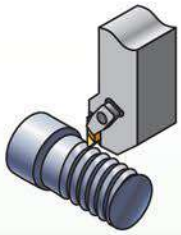
## TopThread External Threading

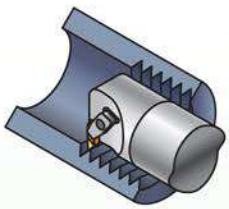


**Square Shank Toolholder Sizes:**
- Metric — 10–32mm

**Cresting (Full Profile):**
UN TPI of 32–7
ISO 1,5–3,0mm pitch

**60° Partial Profile — Flat Top (NTF and NTK):**
UN 44–4.5 TPI
ISO 0,6–5,5mm pitch

## TopThread Internal Threading

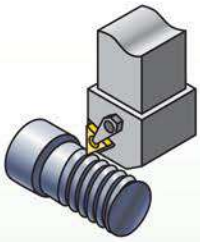


**Boring Bar Diameters:**
- Metric — 10–50mm
- Minimum bore —11,5mm
- Steel

**Cresting (Full Profile):**
UN 16–8 TPI
ISO 1,5–3,0mm pitch

**60° Partial Profile — Flat Top (NT-1L, NTF, and NTK):**
UN 24–4.5 TPI
ISO 1,0–5,5mm pitch

## Laydown External Threading

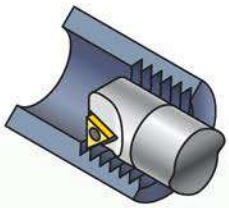


**Square Shank Toolholder Sizes:**
- Metric — 8–40mm

**Cresting (Full Profile):**
UN 48–8 TPI
ISO 0,5–5,0mm pitch

**60° Partial Profile:**
UN 48–4 TPI
ISO 0,5–6,0mm pitch

## Laydown Internal Threading



**Boring Bar Diameters:**
- Metric — 12–50mm
- Minimum bore — (13mm)
- Steel and carbide

**Cresting (Full Profile) and Partial Profile:**
UN 48–8 TPI
ISO 0,5–5,0mm pitch

**60° Partial Profile:**
UN 48–4 TPI
ISO 0,5–6,0mm pitch

**55° Partial Profile:**
UN 48–5 TPI
ISO 0,5–5,0mm pitch

# TopThread

High heat and high edge line load concentrated to a small nose radius, combined with high feed rates, places high demands on carbide threading inserts. The WIDIA TopThread system is the best solution for these problems.

The WIDIA TopThread system is the superior choice for high-demand applications like machining Acme, Buttress, and API threads.

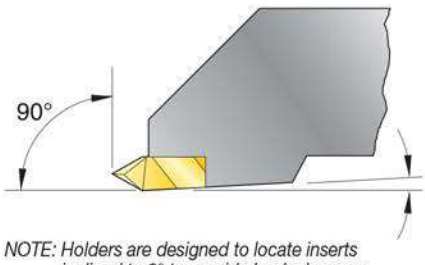
## TopThread Insert Technology

TopThread insert technology brings superior chip control to your threading operations. Unlike competitors' designs, the WIDIA recessed chip groove, when used according to our recommendations, will control the chip in most applications, bringing you better tool life and lower cutting pressures.

- Reduced inconsistencies and better workpiece finish.
- Superior chip control reduces the danger to operators.
- Increased productivity in all of your threading operations.
- Excellent choice for special thread forms and toolholder designs.

TopThread™ inserts are available in TN6010™ and TN6025™ grades to withstand the demands placed on the cutting edge of the threading insert.

The versatility of the TopThread steel enables you to use both threading and grooving inserts in the same toolholder.




*NOTE: Holders are designed to locate inserts inclined to 3° to provide back clearance down open side.*

## The Simple Solution

With the WIDIA™ TopThread solution, there is no need to worry about costly setup mistakes. TopThread insert selection is easy, quick, and enables accurate indexing to keep your machine spindle turning.

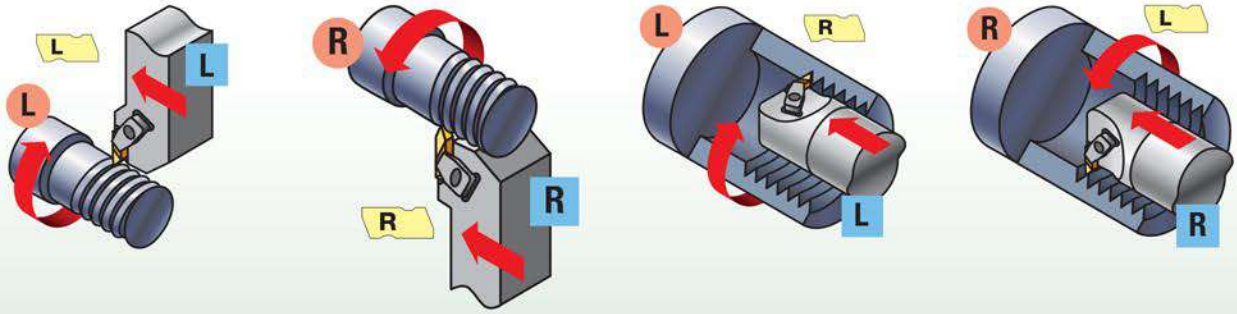
- Rigid design for increased insert stability during threading applications.
- Good quality threads, improved tool life, and improved surface finishes.
- Locking forces in three directions for superior resistance to tangential force.
- Unique 3° insert relief angle for back clearance.
- Available in partial profile inserts for 60° thread forms.

## Step 1 • Select Threading Method and Hand of Tooling

**Required Information:**
- External/internal operation.
- Spindle rotation/hand of thread.
- Feed direction.

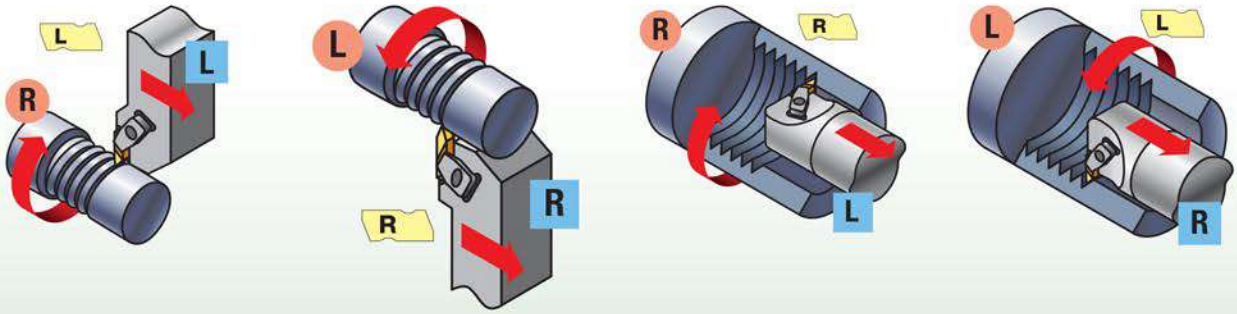
hand of thread | hand of toolholder | hand of insert

**Feed direction toward the chuck • RECOMMENDED**




external left-hand thread | external right-hand thread | internal left-hand thread | internal right-hand thread

**Feed direction away from the chuck**




external right-hand thread | external left-hand thread | internal right-hand thread | internal left-hand thread

## Step 2 • Select Holder from Catalogue Page

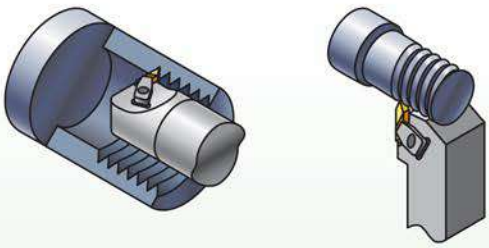
The insert size must match the gage insert size of your toolholder selection:

**Required Information:**
- External/internal operation.
- Minimum bore diameter (for internal operations).
- Hand of tool.
- Insert size (gage insert).

| catalogue number | gage insert |
|---|---|
| **NSR-163D** | N.3R |
| **NSR-164D** | N.4R |

*NOTE: TopThread toolholders and boring bars are listed with a gage insert to indicate the size and hand required. They are compatible with both grooving and threading inserts of the same size.*

**Select the appropriate holder for the insert size and hand:**

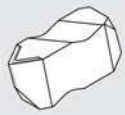


*NOTE: Optimise your threading operation by using the proper infeed method and the recommended infeed values.*

*See the Technical section on pages F79–F101 of this catalogue. For internal threading, minimum bore varies depending on thread type. See page F92 for details.*

## Step 3 • Choose Insert for Application

- See threading insert overview on page F8.
- Select cresting inserts for fully controlled thread form including diameter control. Cresting inserts eliminate the need for deburring.
- Non-cresting partial profile inserts can cut a variety of thread pitches.
- Note insert size for toolholder selection.



| insert size | catalogue number | TN6025 | TN6010 |
|---|---|---|---|
| 2 | NT-2RK | • | • |
| 3 | NT-3RK | • | • |
| 4 | NT-4RK | • | • |

## Step 4 • Select Grade and Speed

Recommendations for Grade and Speed Selection — m/min

| workpiece material | steel | stainless steel | cast iron | non-ferrous metals | high-temp alloys |
|---|---|---|---|---|---|
| insert style | chip control or neutral | chip control or positive | neutral | positive | positive |
| optimum cutting conditions | **TN6010** 160–750 | **TN6010** 160–600 | **TN6010** 230–700 | – | **TN6010** 65–400 |
| first choice | **TN6025** 130–650 | **TN6025** 130–450 | **TN6025** 200–475 | **TN6025** 160–1150 | **TN6025** 35–330 |

***Examples:***

***Chip Control:*** *NT-K or NT-CK (partial profile only)*
***Neutral:*** *NT, NT-C, NTF, NTC, NJ, NJF, NDC-V, NA, NDC, NTB-A/B*
***Positive:*** *NTP, NTK, NJP, NJK*

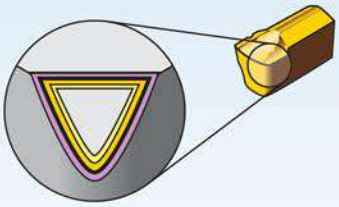
## TopThread Threading Example:

**application:** 8 TPI Acme internal right-hand thread
**material:** alloy steel
**workpiece diameter:** 114,3mm good cutting conditions feed towards the chuck

**Recommendation:**
**insert:** NA3L8
**grade:** TN6010
**insert size:** 3
**boring bar:** A40NER3
**gage insert:** N.3L
**speed:** 150 m/min
**infeed passes*:** 12 passes

