Dear customer,

We are pleased to introduce our new catalog of Supermini® and Mini Carbide grooving tools.

This catalog represents part of the most comprehensive range of grooving products available from any single manufacturer.

For more than 40 years, HORN has dedicated its resources to the design and manufacture of tooling specifically for grooving applications.

As a HORN user, you gain access to this wealth of experience in grooving. Our team of engineers will be pleased to give you the help and assistance necessary to ensure you get the very best performance from our products.

If you require any further assistance or information, please do not hesitate to contact us. We look forward to our continued cooperation.

Yours sincerely

Lothar Horn

---

### Cutting Material Group per DIN ISO 513

<table>
<thead>
<tr>
<th>Main Group</th>
<th>Symbol</th>
<th>Subgroups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbide</td>
<td>HW</td>
<td>uncoated carbides based upon WC</td>
</tr>
<tr>
<td></td>
<td>HT</td>
<td>uncoated carbides based upon TiC/TiN (cermets)</td>
</tr>
<tr>
<td></td>
<td>HC</td>
<td>coated carbides</td>
</tr>
<tr>
<td>Ceramic cutting material</td>
<td>CA</td>
<td>Oxide ceramics based upon Al₂O₃</td>
</tr>
<tr>
<td></td>
<td>CM</td>
<td>Mixed ceramics Al₂O₃ + metal carbide</td>
</tr>
<tr>
<td></td>
<td>CN</td>
<td>Nitride ceramics based upon Si₃N₄ Basis</td>
</tr>
<tr>
<td></td>
<td>CC</td>
<td>coated ceramics</td>
</tr>
<tr>
<td>Boron nitride</td>
<td>BN</td>
<td>Polycrystalline cubic boron nitride (CBN)</td>
</tr>
<tr>
<td>Diamond</td>
<td>DP</td>
<td>Polycrystalline diamond (PCD)</td>
</tr>
</tbody>
</table>

DIN ISO 513 does not replace the manufacturers grade description or designation. DIN ISO 513 gives a comparison for grades from various manufacturers.

---

Subject to technical changes developments.

No responsibility for errors or printer’s errors accepted.

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Edition March 2011
A  Supermini® Type 105  
   Boring, Grooving, Chamfering, Threading, Face Grooving

B  Supermini® Type 110  
   Boring, Grooving, Face Grooving

C  Mini Type 108  
   Boring, Grooving, Chamfering, Threading

D  Mini Type 10P  
   Grooving

E  Mini Type 111  
   Boring, Grooving, Chamfering, Threading

F  Mini Type 11P  
   Grooving

G  Mini Type 114  
   Boring, Grooving, Chamfering, Threading, Face Grooving

H  Mini Type 116  
   Boring, Grooving, Chamfering, Threading

J  Mini Type 18P  
   Grooving

K  Examples for machining

L  Technical Instructions, Additional equipment
### HCG - HORN Catalog Guide

#### Bore Ø

<table>
<thead>
<tr>
<th>Bore Ø</th>
<th>105</th>
<th>110</th>
<th>108</th>
<th>10P</th>
<th>111</th>
<th>11P</th>
<th>114</th>
<th>116</th>
<th>18P</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ .008” (0.2 mm)</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ .236” (6.0 mm)</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>≥ .268” (6.8 mm)</td>
<td>•</td>
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<td></td>
<td></td>
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<tr>
<td>≥ .307” (7.8 mm)</td>
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</tr>
<tr>
<td>≥ .315” (8.0 mm)</td>
<td>•</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>≥ .346” (8.8 mm)</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>≥ .354” (9.0 mm)</td>
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<td>•</td>
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<td></td>
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<td></td>
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<tr>
<td>≥ .386” (9.8 mm)</td>
<td>•</td>
<td>•</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>≥ .394” (10.0 mm)</td>
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<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>≥ .419” (10.5 mm)</td>
<td>•</td>
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<td></td>
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<tr>
<td>≥ .433” (11.0 mm)</td>
<td>•</td>
<td>•</td>
<td>•</td>
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<td></td>
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<tr>
<td>≥ .492” (12.5 mm)</td>
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<td></td>
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</tr>
<tr>
<td>≥ .551” (14.0 mm)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>≥ .630” (16.0 mm)</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>≥ .650” (16.5 mm)</td>
<td>•</td>
<td>•</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>≥ .689” (17.5 mm)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

#### Groove depth ≤ (inch)

<table>
<thead>
<tr>
<th>Groove depth ≤ (inch)</th>
<th>.098”</th>
<th>.157”</th>
<th>.039”</th>
<th>.118”</th>
<th>.091”</th>
<th>.138”</th>
<th>.256”</th>
<th>.169”</th>
<th>.315”</th>
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</thead>
</table>

#### Groove depth ≤ (mm)

<table>
<thead>
<tr>
<th>Groove depth ≤ (mm)</th>
<th>2.5</th>
<th>4.0</th>
<th>1.0</th>
<th>3.0</th>
<th>2.3</th>
<th>3.5</th>
<th>6.5</th>
<th>4.3</th>
<th>8.0</th>
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#### Width of groove

