

# Brazed tools

Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

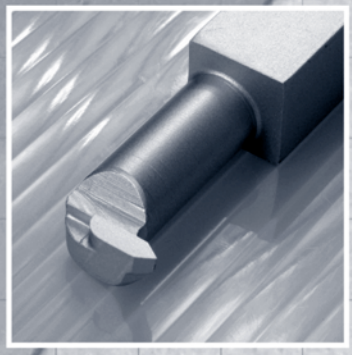
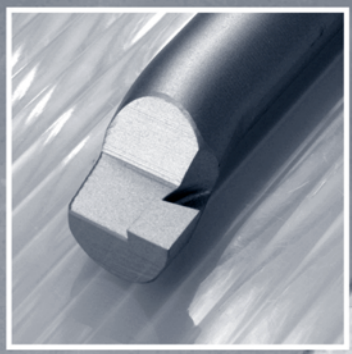
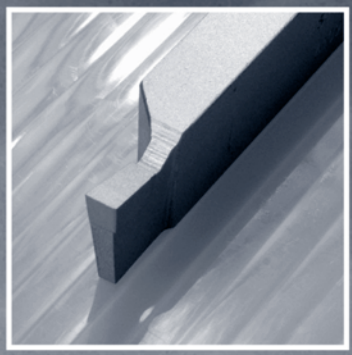
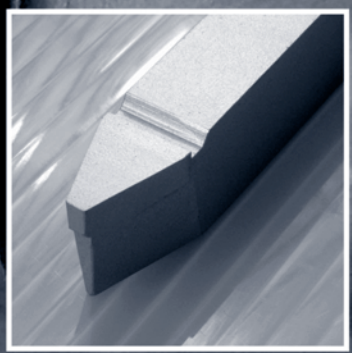
Parting and grooving

Threading

Drills

Cartridges

**Brazed tools**



# Brazed tools

|                       |      |
|-----------------------|------|
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Inserts

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## Uncoated inserts

### KM15

A finishing grade in the K10 range. This carbide grade is for use on cast iron, aluminium and heat-resistant alloys. This grade works well on cobalt based alloys and synthetic materials and is suitable for finishing on heat-resistant alloys.

### PM25

A general purpose uncoated grade in the P30 range. This tough, economical grade is for machining of carbon steels, alloys steels, tool steels and stainless steels.

PM25 provides toughness and resistance to deformation in roughing and semi-finishing operations.

## Grinding

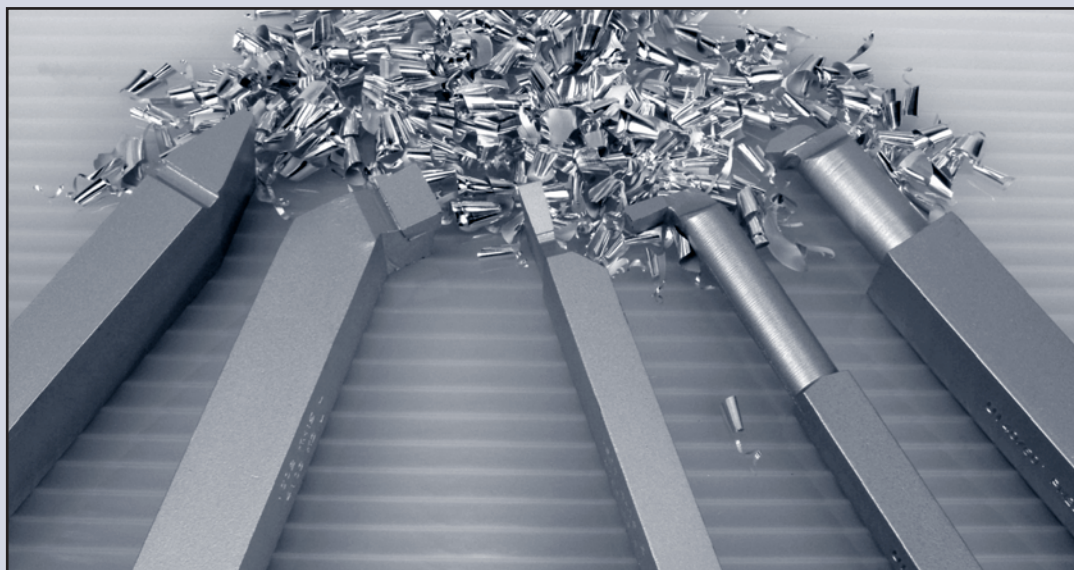
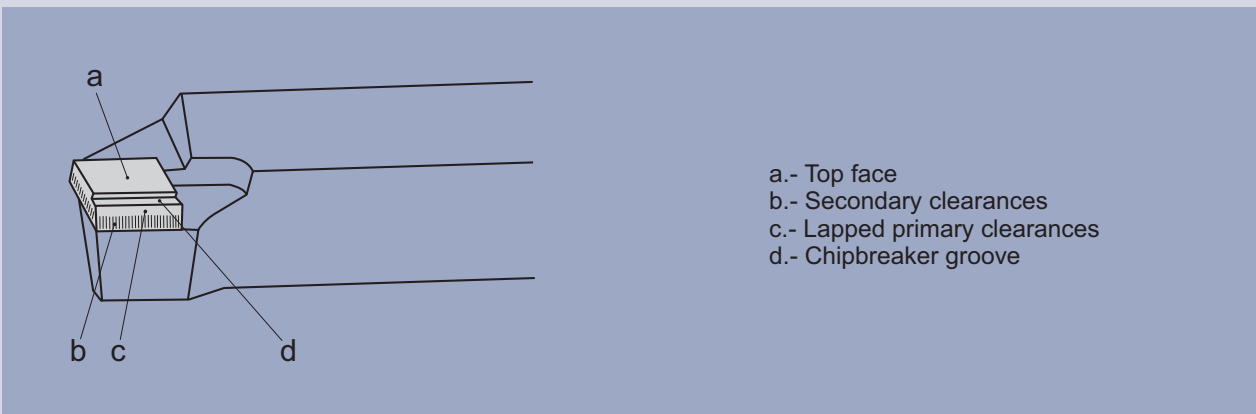
In order to obtain a satisfactory result, it is necessary to have a steady grinding table or holder which can be set to the required angle by means of a graduated scale and by non-vibrating small spindles.


