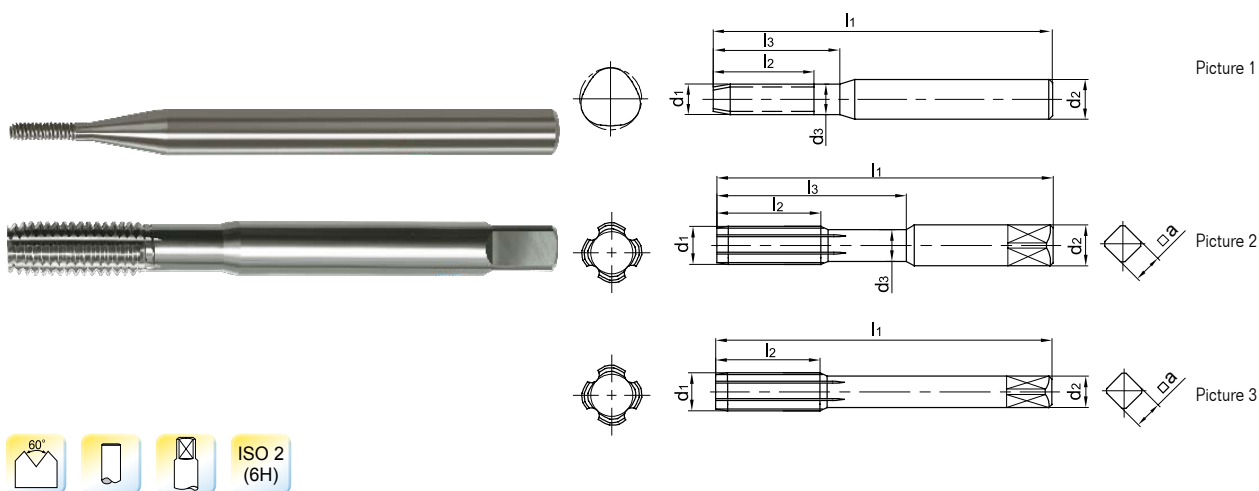




### Forming taps -Al alloys machining



| Type                | Cooling mode     | Basic dimension(mm)     |                |      |                |                |                |                |                |     |                |           |                 | Grade | Pre-hole diameter |
|---------------------|------------------|-------------------------|----------------|------|----------------|----------------|----------------|----------------|----------------|-----|----------------|-----------|-----------------|-------|-------------------|
|                     |                  | Length of Forming taper | d <sub>1</sub> | P    | d <sub>2</sub> | d <sub>3</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | a×a | Thread profile | Geometry  | Number of teeth | YK40F | d                 |
| 4122A-M1*0.25-6H    | External coolant | 3P                      | M1             | 0.25 | 3              |                | 40             | 5              |                |     |                | Picture 1 | 3               | ●     | 0.9               |
| 4122AS-M1*0.25-6H   |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4122A-M1.2*0.25-6H  |                  | 3P                      | M1.2           | 0.25 | 3              |                | 40             | 5              |                |     |                | Picture 1 | 3               | ●     | 1.1               |
| 4122AS-M1.2*0.25-6H |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4122A-M1.6*0.35-6H  |                  | 3P                      | M1.6           | 0.35 | 3              | 1.1            | 40             | 5              | 11             |     |                | Picture 1 | 3               | ●     | 1.47              |
| 4122AS-M1.6*0.35-6H |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4122A-M2*0.4-6H     |                  | 3P                      | M2             | 0.4  | 3              | 1.5            | 45             | 6              | 12             |     |                | Picture 1 | 3               | ●     | 1.85              |
| 4122AS-M2*0.4-6H    |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4122A-M2.5*0.45-6H  |                  | 3P                      | M2.5           | 0.45 | 3              | 1.9            | 50             | 6              | 14             |     |                | Picture 1 | 3               | ●     | 2.33              |
| 4122AS-M2.5*0.45-6H |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M3*0.5-6H     |                  | 3P                      | M3             | 0.5  | 3.5            | 2.3            | 56             | 6              | 18             | 2.7 |                | Picture 2 | 4               | ●     | 2.8               |
| 4222AS-M3*0.5-6H    |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M4*0.5-6H     |                  | 3P                      | M4             | 0.5  | 4.5            | 3.1            | 63             | 8              | 21             | 3.4 | 60°            | Picture 2 | 4               | ●     | 3.8               |
| 4222AS-M4*0.5-6H    |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M4*0.7-6H     |                  | 3P                      | M4             | 0.7  | 4.5            | 3.1            | 63             | 8              | 21             | 3.4 |                | Picture 2 | 4               | ●     | 3.7               |
| 4222AS-M4*0.7-6H    |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M5*0.5-6H     |                  | 3P                      | M5             | 0.5  | 6              | 4.3            | 70             | 10             | 25             | 4.9 |                | Picture 2 | 4               | ●     | 4.8               |
| 4222AS-M5*0.5-6H    |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M5*0.8-6H     |                  | 3P                      | M5             | 0.8  | 6              | 4              | 70             | 10             | 25             | 4.9 |                | Picture 2 | 4               | ●     | 4.65              |
| 4222AS-M5*0.8-6H    |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M6*0.75-6H    |                  | 3P                      | M6             | 0.75 | 6              | 5              | 80             | 12             | 30             | 4.9 |                | Picture 2 | 4               | ●     | 5.7               |
| 4222AS-M6*0.75-6H   |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M6*1-6H       |                  | 3P                      | M6             | 1    | 6              | 4.7            | 80             | 12             | 30             | 4.9 |                | Picture 2 | 4               | ●     | 5.6               |
| 4222AS-M6*1-6H      |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M7*1-6H       |                  | 3P                      | M7             | 1    | 7              | 5.7            | 80             | 14             | 30             | 5.5 |                | Picture 2 | 4               | ●     | 6.6               |
| 4222AS-M7*1-6H      |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |

