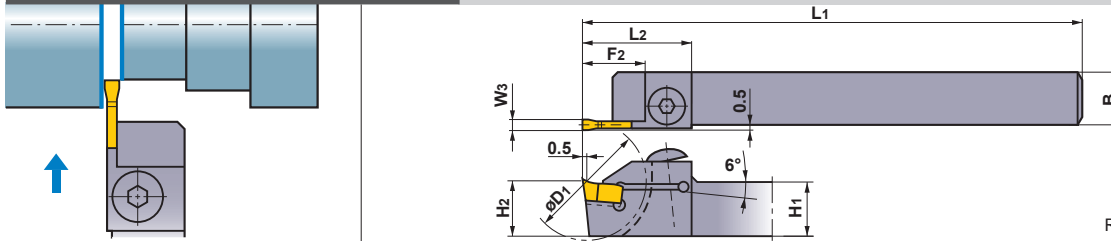
D033

SMALL TOOLS

CUTTING OFF TOOLS (FOR GANG TYPE TOOL POSTS)

METRIC STANDARD

CTEH



Right hand tool holder shown.

| Order Number | Stock | | Insert Number | Dimensions (mm) | | | | | | | Max. Cut Off Diameter (mm) D1 | * | |
|------------------------|-------|---|---------------|-----------------|----|----|----|-----|----|-------------|-------------------------------|----------|--------|
| | R | L | | H1 | B | H2 | L1 | L2 | F2 | Clamp Screw | | | |
| CTEHR/L1616-230 | ● | | CTET | 3035 | 16 | 16 | 16 | 125 | 24 | 12.2 | 23 | HBH06020 | HKY40R |
| 1616-280 | ● | | | 3035 | 16 | 16 | 16 | 120 | 25 | 15 | 28 | NS502W | HKY25R |
| 1616-350 | ● | ● | | 3035 | 16 | 16 | 16 | 125 | 32 | 18.5 | 35 | HBH06020 | HKY40R |

* Clamp Torque (lbf-in) : HBH06020=62, NS502W=19

INSERTS

| Breaker | Order Number | Hand | Coated | Dimensions (mm) | | | Max. Cut Off Diameter (mm) | Geometry |
|--------------|-----------------------|------|--------|-----------------|----------------|--------|----------------------------|----------|
| | | | VP15TF | W3 | B ₉ | Re | | |
| With Breaker | CTET30350V5R-B | R | ● | 3 | 8° | ≤ 0.05 | 23-35 | |
| | 30350V5R-BS | R | ● | 3 | 17° | ≤ 0.05 | 23-35 | |
| | 3035002N-B | N | ● | 3 | 0° | 0.2 | 23-35 | |
| | 3035002R-B | R | ● | 3 | 8° | 0.2 | 23-35 | |
| | 3035002L-B | L | ● | 3 | 8° | 0.2 | 23-35 | |

RECOMMENDED CUTTING CONDITIONS

| | Work Material | Grade | Cutting Speed (SFM) | Feed (IPR) |
|----------|----------------------------|--------|---------------------|-------------|
| P | Carbon Steel · Alloy Steel | VP15TF | 165-490 | .0008-.0035 |
| | Free Cutting Carbon Steel | VP15TF | 100-590 | .0004-.0035 |
| M | Stainless Steel | VP15TF | 165-395 | .0008-.0019 |
| N | Non-Ferrous Metal | VP15TF | 230-755 | .0012-.0043 |

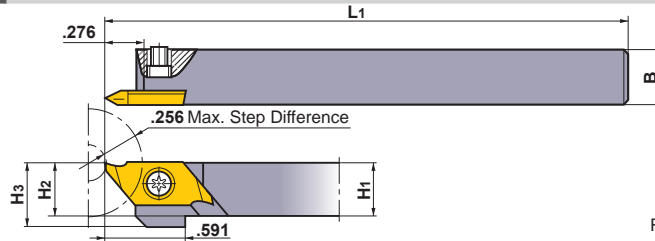
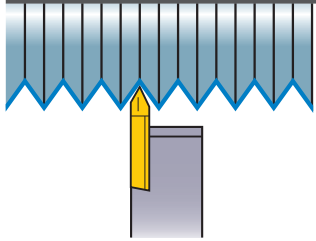
D034

● : Inventory maintained. (10 inserts in one case)

THREADING TOOLS (FOR GANG TYPE) TOOL POSTS

INCH STANDARD

TTAH



Right hand tool holder shown.

| Order Number | Stock | | Insert Number | Dimensions (inch) | | | | | * | | |
|--------------------|-------|---|---------------|-------------------|------|------|------|-------|--------------|--------|--------|
| | R | L | | H1 | B | H2 | L1 | H3 | Insert Screw | Wrench | |
| TTAHR/L-062 | ● | ● | TTAT | | .375 | .375 | .375 | 4.724 | .500 | NS402W | NKY15R |
| -082 | ● | ● | | | .500 | .500 | .500 | 4.724 | — | NS402W | NKY15R |
| -102 | ● | ● | | | .625 | .625 | .625 | 4.724 | — | NS402W | NKY15R |

* Clamp Torque (lbf-in) : NS402W=6.2

INSERTS

| Holder | Setting Geometry | Breaker | Geometry | Insert Geometry | Order Number | Hand | Coated | Dimensions (inch) | | Pitch of Thread (inch) (thread/inch) |
|----------------|------------------|--------------|---------------------------|-----------------|------------------------|------|--------|-------------------|-----------|--------------------------------------|
| | | | | | | | VP15TF | Z2 | Re | |
| Right Hand (R) | | With Breaker | General Purpose (60°) | | TTAT60075F5RR-B | R | ● | .016 | .002 Flat | .008— .030 |
| | | | | | 60125V5RR-B | R | ● | .031 | .002 | .020— .049 |
| | | | | | 60075F5RL-B | L | ● | .016 | .002 Flat | .008— .030 |
| | | | | | 60125V5RL-B | L | ● | .031 | .002 | .020— .049 |
| Left Hand (L) | | With Breaker | General Purpose (60°) | | 60075F5LR-B | R | ● | .016 | .002 Flat | .008— .030 |
| | | | | | 60125V5LR-B | R | ● | .031 | .002 | .020— .049 |
| | | | | | 60075F5LL-B | L | ● | .016 | .002 Flat | .008— .030 |
| | | | | | 60125V5LL-B | L | ● | .031 | .002 | .020— .049 |
| Right Hand (R) | | With Breaker | General Purpose (55°) | | 55158V5RR-B | R | ● | .031 | .002 | (40—16) |
| | | | | | 55158V5RL-B | L | ● | .031 | .002 | (40—16) |
| Left Hand (L) | | With Breaker | General Purpose (55°) | | 55158V5LR-B | R | ● | .031 | .002 | (40—16) |
| | | | | | 55158V5LL-B | L | ● | .031 | .002 | (40—16) |

Refer to page D037 for the thread diameter range.