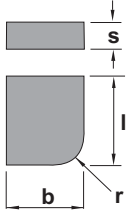
Rough grinding is normally carried out using a silicon carbide grinding wheel. The finish grind or lapping must always be made using a diamond wheel.


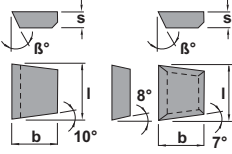
Longer life of the cutting edge and less breakage justify the increased cost of correct grinding.


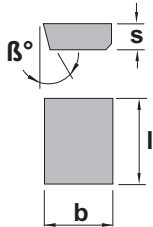
The grinding wheel must be kept clean to ensure that cutting capacity is maintained.


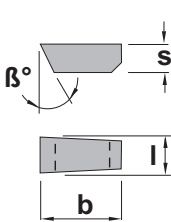
Whenever possible, always grind perpendicular to the cutting edge.


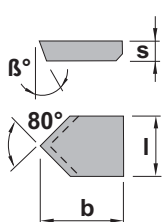


|   |   |      |          |          |          |          |           |             |             |             |              |              |              |              |              |             |
|---|---|------|----------|----------|----------|----------|-----------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|-------------|
|  | Normally available for immediate delivery ●<br>Only available in a limited quantity ○ |      |          |          |          |          |           |             |             |             |              |              |              |              |              |             |
|   | <b>AB</b>   |      | <b>l</b> | <b>s</b> | <b>b</b> | <b>r</b> | <b>β°</b> | <b>KM15</b> | <b>PM25</b> | <b>PM40</b> | <b>TiN16</b> | <b>TiN17</b> | <b>TiN22</b> | <b>TiN25</b> | <b>TiN32</b> | <b>ZR10</b> |
|  | <b>AB 6</b>   | 6,00 | 2,50     | 4,00     | 2,00     | -        | ●         |             |             |             |              |              |              |              |              |             |
|   | <b>AB 8</b>   | 8,00 | 3,00     | 5,00     | 3,00     | -        | ●         |             |             |             |              |              |              |              |              |             |

|   |   |       |          |          |          |          |           |             |             |             |              |              |              |              |              |             |
|---|---|-------|----------|----------|----------|----------|-----------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|-------------|
|    | Normally available for immediate delivery ●<br>Only available in a limited quantity ○ |       |          |          |          |          |           |             |             |             |              |              |              |              |              |             |
|   | <b>ABC</b>  |       | <b>l</b> | <b>s</b> | <b>b</b> | <b>r</b> | <b>β°</b> | <b>KM15</b> | <b>PM25</b> | <b>PM40</b> | <b>TiN16</b> | <b>TiN17</b> | <b>TiN22</b> | <b>TiN25</b> | <b>TiN32</b> | <b>ZR10</b> |
|  <p>Only for:<br/>-ABC 10<br/>-ABC 20<br/>-ABC 25</p> <p>Only for:<br/>-ABC 12<br/>-ABC 16</p> | <b>ABC 10</b>   | 11,00 | 4,00     | 6,00     | -        | 16°      | ●         | ●           |             |             |              |              |              |              |              |             |
|   | <b>ABC 12</b>   | 13,00 | 5,00     | 8,00     | -        | 18°      | ●         | ●           |             |             |              |              |              |              |              |             |
|   | <b>ABC 16</b>   | 17,00 | 6,00     | 10,00    | -        | 18°      | ●         | ●           |             |             |              |              |              |              |              |             |
|   | <b>ABC 20</b>   | 21,00 | 7,00     | 12,00    | -        | 16°      | ●         | ●           |             |             |              |              |              |              |              |             |
|   | <b>ABC 25</b>   | 26,00 | 8,00     | 14,00    | -        | 16°      | ●         | ●           |             |             |              |              |              |              |              |             |

|   |   |       |          |          |          |          |           |             |             |             |              |              |              |              |              |             |
|---|---|-------|----------|----------|----------|----------|-----------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|-------------|
|   | Normally available for immediate delivery ●<br>Only available in a limited quantity ○ |       |          |          |          |          |           |             |             |             |              |              |              |              |              |             |
|   | <b>C</b>  |       | <b>l</b> | <b>s</b> | <b>b</b> | <b>r</b> | <b>β°</b> | <b>KM15</b> | <b>PM25</b> | <b>PM40</b> | <b>TiN16</b> | <b>TiN17</b> | <b>TiN22</b> | <b>TiN25</b> | <b>TiN32</b> | <b>ZR10</b> |
|  | <b>C 7</b>  | 7,00  | 2,50     | 5,00     | -        | 0°       | ●         | ●           |             |             |              |              |              |              |              |             |
|   | <b>C 8</b>  | 8,00  | 3,25     | 5,00     | -        | 0°       | ●         | ●           |             |             |              |              |              |              |              |             |
|   | <b>C 10</b>   | 10,00 | 4,00     | 6,00     | -        | 18°      | ●         | ●           |             |             |              |              |              |              |              |             |
|   | <b>C 12</b>   | 12,00 | 5,00     | 8,00     | -        | 18°      | ●         | ●           |             |             |              |              |              |              |              |             |
|   | <b>C 16</b>   | 16,00 | 6,00     | 10,00    | -        | 18°      | ●         | ●           |             |             |              |              |              |              |              |             |
|   | <b>C 20</b>   | 20,00 | 7,00     | 12,00    | -        | 18°      | ●         | ●           |             |             |              |              |              |              |              |             |
| <b>C 25</b>   | 25,00   | 8,00  | 14,00    | -        | 18°      | ●        | ●         |             |             |             |              |              |              |              |              |             |