● Stock available ○ Make-to-order

| Type                | Cooling mode     | Basic dimension(mm)     |                |      |                |                |                |                |                |     |                |           |                 | Grade | Pre-hole diameter |
|---------------------|------------------|-------------------------|----------------|------|----------------|----------------|----------------|----------------|----------------|-----|----------------|-----------|-----------------|-------|-------------------|
|                     |                  | Length of Forming taper | d <sub>1</sub> | P    | d <sub>2</sub> | d <sub>3</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | a×a | Thread profile | Geometry  | Number of teeth | YK40F | d                 |
| 4222A-M8*1-6H       | External coolant | 3P                      | M8             | 1    | 8              | 6.7            | 90             | 16             | 35             | 6.2 | 60°            | Picture 2 | 4               | ●     | 7.6               |
| 4222AS-M8*1-6H      |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M8*1.25-6H    |                  | 3P                      | M8             | 1.25 | 8              | 6.4            | 90             | 16             | 35             | 6.2 |                | Picture 2 | 4               | ●     | 7.45              |
| 4222AS-M8*1.25-6H   |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M10*1-6H      |                  | 3P                      | M10            | 1    | 10             | 8.7            | 100            | 20             | 39             | 8   |                | Picture 2 | 5               | ●     | 9.6               |
| 4222AS-M10*1-6H     |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M10*1.25-6H   |                  | 3P                      | M10            | 1.25 | 10             | 8.4            | 100            | 20             | 39             | 8   |                | Picture 2 | 5               | ●     | 9.45              |
| 4222AS-M10*1.25-6H  |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M10*1.5-6H    |                  | 3P                      | M10            | 1.5  | 10             | 8.1            | 100            | 20             | 39             | 8   |                | Picture 2 | 5               | ●     | 9.35              |
| 4222AS-M10*1.5-6H   |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222AC-M10*1.5-6H   | Internal coolant | 3P                      | M10            | 1.5  | 10             | 8.1            | 100            | 20             | 39             | 8   |                | Picture 2 | 5               | ●     | 9.35              |
| 4222ACS-M10*1.5-6H  |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M12*1.25-6H   | External coolant | 3P                      | M12            | 1.25 | 9              |                | 110            | 24             |                | 7   | 60°            | Picture 3 | 5               | ●     | 11.45             |
| 4222AS-M12*1.25-6H  |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M12*1.5-6H    |                  | 3P                      | M12            | 1.5  | 9              |                | 110            | 24             |                | 7   |                | Picture 3 | 5               | ●     | 11.35             |
| 4222AS-M12*1.5-6H   |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M12*1.75-6H   |                  | 3P                      | M12            | 1.75 | 9              |                | 110            | 24             |                | 7   |                | Picture 3 | 5               | ●     | 11.25             |
| 4222AS-M12*1.75-6H  |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222AC-M12*1.75-6H  | Internal coolant | 3P                      | M12            | 1.75 | 9              |                | 110            | 24             |                | 7   |                | Picture 3 | 5               | ●     | 11.25             |
| 4222ACS-M12*1.75-6H |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M14*1.5-6H    | External coolant | 3P                      | M14            | 1.5  | 11             |                | 110            | 26             |                | 9   | 60°            | Picture 3 | 6               | ●     | 13.35             |
| 4222AS-M14*1.5-6H   |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M14*2-6H      |                  | 3P                      | M14            | 2    | 11             |                | 110            | 26             |                | 9   |                | Picture 3 | 6               | ●     | 13.1              |
| 4222AS-M14*2-6H     |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M16*1.5-6H    |                  | 3P                      | M16            | 1.5  | 12             |                | 110            | 27             |                | 9   |                | Picture 3 | 6               | ●     | 15.35             |
| 4222AS-M16*1.5-6H   |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222A-M16*2-6H      |                  | 3P                      | M16            | 2    | 12             |                | 110            | 27             |                | 9   |                | Picture 3 | 6               | ●     | 15.1              |
| 4222AS-M16*2-6H     |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |
| 4222AC-M16*2-6H     | Internal coolant | 3P                      | M16            | 2    | 12             |                | 110            | 27             |                | 9   |                | Picture 3 | 6               | ●     | 15.1              |
| 4222ACS-M16*2-6H    |                  | 1.5P                    |                |      |                |                |                |                |                |     |                |           |                 |       |                   |