RECOMMENDED CUTTING CONDITIONS

| Work Material | | Cutting Speed (SFM) | | Work Material | | Cutting Speed (SFM) | |
|---------------|----------------------------|---------------------|--|---------------|-------------------|---------------------|--|
| P | Carbon Steel · Alloy Steel | 165—490 | | M | Stainless Steel | 165—395 | |
| | Free Cutting Carbon Steel | 100—590 | | N | Non-Ferrous Metal | 230—755 | |

● : Inventory maintained. (5 inserts in one case)

SPARE PARTS > M001
TECHNICAL DATA > N001

SMALL TOOLS

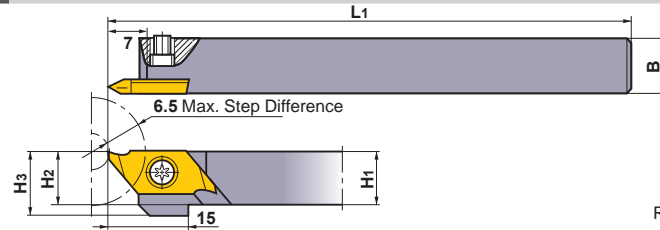
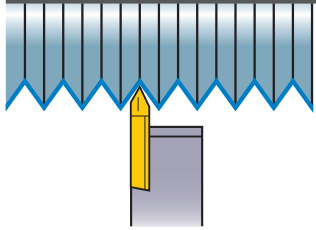
D035

SMALL TOOLS

THREADING TOOLS (FOR GANG TYPE) TOOL POSTS

METRIC STANDARD

TTAH



Right hand tool holder shown.

| Order Number | Stock | | Insert Number | Dimensions (inch) | | | | | Insert Screw * | Wrench |
|--------------------|-------|---|---------------|-------------------|----|----|-----|----|----------------|--------|
| | R | L | | H1 | B | H2 | L1 | H3 | | |
| TTAHR/L0810 | ● | ● | TTAT | 8 | 10 | 8 | 120 | 12 | NS402W | NKY15R |
| 1010 | ● | ● | | 10 | 10 | 10 | 120 | 12 | NS402W | NKY15R |
| 1212 | ● | ● | | 12 | 12 | 12 | 120 | — | NS403W | NKY15R |
| 1616 | ● | ● | | 16 | 16 | 16 | 120 | — | NS403W | NKY15R |

* Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

INSERTS

| Holder | Setting Geometry | Breaker | Geometry | Insert Geometry | Order Number | Hand | Coated | Dimensions (mm) | | Pitch of Thread (mm) (thread/inch) |
|----------------|------------------|--------------|---------------------------|-----------------|------------------------|------|--------|-----------------|-----------|------------------------------------|
| | | | | | | | VP15TF | Z2 | Re | |
| Right Hand (R) | | With Breaker | General Purpose (60°) | | TTAT60075F5RR-B | R | ● | 0.4 | 0.05 Flat | 0.2—0.75 (80—36) |
| | | | | | 60125V5RR-B | R | ● | 0.8 | 0.05 | 0.5—1.25 (40—16) |
| | | | | | 60075F5RL-B | L | ● | 0.4 | 0.05 Flat | 0.2—0.75 (80—36) |
| | | | | | 60125V5RL-B | L | ● | 0.8 | 0.05 | 0.5—1.25 (40—16) |
| | | | | | 6015001RN-B | N | ● | 1.25 | 0.1 | 1.0—1.5 (24—18) |
| | | | | | 60075F5LR-B | R | ● | 0.4 | 0.05 Flat | 0.2—0.75 (80—36) |
| Left Hand (L) | | With Breaker | General Purpose (60°) | | 60125V5LR-B | R | ● | 0.8 | 0.05 | 0.5—1.25 (40—16) |
| | | | | | 60075F5LL-B | L | ● | 0.4 | 0.05 Flat | 0.2—0.75 (80—36) |
| | | | | | 60125V5LL-B | L | ● | 0.8 | 0.05 | 0.5—1.25 (40—16) |
| | | | | | 6015001LN-B | N | ● | 1.25 | 0.1 | 1.0—1.5 (24—18) |
| Right Hand (R) | | With Breaker | General Purpose (55°) | | 55158V5RR-B | R | ● | 0.8 | 0.05 | (40—16) |
| | | | | | 55158V5RL-B | L | ● | 0.8 | 0.05 | (40—16) |
| Left Hand (L) | | With Breaker | General Purpose (55°) | | 55158V5LR-B | R | ● | 0.8 | 0.05 | (40—16) |
| | | | | | 55158V5LL-B | L | ● | 0.8 | 0.05 | (40—16) |

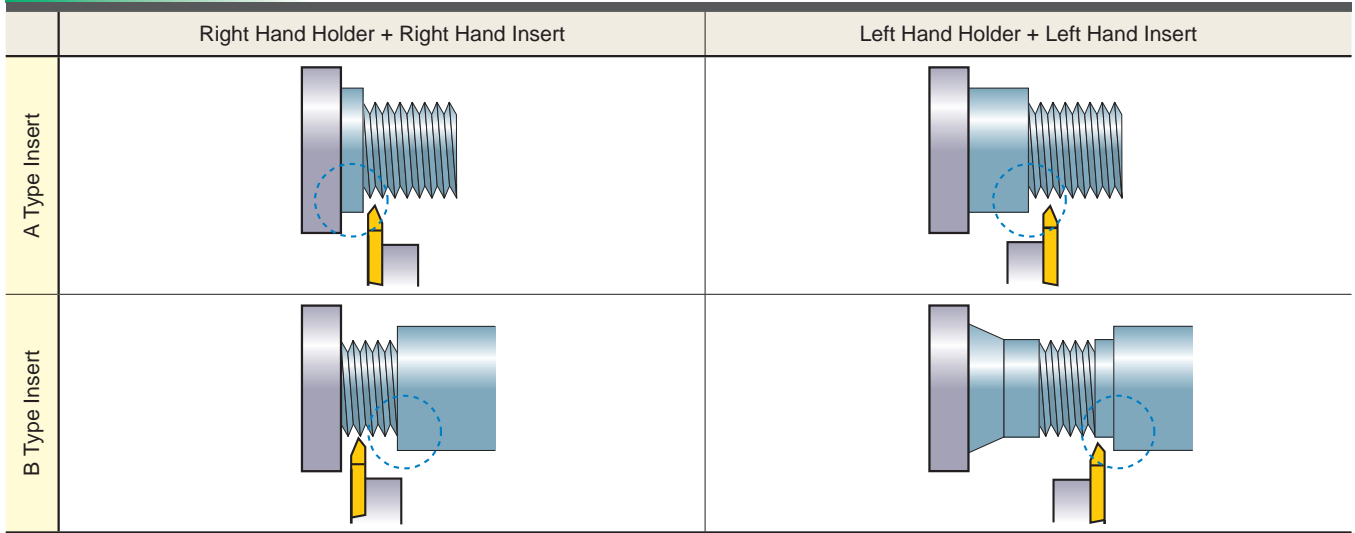
Refer to page D037 for the thread diameter range.