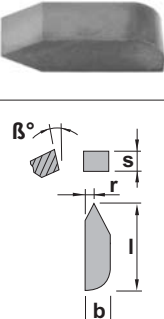
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|---|---|-------|----------|----------|----------|----------|-----------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|-------------|
|  | Normally available for immediate delivery ●<br>Only available in a limited quantity ○ |       |          |          |          |          |           |             |             |             |              |              |              |              |              |             |
|   | <b>D</b>  |       | <b>l</b> | <b>s</b> | <b>b</b> | <b>r</b> | <b>β°</b> | <b>KM15</b> | <b>PM25</b> | <b>PM40</b> | <b>TiN16</b> | <b>TiN17</b> | <b>TiN22</b> | <b>TiN25</b> | <b>TiN32</b> | <b>ZR10</b> |
|  | <b>D 3</b>  | 3,00  | 3,00     | 8,00     | -        | 0°       | ●         | ●           |             |             |              |              |              |              |              |             |
|   | <b>D 4</b>  | 4,00  | 4,00     | 10,00    | -        | 14°      | ●         | ●           |             |             |              |              |              |              |              |             |
|   | <b>D 5</b>  | 5,00  | 5,00     | 12,00    | -        | 14°      | ●         | ●           |             |             |              |              |              |              |              |             |
|   | <b>D 6</b>  | 6,00  | 6,00     | 14,00    | -        | 14°      | ●         | ●           |             |             |              |              |              |              |              |             |
|   | <b>D 8</b>  | 8,00  | 8,00     | 16,00    | -        | 14°      | ●         | ●           |             |             |              |              |              |              |              |             |
|   | <b>D 10</b>   | 10,00 | 10,00    | 18,00    | -        | 14°      | ●         | ●           |             |             |              |              |              |              |              |             |

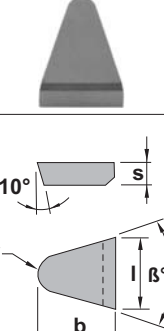
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|---|---|-------|----------|----------|----------|----------|-----------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|-------------|
|  | Normally available for immediate delivery ●<br>Only available in a limited quantity ○ |       |          |          |          |          |           |             |             |             |              |              |              |              |              |             |
|   | <b>E</b>  |       | <b>l</b> | <b>s</b> | <b>b</b> | <b>r</b> | <b>β°</b> | <b>KM15</b> | <b>PM25</b> | <b>PM40</b> | <b>TiN16</b> | <b>TiN17</b> | <b>TiN22</b> | <b>TiN25</b> | <b>TiN32</b> | <b>ZR10</b> |
|  | <b>E 8</b>  | 8,00  | 4,00     | 16,00    | -        | 9°       | ●         | ●           |             |             |              |              |              |              |              |             |
|   | <b>E 10</b>   | 10,00 | 5,00     | 18,00    | -        | 9°       | ●         | ●           |             |             |              |              |              |              |              |             |
|   | <b>E 12</b>   | 12,00 | 6,00     | 20,00    | -        | 9°       | ●         | ●           |             |             |              |              |              |              |              |             |

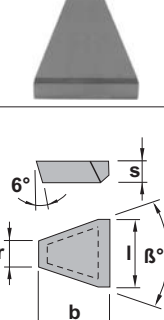
Brazed tools

Tooling

- Inserts
- General turning
- Aluminium wheel turning
- Automatic lathes
- Ceramic tools
- Parting and grooving
- Threading
- Drills
- Cartridges
- Brazed tools**

|   |                |   |          |          |          |           |             |             |             |              |              |              |              |              |             |
|---|----------------|---|----------|----------|----------|-----------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|-------------|
|  | <b>FIL</b>     | Normally available for immediate delivery ●<br>Only available in a limited quantity ○ |          |          |          |           |             |             |             |              |              |              |              |              |             |
|   |                | <b>l</b>  | <b>s</b> | <b>b</b> | <b>r</b> | <b>β°</b> | <b>KM15</b> | <b>PM25</b> | <b>PM40</b> | <b>TIN16</b> | <b>TIN17</b> | <b>TIN22</b> | <b>TIN25</b> | <b>TIN32</b> | <b>ZR10</b> |
|   | <b>FIL 3,5</b> | 12,00   | 3,50     | 3,50     | 1,00     | 5°        | ●           | ●           |             |              |              |              |              |              |             |
|   | <b>FIL 4</b>   | 14,00   | 4,00     | 4,00     | 1,20     | 5°        | ●           | ●           |             |              |              |              |              |              |             |
|   | <b>FIL 5</b>   | 16,00   | 5,00     | 5,00     | 1,50     | 5°        | ●           | ●           |             |              |              |              |              |              |             |
| <b>FIL 6</b>  | 18,00          | 6,00  | 6,00     | 1,80     | 5°       | ●         | ●           |             |             |              |              |              |              |              |             |

|   |              |   |          |          |          |           |             |             |             |              |              |              |              |              |             |
|---|--------------|---|----------|----------|----------|-----------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|-------------|
|  | <b>PR</b>    | Normally available for immediate delivery ●<br>Only available in a limited quantity ○ |          |          |          |           |             |             |             |              |              |              |              |              |             |
|   |              | <b>l</b>  | <b>s</b> | <b>b</b> | <b>r</b> | <b>β°</b> | <b>KM15</b> | <b>PM25</b> | <b>PM40</b> | <b>TIN16</b> | <b>TIN17</b> | <b>TIN22</b> | <b>TIN25</b> | <b>TIN32</b> | <b>ZR10</b> |
|   | <b>PR 8</b>  | 8,00  | 4,00     | 12,00    | 1,00     | 30°       | ●           |             |             |              |              |              |              |              |             |
|   | <b>PR 10</b> | 10,00   | 4,00     | 14,00    | 1,50     | 30°       | ●           |             |             |              |              |              |              |              |             |
|   | <b>PR 12</b> | 12,00   | 5,00     | 17,00    | 2,50     | 30°       | ●           |             |             |              |              |              |              |              |             |