** Infeed recommendations provided in technical data section on pages F88–F91.*

| style | | | | | | thread profile | standard | tolerance class | cresting | application | page(s) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| chip control — K | | neutral | | positive | | | | | | | |
| NT-K | | NT | | NTP | | Partial Profile 60° | – | – | N | General use for 60° thread forms, such as ISO and UN, where non-cresting inserts are desired to cut a variety of pitches. | **F13–F15** |
| NT-CK | | | | | | Partial Profile 60° — coarse pitch | – | – | N | Coarse pitch 60° thread forms, such as ISO and UN, where non-cresting inserts are desired to cut a variety of pitches. | **F15** |
| | | NTF | | NTK | | Partial Profile 60° — fine pitch | – | – | N | Fine pitch 60° thread forms, such as ISO and UN, where non-cresting inserts are desired to cut a variety of pitches — able to thread close to shoulders. | **F16** |
| | | NTC | | | | American UN | ANSI B1.1:74 | 2A/2B | Y | Widely used inch-based 60° V-form for all industries. | **F17** |
| | | | | NJP | | UNJ | SAEA588791 | 3A/3B | N | Controlled root radius on external threads for military and aerospace industries. | **F18** |
| | | | | NJK | | UNJ — fine pitch | SAEA588790 | 3A/3B | N | Controlled root radius on external threads for military and aerospace industries — able to thread close to shoulders. | **F18** |
| | | NDC-V | | | | NPT | ANSI/ACME B1.201: 1983 | Standard NPT | Y | National Pipe Thread standard forms for pipe fittings. | **F18** |
| | | NDC-V-M | | | | NPT — multi-tooth | ANSI/ACME B1.201: 1983 | Standard NPT | Y | High-productivity multi-tooth threading inserts for NPT threads. | **F19** |
| | | NWC-E | | | | Whitworth, BSW, BSP | BS 84:1956, ISO 228/1: 1982, DIN 259 | Medium Class A | Y | Widely used 55° form for gas and water connections. | **F19** |
| | | NDC-RD | | | | API Round | API STD. 5B:1979 | Standard API RD | Y | 60° V-form with large radius for casing, tubing, and line pipe in the oil and gas industry, including 8 and 10 round forms. | **F20** |
| | | NA | | | | Acme | ANSI B1.5:1988 | 3G | N | 29° truncated thread form for motion applications in a wide variety of industries. | **F21** |
| | | NAS | | | | Stub Acme | ANSI B1.8:1988 | 2G | N | Shallow depth 29° truncated thread form for motion applications in a wide variety of industries. | **F22** |
| | | NTB-B | | | | American Buttress — 45° clearance flank leading (Pull) | ANSI B1.9:1973 | Class 2 | N | Sawtooth form for axial load bearing applications in a variety of industries — use the "B" style when the 45° clearance flank is the leading flank. | **F22** |

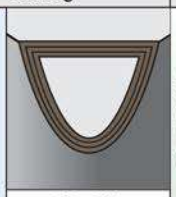
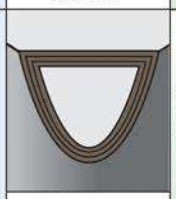
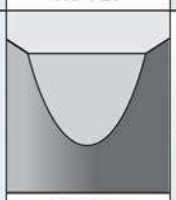


## Coatings provide high-speed capability and are engineered for finishing to light roughing.

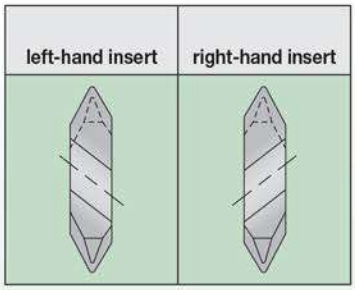
- Reduce cycle times — high speed capability.
- Longer tool life — new multilayer coating provides better wear resistance.

| | |
|---|---|
| P | Steel |
| M | Stainless Steel |
| K | Cast Iron |
| N | Non-Ferrous |
| S | High-Temp Alloys |
| H | Hardened Materials |

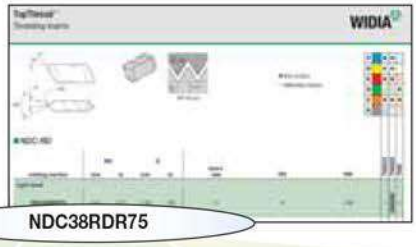
wear resistance ← → toughness

| Grade | Coating | Grade Description | | 05 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TN6010 |  HC-P10 | An advanced PVD TiAlN coating over a very deformation-resistant unalloyed carbide substrate. TN6010 is ideal for finishing to general machining of most workpiece materials at higher speeds. Excellent for machining most steels, stainless steels, cast irons, non-ferrous materials, and super alloys under stable conditions. It also performs well in machining hardened and short chipping materials. | P | | | | | | | | | |
| | | | M | | | | | | | | | |
| | | | K | | | | | | | | | |
| | | | N | | | | | | | | | |
| | | | S | | | | | | | | | |
| | | | H | | | | | | | | | |
| TN6025 |  HC-P25 | An advanced PVD TiAlN-coated grade with a tough, ultra-fine-grain unalloyed substrate. For general-purpose machining of most steels, stainless steels, high-temp alloys, titanium, irons, and non-ferrous materials. Speeds may vary from low to medium and will handle interruptions and high feed rates. | P | | | | | | | | | |
| | | | M | | | | | | | | | |
| | | | K | | | | | | | | | |
| | | | N | | | | | | | | | |
| | | | S | | | | | | | | | |
| THM |  HW-K15 | Uncoated carbide for light and medium machining. For cast iron, all non-ferrous metals, and non-metals. Also capable of machining hardened materials at low cutting speeds. | K | | | | | | | | | |
| | | | N | | | | | | | | | |
| | | | S | | | | | | | | | |

- All TopThread inserts are precision-ground to provide accurate edge location and secure locking of the insert in the toolholder pocket.
- TopThread inserts can be used in either toolholders or boring bars.
- All non-cresting-type threading inserts can be used for either external or internal applications. All cresting-type inserts are designated specifically for external or internal use.
- Right-hand TopThread toolholders use right-hand inserts. Left-hand TopThread toolholders use left-hand inserts.
- Right-hand TopThread boring bars use left-hand inserts. Left-hand TopThread boring bars use right-hand inserts.
- See this page for carbide grade selection and more technical information.



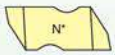
# TopThread
# Insert Identification System



**NDC38RDR75**

| N | D | C | 3 | 8RD | R | 75 | |
|---|---|---|---|---|---|---|---|
| Type of Insert | Insert | Additional Information | Insert Size | Industry Thread Identification | Hand of Insert | Definition of Insert | Additional Information |

**N** — TopThread™




**B** — Buttress

**F** — Fine pitch

**S** — Stub Acme

**C** — Cresting

**P** — Positive rake

**K** — Fine pitch, positive

Indicates API or drilling industry form designation (e.g., 10RD, 8RD, .038)
or
controlled root radius threading inserts indicate the root radius in 0,025 increments (NJ, NJF, NJP, NJK)
or
M indicates metric ISO thread

**R** — Right Hand

**L** — Left Hand

- Threads per inch or pitch (for metric)
- "A" or "B" type Buttress insert
- Taper per foot — API threads

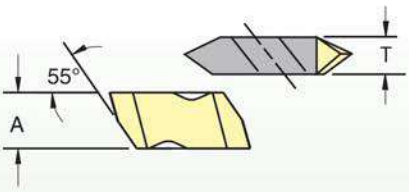
**A** — Acme

**D** — API or NPT

**J** — UNJ thread

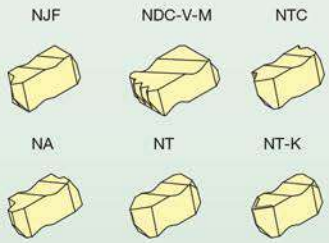
**T** — 60° V thread

**W** — 55° V Whitworth




TopThread insert dimensions

| insert size | A mm | T mm |
|---|---|---|
| 1 | 2,54 | 2,54 |
| 2 | 5,56 | 3,81 |
| 3 | 8,74 | 4,95 |
| 4 | 11,51 | 6,48 |
| 5 | 17,48 | 9,65 |
| 6 | 11,51 | 9,73 |
| 8 | 7,93 | 11,13 |




**I** — Internal thread

**E** — External thread (used only if internal and external thread forms are different)

**M** — Multiple tooth

**K** — Standard chip control

**C** — Coarse pitch

**D** — Dryseal

| Material Group | | Cutting Speed — vc m/min | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | TN6010 | | | TN6025 | | | THM | | |
| | | min | Start | max | min | Start | max | min | Start | max |
| P | 0/1 | 140 | **175** | 210 | 130 | **140** | 150 | 90 | **95** | 100 |
| | 2 | 115 | **145** | 175 | 110 | **145** | 175 | 75 | **100** | 125 |
| | 3 | 115 | **145** | 175 | 110 | **145** | 175 | 75 | **100** | 125 |
| | 4 | 75 | **100** | 120 | 75 | **95** | 115 | 55 | **65** | 80 |
| | 5 | 105 | **140** | 170 | 100 | **125** | 145 | 70 | **85** | 100 |
| | 6 | 45 | **60** | 75 | 40 | **55** | 65 | 30 | **40** | 45 |
| M | 1 | 90 | **115** | 140 | 60 | **75** | 90 | 60 | **75** | 90 |
| | 2 | 55 | **70** | 90 | 40 | **50** | 55 | 50 | **60** | 75 |
| | 3 | 60 | **80** | 95 | 40 | **50** | 60 | 40 | **50** | 55 |
| K | 1 | 120 | **150** | 180 | 60 | **80** | 90 | 70 | **90** | 100 |
| | 2 | 120 | **150** | 180 | 60 | **75** | 85 | 50 | **65** | 80 |
| | 3 | 110 | **140** | 170 | 60 | **75** | 90 | 60 | **70** | 80 |
| N | 1 | 600 | **750** | 900 | 600 | **750** | 900 | 600 | **750** | 900 |
| | 2 | 535 | **685** | 835 | 535 | **685** | 835 | 500 | **650** | 800 |
| | 3 | 230 | **300** | 370 | 230 | **300** | 370 | 600 | **750** | 900 |
| | 4 | 135 | **180** | 225 | 135 | **180** | 225 | 500 | **650** | 800 |
| | 5 | 70 | **90** | 110 | 70 | **90** | 110 | 230 | **300** | 370 |
| | 6 | 445 | **565** | 690 | 445 | **565** | 690 | 150 | **200** | 250 |
| | 7 | 550 | **700** | 850 | 550 | **700** | 850 | 150 | **200** | 250 |
| S | 1 | 35 | **40** | 50 | 25 | **35** | 40 | 25 | **35** | 45 |
| | 2 | 20 | **20** | 30 | 15 | **20** | 20 | 20 | **30** | 35 |
| | 3 | 60 | **70** | 80 | 40 | **60** | 70 | 15 | **25** | 30 |
| | 4 | 30 | **35** | 45 | 20 | **30** | 35 | 10 | **15** | 20 |
| H | 1 | 15 | **30** | 60 | – | **–** | – | – | **–** | – |
| | 2 | 15 | **30** | 60 | – | **–** | – | – | **–** | – |
| | 3 | 15 | **30** | 60 | – | **–** | – | – | **–** | – |
| | 4 | 15 | **30** | 60 | – | – | – | – | **–** | – |

# The best solution for demanding threading applications

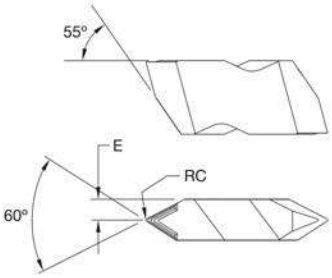
EXTREME **CHALLENGES.**
EXTREME **RESULTS.**

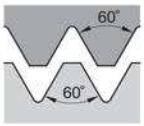
The WIDIA™ TopThread system is the best solution for demanding threading applications. With unmatched tooling technology, you can trust WIDIA TopThread tools for all of your threading and grooving needs.