D036

● : Inventory maintained. (5 inserts in one case)



HOLDER APPLICATION



* Above 4 combinations enable machining at the areas shown by

SMALL TOOLS

THREAD DIAMETER RANGE

Application Range

| Pitch (mm) | Thread Diameter (mm) | | | | | | | | | | Number of Passes |
|------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------|
| | ≥φ1.0 | ≥φ1.2 | ≥φ1.6 | ≥φ2.0 | ≥φ2.5 | ≥φ3.0 | ≥φ4.0 | ≥φ5.0 | ≥φ6.0 | ≥φ7.0 | |
| 0.2 | | | | | | | | | | | 2-4 |
| 0.25 | | | | | | | | | | | 3-5 |
| 0.3 | | | | | | | | | | | 4-6 |
| 0.35 | | | | | | | | | | | 5-7 |
| 0.4 | | | | | | | | | | | 6-8 |
| 0.45 | | | | | | | | | | | |
| 0.5 | | | | | | | | | | | |
| 0.6 | | | | | | | | | | | |
| 0.7 | | | | | | | | | | | |
| 0.75 | | | | | | | | | | | |
| 0.8 | | | | | | | | | | | |
| 1 | | | | | | | | | | | |
| 1.25 | | | | | | | | | | | |
| 1.5 | | | | | | | | | | | 6-8 |

Machining Impossible

*Metric Thread (60°)

| Pitch(thread/inch) | Thread Diameter | | | | | | | | | Number of Passes | |
|--------------------|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|------------------|---------|
| | Inch | ≥φ0.060 | ≥φ0.073 | ≥φ0.086 | ≥φ0.099 | ≥φ0.112 | ≥φ0.164 | ≥φ0.190 | ≥φ0.250 | | ≥φ0.313 |
| mm | | ≥φ1.524 | ≥φ1.854 | ≥φ2.184 | ≥φ2.515 | ≥φ2.845 | ≥φ4.166 | ≥φ4.826 | ≥φ6.350 | ≥φ7.938 | |
| 80 | | | | | | | | | | | 3-5 |
| 72 | | | | | | | | | | | 4-6 |
| 64 | | | | | | | | | | | 5-7 |
| 56 | | | | | | | | | | | 6-8 |
| 48 | | | | | | | | | | | |
| 44 | | | | | | | | | | | |
| 40 | | | | | | | | | | | |
| 32 | | | | | | | | | | | |
| 28 | | | | | | | | | | | |
| 26 | | | | | | | | | | | |
| 24 | | | | | | | | | | | |
| 20 | | | | | | | | | | | |
| 18 | | | | | | | | | | | |
| 16 | | | | | | | | | | | |

Machining Impossible

*American UN,Whitworth Thread

RECOMMENDED CUTTING CONDITIONS

| Work Material | Cutting Speed (SFM) | Work Material | Cutting Speed (SFM) |
|-------------------------------------|---------------------|----------------------------|---------------------|
| P Carbon Steel · Alloy Steel | 165—490 | M Stainless Steel | 165—395 |
| Free Cutting Carbon Steel | 100—590 | N Non-Ferrous Metal | 230—755 |

SPARE PARTS > M001
TECHNICAL DATA > N001

D037

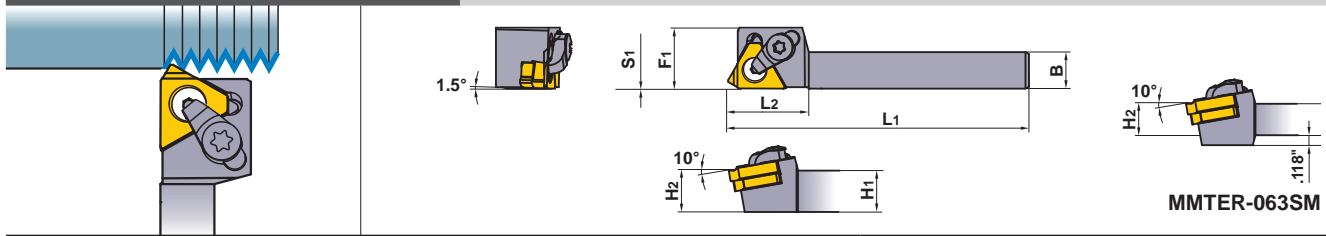
SMALL TOOLS

THREADING TOOLS (FOR GANG TYPE TOOL POSTS)

INCH STANDARD

MMTE

NEW



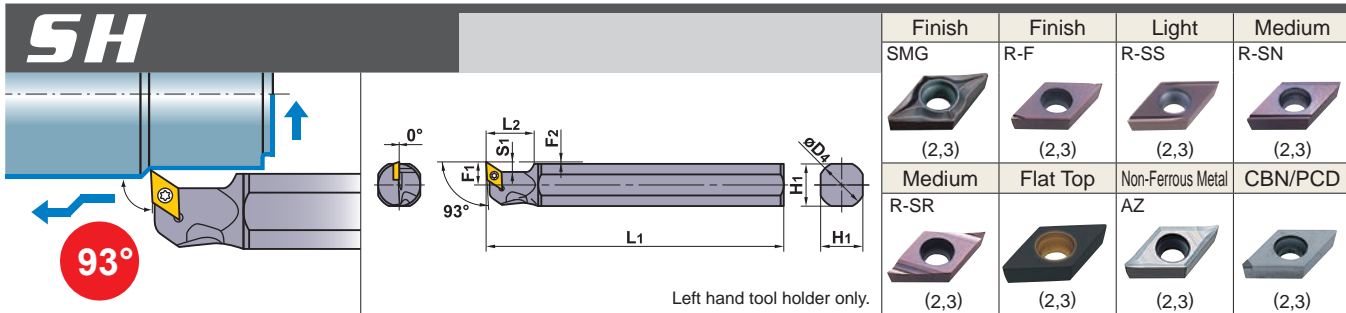
SMALL TOOLS

| Order Number | Stock | Insert Number | Dimensions (inch) | | | | | | | | | * | | * | | |
|--------------------|-------|---------------------|-------------------|------|-------|------|------|------|----|--------------|-------------|-----------|------------|-----------|--------------------|--|
| | | | H1 | B | L1 | L2 | H2 | F1 | S1 | Clamp Bridge | Clamp Screw | Stop Ring | Shim Screw | Shim | Wrench | |
| MMTER-063SM | ● | TTAT MMT16ER | .375 | .375 | 4.724 | .875 | .375 | .625 | 0 | SETK51 | SETS51 | CR4 | HFC03008 | CTE32TP15 | ①TKY15F ②HKY20R | |
| -083SM | ● | | .500 | .500 | 4.724 | .875 | .500 | .625 | 0 | SETK51 | SETS51 | CR4 | HFC03008 | CTE32TP15 | ①TKY15F ②HKY20R | |