|  |                 |   |          |          |          |           |             |             |             |              |              |              |              |              |             |
|--|-----------------|---|----------|----------|----------|-----------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|-------------|
|  | <b>TR</b>       | Normally available for immediate delivery ●<br>Only available in a limited quantity ○ |          |          |          |           |             |             |             |              |              |              |              |              |             |
|  |                 | <b>l</b>  | <b>s</b> | <b>b</b> | <b>r</b> | <b>β°</b> | <b>KM15</b> | <b>PM25</b> | <b>PM40</b> | <b>TIN16</b> | <b>TIN17</b> | <b>TIN22</b> | <b>TIN25</b> | <b>TIN32</b> | <b>ZR10</b> |
|  | <b>TR 16-32</b> | 16,00   | 6,00     | 21,00    | 5,00     | 32°       | ●           |             |             |              |              |              |              |              |             |
|  | <b>TR 16-36</b> | 16,00   | 6,00     | 21,00    | 4,00     | 36°       | ●           |             |             |              |              |              |              |              |             |
|  | <b>TR 20-32</b> | 20,00   | 6,00     | 25,00    | 7,50     | 32°       | ●           |             |             |              |              |              |              |              |             |
| <b>TR 20-36</b>  | 20,00           | 6,00  | 25,00    | 5,80     | 36°      | ●         |             |             |             |              |              |              |              |              |             |

Toolholders

|                                     |   |                                   |                                   |                                   |                                   |
|-------------------------------------|---|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| <b>ISO 1 75°</b><br><br>Page K.06   | <b>ISO 2 45°</b><br><br>Page K.06       | <b>ISO 4 90°</b><br><br>Page K.07 | <b>ISO 5 90°</b><br><br>Page K.07 | <b>ISO 6 90°</b><br><br>Page K.08 | <b>ISO 7 90°</b><br><br>Page K.08 |
| <b>ISO 351 80°</b><br><br>Page K.09 | <b>UI 30 55° - 60°</b><br><br>Page K.09 | <b>UI 80</b><br><br>Page K.10     |                                   |                                   |                                   |

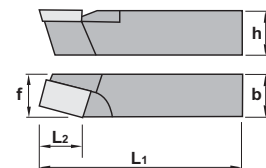
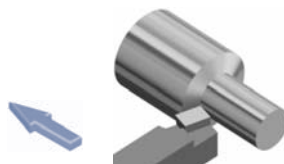
Boring bars

|                                   |                                   |   |                                   |                                |                                |
|-----------------------------------|-----------------------------------|---|-----------------------------------|--------------------------------|--------------------------------|
| <b>ISO 8 75°</b><br><br>Page K.11 | <b>ISO 9 90°</b><br><br>Page K.11 | <b>UI 40 55° - 60°</b><br><br>Page K.12 | <b>UI 50 90°</b><br><br>Page K.12 | <b>C6 60°</b><br><br>Page K.13 | <b>D6 90°</b><br><br>Page K.13 |
|-----------------------------------|-----------------------------------|---|-----------------------------------|--------------------------------|--------------------------------|

- Inserts
- General turning
- Aluminium wheel turning
- Automatic lathes
- Ceramic tools
- Parting and grooving
- Threading
- Drills
- Cartridges
- Brazed tools



**Characteristics:**  
Brazed toolholder  
DIN 4971



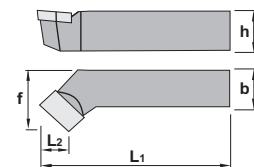
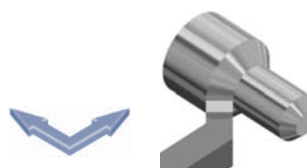
## ISO 1 75°

Normally available for immediate delivery ●  
Only available in a limited quantity ○

| Ref.        | h  | b  | L   | L2 | f  | Insert size | Kg    | KM15 | PM25 |
|-------------|----|----|-----|----|----|-------------|-------|------|------|
| ISO1 1616 R | 16 | 16 | 110 | 11 | 10 | ABC 12      | 0,200 | ●    | ●    |
| ISO1 1616 L | 16 | 16 | 110 | 11 | 10 | ABC 12      | 0,200 | ●    | ●    |
| ISO1 2020 R | 20 | 20 | 125 | 15 | 12 | ABC 16      | 0,350 | ●    | ●    |
| ISO1 2020 L | 20 | 20 | 125 | 15 | 12 | ABC 16      | 0,350 | ●    | ●    |
| ISO1 2525 R | 25 | 25 | 140 | 18 | 15 | ABC 20      | 0,650 | ●    | ●    |
| ISO1 2525 L | 25 | 25 | 140 | 18 | 15 | ABC 20      | 0,650 | ●    | ●    |



**Characteristics:**  
Brazed toolholder  
DIN 4972



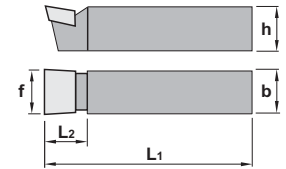
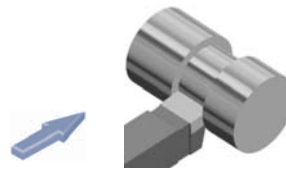
## ISO 2 45°