- Large selection of insert geometries and grades.
- Rigid insert clamping design ensures the best tool life, surface finish, and workpiece quality.
- Ensures accurate, high-quality threads. Excellent for internal threading operations.

To learn more, contact your local Authorised Distributor or visit **widia.com**.

WIDIA™





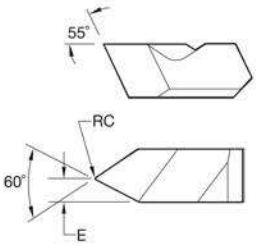
Partial Profile 60°

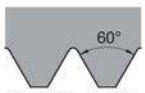
● first choice
○ alternate choice

| | | | |
|---|---|---|---|
| P | ● | ● | |
| M | ● | ● | |
| K | ● | ● | ○ |
| N | ○ | ○ | ● |
| S | ● | ● | ● |
| H | ○ | | |

## NT-K

| catalogue number | RC | E | insert size | external thread pitch mm | internal thread pitch mm | external TPI | internal TPI | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|---|---|---|
| **right hand** | | | | | | | | | | |
| **NT2RK** | 0,10 | 1,91 | 2 | 0,70-3,0 | 1,25-3,5 | 8-36 | 7-20 | 3607651 | 3607837 | - |
| **NT3RK** | 0,17 | 2,49 | 3 | 1,25-4,0 | 2,0-5,0 | 6-20 | 5-12 | 3607643 | 3607824 | - |
| **NT4RK** | 0,17 | 3,25 | 4 | 1,25-6,25 | 2,0-6,25 | 4-20 | 4-12 | - | 3607846 | - |
| **left hand** | | | | | | | | | | |
| **NT2LK** | 0,10 | 1,91 | 2 | 0,70-3,0 | 1,25-3,5 | 8-36 | 7-20 | 3607674 | 3607833 | - |
| **NT3LK** | 0,17 | 2,49 | 3 | 1,25-4,0 | 2,0-5,0 | 6-20 | 5-12 | 3607645 | 3607828 | - |



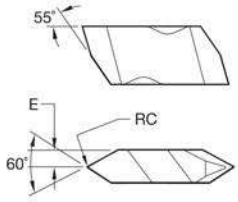


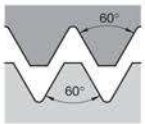
Partial Profile 60°
Internal

## NT-1L

| catalogue number | RC | E | insert size | external thread pitch mm | internal thread pitch mm | external TPI | internal TPI | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|---|---|---|
| **left hand** | | | | | | | | | | |
| **NT1L** | 0,08 | 1,09 | 1 | – | 1,0-2,0 | – | 12-24 | 3636551 | 3636555 | - |

Threading





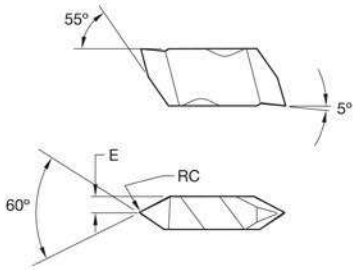

Partial Profile 60°

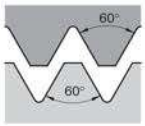
● first choice
○ alternate choice

| | | | |
|---|---|---|---|
| P | ● | ● | |
| M | ● | ● | |
| K | ● | ● | ○ |
| N | ○ | ○ | ● |
| S | ● | ● | ● |
| H | ○ | | |

## NT

| catalogue number | RC | E | insert size | external thread pitch mm | internal thread pitch mm | external TPI | internal TPI | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|---|---|---|
| **right hand** | | | | | | | | | | |
| **NT2R** | 0,10 | 1,90 | 2 | 0,70-3,0 | 1,25-3,5 | 8-36 | 7-20 | 3607647 | 3607843 | - |
| **NT3R** | 0,17 | 2,49 | 3 | 1,25-4,0 | 2,0-5,0 | 6-20 | 5-12 | 3607530 | 3607825 | - |
| **NT4R** | 0,17 | 3,25 | 4 | 1,25-6,25 | 2,0-6,25 | 4-20 | 4-12 | 3607676 | 3607834 | - |
| **left hand** | | | | | | | | | | |
| **NT2L** | 0,10 | 1,90 | 2 | 0,70-3,0 | 1,25-3,5 | 8-36 | 7-20 | 3607675 | 3607835 | - |
| **NT3L** | 0,17 | 2,49 | 3 | 1,25-4,0 | 2,0-5,0 | 6-20 | 5-12 | 3607532 | 3607826 | - |
| **NT4L** | 0,17 | 3,25 | 4 | 1,25-6,25 | 2,0-6,25 | 4-20 | 4-12 | - | 3607849 | - |





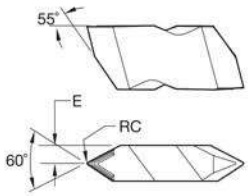
Partial Profile 60°

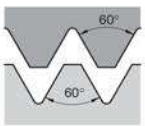
● first choice
○ alternate choice

| | | | | |
|---|---|---|---|---|
| P | | ● | ● | |
| M | | ● | ● | |
| K | | ● | ● | ○ |
| N | | ○ | ○ | ● |
| S | | ● | ● | ● |
| H | | ○ | | |

## NTP

| catalogue number | RC | E | insert size | external thread pitch mm | internal thread pitch mm | external TPI | internal TPI | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|---|---|---|
| **right hand** | | | | | | | | | | |
| **NTP2R** | 0,10 | 1,91 | 2 | 0,70-3,0 | 1,25-3,5 | 8-36 | 7-20 | 3607677 | 3607841 | - |
| **NTP3R** | 0,17 | 2,49 | 3 | 1,25-4,0 | 2,0-5,0 | 6-20 | 5-12 | 3607644 | 3607823 | - |
| **NTP4R** | 0,17 | 3,25 | 4 | 1,25-6,25 | 2,0-6,25 | 4-20 | 4-12 | - | 3607839 | - |
| **left hand** | | | | | | | | | | |
| **NTP2L** | 0,10 | 1,91 | 2 | 0,70-3,0 | 1,25-3,5 | 8-36 | 7-20 | 3607678 | 3607840 | - |
| **NTP3L** | 0,17 | 2,49 | 3 | 1,25-4,0 | 2,0-5,0 | 6-20 | 5-12 | 3607650 | 3607831 | - |

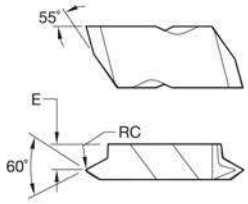


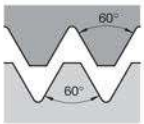


Partial Profile 60°

## NT-CK

| catalogue number | RC | E | insert size | external thread pitch mm | internal thread pitch mm | external TPI | internal TPI | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|---|---|---|
| **right hand** | | | | | | | | | | |
| **NT3RCK** | 0,34 | 2,46 | 3 | 2,5-4,0 | 4,0 | 6-11 | 6 | 3607649 | 3607838 | - |





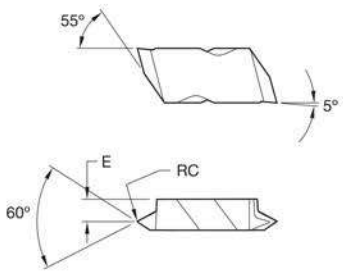

Partial Profile 60°

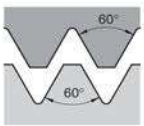
● first choice
○ alternate choice

| | | | | |
|---|---|---|---|---|
| P | | ● | ● | |
| M | | ● | ● | |
| K | | ● | ● | ○ |
| N | | ○ | ○ | ● |
| S | | ● | ● | ● |
| H | | ○ | | |

## NTF

| catalogue number | RC | E | insert size | external thread pitch mm | internal thread pitch mm | external TPI | internal TPI | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|---|---|---|
| **right hand** | | | | | | | | | | |
| **NTF2R** | 0,08 | 2,79 | 2 | 0,60-1,75 | 1,0-2,0 | 14-44 | 12-24 | 3607673 | 3607852 | - |
| **NTF3R** | 0,08 | 3,58 | 3 | 0,60-2,5 | 1,0-2,5 | 10-44 | 9-24 | 3607531 | 3607830 | - |
| **left hand** | | | | | | | | | | |
| **NTF3L** | 0,08 | 3,58 | 3 | 0,60-2,5 | 1,0-2,5 | 10-44 | 9-24 | 3607652 | 3607832 | - |

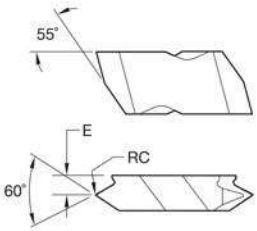


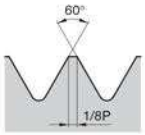



Partial Profile 60°

## NTK

| catalogue number | RC | E | insert size | external thread pitch mm | internal thread pitch mm | external TPI | internal TPI | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|---|---|---|
| **right hand** | | | | | | | | | | |
| **NTK2R** | 0,08 | 2,79 | 2 | 0,60-1,75 | 1,0-2,0 | 14-44 | 12-24 | 3607646 | 3607836 | - |
| **NTK3R** | 0,08 | 3,58 | 3 | 0,60-2,50 | 1,0-2,5 | 10-44 | 9-24 | 3607528 | 3607827 | - |
| **left hand** | | | | | | | | | | |
| **NTK3L** | 0,08 | 3,58 | 3 | 0,60-2,50 | 1,0-2,5 | 10-44 | 9-24 | - | 3607853 | - |





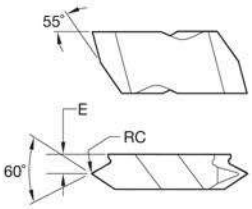

American
UN-External

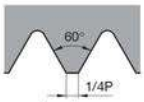
● first choice
○ alternate choice

| | | | |
|---|---|---|---|
| P | ● | ● | |
| M | ● | ● | |
| K | ● | ● | ○ |
| N | ○ | ○ | ● |
| S | ● | ● | ● |
| H | ○ | | |

## NTC-E

| catalogue number | RC | E | insert size | external thread pitch mm | internal thread pitch mm | external TPI | internal TPI | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|---|---|---|
| right hand | | | | | | | | | | |
| **NTC3R16E** | 0,19 | 3,76 | 3 | – | – | 16 | – | 3636553 | 3636557 | - |
| **NTC3R14E** | 0,22 | 3,76 | 3 | – | – | 14 | – | 3636554 | - | - |
| **NTC3R12E** | 0,25 | 3,76 | 3 | – | – | 12 | – | 3636549 | 3636562 | - |