* Clamp Torque (lbf-in) : SETS51=31, HFC03008=18

DIMPLE SLEEVE HOLDER (FOR OPPOSITE TOOL POSTS)

INCH STANDARD



| Order Number | Stock L | Insert Number | Dimensions (inch) | | | | | | | Insert Screw * | Wrench | |
|----------------|------------|-------------------------------|-------------------|-------|-------|------|------|------|------|----------------|--------|--------|
| | | | D4 | L1 | L2 | H1 | F1 | S1 | F2 | | | |
| SH16H-FSDUCL07 | ● | DCET DCGT DCGW | 21.5 | .625 | 3.937 | .787 | .551 | .305 | .165 | .030 | TS254 | TKY08R |
| 19K-FSDUCL07 | ● | DCMT DCMW | | .750 | 4.921 | .787 | .669 | .364 | .165 | .030 | TS254 | TKY08R |
| 25M-FSDUCL07 | ● | NP-DCGW NP-DCMT NP-DCMW | | 1.000 | 5.906 | .787 | .906 | .482 | .165 | .030 | TS254 | TKY08R |
| SH16H-FSDUCL11 | ● | DCET DCGT DCGW | 32.5 | .625 | 3.937 | .787 | .551 | .305 | .252 | .030 | TS43 | TKY15R |
| 19K-FSDUCL11 | ● | DCMT DCMW | | .750 | 4.921 | .787 | .669 | .364 | .252 | .030 | TS43 | TKY15R |
| 25M-FSDUCL11 | ● | NP-DCGW NP-DCMT NP-DCMW | | 1.000 | 5.906 | .787 | .906 | .482 | .252 | .030 | TS43 | TKY15R |

(Note 1) When using insert with right and left hand chip breaker, please use right hand insert.

(Note 2) Insert photo is an example. Letters show chip breaker style, figures show inscribed circle.

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

SMALL TOOLS

SH type inserts > A109-A113
CBN & PCD inserts > B042, B043, B059

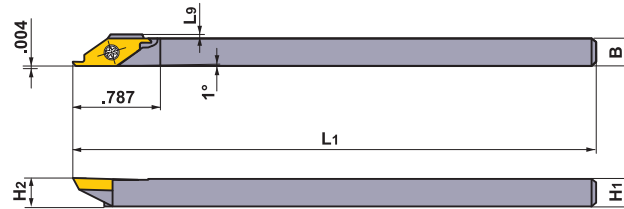
SPARE PARTS > M001
TECHNICAL DATA > N001

D039

FOR RADIAL TYPE TOOL POSTS

INCH STANDARD

CSVH



Right hand tool holder shown.

| Order Number | Stock | | Insert Number | Dimensions (inch) | | | | | Max. D.O.C (inch) | Insert Screw * | Wrench | |
|--------------|-------|---|---------------|-------------------|------|------|------|-------|-------------------|----------------|--------|--------|
| | R | L | | H1 | B | H2 | L1 | L9 | | | | |
| CSVHR/L-062 | ● | ● | CSVT | ○ ○ ○ ○ | .375 | .375 | .375 | 5.512 | 0 | .118 | NS251 | NKY15R |
| -082 | ● | ● | | ○ ○ ○ ○ | .500 | .500 | .500 | 5.512 | 0 | .118 | NS251 | NKY15R |

(Note 1) Please use right hand insert for right hand holder and left hand insert for left hand holder.

(Note 2) Each insert has own depth of cut.

* Clamp Torque (lbf-in) : NS251=6.2

SMALL TOOLS

INSERTS

CSVTF

(Front turning)

| Order Number | Hand | Coated | Dimensions (inch) | | | | | Max. D.O.C (inch) | Geometry |
|--------------|------|--------|-------------------|------|----|------|----|-------------------|---------------------|
| | | VP15KZ | D1 | S1 | Re | S2 | B3 | | |
| CSVTF30AR | R | ● | .250 | .094 | 0 | .012 | 5° | .118 | Without Breaker |
| 30AL | L | ● | .250 | .094 | 0 | .012 | 5° | .118 | |
| 30BR | R | ● | .250 | .094 | 0 | .012 | 2° | .118 | |
| 30CR | R | ● | .250 | .094 | 0 | .006 | 2° | .118 | |
| 30DR | R | ● | .250 | .094 | 0 | .006 | 5° | .118 | |
| CSVTF30AR-B | R | ● | .250 | .094 | 0 | .012 | 5° | .118 | With Breaker |
| 30AL-B | L | ● | .250 | .094 | 0 | .012 | 5° | .118 | |
| 30BR-B | R | ● | .250 | .094 | 0 | .012 | 2° | .118 | |
| 30CR-B | R | ● | .250 | .094 | 0 | .006 | 2° | .118 | |
| 30DR-B | R | ● | .250 | .094 | 0 | .006 | 5° | .118 | |

CSVTFXL

(Front turning, Copying)

| Order Number | Hand | Coated | Dimensions (inch) | | | Max. D.O.C (inch) | Geometry |
|--------------|------|--------|-------------------|------|----|-------------------|---------------------|
| | | VP15KZ | D1 | S1 | Re | | |
| CSVTFXL | L | ● | .250 | .094 | 0 | .118 | Without Breaker |

● : Inventory maintained. (5 inserts in one case)