Normally available for immediate delivery ●  
Only available in a limited quantity ○

| Ref.        | h  | b  | L   | L2 | f  | Insert size | Kg    | KM15 | PM25 |
|-------------|----|----|-----|----|----|-------------|-------|------|------|
| ISO2 1010 R | 10 | 10 | 90  | 8  | 14 | C8          | 0,070 | ○    | ○    |
| ISO2 1010 L | 10 | 10 | 90  | 8  | 14 | C8          | 0,070 | ○    | ○    |
| ISO2 1212 R | 12 | 12 | 100 | 10 | 17 | ABC10       | 0,100 | ○    | ●    |
| ISO2 1212 L | 12 | 12 | 100 | 10 | 17 | ABC10       | 0,100 | ○    | ●    |
| ISO2 1616 R | 16 | 16 | 110 | 12 | 22 | ABC12       | 0,200 | ●    | ●    |
| ISO2 1616 L | 16 | 16 | 110 | 12 | 22 | ABC12       | 0,200 | ●    | ●    |
| ISO2 2020 R | 20 | 20 | 125 | 16 | 28 | ABC16       | 0,400 | ●    | ●    |
| ISO2 2020 L | 20 | 20 | 125 | 16 | 28 | ABC16       | 0,400 | ●    | ●    |
| ISO2 2525 R | 25 | 25 | 140 | 20 | 35 | ABC20       | 0,650 | ●    | ●    |
| ISO2 2525 L | 25 | 25 | 140 | 20 | 35 | ABC20       | 0,650 | ●    | ●    |
| ISO2 3232 R | 32 | 32 | 170 | 25 | 44 | ABC25       | 1,300 | ●    | ●    |
| ISO2 3232 L | 32 | 32 | 170 | 25 | 44 | ABC25       | 1,300 | ●    | ●    |



**Characteristics:**  
Brazed toolholder  
DIN 4976



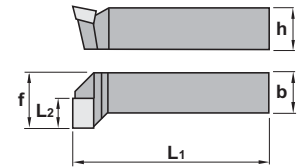
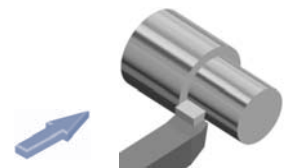
Normally available for immediate delivery ●  
Only available in a limited quantity ○

## ISO 4 90°

| Ref. |             | h  | b  | L   | L2 | f  | Insert size | Kg    | KM15 | PM25 |
|------|-------------|----|----|-----|----|----|-------------|-------|------|------|
|      | ISO4 1010 N | 10 | 10 | 90  | 10 | 10 | ABC10       | 0,070 | ○    | ○    |
|      | ISO4 1212 N | 12 | 12 | 100 | 12 | 12 | ABC12       | 0,100 | ○    | ○    |
|      | ISO4 1616 N | 16 | 16 | 110 | 16 | 16 | ABC16       | 0,250 | ○    | ○    |
|      | ISO4 2020 N | 20 | 20 | 125 | 20 | 20 | ABC20       | 0,400 | ○    | ○    |
|      | ISO4 2525 N | 25 | 25 | 140 | 25 | 25 | ABC25       | 0,650 | ○    | ○    |



**Characteristics:**  
Brazed toolholder  
DIN 4977



Normally available for immediate delivery ●  
Only available in a limited quantity ○

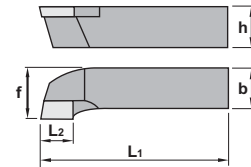
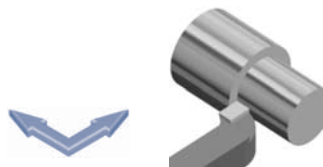
## ISO 5 90°

| Ref. |             | h  | b  | L   | L2 | f  | Insert size | Kg    | KM15 | PM25 |
|------|-------------|----|----|-----|----|----|-------------|-------|------|------|
|      | ISO5 1616 R | 16 | 16 | 110 | 12 | 24 | ABC12       | 0,200 | ○    | ○    |
|      | ISO5 1616 L | 16 | 16 | 110 | 12 | 24 | ABC12       | 0,200 | ○    | ○    |
|      | ISO5 2020 R | 20 | 20 | 125 | 16 | 30 | ABC16       | 0,400 | ○    | ○    |
|      | ISO5 2020 L | 20 | 20 | 125 | 16 | 30 | ABC16       | 0,400 | ○    | ○    |

- Inserts
- General turning
- Aluminium wheel turning
- Automatic lathes
- Ceramic tools
- Parting and grooving
- Threading
- Drills
- Cartridges
- Brazed tools



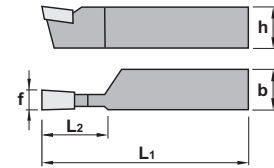
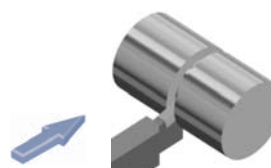
**Characteristics:**  
Brazed toolholder  
DIN 4980



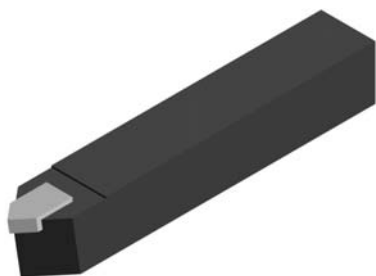
| ISO 6 90° |             | Normally available for immediate delivery ●<br>Only available in a limited quantity ○ |    |     |    |    |             |       |      |      |
|-----------|-------------|---|----|-----|----|----|-------------|-------|------|------|
|           |             | h   | b  | L   | L2 | f  | Insert size | Kg    | KM15 | PM25 |
| Ref.      | ISO6 1010 R | 10  | 10 | 90  | 8  | 14 | C8          | 0,070 | ○    | ○    |
|           | ISO6 1010 L | 10  | 10 | 90  | 8  | 14 | C8          | 0,070 | ○    | ○    |
|           | ISO6 1212 R | 12  | 12 | 100 | 10 | 17 | ABC10       | 0,100 | ○    | ●    |
|           | ISO6 1212 L | 12  | 12 | 100 | 10 | 17 | ABC10       | 0,100 | ○    | ●    |
|           | ISO6 1616 R | 16  | 16 | 110 | 12 | 22 | ABC12       | 0,200 | ●    | ●    |
|           | ISO6 1616 L | 16  | 16 | 110 | 12 | 22 | ABC12       | 0,200 | ●    | ●    |
|           | ISO6 2020 R | 20  | 20 | 125 | 16 | 28 | ABC16       | 0,400 | ●    | ●    |
|           | ISO6 2020 L | 20  | 20 | 125 | 16 | 28 | ABC16       | 0,400 | ●    | ●    |
|           | ISO6 2525 R | 25  | 25 | 140 | 20 | 35 | ABC20       | 0,650 | ●    | ●    |
|           | ISO6 2525 L | 25  | 25 | 140 | 20 | 35 | ABC20       | 0,650 | ●    | ●    |
|           | ISO6 3232 R | 32  | 32 | 170 | 25 | 44 | ABC25       | 1,250 | ●    | ●    |
|           | ISO6 3232 L | 32  | 32 | 170 | 25 | 44 | ABC25       | 1,250 | ●    | ●    |