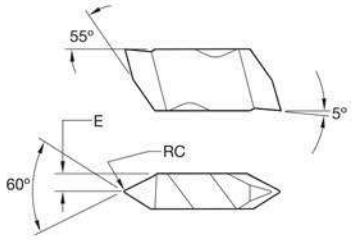


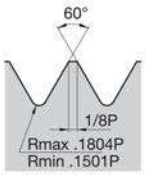



American
UN-Internal

## NTC-I

| catalogue number | RC | E | insert size | external thread pitch mm | internal thread pitch mm | external TPI | internal TPI | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|---|---|---|
| left hand | | | | | | | | | | |
| **NTC3L12I** | 0,10 | 3,76 | 3 | – | – | – | 12 | - | 3636556 | - |





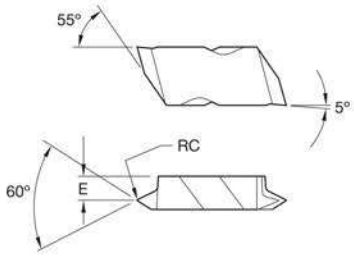

UNJ External

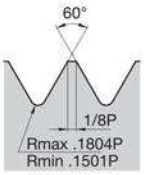
● first choice
○ alternate choice

| | | | | |
|---|---|---|---|---|
| P | | ● | ● | |
| M | | ● | ● | |
| K | | ● | ● | ○ |
| N | | ○ | ○ | ● |
| S | | ● | ● | ● |
| H | | ○ | | |

## NJP

| catalogue number | RC | E | insert size | external thread pitch mm | internal thread pitch mm | external TPI | internal TPI | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|---|---|---|
| right hand | | | | | | | | | | |
| NJP3014R12 | 0,33 | 2,49 | 3 | – | – | 12 | – | - | 3607850 | - |

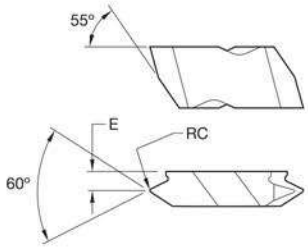


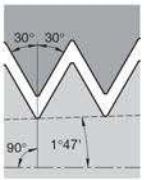



UNJ External

## NJK

| catalogue number | RC | E | insert size | external thread pitch mm | internal thread pitch mm | external TPI | internal TPI | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|---|---|---|
| right hand | | | | | | | | | | |
| NJK3008R20 | 0,20 | 3,58 | 3 | – | – | 20 | – | 3607648 | - | - |

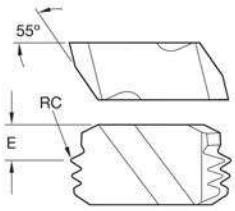


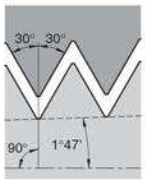



NPT

## NDC-V

| catalogue number | RC | E | insert size | TPI | TPF | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|---|
| right hand | | | | | | | | |
| NDC3115VR75 | 0,10 | 3,66 | 3 | 11.5 | .750 | 3636550 | - | - |





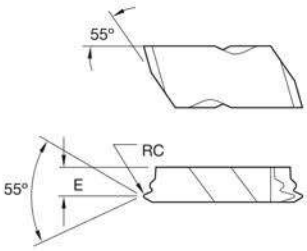
NPT

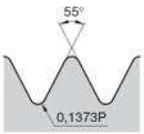
● first choice
○ alternate choice

| | | | | |
|---|---|---|---|---|
| P | | ● | ● | |
| M | | ● | ● | |
| K | | ● | ● | ○ |
| N | | ○ | ○ | ● |
| S | | ● | ● | ● |
| H | | ○ | | |

## NDC-V-M

| catalogue number | RC | E | insert size | TPI | TPF | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|---|
| right hand | | | | | | | | |
| **NDC8115VR75M** | 0,10 | 2,59 | 8 | 11.5 | .750 | 3636552 | - | - |
| **NDC88VR75M** | 0,13 | 2,41 | 8 | 8 | .750 | 3636548 | - | - |

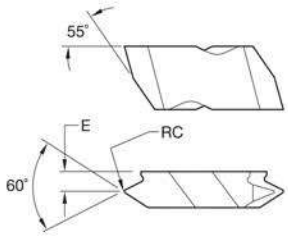


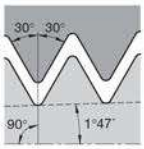


Whitworth BSW, BSP-External

## NWC-E

| catalogue number | RC | E | insert size | TPI | TPF | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|---|
| right hand | | | | | | | | |
| **NWC3R14E** | 0,24 | 3,43 | 3 | 14 | – | - | 3811638 | - |
| **NWC3R11E** | 0,30 | 3,43 | 3 | 11 | – | - | 3811639 | - |





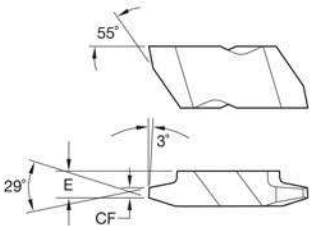
API Round

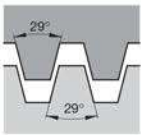
● first choice
○ alternate choice

| | | | |
|---|---|---|---|
| P | ● | ● | |
| M | ● | ● | |
| K | ● | ● | ○ |
| N | ○ | ○ | ● |
| S | ● | ● | ● |
| H | ○ | | |

## ■ NDC-RD

| catalogue number | RC | E | insert size | TPI | TPF | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|---|
| **right hand** | | | | | | | | |
| **NDC38RDR75** | 0,43 | 3,18 | 3 | 8 | .750 | - | 3636558 | - |
| **left hand** | | | | | | | | |
| **NDC310RDL75** | 0,36 | 3,18 | 3 | 10 | .750 | - | 3636565 | - |
| **NDC38RDL75** | 0,43 | 3,18 | 3 | 8 | .750 | - | 3636559 | - |





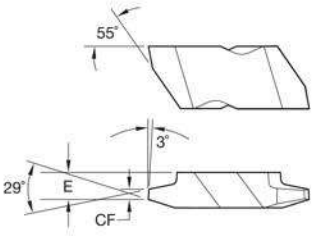
ACME

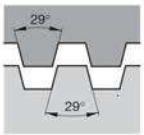
● first choice
○ alternate choice

| | | | |
|---|---|---|---|
| P | ● | ● | |
| M | ● | ● | |
| K | ● | ● | ○ |
| N | ○ | ○ | ● |
| S | ● | ● | ● |
| H | ○ | | |

## NA

| catalogue number | CF | E | insert size | TPI | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|
| **right hand** | | | | | | | |
| NA3R8 | 1,04 | 3,79 | 3 | 8 | - | 3607854 | - |
| NA3R6 | 1,44 | 3,79 | 3 | 6 | - | 3607851 | - |
| NA3R4 | 2,22 | 3,38 | 3 | 4 | - | 3607848 | - |
| NA4R4 | 2,22 | 5,13 | 4 | 4 | - | 3636566 | - |
| NA6R3 | 3,01 | 7,19 | 6 | 3 | - | 3636564 | - |
| NA6R2 | 4,58 | 7,19 | 6 | 2 | - | 3636567 | - |
| **left hand** | | | | | | | |
| NA3L8 | 1,04 | 3,79 | 3 | 8 | - | 3607855 | - |
| NA3L6 | 1,44 | 3,79 | 3 | 6 | - | 3607847 | - |
| NA3L4 | 2,22 | 3,38 | 3 | 4 | - | 3607842 | - |
| NA4L4 | 2,22 | 5,13 | 4 | 4 | - | 3636560 | - |
| NA6L3 | 3,01 | 7,19 | 6 | 3 | - | 3636561 | - |
| NA6L2 | 4,58 | 7,19 | 6 | 2 | - | 3636568 | - |





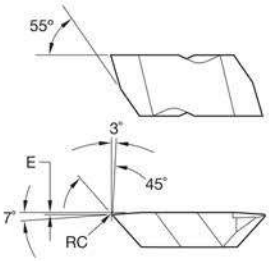

Stub ACME

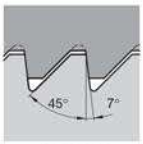
● first choice
○ alternate choice

| | | | | |
|---|---|---|---|---|
| P | | ● | ● | |
| M | | ● | ● | |
| K | | ● | ● | ○ |
| N | | ○ | ○ | ● |
| S | | ● | ● | ● |
| H | | ○ | | |

## NAS

| catalogue number | CF | E | insert size | TPI | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|
| **right hand** | | | | | | | |
| **NAS3R8** | 1,21 | 3,79 | 3 | 8 | - | 3607856 | - |
| **left hand** | | | | | | | |
| **NAS3L12** | 0,83 | 3,79 | 3 | 12 | - | 3607844 | - |
| **NAS3L8** | 1,21 | 3,79 | 3 | 8 | - | 3607845 | - |
| **NAS3L6** | 1,66 | 3,79 | 3 | 6 | - | 3607829 | - |



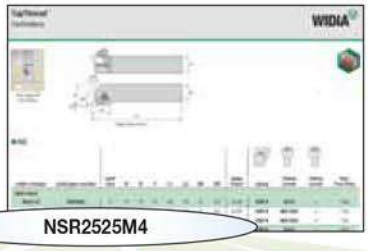



American
Buttress-Pull

## NTB-B

| catalogue number | RC | E | insert size | TPI | TPF | TN6010 | TN6025 | THM |
|---|---|---|---|---|---|---|---|---|
| **left hand** | | | | | | | | |
| **NTB3LB** | 0,17 | 0,31 | 3 | 8-16 | – | - | 3636563 | - |

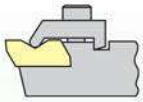
# TopThread
# Holder Identification System



NSR2525M4

## N
Insert Holding Method

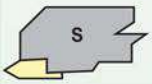
N – TopThread™



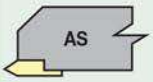
## S
Insert Mounting Location

End mount

Side mount, offset

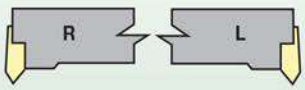



Side mount, no offset

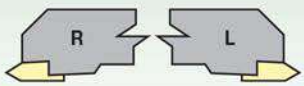



## R
Hand of Tool

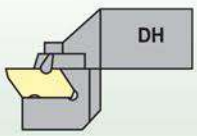
End mount




Side mount




## Drop Head



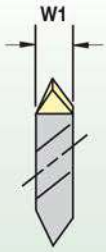

## 2525
Shank Size

Shank height and width in mm and holder

## M
Tool Length

| L1 | ISO |
|---|---|
| 32 | A |
| 40 | B |
| 50 | C |
| 60 | D |
| 70 | E |
| 80 | F |
| 90 | G |
| 100 | H |
| 110 | J |
| 125 | K |
| 140 | L |
| 150 | M |
| 160 | N |
| 170 | P |
| 180 | Q |
| 200 | R |
| 250 | S |
| 300 | T |
| 350 | U |
| 400 | V |
| 450 | W |
| 500 | Y |
| special length | x |

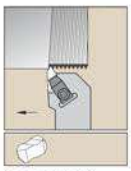
## 4
Insert Size



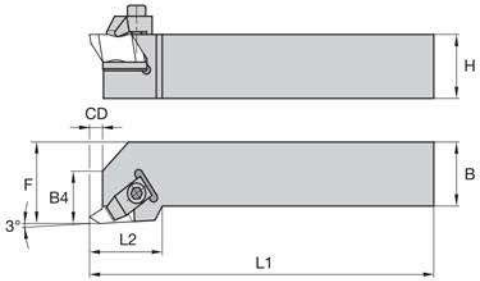

| insert size | W1 |
|---|---|
| 2 | 3,81 |
| 3 | 4,95 |
| 4 | 6,98 |
| 5 | 9,65 |
| 6 | 9,73 |
| 8 | 11,13 |

## Qualified Holder

Q – Qualified holder



See page F8
for inserts.