SPARE PARTS > M001
TECHNICAL DATA > N001

D041

SMALL TOOLS

FOR RADIAL TYPE TOOL POSTS

INSERTS

| | | CSVTC | | | | | | | (Cutting off) | | |
|---------------------|------|--------------|-------------------|------|----|------|------|--------------------|----------------------|--|--|
| Order Number | Hand | Coated | Dimensions (inch) | | | | | Max. D.O.C. (inch) | Geometry | | |
| | | VP15KZ | D1 | S1 | Re | L3 | W3 | | | | |
| CSVTC0640R | R | ● | .250 | .094 | 0 | .079 | .024 | .059 | | | |
| 0750R | R | ● | .250 | .094 | 0 | .098 | .028 | .079 | | | |
| 0750L | L | ● | .250 | .094 | 0 | .098 | .028 | .079 | | | |
| 0850R | R | ● | .250 | .094 | 0 | .098 | .031 | .079 | | | |
| 0850L | L | ● | .250 | .094 | 0 | .098 | .031 | .079 | | | |
| 0950R | R | ● | .250 | .094 | 0 | .098 | .035 | .079 | | | |
| 1060R | R | ● | .250 | .094 | 0 | .118 | .039 | .098 | | | |
| 1060L | L | ● | .250 | .094 | 0 | .118 | .039 | .098 | | | |
| 1360R | R | ● | .250 | .094 | 0 | .118 | .051 | .098 | | | |
| 1360L | L | ● | .250 | .094 | 0 | .118 | .051 | .098 | | | |
| 1560R | R | ● | .250 | .094 | 0 | .118 | .059 | .098 | | | |
| 1560L | L | ● | .250 | .094 | 0 | .118 | .059 | .098 | | | |
| CSVTC0640R-B | R | ● | .250 | .094 | 0 | .079 | .024 | .059 | | | |
| 0750R-B | R | ● | .250 | .094 | 0 | .098 | .028 | .079 | | | |
| 0850R-B | R | ● | .250 | .094 | 0 | .098 | .031 | .079 | | | |
| 0950R-B | R | ● | .250 | .094 | 0 | .098 | .035 | .079 | | | |
| 1060R-B | R | ● | .250 | .094 | 0 | .118 | .039 | .098 | | | |
| 1360R-B | R | ● | .250 | .094 | 0 | .118 | .051 | .098 | | | |
| 1560R-B | R | ● | .250 | .094 | 0 | .118 | .059 | .098 | | | |

SMALL TOOLS

| | | CSVTB | | | | | | | (Back turning) | | |
|--------------------|------|--------------|-------------------|------|----|------|------|------|-----------------------|----------|----|
| Order Number | Hand | Coated | Dimensions (inch) | | | | | | Max. D.O.C. (inch) | Geometry | |
| | | VP15KZ | D1 | S1 | Re | L3 | W3 | S2 | | | B9 |
| CSVTB10AR | R | ● | .250 | .094 | 0 | .098 | .039 | .012 | 5° | .079 | |
| 10AL | L | ● | .250 | .094 | 0 | .098 | .039 | .012 | 5° | .079 | |
| 10BR | R | ● | .250 | .094 | 0 | .098 | .039 | .012 | 2° | .079 | |
| 10CR | R | ● | .250 | .094 | 0 | .098 | .039 | .006 | 2° | .079 | |
| 10DR | R | ● | .250 | .094 | 0 | .098 | .039 | .006 | 5° | .079 | |
| 12AR | R | ● | .250 | .094 | 0 | .098 | .047 | .012 | 5° | .079 | |
| 14AR | R | ● | .250 | .094 | 0 | .098 | .055 | .012 | 5° | .079 | |
| CSVTB10AR-B | R | ● | .250 | .094 | 0 | .098 | .039 | .012 | 5° | .079 | |
| 10BR-B | R | ● | .250 | .094 | 0 | .098 | .039 | .012 | 2° | .079 | |
| 10CR-B | R | ● | .250 | .094 | 0 | .098 | .039 | .006 | 2° | .079 | |
| 10DR-B | R | ● | .250 | .094 | 0 | .098 | .039 | .006 | 5° | .079 | |
| 12AR-B | R | ● | .250 | .094 | 0 | .098 | .047 | .012 | 5° | .079 | |
| 14AR-B | R | ● | .250 | .094 | 0 | .098 | .055 | .012 | 5° | .079 | |

| | | CSVTBXL | | | | (Back turning, Copying) | | |
|----------------|------|----------------|-------------------|------|----|--------------------------------|----------|--|
| Order Number | Hand | Coated | Dimensions (inch) | | | Max. D.O.C. (inch) | Geometry | |
| | | VP15KZ | D1 | S1 | Re | | | |
| CSVTBXL | L | ● | .250 | .094 | 0 | .118 | | |

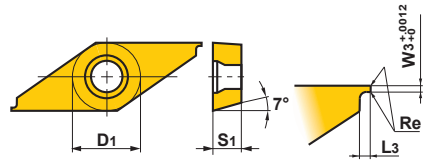
D042

● : Inventory maintained. (5 inserts in one case)



INSERTS

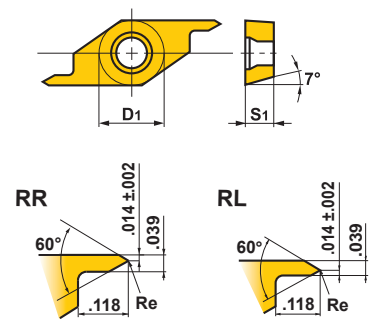
| | | CSVTG | | | | | | | (Grooving) | |
|--------------|------|--------------|-------------------|------|----|------|------|--------------------|-------------------|--|
| Order Number | Hand | Coated | Dimensions (inch) | | | | | Max. D.O.C. (inch) | Geometry | |
| | | VP15KZ | D1 | S1 | Re | L3 | W3 | | | |
| CSVTG02505R | R | ● | .250 | .094 | 0 | .020 | .010 | .006 | Without Breaker | |
| 03005R | R | ● | .250 | .094 | 0 | .020 | .012 | .006 | | |
| 03505R | R | ● | .250 | .094 | 0 | .020 | .014 | .006 | | |
| 04005R | R | ● | .250 | .094 | 0 | .020 | .016 | .006 | | |
| 04510R | R | ● | .250 | .094 | 0 | .039 | .018 | .018 | | |
| 05010R | R | ● | .250 | .094 | 0 | .039 | .020 | .018 | | |
| 05510R | R | ● | .250 | .094 | 0 | .039 | .022 | .018 | | |
| 06010R | R | ● | .250 | .094 | 0 | .039 | .024 | .018 | | |
| 06510R | R | ● | .250 | .094 | 0 | .039 | .026 | .018 | | |
| 07010R | R | ● | .250 | .094 | 0 | .039 | .028 | .018 | | |
| 07520R | R | ● | .250 | .094 | 0 | .079 | .030 | .055 | | |
| 07520L | L | ● | .250 | .094 | 0 | .079 | .030 | .055 | | |
| 08020R | R | ● | .250 | .094 | 0 | .079 | .031 | .055 | | |
| 08520R | R | ● | .250 | .094 | 0 | .079 | .033 | .055 | | |
| 09020R | R | ● | .250 | .094 | 0 | .079 | .035 | .055 | | |
| 09520R | R | ● | .250 | .094 | 0 | .079 | .037 | .055 | | |
| 09520L | L | ● | .250 | .094 | 0 | .079 | .037 | .055 | | |
| 10020R | R | ● | .250 | .094 | 0 | .079 | .039 | .055 | | |
| 11030R | R | ● | .250 | .094 | 0 | .118 | .043 | .102 | | |
| 12030R | R | ● | .250 | .094 | 0 | .118 | .047 | .102 | | |
| 12030L | L | ● | .250 | .094 | 0 | .118 | .047 | .102 | | |
| 13030R | R | ● | .250 | .094 | 0 | .118 | .051 | .102 | | |
| 14030R | R | ● | .250 | .094 | 0 | .118 | .055 | .102 | | |
| 15030R | R | ● | .250 | .094 | 0 | .118 | .059 | .102 | | |