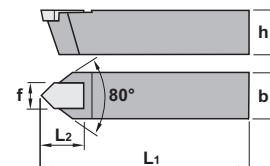
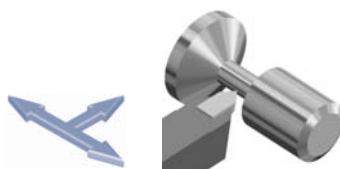
**Characteristics:**  
Brazed toolholder  
DIN 4981



| ISO 7 90° |             | Normally available for immediate delivery ●<br>Only available in a limited quantity ○ |    |     |    |    |             |       |      |      |
|-----------|-------------|---|----|-----|----|----|-------------|-------|------|------|
|           |             | h   | b  | L   | L2 | f  | Insert size | Kg    | KM15 | PM25 |
| Ref.      | ISO7 1208 R | 12  | 08 | 100 | 12 | 3  | D3          | 0,070 | ○    | ●    |
|           | ISO7 1208 L | 12  | 08 | 100 | 12 | 3  | D3          | 0,070 | ○    | ●    |
|           | ISO7 1610 R | 16  | 10 | 110 | 14 | 4  | D4          | 0,150 | ●    | ●    |
|           | ISO7 1610 L | 16  | 10 | 110 | 14 | 4  | D4          | 0,150 | ●    | ●    |
|           | ISO7 2012 R | 20  | 12 | 125 | 16 | 5  | D5          | 0,200 | ●    | ●    |
|           | ISO7 2012 L | 20  | 12 | 125 | 16 | 5  | D5          | 0,200 | ●    | ●    |
|           | ISO7 2516 R | 25  | 16 | 140 | 20 | 6  | D6          | 0,400 | ●    | ●    |
|           | ISO7 2516 L | 25  | 16 | 140 | 20 | 6  | D6          | 0,400 | ●    | ●    |
|           | ISO7 3220 R | 32  | 20 | 170 | 25 | 8  | D8          | 0,750 | ●    | ●    |
|           | ISO7 3220 L | 32  | 20 | 170 | 25 | 8  | D8          | 0,750 | ●    | ●    |
|           | ISO7 4025 R | 40  | 25 | 200 | 32 | 10 | D10         | 1,350 | ●    | ●    |
|           | ISO7 4025 L | 40  | 25 | 200 | 32 | 10 | D10         | 1,350 | ●    | ●    |



**Characteristics:**  
Brazed toolholder  
DIN 4975



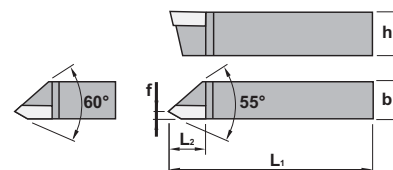
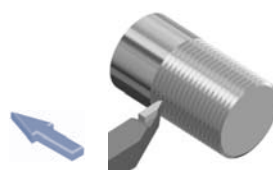
## ISO 351 80°

Normally available for immediate delivery ●  
Only available in a limited quantity ○

| Ref.          |  | h  | b  | L   | L <sub>2</sub> | f  | Insert size | Kg    | KM15 | PM25 |
|---------------|--|----|----|-----|----------------|----|-------------|-------|------|------|
| ISO351 1212 N |  | 12 | 12 | 100 | 10             | 5  | E5          | 0,100 | ○    | ○    |
|               |  |    |    |     |                |    |             |       |      |      |
| ISO351 1616 N |  | 16 | 16 | 110 | 12             | 6  | E6          | 0,200 | ○    | ○    |
|               |  |    |    |     |                |    |             | 0,200 | ○    | ○    |
| ISO351 2012 N |  | 20 | 12 | 125 | 12             | 6  | E6          |       |      |      |
| ISO351 2020 N |  | 20 | 20 | 125 | 16             | 8  | E8          | 0,400 | ○    | ○    |
|               |  |    |    |     |                |    |             | 0,400 | ○    | ○    |
| ISO351 2516 N |  | 25 | 16 | 140 | 16             | 8  | E8          |       |      |      |
| ISO351 2525 N |  | 25 | 25 | 140 | 18             | 10 | E10         | 0,650 | ○    | ○    |