● Stock available ○ Make-to-order

Drilling tools

Reaming Tools

Threading Cutter

Forming taps-Al alloys machining

## Applicable material table

○ Very suitable ○ Suitable

| Grade | Workpiece material   |                              |                                    |        |        |                 |           |                   |                |                      |
|-------|----------------------|------------------------------|------------------------------------|--------|--------|-----------------|-----------|-------------------|----------------|----------------------|
|       | Mild steel<br>HB≤180 | Carbon steel,<br>Alloy steel | Pre-hardened steel, Hardened steel |        |        | Stainless steel | Cast iron | Nodular cast iron | Aluminum alloy | Heat resistant alloy |
| YK40F |                      |                              | ~40HRC                             | ~50HRC | ~60HRC |                 |           |                   | ○              |                      |

Code key

C119

Cutting parameters

C134

Technical information

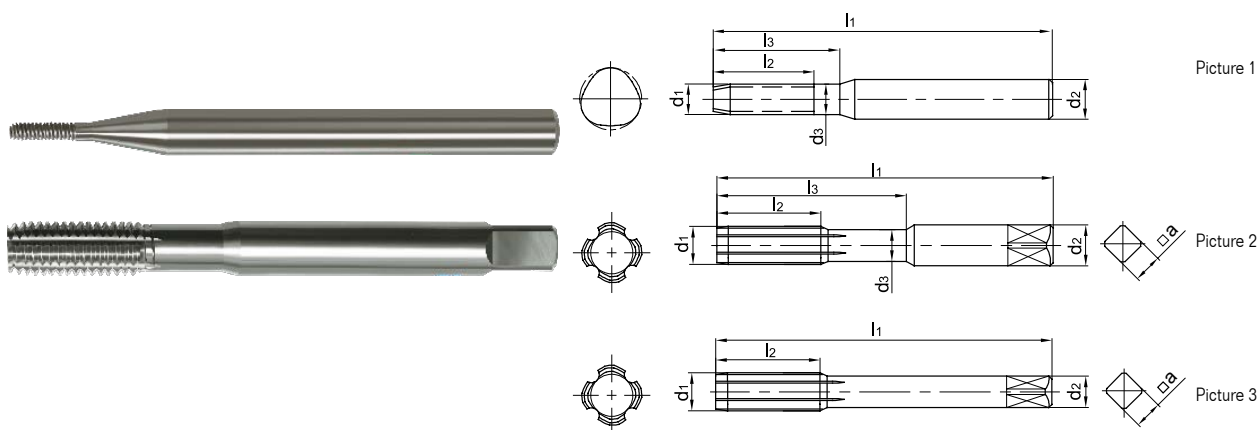
C135-C140



# BORING TOOL Threading Cutter

Forming taps -stainless steel machining

## Forming taps -stainless steel machining



| Type                | Cooling mode     | Basic dimension(mm)     |                |      |                |                |                |                |                |     |                |           |                 | Grade  |       | Pre-hole diameter |      |
|---------------------|------------------|-------------------------|----------------|------|----------------|----------------|----------------|----------------|----------------|-----|----------------|-----------|-----------------|--------|-------|-------------------|------|
|                     |                  | Length of Forming taper | d <sub>1</sub> | P    | d <sub>2</sub> | d <sub>3</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | a×a | Thread profile | Geometry  | Number of teeth | KTG402 | YK40F | d                 |      |
| 4122M-M1*0.25-6H    | External coolant | 3P                      | M1             | 0.25 | 3              |                | 40             | 5              |                |     |                | Picture 1 | 4               | ●      | ○     | 0.9               |      |
| 4122MS-M1*0.25-6H   |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4122M-M1.2*0.25-6H  |                  | 3P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4122MS-M1.2*0.25-6H |                  | 2P                      | M1.2           | 0.25 | 3              |                | 40             | 5              |                |     |                | Picture 1 | 4               | ●      | ○     | 1.1               |      |
| 4122M-M1.6*0.35-6H  |                  | 3P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4122MS-M1.6*0.35-6H |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4122M-M2*0.4-6H     |                  | 3P                      | M1.6           | 0.35 | 3              | 1.1            | 40             | 5              | 11             |     |                |           | Picture 1       | 4      | ●     | ○                 | 1.47 |