Right hand insert shown.

SMALL TOOLS

| | | CSVTT | | | | | (Threading) | |
|--------------|------|--------------|--------------|-------------------|------|------|--|--|
| Order Number | Hand | Coated | Pitch (inch) | Dimensions (inch) | | | Geometry | |
| | | VP15KZ | | D1 | S1 | Re | | |
| CSVTT60050RR | R | ● | .008-.020 | .250 | .094 | .001 | Without Breaker General Purpose (60°) | |
| 60050RL | L | ● | .008-.020 | .250 | .094 | .001 | | |



Right hand insert shown.

SPARE PARTS > M001
TECHNICAL DATA > N001

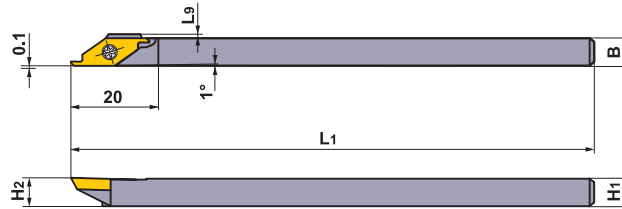
D043

SMALL TOOLS

FOR RADIAL TYPE TOOL POSTS

METRIC STANDARD

CSVH



Right hand tool holder shown.

| Order Number | Stock | | Insert Number | Dimensions (mm) | | | | | Max. D.O.C (mm) | Insert Screw * | Wrench | |
|--------------|-------|---|---------------|-----------------|-----|-----|-----|-----|-----------------|----------------|--------|--------|
| | R | L | | H1 | B | H2 | L1 | L9 | | | | |
| CSVHR/L0707 | ● | ● | CSVT | ○○○○ | 7 | 7 | 7 | 140 | 0.5 | 3.0 | NS251 | NKY15R |
| 0808 | ● | ● | | ○○○○ | 8 | 8 | 8 | 140 | 0 | 3.0 | NS251 | NKY15R |
| 0909 | ● | | | ○○○○ | 9.5 | 9.5 | 9.5 | 140 | 0 | 3.0 | NS251 | NKY15R |
| 1010 | ● | ● | | ○○○○ | 10 | 10 | 10 | 140 | 0 | 3.0 | NS251 | NKY15R |
| 1212 | ● | | | ○○○○ | 12 | 12 | 12 | 140 | 0 | 3.0 | NS251 | NKY15R |

(Note 1) Please use right hand insert for right hand holder and left hand insert for left hand holder.

(Note 2) Each insert has own depth of cut.

* Clamp Torque (lbf-in) : NS251=6.2

INSERTS

CSVTF

(Front turning)

| Order Number | Hand | Coated VP15KZ | Dimensions (mm) | | | | | Max. D.O.C (mm) | Geometry |
|--------------|------|------------------|-----------------|------|----|------|----|-----------------|--|
| | | | D1 | S1 | Re | S2 | B3 | | |
| CSVTF30AR | R | ● | 6.35 | 2.38 | 0 | 0.3 | 5° | 3.0 | <p>Without Breaker</p> <p>With Breaker</p> <p>Right hand insert shown.</p> |
| 30AL | L | ● | 6.35 | 2.38 | 0 | 0.3 | 5° | 3.0 | |
| 30BR | R | ● | 6.35 | 2.38 | 0 | 0.3 | 2° | 3.0 | |
| 30CR | R | ● | 6.35 | 2.38 | 0 | 0.15 | 2° | 3.0 | |
| 30DR | R | ● | 6.35 | 2.38 | 0 | 0.15 | 5° | 3.0 | |
| CSVTF30AR-B | R | ● | 6.35 | 2.38 | 0 | 0.3 | 5° | 3.0 | <p>Without Breaker</p> <p>With Breaker</p> <p>Right hand insert shown.</p> |
| 30AL-B | L | ● | 6.35 | 2.38 | 0 | 0.3 | 5° | 3.0 | |
| 30BR-B | R | ● | 6.35 | 2.38 | 0 | 0.3 | 2° | 3.0 | |
| 30CR-B | R | ● | 6.35 | 2.38 | 0 | 0.15 | 2° | 3.0 | |
| 30DR-B | R | ● | 6.35 | 2.38 | 0 | 0.15 | 5° | 3.0 | |

CSVTFXL

(Front turning, Copying)

| Order Number | Hand | Coated VP15KZ | Dimensions (mm) | | | Max. D.O.C (mm) | Geometry |
|--------------|------|------------------|-----------------|------|----|-----------------|------------------------|
| | | | D1 | S1 | Re | | |
| CSVTFXL | L | ● | 6.35 | 2.38 | 0 | 3.0 | <p>Without Breaker</p> |

D044

● : Inventory maintained. (5 inserts in one case)