**Characteristics:**  
Brazed toolholder  
ISO 352



## UI 30 <sup>55°</sup>/<sub>60°</sub>

Normally available for immediate delivery ●  
Only available in a limited quantity ○

| Ref.      |                  | h  | b  | L   | L <sub>2</sub> | f   | Insert size | Kg    | KM15 | PM25 |
|-----------|------------------|----|----|-----|----------------|-----|-------------|-------|------|------|
| UI 30 55° | UI 30 55° 1212 R | 12 | 12 | 100 | 12             | 1,8 | FIL 3,5     | 0,100 | ○    | ○    |
|           | UI 30 55° 1616 R | 16 | 16 | 110 | 14             | 2,0 | FIL 4       | 0,200 | ○    | ●    |
|           | UI 30 55° 2020 R | 20 | 20 | 125 | 16             | 2,5 | FIL 5       | 0,350 | ○    | ●    |
|           | UI 30 55° 2525 R | 25 | 25 | 140 | 18             | 3,0 | FIL 6       | 0,600 | ○    | ●    |
| UI 30 60° | UI 30 60° 1212 R | 12 | 12 | 100 | 12             | 1,8 | FIL 3,5     | 0,100 | ●    | ●    |
|           | UI 30 60° 1616 R | 16 | 16 | 110 | 14             | 2,0 | FIL 4       | 0,200 | ●    | ●    |
|           | UI 30 60° 2020 R | 20 | 20 | 125 | 16             | 2,5 | FIL 5       | 0,350 | ●    | ●    |
|           | UI 30 60° 2525 R | 25 | 25 | 140 | 18             | 3,0 | FIL 6       | 0,600 | ●    | ●    |

Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

Parting and grooving

Threading

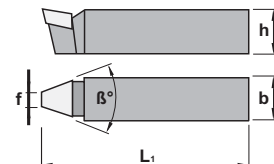
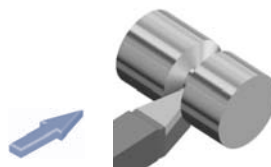
Drills

Cartridges

Brazed tools



**Characteristics:**  
Brazed toolholder  
DIN 2217



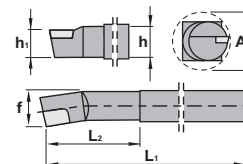
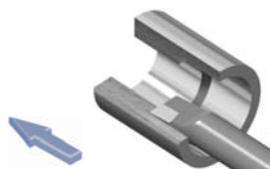
# UI 80

Normally available for immediate delivery ●  
Only available in a limited quantity ○

| Ref.           |  | h  | b  | L   | L2  | β°  | Insert size | Kg    | KM15 | PM25 |
|----------------|--|----|----|-----|-----|-----|-------------|-------|------|------|
| UI 80 34° 2516 |  | 25 | 16 | 170 | 34° | 4,2 | TR16-3..    | 0,500 |      | ○    |
|                |  | 25 | 16 | 170 | 36° | 3,7 | TR16-3..    | 0,500 |      | ○    |
|                |  | 25 | 16 | 170 | 38° | 3,1 | TR16-3..    | 0,500 | ○    | ○    |
| UI 80 34° 3220 |  | 32 | 20 | 200 | 34° | 6,2 | TR20-3..    | 0,950 | ○    | ○    |
|                |  | 32 | 20 | 200 | 36° | 5,5 | TR20-3..    | 0,950 | ○    | ○    |
|                |  | 32 | 20 | 200 | 38° | 4,9 | TR20-3..    | 0,950 | ○    | ○    |



**Characteristics:**  
Brazed boring bar  
UNI 4110



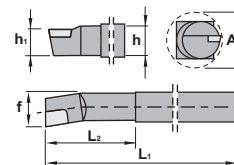
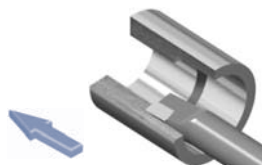
Normally available for immediate delivery ●  
Only available in a limited quantity ○

### ISO 8 75°

| Ref.        |  | h=b | h1   | L   | b2  | L2  | f  | A  | Insert size | Kg    | KM15 | PM25 |
|-------------|--|-----|------|-----|-----|-----|----|----|-------------|-------|------|------|
| ISO8 1010 R |  | 10  | 8,0  | 150 | 3,8 | 50  | 14 | 18 | C7          | 0,100 | ○    | ○    |
| ISO8 1212 R |  | 12  | 9,6  | 180 | 4,8 | 63  | 17 | 21 | C8          | 0,200 | ○    | ○    |
| ISO8 1616 R |  | 16  | 12,8 | 210 | 5,7 | 80  | 22 | 27 | ABC 10      | 0,400 | ○    | ○    |
| ISO8 2020 R |  | 20  | 16,0 | 250 | 7,6 | 100 | 28 | 34 | ABC 12      | 0,700 | ○    | ○    |
| ISO8 2525 R |  | 25  | 20,0 | 300 | 9,5 | 125 | 35 | 43 | ABC 16      | 1,300 | ○    | ○    |



**Characteristics:**  
Brazed boring bar  
UNI 4111



Normally available for immediate delivery ●  
Only available in a limited quantity ○

### ISO 9 90°

| Ref.        |  | h=b | h1   | L   | b2   | L2  | f  | A  | Insert size | Kg    | KM15 | PM25 |
|-------------|--|-----|------|-----|------|-----|----|----|-------------|-------|------|------|
| ISO9 0808 R |  | 8   | 6,4  | 125 | 3,1  | 40  | 11 | 14 | C7          | 0,060 | ●    | ●    |
| ISO9 1010 R |  | 10  | 8,0  | 150 | 4,0  | 50  | 14 | 18 | C7          | 0,100 | ●    | ●    |
| ISO9 1212 R |  | 12  | 9,6  | 180 | 5,1  | 63  | 17 | 21 | C8          | 0,250 | ●    | ●    |
| ISO9 1616 R |  | 16  | 12,8 | 210 | 6,2  | 80  | 22 | 27 | ABC 10      | 0,400 | ●    | ●    |
| ISO9 2020 R |  | 20  | 16,0 | 250 | 8,3  | 100 | 28 | 34 | ABC 12      | 0,700 | ●    | ●    |
| ISO9 2525 R |  | 25  | 20,0 | 300 | 10,0 | 125 | 35 | 43 | ABC 16      | 1,300 | ●    | ●    |
| ISO9 3232 R |  | 32  | 25,6 | 355 | 12,0 | 160 | 44 | 52 | ABC 20      | 2,500 | ●    | ●    |