| 4122MS-M2*0.4-6H    |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4122M-M2.5*0.45-6H  |                  | 3P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4122MS-M2.5*0.45-6H |                  | 2P                      | M2             | 0.4  | 3              | 1.5            | 45             | 6              | 12             |     |                |           | Picture 1       | 4      | ●     | ○                 | 1.85 |
| 4122M-M2.5*0.45-6H  |                  | 3P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4122MS-M2.5*0.45-6H |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4222M-M3*0.5-6H     |                  | 3P                      | M3             | 0.5  | 3.5            | 2.3            | 56             | 6              | 18             | 2.7 |                |           | Picture 2       | 4      | ●     | ○                 | 2.8  |
| 4222MS-M3*0.5-6H    |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4222M-M4*0.5-6H     |                  | 3P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4222MS-M4*0.5-6H    |                  | 2P                      | M4             | 0.5  | 4.5            | 3.1            | 63             | 8              | 21             | 3.4 | 60°            |           | Picture 2       | 4      | ●     | ○                 | 3.8  |
| 4222M-M4*0.7-6H     |                  | 3P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4222MS-M4*0.7-6H    |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4222M-M5*0.5-6H     |                  | 3P                      | M4             | 0.7  | 4.5            | 3.1            | 63             | 8              | 21             | 3.4 |                |           | Picture 2       | 4      | ●     | ○                 | 3.7  |
| 4222MS-M5*0.5-6H    |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4222M-M5*0.8-6H     |                  | 3P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4222MS-M5*0.8-6H    |                  | 2P                      | M5             | 0.8  | 6              | 4              | 70             | 10             | 25             | 4.9 |                |           | Picture 2       | 4      | ●     | ○                 | 4.65 |
| 4222M-M6*0.75-6H    |                  | 3P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4222MS-M6*0.75-6H   |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4222M-M6*1-6H       |                  | 3P                      | M6             | 1    | 6              | 4.7            | 80             | 12             | 30             | 4.9 |                |           | Picture 2       | 4      | ●     | ○                 | 5.6  |
| 4222MS-M6*1-6H      |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4222M-M7*1-6H       | 3P               |                         |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |      |
| 4222MS-M7*1-6H      | 2P               | M7                      | 1              | 7    | 5.7            | 80             | 14             | 30             | 5.5            |     |                | Picture 2 | 4               | ●      | ○     | 6.6               |      |