SMALL TOOLS

INSERTS

CSVTC

(Cutting off)

| Order Number | Hand | Coated | Dimensions (mm) | | | | | Max. D.O.C (mm) | Geometry |
|---------------------|------|--------|-----------------|------|----|-----|-----|-----------------|--|
| | | VP15KZ | D1 | S1 | Re | L3 | W3 | | |
| CSVTC0640R | R | ● | 6.35 | 2.38 | 0 | 2.0 | 0.6 | 1.5 | <p>Without Breaker</p> <p>With Breaker</p> <p>Right hand insert shown.</p> |
| 0750R | R | ● | 6.35 | 2.38 | 0 | 2.5 | 0.7 | 2.0 | |
| 0750L | L | ● | 6.35 | 2.38 | 0 | 2.5 | 0.7 | 2.0 | |
| 0850R | R | ● | 6.35 | 2.38 | 0 | 2.5 | 0.8 | 2.0 | |
| 0850L | L | ● | 6.35 | 2.38 | 0 | 2.5 | 0.8 | 2.0 | |
| 0950R | R | ● | 6.35 | 2.38 | 0 | 2.5 | 0.9 | 2.0 | |
| 1060R | R | ● | 6.35 | 2.38 | 0 | 3.0 | 1.0 | 2.5 | |
| 1060L | L | ● | 6.35 | 2.38 | 0 | 3.0 | 1.0 | 2.5 | |
| 1360R | R | ● | 6.35 | 2.38 | 0 | 3.0 | 1.3 | 2.5 | |
| 1360L | L | ● | 6.35 | 2.38 | 0 | 3.0 | 1.3 | 2.5 | |
| 1560R | R | ● | 6.35 | 2.38 | 0 | 3.0 | 1.5 | 2.5 | |
| 1560L | L | ● | 6.35 | 2.38 | 0 | 3.0 | 1.5 | 2.5 | |
| CSVTC0640R-B | R | ● | 6.35 | 2.38 | 0 | 2.0 | 0.6 | 1.5 | |
| 0750R-B | R | ● | 6.35 | 2.38 | 0 | 2.5 | 0.7 | 2.0 | |
| 0850R-B | R | ● | 6.35 | 2.38 | 0 | 2.5 | 0.8 | 2.0 | |
| 0950R-B | R | ● | 6.35 | 2.38 | 0 | 2.5 | 0.9 | 0.9 | |
| 1060R-B | R | ● | 6.35 | 2.38 | 0 | 3.0 | 1.0 | 2.5 | |
| 1360R-B | R | ● | 6.35 | 2.38 | 0 | 3.0 | 1.3 | 2.5 | |
| 1560R-B | R | ● | 6.35 | 2.38 | 0 | 3.0 | 1.5 | 2.5 | |

CSVTB

(Back turning)

| Order Number | Hand | Coated | Dimensions (mm) | | | | | | | Max. D.O.C (mm) | Geometry |
|--------------------|------|--------|-----------------|------|----|-----|-----|------|----|-----------------|--|
| | | VP15KZ | D1 | S1 | Re | L3 | W3 | S2 | B9 | | |
| CSVTB10AR | R | ● | 6.35 | 2.38 | 0 | 2.5 | 1 | 0.3 | 5° | 2.0 | <p>Without Breaker</p> <p>With Breaker</p> <p>Right hand insert shown.</p> |
| 10AL | L | ● | 6.35 | 2.38 | 0 | 2.5 | 1 | 0.3 | 5° | 2.0 | |
| 10BR | R | ● | 6.35 | 2.38 | 0 | 2.5 | 1 | 0.3 | 2° | 2.0 | |
| 10CR | R | ● | 6.35 | 2.38 | 0 | 2.5 | 1 | 0.15 | 2° | 2.0 | |
| 10DR | R | ● | 6.35 | 2.38 | 0 | 2.5 | 1 | 0.15 | 5° | 2.0 | |
| 12AR | R | ● | 6.35 | 2.38 | 0 | 2.5 | 1.2 | 0.3 | 5° | 2.0 | |
| 14AR | R | ● | 6.35 | 2.38 | 0 | 2.5 | 1.4 | 0.3 | 5° | 2.0 | |
| CSVTB10AR-B | R | ● | 6.35 | 2.38 | 0 | 2.5 | 1 | 0.3 | 5° | 2.0 | |
| 10BR-B | R | ● | 6.35 | 2.38 | 0 | 2.5 | 1 | 0.3 | 2° | 2.0 | |
| 10CR-B | R | ● | 6.35 | 2.38 | 0 | 2.5 | 1 | 0.15 | 2° | 2.0 | |
| 10DR-B | R | ● | 6.35 | 2.38 | 0 | 2.5 | 1 | 0.15 | 5° | 2.0 | |
| 12AR-B | R | ● | 6.35 | 2.38 | 0 | 2.5 | 1.2 | 0.3 | 5° | 2.0 | |
| 14AR-B | R | ● | 6.35 | 2.38 | 0 | 2.5 | 1.4 | 0.3 | 5° | 2.0 | |

CSVTBXL

(Back turning, Copying)

| Order Number | Hand | Coated | Dimensions (mm) | | | Max. D.O.C (mm) | Geometry |
|----------------|------|--------|-----------------|------|----|-----------------|------------------------|
| | | VP15KZ | D1 | S1 | Re | | |
| CSVTBXL | L | ● | 6.35 | 2.38 | 0 | 3.0 | <p>Without Breaker</p> |