Inserts

General turning

Aluminium wheel turning

Automatic lathes

Ceramic tools

Parting and grooving

Threading

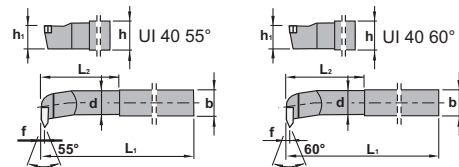
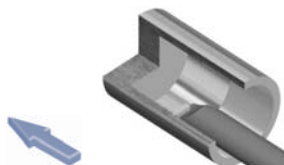
Drills

Cartridges

Brazed tools



**Characteristics:**  
Brazed boring bar  
ISO 353



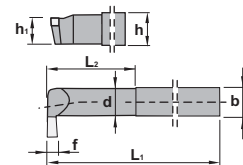
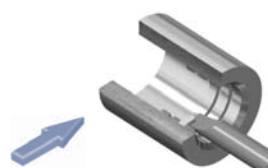
## UI 40 55°/60°

Normally available for immediate delivery ●  
Only available in a limited quantity ○

| Ref.             | d  | h=b | L   | L2  | f   | Insert size | Kg    | KM15 | PM25 |
|------------------|----|-----|-----|-----|-----|-------------|-------|------|------|
| UI 40 55° 1010 R | 10 | 10  | 140 | 52  | 1,8 | FIL 3,5     | 0,070 | ○    | ○    |
| UI 40 55° 1212 R | 12 | 12  | 160 | 56  | 1,8 | FIL 3,5     | 0,200 | ○    | ○    |
| UI 40 55° 1616 R | 16 | 16  | 180 | 63  | 2,0 | FIL 4       | 0,250 | ○    | ○    |
| UI 40 55° 2020 R | 20 | 20  | 210 | 80  | 2,0 | FIL 4       | 0,450 | ○    | ○    |
| UI 40 60° 1010 R | 10 | 10  | 140 | 52  | 1,8 | FIL 3,5     | 0,070 | ●    | ●    |
| UI 40 60° 1212 R | 12 | 12  | 160 | 56  | 1,8 | FIL 3,5     | 0,200 | ●    | ●    |
| UI 40 60° 1616 R | 16 | 16  | 180 | 63  | 2,0 | FIL 4       | 0,250 | ●    | ●    |
| UI 40 60° 2020 R | 20 | 20  | 210 | 80  | 2,0 | FIL 4       | 0,450 | ●    | ●    |
| UI 40 60° 2525 R | 25 | 25  | 250 | 100 | 2,5 | FIL 5       | 0,750 | ●    | ●    |



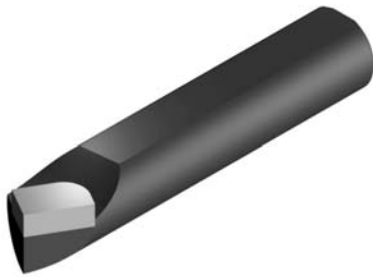
**Characteristics:**  
Brazed boring bar  
ISO 354



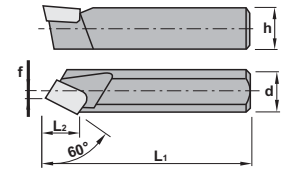
## UI 50 90°

Normally available for immediate delivery ●  
Only available in a limited quantity ○

| Ref.             | d  | h=b | L   | L2  | f | Insert size | Kg    | KM15 | PM25 |
|------------------|----|-----|-----|-----|---|-------------|-------|------|------|
| UI 50 90° 1010 R | 10 | 10  | 140 | 52  | 3 | D3          | 0,100 | ●    | ●    |
| UI 50 90° 1212 R | 12 | 12  | 160 | 56  | 4 | D4          | 0,200 | ●    | ●    |
| UI 50 90° 1616 R | 16 | 16  | 180 | 63  | 5 | D5          | 0,350 | ●    | ●    |
| UI 50 90° 2020 R | 20 | 20  | 210 | 80  | 6 | D6          | 0,700 | ●    | ●    |
| UI 50 90° 2525 R | 25 | 25  | 250 | 100 | 8 | D8          | 1,250 | ●    | ●    |



**Characteristics:**  
Brazed boring bar

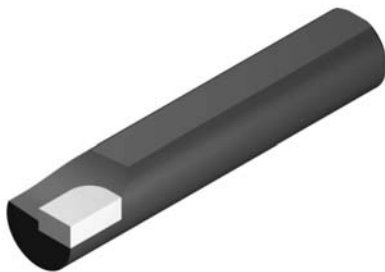


## C6 60°

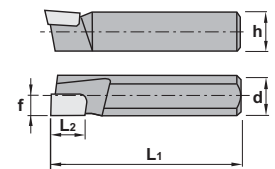
Normally available for immediate delivery ●

Only available in a limited quantity ○

| Ref.  | d  | h=b | L  | L2  | f | Insert size | Kg    | KM15 | PM25 |
|-------|----|-----|----|-----|---|-------------|-------|------|------|
| C6-08 | 8  | 7,5 | 30 | 6,5 | 0 | C7          | 0,010 |      | ●    |
| C6-10 | 10 | 9,0 | 50 | 6,5 | 0 | C8          | 0,025 |      | ●    |



**Characteristics:**  
Brazed boring bar



## D6 90°

Normally available for immediate delivery ●

Only available in a limited quantity ○

| Ref.  | d  | h    | L  | L2   | f   | Insert size | Kg    | KM15 | PM25 |
|-------|----|------|----|------|-----|-------------|-------|------|------|
| D6-08 | 8  | 7,0  | 30 | 7,0  | 1,9 | C7          | 0,010 |      | ●    |
| D6-10 | 10 | 8,5  | 50 | 8,0  | 4,6 | C8          | 0,025 |      | ●    |
| D6-12 | 12 | 10,5 | 60 | 10,0 | 5,6 | ABC10       | 0,045 |      | ●    |
| D6-16 | 16 | 14,0 | 90 | 12,0 | 7,6 | ABC12       | 0,150 |      | ●    |