Right Hand Tool

## NS

| order number | catalogue number | seat size | H | B | F | L1 | L2 | B4 | CD | gage insert | clamp | clamp screw | clamp screw | hex/ Torx Plus |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| right hand | | | | | | | | | | | | | | |
| 3632147 | NSR062 | 2 | 10 | 10 | 14 | 64 | 19 | 9 | 3,5 | N.2R | CM74 | S310 | – | 7/64 |
| 3641682 | NSR1010E2 | 2 | 10 | 10 | 14 | 70 | 19 | 9 | 3,5 | N.2R | CM74 | MS1200 | – | T10 |
| 3641660 | NSR1212F2 | 2 | 12 | 12 | 16 | 80 | 19 | 9 | 3,5 | N.2R | CM74 | MS1200 | – | T10 |
| 3639035 | NSR082V | 2 | 13 | 13 | 19 | 89 | 19 | 9 | 3,5 | N.2R | CM74 | S310 | – | 7/64 |
| 3639044 | NSR102B | 2 | 16 | 16 | 22 | 114 | 19 | 9 | 3,5 | N.2R | CM74 | S310 | – | 7/64 |
| 3636542 | NSR1616H2 | 2 | 16 | 16 | 20 | 100 | 19 | 9 | 3,5 | N.2R | CM74 | MS1200 | – | T10 |
| 3639026 | NSR122B | 2 | 19 | 19 | 25 | 114 | 19 | 9 | 3,5 | N.2R | CM74 | S310 | – | 7/64 |
| 3638589 | NSR2020K2 | 2 | 20 | 20 | 25 | 125 | 19 | 9 | 3,5 | N.2R | CM74 | MS1200 | – | T10 |
| 3638590 | NSR2525M2 | 2 | 25 | 25 | 32 | 150 | 19 | 9 | 3,5 | N.2R | CM74 | MS1200 | – | T10 |
| 3639025 | NSR162C | 2 | 25 | 25 | 32 | 127 | 19 | 9 | 3,5 | N.2R | CM74 | S310 | – | 7/64 |
| 3639027 | NSR123A | 3 | 19 | 19 | 25 | 102 | 32 | 13 | 5,3 | N.3R | CM72LP | – | S2112 | 25 IP |
| 3639023 | NSR123B | 3 | 19 | 19 | 25 | 114 | 32 | 13 | 5,3 | N.3R | CM72LP | – | S2112 | 25 IP |
| 3638588 | NSR2020K3 | 3 | 20 | 20 | 25 | 125 | 32 | 13 | 5,3 | N.3R | CM72LP | – | MS2111 | 25 IP |
| 3636536 | NSR2525M3 | 3 | 25 | 25 | 32 | 150 | 32 | 13 | 5,3 | N.3R | CM72LP | – | MS2111 | 25 IP |
| 3638592 | NSR163C | 3 | 25 | 25 | 32 | 127 | 32 | 13 | 5,3 | N.3R | CM72LP | – | S2112 | 25 IP |
| 3638591 | NSR163D | 3 | 25 | 25 | 32 | 152 | 32 | 13 | 5,3 | N.3R | CM72LP | – | S2112 | 25 IP |
| 3637496 | NSR853D | 3 | 32 | 25 | 32 | 152 | 32 | 13 | 5,3 | N.3R | CM72LP | – | S2112 | 25 IP |
| 3639028 | NSR203D | 3 | 32 | 32 | 38 | 152 | 32 | 13 | 5,3 | N.3R | CM72LP | – | S2112 | 25 IP |
| 3641664 | NSR3225P3 | 3 | 32 | 25 | 32 | 170 | 32 | 13 | 5,3 | N.3R | CM72LP | – | MS2111 | 25 IP |
| 3641666 | NSR3232P3 | 3 | 32 | 32 | 40 | 170 | 32 | 13 | 5,3 | N.3R | CM72LP | – | MS2111 | 25 IP |
| 3637506 | NSR243D | 3 | 38 | 38 | 51 | 152 | 35 | 13 | 5,3 | N.3R | CM72LP | – | S2112 | 25 IP |
| 3637535 | NSR243E | 3 | 38 | 38 | 51 | 178 | 35 | 13 | 5,3 | N.3R | CM72LP | – | S2112 | 25 IP |
| 3636540 | NSR2525M4 | 4 | 25 | 25 | 32 | 150 | 35 | 14 | 7,5 | N.4R | CM72LP | – | MS2111 | 25 IP |
| 3641675 | NSR3225P4 | 4 | 32 | 25 | 32 | 170 | 35 | 14 | 7,5 | N.4R | CM72LP | – | MS2111 | 25 IP |
| 3641669 | NSR3232P4 | 4 | 32 | 32 | 40 | 170 | 35 | 14 | 7,5 | N.4R | CM72LP | – | MS2111 | 25 IP |
| 3637509 | NSR205D | 5 | 32 | 32 | 38 | 152 | 51 | 15 | 10,5 | N.5R | CM80 | S352 | – | 1/4 |
| 3637540 | NSR245D | 5 | 38 | 38 | 51 | 152 | 51 | 16 | 10,5 | N.5R | CM80 | S352 | – | 1/4 |

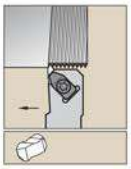
*NOTE: F dimension measured over sharp point of insert.*

*(continued)*

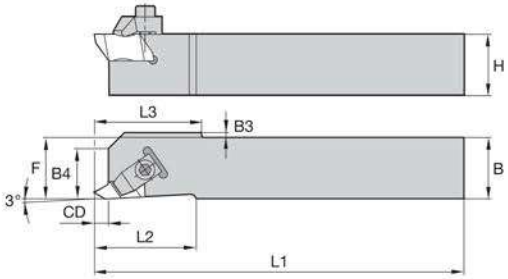
*(NS — continued)*

| order number | catalogue number | seat size | H | B | F | L1 | L2 | B4 | CD | gage insert | clamp | clamp screw | clamp screw | hex/ Torx Plus |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **left hand** | | | | | | | | | | | | | | |
| **3632161** | **NSL062** | 2 | 10 | 10 | 14 | 64 | 19 | 9 | 3,5 | N.2L | **CM75** | **S310** | – | 7/64 |
| **3641683** | **NSL1010E2** | 2 | 10 | 10 | 14 | 70 | 19 | 9 | 3,5 | N.2L | **CM75** | **MS1200** | – | T10 |
| **3641681** | **NSL1212F2** | 2 | 12 | 12 | 16 | 80 | 19 | 9 | 3,5 | N.2L | **CM75** | **MS1200** | – | T10 |
| **3637485** | **NSL082V** | 2 | 13 | 13 | 19 | 89 | 19 | 9 | 3,5 | N.2L | **CM75** | **S310** | – | 7/64 |
| **3637510** | **NSL102B** | 2 | 16 | 16 | 22 | 114 | 19 | 9 | 3,5 | N.2L | **CM75** | **S310** | – | 7/64 |
| **3636545** | **NSL1616H2** | 2 | 16 | 16 | 20 | 100 | 19 | 9 | 3,5 | N.2L | **CM75** | **MS1200** | – | T10 |
| **3632145** | **NSL122B** | 2 | 19 | 19 | 25 | 114 | 19 | 9 | 3,5 | N.2L | **CM75** | **S310** | – | 7/64 |
| **3639045** | **NSL2020K2** | 2 | 20 | 20 | 25 | 125 | 19 | 9 | 3,5 | N.2L | **CM75** | **MS1200** | – | T10 |
| **3639047** | **NSL2525M2** | 2 | 25 | 25 | 32 | 150 | 19 | 9 | 3,5 | N.2L | **CM75** | **MS1200** | – | T10 |
| **3632138** | **NSL162C** | 2 | 25 | 25 | 32 | 127 | 19 | 9 | 3,5 | N.2L | **CM75** | **S310** | – | 7/64 |
| **3632152** | **NSL123A** | 3 | 19 | 19 | 25 | 102 | 32 | 13 | 5,3 | N.3L | **CM73LP** | – | **S2112** | 25 IP |
| **3639032** | **NSL123B** | 3 | 19 | 19 | 25 | 114 | 32 | 13 | 5,3 | N.3L | **CM73LP** | – | **S2112** | 25 IP |
| **3639046** | **NSL2020K3** | 3 | 20 | 20 | 32 | 125 | 32 | 13 | 5,3 | N.3L | **CM73LP** | – | **MS2111** | 25 IP |
| **3636539** | **NSL2525M3** | 3 | 25 | 25 | 32 | 150 | 32 | 13 | 5,3 | N.3L | **CM73LP** | – | **MS2111** | 25 IP |
| **3639029** | **NSL163C** | 3 | 25 | 25 | 32 | 127 | 32 | 13 | 5,3 | N.3L | **CM73LP** | – | **S2112** | 25 IP |
| **3639024** | **NSL163D** | 3 | 25 | 25 | 32 | 152 | 32 | 13 | 5,3 | N.3L | **CM73LP** | – | **S2112** | 25 IP |
| **3637508** | **NSL853D** | 3 | 32 | 25 | 32 | 152 | 32 | 13 | 5,3 | N.3L | **CM73LP** | – | **S2112** | 25 IP |
| **3639037** | **NSL203D** | 3 | 32 | 32 | 38 | 152 | 32 | 13 | 5,3 | N.3L | **CM73LP** | – | **S2112** | 25 IP |
| **3641670** | **NSL3225P3** | 3 | 32 | 25 | 32 | 170 | 32 | 13 | 5,3 | N.3L | **CM73LP** | – | **MS2111** | 25 IP |
| **3641671** | **NSL3232P3** | 3 | 32 | 32 | 40 | 170 | 32 | 13 | 5,3 | N.3L | **CM73LP** | – | **MS2111** | 25 IP |
| **3637515** | **NSL243D** | 3 | 38 | 38 | 51 | 152 | 35 | 13 | 5,3 | N.3L | **CM73LP** | – | **S2112** | 25 IP |
| **3637548** | **NSL243E** | 3 | 38 | 38 | 51 | 178 | 35 | 13 | 5,3 | N.3L | **CM73LP** | – | **S2112** | 25 IP |
| **3636544** | **NSL2525M4** | 4 | 25 | 25 | 32 | 150 | 35 | 14 | 7,5 | N.4L | **CM73LP** | – | **MS2111** | 25 IP |
| **3641678** | **NSL3225P4** | 4 | 32 | 25 | 32 | 170 | 35 | 14 | 7,5 | N.4L | **CM73LP** | – | **MS2111** | 25 IP |
| **3641679** | **NSL3232P4** | 4 | 32 | 32 | 40 | 170 | 35 | 14 | 7,5 | N.4L | **CM73LP** | – | **MS2111** | 25 IP |
| **3637536** | **NSL205D** | 5 | 32 | 32 | 38 | 152 | 51 | 15 | 10,5 | N.5L | **CM81** | **S352** | – | 1/4 |
| **3641688** | **NSL3232P5** | 5 | 32 | 32 | 40 | 170 | 51 | 16 | 10,5 | N.5L | **CM81** | **MS352** | – | 6 mm |

*NOTE: F dimension measured over sharp point of insert.*



See page F8
for inserts.