SPARE PARTS > M001
TECHNICAL DATA > N001

D045

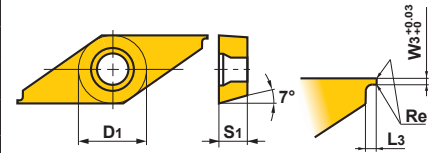
SMALL TOOLS

SMALL TOOLS

FOR RADIAL TYPE TOOL POSTS

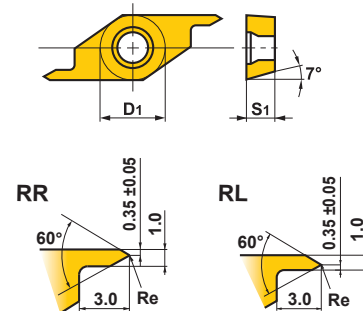
INSERTS

| | | CSVTG | | | | | | | (Grooving) | |
|--------------|------|--------------|-----------------|------|----|-----|------|-----------------|-------------------|--|
| Order Number | Hand | Coated | Dimensions (mm) | | | | | Max. D.O.C (mm) | Geometry | |
| | | VP15KZ | D1 | S1 | Re | L3 | W3 | | | |
| CSVTG02505R | R | ● | 6.35 | 2.38 | 0 | 0.5 | 0.25 | 0.15 | Without Breaker | |
| 03005R | R | ● | 6.35 | 2.38 | 0 | 0.5 | 0.3 | 0.15 | | |
| 03505R | R | ● | 6.35 | 2.38 | 0 | 0.5 | 0.35 | 0.15 | | |
| 04005R | R | ● | 6.35 | 2.38 | 0 | 0.5 | 0.4 | 0.15 | | |
| 04510R | R | ● | 6.35 | 2.38 | 0 | 1.0 | 0.45 | 0.45 | | |
| 05010R | R | ● | 6.35 | 2.38 | 0 | 1.0 | 0.5 | 0.45 | | |
| 05510R | R | ● | 6.35 | 2.38 | 0 | 1.0 | 0.55 | 0.45 | | |
| 06010R | R | ● | 6.35 | 2.38 | 0 | 1.0 | 0.6 | 0.45 | | |
| 06510R | R | ● | 6.35 | 2.38 | 0 | 1.0 | 0.65 | 0.45 | | |
| 07010R | R | ● | 6.35 | 2.38 | 0 | 1.0 | 0.7 | 0.45 | | |
| 07520R | R | ● | 6.35 | 2.38 | 0 | 2.0 | 0.75 | 1.4 | | |
| 07520L | L | ● | 6.35 | 2.38 | 0 | 2.0 | 0.75 | 1.4 | | |
| 08020R | R | ● | 6.35 | 2.38 | 0 | 2.0 | 0.8 | 1.4 | | |
| 08520R | R | ● | 6.35 | 2.38 | 0 | 2.0 | 0.85 | 1.4 | | |
| 09020R | R | ● | 6.35 | 2.38 | 0 | 2.0 | 0.9 | 1.4 | | |
| 09520R | R | ● | 6.35 | 2.38 | 0 | 2.0 | 0.95 | 1.4 | | |
| 09520L | L | ● | 6.35 | 2.38 | 0 | 2.0 | 0.95 | 1.4 | | |
| 10020R | R | ● | 6.35 | 2.38 | 0 | 2.0 | 1.0 | 1.4 | | |
| 11030R | R | ● | 6.35 | 2.38 | 0 | 3.0 | 1.1 | 2.6 | | |
| 12030R | R | ● | 6.35 | 2.38 | 0 | 3.0 | 1.2 | 2.6 | | |
| 12030L | L | ● | 6.35 | 2.38 | 0 | 3.0 | 1.2 | 2.6 | | |
| 13030R | R | ● | 6.35 | 2.38 | 0 | 3.0 | 1.3 | 2.6 | | |
| 14030R | R | ● | 6.35 | 2.38 | 0 | 3.0 | 1.4 | 2.6 | | |
| 15030R | R | ● | 6.35 | 2.38 | 0 | 3.0 | 1.5 | 2.6 | | |



Right hand insert shown.

| | | CSVTT | | | | | (Threading) | |
|--------------|------|--------------|------------|-----------------|------|------|--|--|
| Order Number | Hand | Coated | Pitch (mm) | Dimensions (mm) | | | Geometry | |
| | | VP15KZ | | D1 | S1 | Re | | |
| CSVTT60050RR | R | ● | 0.2—0.5 | 6.35 | 2.38 | 0.03 | Without Breaker General Purpose (60°) | |
| 60050RL | L | ● | 0.2—0.5 | 6.35 | 2.38 | 0.03 | | |



Right hand insert shown.

SMALL TOOLS

D046

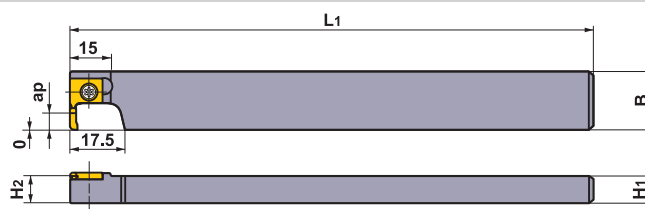
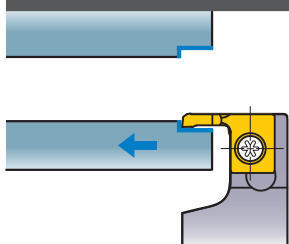
● : Inventory maintained. (5 inserts in one case)

BORING TOOLS (FOR GANG TYPE) TOOL POSTS

METRIC STANDARD

SBAH

Without off set



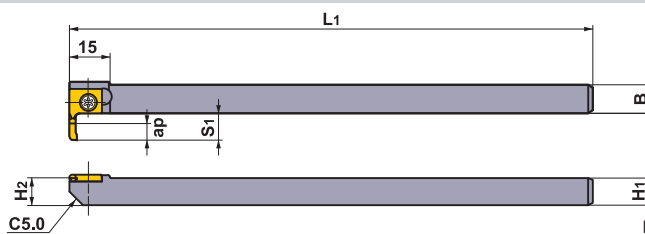
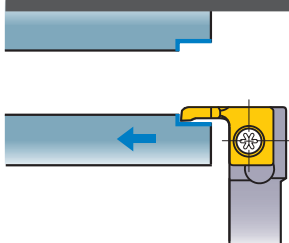
Right hand tool holder only.

| Order Number | Stock R | Insert Number | Dimensions (mm) | | | | Max. Depth of Cut ap (mm) | Min. Cutting Diameter (mm) | Insert Screw * | Wrench | |
|------------------|------------|---------------|-----------------|----|------|-----|------------------------------|----------------------------|----------------|--------|--------|
| | | | H1 | B | L1 | H2 | | | | | |
| SBAHR1022 | ● | SBAT | 3080 | 10 | 21.5 | 120 | 10 | 8 | 3 | NS402W | NKY15R |
| 1222 | ● | | 3080 | 12 | 21.5 | 120 | 12 | 8 | 3 | NS403W | NKY15R |

* Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

SBAH

With off set



Right hand tool holder only.

| Order Number | Stock R | Insert Number | Dimensions (mm) | | | | | Max. Depth of Cut ap (mm) | Min. Cutting Diameter (mm) | Insert Screw * | Wrench | |
|------------------|------------|---------------|-----------------|----|----|-----|----|------------------------------|----------------------------|----------------|--------|--------|
| | | | H1 | B | L1 | H2 | S1 | | | | | |
| SBAHR1010 | ● | SBAT | 3080 | 10 | 10 | 120 | 10 | 10 | 8 | 3 | NS402W | NKY15R |

* Clamp Torque (lbf-in) : NS402W=0.7

INSERTS

| Breaker | Order Number | Coated | Dimensions (mm) | | | Min. Cutting Diameter (mm) | Geometry |
|-----------------|----------------------|--------|-----------------|------|-----|----------------------------|----------|
| | | VP15KZ | B9° | Re | L3 | | |
| Without Breaker | SBAT308000L | ● | 95° | 0 | 8.0 | 3 | |
| | 3080V5L | ● | 95° | 0.05 | 8.0 | 3 | |
| With Breaker | SBAT308000L-B | ● | 95° | 0 | 8.0 | 3 | |
| | 3080V5L-B | ● | 95° | 0.05 | 8.0 | 3 | |

SPARE PARTS > M001
TECHNICAL DATA > N001

D047

SMALL TOOLS