● Stock available ○ Make-to-order

| Type                | Cooling mode     | Basic dimension(mm)     |                |      |                |                |                |                |                |     |                |           |                 | Grade  |       | Pre-hole diameter |
|---------------------|------------------|-------------------------|----------------|------|----------------|----------------|----------------|----------------|----------------|-----|----------------|-----------|-----------------|--------|-------|-------------------|
|                     |                  | Length of Forming taper | d <sub>1</sub> | P    | d <sub>2</sub> | d <sub>3</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | a×a | Thread profile | Geometry  | Number of teeth | KTG402 | YK40F | d                 |
| 4222M-M8*1-6H       | External coolant | 3P                      | M8             | 1    | 8              | 6.7            | 90             | 16             | 35             | 6.2 | 60°            | Picture 2 | 4               | ●      | ○     | 7.6               |
| 4222MS-M8*1-6H      |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |
| 4222M-M8*1.25-6H    |                  | 3P                      | M8             | 1.25 | 8              | 6.4            | 90             | 16             | 35             | 6.2 |                | Picture 2 | 4               | ●      | ○     | 7.45              |
| 4222MS-M8*1.25-6H   |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |
| 4222M-M10*1-6H      |                  | 3P                      | M10            | 1    | 10             | 8.7            | 100            | 20             | 39             | 8   |                | Picture 2 | 5               | ●      | ○     | 9.6               |
| 4222MS-M10*1-6H     |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |
| 4222M-M10*1.25-6H   |                  | 3P                      | M10            | 1.25 | 10             | 8.4            | 100            | 20             | 39             | 8   |                | Picture 2 | 5               | ●      | ○     | 9.45              |
| 4222MS-M10*1.25-6H  |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |
| 4222M-M10*1.5-6H    |                  | 3P                      | M10            | 1.5  | 10             | 8.1            | 100            | 20             | 39             | 8   |                | Picture 2 | 5               | ●      | ○     | 9.35              |
| 4222MS-M10*1.5-6H   |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |
| 4222MC-M10*1.5-6H   | Internal coolant | 3P                      | M10            | 1.5  | 10             | 8.1            | 100            | 20             | 39             | 8   |                | Picture 2 | 5               | ●      | ○     | 9.35              |
| 4222MCS-M10*1.5-6H  |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |
| 4222M-M12*1.25-6H   | External coolant | 3P                      | M12            | 1.25 | 9              |                | 110            | 24             |                | 7   | 60°            | Picture 3 | 5               | ●      | ○     | 11.45             |
| 4222MS-M12*1.25-6H  |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |
| 4222M-M12*1.5-6H    |                  | 3P                      | M12            | 1.5  | 9              |                | 110            | 24             |                | 7   |                | Picture 3 | 5               | ●      | ○     | 11.35             |
| 4222MS-M12*1.5-6H   |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |
| 4222M-M12*1.75-6H   |                  | 3P                      | M12            | 1.75 | 9              |                | 110            | 24             |                | 7   |                | Picture 3 | 5               | ●      | ○     | 11.25             |
| 4222MS-M12*1.75-6H  |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |
| 4222MC-M12*1.75-6H  | Internal coolant | 3P                      | M12            | 1.75 | 9              |                | 110            | 24             |                | 7   |                | Picture 3 | 5               | ●      | ○     | 11.25             |
| 4222MCS-M12*1.75-6H |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |
| 4222M-M14*1.5-6H    | External coolant | 3P                      | M14            | 1.5  | 11             |                | 110            | 26             |                | 9   | 60°            | Picture 3 | 6               | ●      | ○     | 13.35             |
| 4222MS-M14*1.5-6H   |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |
| 4222M-M14*2-6H      |                  | 3P                      | M14            | 2    | 11             |                | 110            | 26             |                | 9   |                | Picture 3 | 6               | ●      | ○     | 13.1              |
| 4222MS-M14*2-6H     |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |
| 4222M-M16*1.5-6H    |                  | 3P                      | M16            | 1.5  | 12             |                | 110            | 27             |                | 9   |                | Picture 3 | 6               | ●      | ○     | 15.35             |
| 4222MS-M16*1.5-6H   |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |
| 4222M-M16*2-6H      |                  | 3P                      | M16            | 2    | 12             |                | 110            | 27             |                | 9   |                | Picture 3 | 6               | ●      | ○     | 15.1              |
| 4222MS-M16*2-6H     |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |
| 4222MC-M16*2-6H     | Internal coolant | 3P                      | M16            | 2    | 12             |                | 110            | 27             |                | 9   |                | Picture 3 | 6               | ●      | ○     | 15.1              |
| 4222MCS-M16*2-6H    |                  | 2P                      |                |      |                |                |                |                |                |     |                |           |                 |        |       |                   |

● Stock available ○ Make-to-order

Drilling tools

Reaming Tools

Threading Cutter

Forming taps-stainless steel machining

## ➤ Applicable material table

⊙ Very suitable ○ Suitable

| Grade  | Workpiece material   |                                 |                                    |        |        |                    |           |                      |                   |                 |                            |
|--------|----------------------|---------------------------------|------------------------------------|--------|--------|--------------------|-----------|----------------------|-------------------|-----------------|----------------------------|
|        | Mild steel<br>HB≤180 | Carbon<br>steel,<br>Alloy steel | Pre-hardened steel, Hardened steel |        |        | Stainless<br>steel | Cast iron | Nodular<br>cast iron | Aluminum<br>alloy | Copper<br>alloy | Heat<br>resistant<br>alloy |
|        |                      |                                 | ~40HRC                             | ~50HRC | ~60HRC |                    |           |                      |                   |                 |                            |
| KTG402 | ⊙                    |                                 |                                    |        |        | ⊙                  |           |                      |                   |                 |                            |
| YK40F  | ○                    |                                 |                                    |        |        | ○                  |           |                      | ○                 |                 |                            |

Code key

C119

Cutting parameters

C134

Technical information

C135-C140