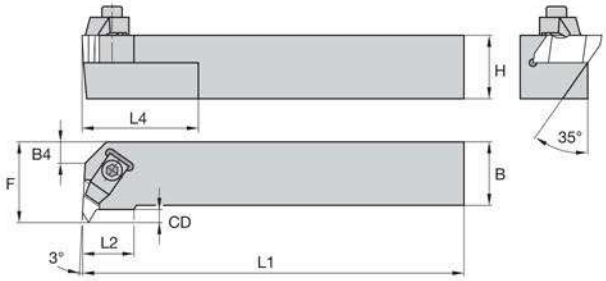

Right Hand Tool

## NAS

| order number | catalogue number | seat size | H | B | F | L1 | L2 | B4 | CD | B3 | L3 | gage insert | clamp | clamp screw | clamp screw | hex/ Torx Plus |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **right hand** | | | | | | | | | | | | | | | | |
| **3641667** | **NASR1010M2Q** | 2 | 10 | 10 | 10 | 150 | 19 | 9 | 3,5 | 2,03 | 19 | N.2R | **CM182** | **MS1200** | **–** | T10 |
| **3641662** | **NASR1212M2Q** | 2 | 12 | 12 | 12 | 150 | 19 | 9 | 3,5 | – | – | N.2R | **CM182** | **MS1200** | **–** | T10 |
| **3639048** | **NASR1616K3Q** | 3 | 16 | 16 | 16 | 125 | 32 | 12 | 5,3 | – | – | N.3R | **CM184LP** | **–** | **MS2111** | 25 IP |
| **left hand** | | | | | | | | | | | | | | | | |
| **3641691** | **NASL1010M2Q** | 2 | 10 | 10 | 10 | 150 | 19 | 9 | 3,5 | 2,03 | 19 | N.2L | **CM183** | **MS1200** | **–** | T10 |
| **3641686** | **NASL1212M2Q** | 2 | 12 | 12 | 12 | 150 | 19 | 9 | 3,5 | – | – | N.2L | **CM183** | **MS1200** | **–** | T10 |
| **3641687** | **NASL1616K3Q** | 3 | 16 | 16 | 16 | 125 | 32 | 12 | 5,3 | – | – | N.3L | **CM185LP** | **–** | **MS2111** | 25 IP |

*NOTE: F dimension measured over sharp point of insert.*

See page F8 for inserts.

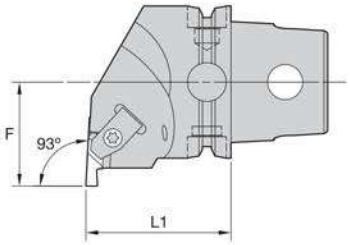


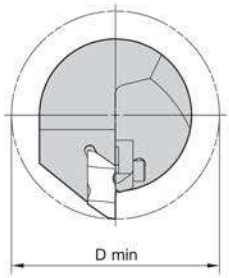

Right Hand Tool

## NE

| order number | catalogue number | seat size | H | B | F | L1 | L2 | B4 | CD | gage insert | clamp | clamp screw | clamp screw | hex/ Torx Plus |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **right hand** | | | | | | | | | | | | | | |
| **3641674** | **NER1616H2** | 2 | 16 | 16 | 20 | 100 | 15 | – | 3,5 | N.2L | **CM75** | **MS1200** | – | T10 |
| **3641658** | **NER2020K2** | 2 | 20 | 20 | 25 | 125 | 15 | 6 | 3,5 | N.2L | **CM75** | **MS1200** | – | T10 |
| **3641665** | **NER2525M2** | 2 | 25 | 25 | 32 | 150 | 15 | 12 | 3,5 | N.2L | **CM75** | **MS1200** | – | T10 |
| **3636541** | **NER2525M3** | 3 | 25 | 25 | 32 | 150 | 22 | – | 5,3 | N.3L | **CM73LP** | – | **MS2111** | 25 IP |
| **3641680** | **NER3225P3** | 3 | 32 | 25 | 32 | 170 | 22 | – | 3,8 | N.3L | **CM73LP** | – | **MS2111** | 25 IP |
| **3641672** | **NER2525M4** | 4 | 25 | 25 | 35 | 150 | 24 | – | 7,5 | N.4L | **CM73LP** | – | **MS2111** | 25 IP |
| **3641689** | **NER3225P4** | 4 | 32 | 25 | 35 | 170 | 24 | – | 7,5 | N.4L | **CM73LP** | – | **MS2111** | 25 IP |
| **3641693** | **NER3232P4** | 4 | 32 | 32 | 40 | 170 | 24 | – | 6,4 | N.4L | **CM73LP** | – | **MS2111** | 25 IP |
| **3641692** | **NER3232P5** | 5 | 32 | 32 | 50 | 170 | 35 | – | 10,5 | N.5L | **CM81** | **MS352** | – | 6 mm |
| **left hand** | | | | | | | | | | | | | | |
| **3641684** | **NEL1616H2** | 2 | 16 | 16 | 20 | 100 | 15 | – | 3,5 | N.2R | **CM74** | **MS1200** | – | T10 |
| **3641677** | **NEL2020K2** | 2 | 20 | 20 | 25 | 125 | 15 | 6 | 3,5 | N.2R | **CM74** | **MS1200** | – | T10 |
| **3641676** | **NEL2525M2** | 2 | 25 | 25 | 32 | 150 | 15 | 12 | 3,5 | N.2R | **CM74** | **MS1200** | – | T10 |
| **3636543** | **NEL2525M3** | 3 | 25 | 25 | 32 | 150 | 22 | – | 5,3 | N.3R | **CM72LP** | – | **MS2111** | 25 IP |
| **3641685** | **NEL3225P3** | 3 | 32 | 25 | 32 | 170 | 22 | – | 3,8 | N.3R | **CM72LP** | – | **MS2111** | 25 IP |
| **3641668** | **NEL2525M4** | 4 | 25 | 25 | 35 | 150 | 24 | – | 7,5 | N.4R | **CM72LP** | – | **MS2111** | 25 IP |
| **3641694** | **NEL3225P4** | 4 | 32 | 25 | 35 | 170 | 24 | – | 7,5 | N.4R | **CM72LP** | – | **MS2111** | 25 IP |
| **3641696** | **NEL3232P4** | 4 | 32 | 32 | 40 | 170 | 24 | – | 6,4 | N.4R | **CM72LP** | – | **MS2111** | 25 IP |
| **3641695** | **NEL3232P5** | 5 | 32 | 32 | 50 | 170 | 35 | – | 10,5 | N.5R | **CM80** | **MS352** | – | 6 mm |

*NOTE: F dimension measured over sharp point of insert.*

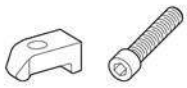


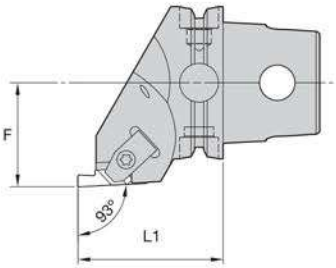
KM QUICK CHANGE

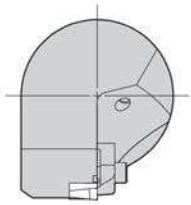
■ NE 93°





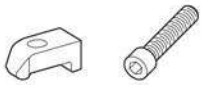
| order number | catalogue number | L1 mm | L1 in | F mm | F in | D min mm | D min in | gage insert | clamp | clamp screw | kg | lbs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| right hand | | | | | | | | | | | | |
| **3902285** | **KM40TSNER2** | 40 | 1.575 | 27 | 1.063 | 54 | 2.126 | NG2L | **CM75** | **MS1488** | 0,30 | .66 |
| **3902286** | **KM40TSNER3** | 40 | 1.575 | 27 | 1.063 | 54 | 2.126 | NG3L | **CM73** | **MS1489** | 0,30 | .67 |
| **3902287** | **KM40TSNER4** | 40 | 1.575 | 27 | 1.063 | 54 | 2.126 | NG4L | **CM73** | **MS1489** | 0,30 | .65 |
| left hand | | | | | | | | | | | | |
| **3902132** | **KM40TSNEL2** | 40 | 1.575 | 27 | 1.063 | 54 | 2.126 | NG2R | **CM74** | **MS1488** | 0,30 | .66 |
| **3902283** | **KM40TSNEL3** | 40 | 1.575 | 27 | 1.063 | 54 | 2.126 | NG3R | **CM-72** | **MS1489** | 0,30 | .67 |
| **3902284** | **KM40TSNEL4** | 40 | 1.575 | 27 | 1.063 | 54 | 2.126 | NG4R | **CM-72** | **MS1489** | 0,30 | .65 |



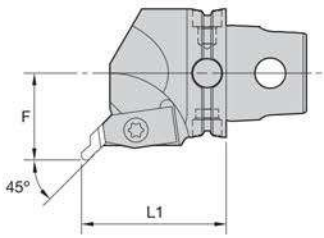



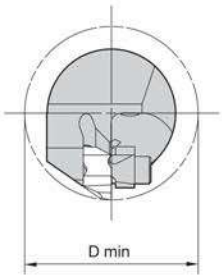
KM QUICK CHANGE

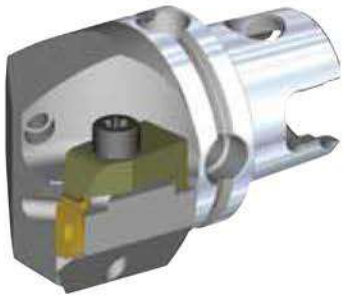
■ NS 93°



| order number | catalogue number | L1 mm | L1 in | F mm | F in | gage insert | clamp | clamp screw | kg | lbs |
|---|---|---|---|---|---|---|---|---|---|---|
| right hand | | | | | | | | | | |
| 3902293 | KM40TSNSR2 | 40 | 1.575 | 27 | 1.063 | NG2R | CM74 | MS1488 | 0,32 | .70 |
| 3902294 | KM40TSNSR3 | 47 | 1.850 | 27 | 1.063 | NG3R | CM-72 | MS1489 | 0,32 | .71 |
| 3902295 | KM40TSNSR4 | 47 | 1.850 | 27 | 1.063 | NG4R | CM-72 | MS1489 | 0,30 | .66 |
| left hand | | | | | | | | | | |
| 3902290 | KM40TSNSL2 | 40 | 1.575 | 27 | 1.063 | NG2L | CM75 | MS1488 | 0,32 | .70 |
| 3902291 | KM40TSNSL3 | 47 | 1.850 | 27 | 1.063 | NG3L | CM73 | MS1489 | 0,33 | .72 |
| 3902292 | KM40TSNSL4 | 47 | 1.850 | 27 | 1.063 | NG4L | CM73 | MS1489 | 0,30 | .66 |

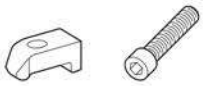


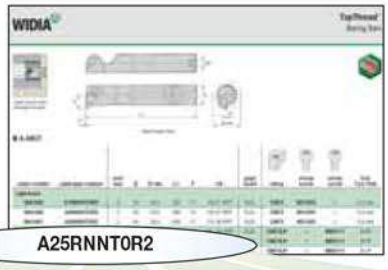
KM QUICK CHANGE

■ NR 45°



| order number | catalogue number | L1 mm | L1 in | F mm | F in | D min mm | D min in | gage insert | clamp | clamp screw | kg | lbs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| right hand | | | | | | | | | | | | |
| 3902289 | KM40TSNRR3045M | 45 | 1.772 | 27 | 1.063 | 54 | 2.126 | NU3L | CM73 | MS1489 | 0,34 | .75 |
| left hand | | | | | | | | | | | | |
| 3902288 | KM40TSNRL3045M | 45 | 1.772 | 27 | 1.063 | 54 | 2.126 | NU3R | CM-72 | MS1489 | 0,33 | .74 |

# TopThread
# Boring Bar Identification System



**A25RNNT0R2**

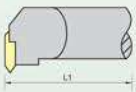
| A | 25 | R | N | N | T | 0 | R | 2 |
|---|---|---|---|---|---|---|---|---|
| Bar Type | Bar Diameter | Bar Length | Insert Holding Method | Insert Shape | Insert Location | Rake Angle 0 = 0° | Hand of Tool | Insert Size |

**A** – Steel with coolant

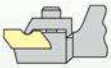
**25** – Bar in millimetres

Bars

**K** = 125,0mm
**M** = 150,0mm
**Q** = 180,0mm
**R** = 200,0mm
**S** = 250,0mm
**T** = 300,0mm
**U** = 350,0mm

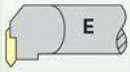


**N** – TopThread*



*Proprietary standard only.

**T** – End mount

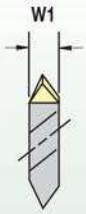



Side mount

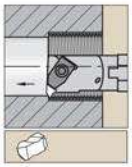
**R** – Right hand

Left hand

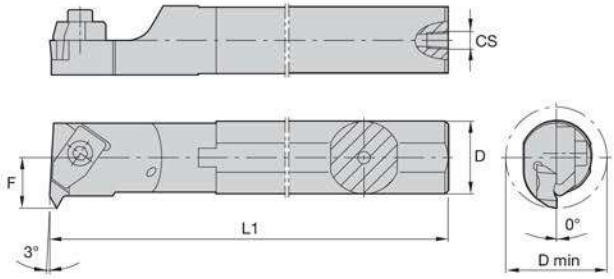
**2** – Insert Size




| insert size | W1 |
|---|---|
| 2 | 3,81 |
| 3 | 4,95 |
| 4 | 6,98 |
| 5 | 9,65 |
| 6 | 9,73 |
| 8 | 11,13 |



Steel shank with through coolant. See page F8 for inserts.

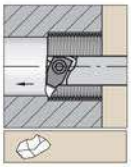



Right Hand Tool

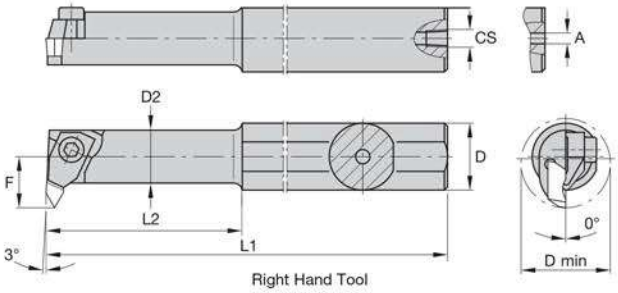
## A-NNT

| order number | catalogue number | seat size | D | D min | L1 | F | CS | gage insert | clamp | clamp screw | clamp screw | hex/ Torx Plus |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **right hand** | | | | | | | | | | | | |
| **3641643** | **A16MNNTOR2** | 2 | 16 | 22,0 | 150 | 11 | 1/8-27 NPT | N.2L | **CM75** | **MS1200** | – | 2.5 mm |
| **3641645** | **A20QNNTOR2** | 2 | 20 | 26,0 | 180 | 13 | 1/8-27 NPT | N.2L | **CM75** | **MS1200** | – | 2.5 mm |
| **3641651** | **A25RNNTOR2** | 2 | 25 | 34,0 | 200 | 17 | 1/4-18 NPT | N.2L | **CM75** | **MS1200** | – | 2.5 mm |
| **3641622** | **A25RNNTOR3** | 3 | 25 | 34,0 | 200 | 17 | 1/8 - 27 NPT | N.3L | **CM73LP** | – | **MS2111** | 25 IP |
| **3641646** | **A32SNNTOR3** | 3 | 32 | 44,0 | 250 | 22 | 1/4-18 NPT | N.3L | **CM73LP** | – | **MS2111** | 25 IP |
| **3641653** | **A40TNNTOR3** | 3 | 40 | 54,0 | 300 | 27 | 1/4-18 NPT | N.3L | **CM73LP** | – | **MS2111** | 25 IP |
| **3641654** | **A40TNNTOR4** | 4 | 40 | 54,0 | 300 | 27 | 1/4-18 NPT | N.4L | **CM73LP** | – | **MS2111** | 25 IP |
| **3641661** | **A50UNNTOR4** | 4 | 50 | 70,0 | 350 | 35 | 1/4-18 NPT | N.4L | **CM73LP** | – | **MS2111** | 25 IP |
| **3641644** | **A12MNNTOR2** | 2 | 12 | 18,5 | 150 | 11 | 1/16-27 NPT | NG2L | **CM147** | **MS1200** | – | 2.5 mm |
| **left hand** | | | | | | | | | | | | |
| **3641649** | **A16MNNTOL2** | 2 | 16 | 22,0 | 150 | 11 | 1/8-27 NPT | N.2R | **CM74** | **MS1200** | – | 2.5 mm |
| **3641652** | **A20QNNTOL2** | 2 | 20 | 26,0 | 180 | 13 | 1/8-27 NPT | N.2R | **CM74** | **MS1200** | – | 2.5 mm |
| **3641657** | **A25RNNTOL2** | 2 | 25 | 34,0 | 200 | 17 | 1/4-18 NPT | N.2R | **CM74** | **MS1200** | – | 2.5 mm |
| **3641650** | **A25RNNTOL3** | 3 | 25 | 34,0 | 200 | 17 | 1/4-18 NPT | N.3R | **CM72LP** | – | **MS2111** | 25 IP |
| **3641656** | **A32SNNTOL3** | 3 | 32 | 44,0 | 250 | 22 | 1/4-18 NPT | N.3R | **CM72LP** | – | **MS2111** | 25 IP |
| **3641659** | **A40TNNTOL3** | 3 | 40 | 54,0 | 300 | 27 | 1/4-18 NPT | N.3R | **CM72LP** | – | **MS2111** | 25 IP |
| **3641663** | **A40TNNTOL4** | 4 | 40 | 54,0 | 300 | 27 | 1/4-18 NPT | N.4R | **CM72LP** | – | **MS2111** | 25 IP |
| **3641690** | **A50UNNTOL4** | 4 | 50 | 70,0 | 350 | 35 | 1/4-18 NPT | N.4R | **CM72LP** | – | **MS2111** | 25 IP |
| **3641655** | **A12MNNTOL2** | 2 | 12 | 18,5 | 150 | 11 | 1/16-27 NPT | NG2R | **CM146** | **MS1200** | – | 2.5 mm |

*NOTE: F dimension measured over sharp point of insert.*



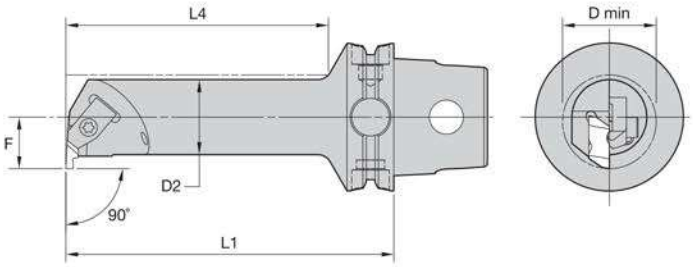
Necked steel shank with through coolant. See page F8 for inserts.




## A-NNT-1

| order number | catalogue number | seat size | D | D min | D2 | L1 | L2 | F | A | CS | gage insert | clamp | clamp screw | hex/ Torx Plus |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **right hand** | | | | | | | | | | | | | | |
| **3641647** | **A12MNNTOR1** | 1 | 12 | 11,5 | 8,7 | 150 | 31 | 7 | 4,0 | 1/16-27 NPT | N.1L | **CM109** | **MS1034** | 1.5 mm |
| **3641648** | **A10KNNTOR1** | 1 | 10 | 11,5 | 10,0 | 125 | – | 7 | 3,2 | – | NG1L | **CM109** | **MS1034** | 1.5 mm |

*NOTE: F dimension measured over sharp point of insert.*



KM QUICK CHANGE

■ NE 90° • Steel

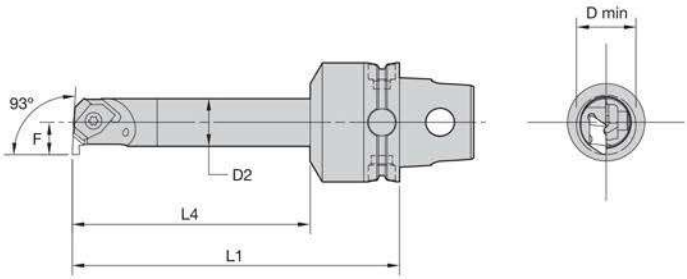
| order number | catalogue number | D2 mm | D2 in | D min mm | D min in | F mm | F in | L4 mm | L4 in | L1 mm | L1 in | gage insert | kg | lbs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| right hand | | | | | | | | | | | | | | |
| 3955481 | KM40TSS12ENER2 | 12 | .472 | 19 | .73 | 11 | .433 | 42 | 1.655 | 70 | 2.756 | NG2L | 0,27 | .58 |
| 3955483 | KM40TSS16FNER2 | 16 | .630 | 20 | .79 | 11 | .433 | 56 | 2.209 | 80 | 3.150 | NG2L | 0,28 | .62 |
| 3955485 | KM40TSS20GNER2 | 20 | .787 | 25 | .98 | 13 | .512 | 70 | 2.757 | 90 | 3.543 | NG2L | 0,35 | .76 |
| 3955487 | KM40TSS25ENER2 | 25 | .984 | 32 | 1.26 | 17 | .669 | 55 | 2.169 | 70 | 2.756 | NG2L | 0,34 | .75 |
| 3955491 | KM40TSS25ENER3 | 25 | .984 | 34 | 1.34 | 17 | .669 | 55 | 2.169 | 70 | 2.756 | NG3L | 0,35 | .77 |
| 3955489 | KM40TSS25HNER2 | 25 | .984 | 32 | 1.26 | 17 | .669 | 75 | 2.954 | 100 | 3.937 | NG2L | 0,49 | 1.08 |
| 3955493 | KM40TSS25HNER3 | 25 | .984 | 34 | 1.34 | 17 | .669 | 75 | 2.954 | 100 | 3.937 | NG3L | 0,49 | 1.09 |
| 3955497 | KM40TSS32GNER3 | 32 | 1.260 | 40 | 1.57 | 22 | .866 | 76 | 2.993 | 90 | 3.543 | NG3L | 0,55 | 1.21 |
| 3955495 | KM40TSS32JNER3 | 32 | 1.260 | 40 | 1.57 | 22 | .866 | 96 | 3.780 | 110 | 4.331 | NG3L | 0,67 | 1.48 |
| left hand | | | | | | | | | | | | | | |
| 3955480 | KM40TSS12ENEL2 | 12 | .472 | 19 | .73 | 11 | .433 | 42 | 1.655 | 70 | 2.756 | NG2R | 0,27 | .59 |
| 3955482 | KM40TSS16FNEL2 | 16 | .630 | 20 | .79 | 11 | .433 | 56 | 2.209 | 80 | 3.150 | NG2R | 0,28 | .62 |
| 3955484 | KM40TSS20GNEL2 | 20 | .787 | 25 | .98 | 13 | .512 | 70 | 2.757 | 90 | 3.543 | NG2R | 0,35 | .76 |
| 3955486 | KM40TSS25ENEL2 | 25 | .984 | 32 | 1.26 | 17 | .669 | 55 | 2.169 | 70 | 2.756 | NG2R | 0,34 | .75 |
| 3955490 | KM40TSS25ENEL3 | 25 | .984 | 34 | 1.34 | 17 | .669 | 55 | 2.169 | 70 | 2.756 | NG3R | 0,35 | .77 |
| 3955488 | KM40TSS25HNEL2 | 25 | .984 | 32 | 1.26 | 17 | .669 | 75 | 2.954 | 100 | 3.937 | NG2R | 0,49 | 1.08 |
| 3955492 | KM40TSS25HNEL3 | 25 | .984 | 34 | 1.34 | 17 | .669 | 75 | 2.954 | 100 | 3.937 | NG3R | 0,49 | 1.09 |
| 3955496 | KM40TSS32GNEL3 | 32 | 1.260 | 40 | 1.57 | 22 | .866 | 76 | 2.993 | 90 | 3.543 | NG3R | 0,55 | 1.21 |
| 3955494 | KM40TSS32JNEL3 | 32 | 1.260 | 40 | 1.57 | 22 | .866 | 96 | 3.780 | 110 | 4.331 | NG3R | 0,67 | 1.48 |

*(continued)*

*(NE 90° • Steel — continued)*

## Spare Parts

| catalogue number | clamp | clamp screw |
|---|---|---|
| right hand | | |
| KM40TSS12ENER2 | CM147 | MS1488 |
| KM40TSS16FNER2 | CM147 | MS1488 |
| KM40TSS20GNER2 | CM75 | MS1488 |
| KM40TSS25ENER2 | CM75 | MS1488 |
| KM40TSS25ENER3 | CM73 | MS1489 |
| KM40TSS25HNER2 | CM75 | MS1488 |
| KM40TSS25HNER3 | CM73 | MS1489 |
| KM40TSS32GNER3 | CM73 | MS1489 |
| KM40TSS32JNER3 | CM73 | MS1489 |
| left hand | | |
| KM40TSS12ENEL2 | CM146 | MS1488 |
| KM40TSS16FNEL2 | CM146 | MS1488 |
| KM40TSS20GNEL2 | CM74 | MS1488 |
| KM40TSS25ENEL2 | CM74 | MS1488 |
| KM40TSS25ENEL3 | CM-72 | MS1489 |
| KM40TSS25HNEL2 | CM74 | MS1488 |
| KM40TSS25HNEL3 | CM-72 | MS1489 |
| KM40TSS32GNEL3 | CM-72 | MS1489 |
| KM40TSS32JNEL3 | CM-72 | MS1489 |



KM QUICK CHANGE

## NE 90° • Carbide

| order number | catalogue number | D2 mm | D2 in | D min mm | D min in | F mm | F in | L4 mm | L4 in | L1 mm | L1 in | gage insert | kg | lbs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| right hand | | | | | | | | | | | | | | |
| 3951836 | KM40TSE16JNER2 | 16 | .630 | 20 | .79 | 11 | .433 | 80 | 3.15 | 110 | 4.331 | NG2L | 0,41 | .90 |
| left hand | | | | | | | | | | | | | | |
| 3951835 | KM40TSE16JNEL2 | 16 | .630 | 20 | .79 | 11 | .433 | 80 | 3.15 | 110 | 4.331 | NG2R | 0,41 | .90 |

## Spare Parts

| catalogue number | clamp | clamp screw |
|---|---|---|
| right hand | | |
| KM40TSE16JNER2 | CM146 | MS1488 |
| left hand | | |
| KM40TSE16JNEL2 | CM147 | MS1488 |

The WIDIA™ high-performance carbide grades, coupled with our rigid TopThread clamping design, offer the metalworking industry optimum threading productivity.

When the large inventory of WIDIA standard products does not completely satisfy your productivity requirements, consider having TopThread inserts custom ground to meet your unique application needs.

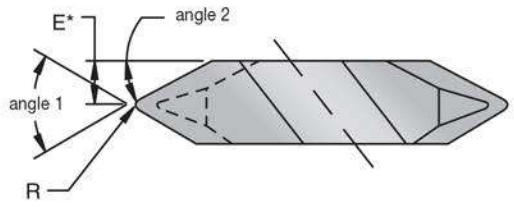
The large variety of TopThread blank sizes allows maximum flexibility in threading endform design, especially for extra wide or oil field applications.

Common examples of special forms are shown here. Please contact your local WIDIA representative for recommendations on satisfying your special threading needs.

### Features and Benefits:

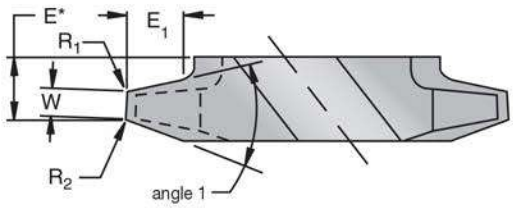
- Quotes are handled quickly and efficiently using state-of-the-art CAD design software and electronic database software.
- Our Carbide Custom Solutions Design Team is your link to one of the industry's largest electronic databases. They can solve your most challenging design problems.
- Where necessary or required, concept drawings are available to facilitate your engineering development.
- A large number of high-performance carbide grades are available to optimise your productivity. The option of producing standard insert styles in non-standard carbide grades allows you to optimise tool life performance.

**style C2** RH shown



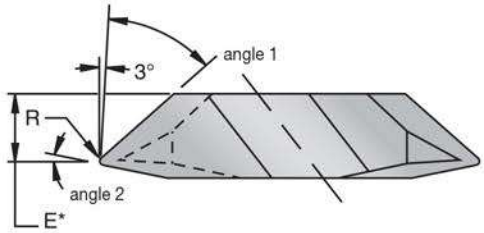

*to theoretical sharp point

**style C3** RH shown



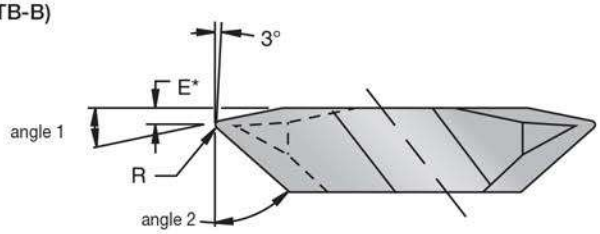

*to theoretical sharp point

**style C4 (NTB-A)** RH shown



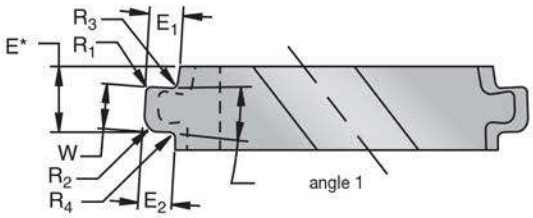

*to theoretical sharp point

**style C5 (NTB-B)** RH shown




*to theoretical sharp point

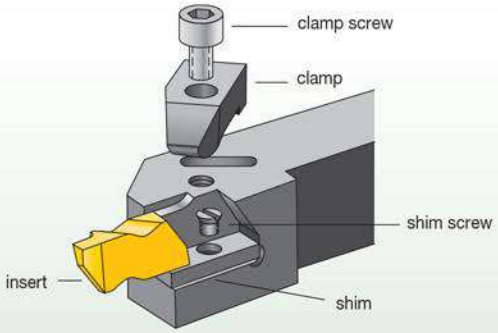
**style C6** RH shown




*to theoretical sharp point

*NOTE: Right-hand inserts shown; left-hand inserts are also available.*

## TopThread and TopGroove Toolholders and Boring Bars




| insert size and style | clamp | clamp screw | shim | shim screw |
|---|---|---|---|---|
| NG-1L | CM-109 | S-304 | – | – |
| NG-2R | CM-182 | S-310 | – | – |
| NG-2L | CM-183 | S-310 | – | – |
| NG-2R | CM-74 | S-310 | – | – |
| NG-2L | CM-75 | S-310 | – | – |
| NG-3R | CM-184 | S-412 | – | – |
| NG-3L | CM-185 | S-412 | – | – |
| NG-3R | CM-72 | S-412 | – | – |
| NG-3L | CM-73 | S-412 | – | – |
| NG-3R* | CM-78 | S-412 | – | – |
| NG-3L* | CM-70 | S-412 | – | – |
| NG-4R | CM-72 | S-412 | SM-420 | SL-344 |
| NG-4L | CM-73 | S-412 | SM-420 | SL-344 |
| NG-5R | CM-80 | S-352 | – | – |
| NG-5L | CM-81 | S-352 | – | – |
| NG-6R | CM-120 | S-412 | SM-416 | S-111 |
| NG-6L | CM-121 | S-412 | SM-416 | S-111 |
| NG-8R | CM-144 | S-422 | SM-419 | S-112 |
| NG-8L | CM-145 | S-422 | SM-419 | S-112 |
| NG-8R** | CM-144 | S-422 | SM-427 | S-111 |
| NG-8L** | CM-145 | S-422 | SM-427 | S-111 |
| TopGroove relief grooving | | | | |
| NU-3125R | CM-72 | S-412 | – | – |
| NU-3125L | CM-73 | S-412 | – | – |
| NU-3125R** | CM-72 | S-618 | – | – |
| NU-3125L** | CM-73 | S-618 | – | – |

**25mm diameter boring head.*
***Boring head.*