**inch**

<table>
<thead>
<tr>
<th>Width of groove inch</th>
<th>.020”-.079”</th>
<th>.039”-.250”</th>
<th>.029”-.079”</th>
<th>.039”-.118”</th>
<th>.029”-.125”</th>
<th>.039”-.118”</th>
<th>.029”-.125”</th>
<th>.029”-.157”</th>
</tr>
</thead>
</table>

**mm**

<table>
<thead>
<tr>
<th>Width of groove mm</th>
<th>0.5 - 2.0</th>
<th>1.0 - 6.35</th>
<th>0.74 - 2.0</th>
<th>1.0 - 3.0</th>
<th>0.74 - 3.18</th>
<th>1.0 - 3.0</th>
<th>0.74 - 3.18</th>
<th>0.74 - 4.0</th>
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</thead>
</table>

#### Application

<table>
<thead>
<tr>
<th>Application</th>
<th>105</th>
<th>110</th>
<th>108</th>
<th>10P</th>
<th>111</th>
<th>11P</th>
<th>114</th>
<th>116</th>
<th>18P</th>
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<tbody>
<tr>
<td>Grooving</td>
<td>•</td>
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<td>Threading</td>
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<tr>
<td>Chamfering</td>
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<tr>
<td>Face Grooving</td>
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<td>•</td>
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<td>•</td>
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<td>•</td>
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<tr>
<td>Hard turning</td>
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#### Chapter

<table>
<thead>
<tr>
<th>Chapter</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
</tr>
</thead>
</table>

Special tools upon request
Boring from

.008" (0.2 mm)

Supermini®
- best in small bores -
The same toolholder can be used for all inserts

Type 105

- special shaped backend of inserts guarantees accurate center height and indexability without resetting the machine
- through coolant supply
- enlarged backend of inserts gives a rigid clamping and good vibration resistance
GROOVING and BORING

TOOLHOLDER Type BU105
with through coolant supply

Bore Ø from
Depth of groove up to
Width of groove up to

.008"
.098"
.079"

for use with Insert

Type 105 U105

Part number | d  | l₁ | h  | l₄  |
------------|----|----|----|-----|
BU105.0500.01 | .500 | 2.950 | .433 | 2.160 |
BU105.0625.01 | .625 | 2.950 | .551 | 2.160 |
BU105.0750.01 | .750 | 3.540 | .671 | 2.750 |
BU105.1000.01 | 1.000 | 3.540 | .921 | 2.750 |

Further sizes upon request
Dimensions in inch

Ordering note:
Toolholders can be used with right and left hand inserts.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>BU105....</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type

**B105**
with through coolant supply

Bore Ø from .008" (0.2 mm)
Depth of groove up to .098" (2.5 mm)
Width of groove up to .079" (2.0 mm)

for use with Insert

Type 105
U105

Picture = right hand cutting version shown

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>h</th>
<th>l₄</th>
</tr>
</thead>
<tbody>
<tr>
<td>B105.0010.01</td>
<td>10</td>
<td>75</td>
<td>9</td>
<td>50</td>
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<tr>
<td>B105.0012.01</td>
<td>12</td>
<td>75</td>
<td>11</td>
<td>50</td>
</tr>
<tr>
<td>B105.0016.01</td>
<td>16</td>
<td>75</td>
<td>14</td>
<td>50</td>
</tr>
<tr>
<td>B105.0020.01</td>
<td>20</td>
<td>90</td>
<td>18</td>
<td>55</td>
</tr>
<tr>
<td>B105.0025.01</td>
<td>25</td>
<td>100</td>
<td>23</td>
<td>55</td>
</tr>
</tbody>
</table>

Further sizes upon request

Dimensions in mm

Ordering note:
Toolholders can be used with right and left hand inserts.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B105.00...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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A5
# GROOVING and BORING

## TOOLHOLDER Type

**B105/BU105**

*with through coolant supply*

| Bore Ø from | .008" (0.2 mm) |
| Depth of groove up to | .098" (2.5 mm) |
| Width of groove up to | .079" (2.0 mm) |

For use with Insert

**Adapter of cooling M12x1.5 for Traub**

### Part number

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>h</th>
<th>l₄</th>
<th>l₅</th>
<th>Remark</th>
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<tbody>
<tr>
<td>B105.0022.01</td>
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<td>90.0</td>
<td>20.00</td>
<td>55</td>
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<td>-</td>
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<tr>
<td>B105.0028.01</td>
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<td>120.0</td>
<td>26.00</td>
<td>72</td>
<td>12</td>
<td>**</td>
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<tr>
<td>BU105.0750.5.01</td>
<td>3/4&quot;</td>
<td>90.0</td>
<td>17.04</td>
<td>70</td>
<td>5</td>
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</tr>
<tr>
<td>BU105.0750.5.3.01</td>
<td>3/4&quot;</td>
<td>152.5</td>
<td>17.05</td>
<td>70</td>
<td>5</td>
<td>**</td>
</tr>
<tr>
<td>BU105.1000.5.01</td>
<td>1&quot;</td>
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<td>23.40</td>
<td>65</td>
<td>5</td>
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</tr>
<tr>
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<td>1&quot;</td>
<td>152.5</td>
<td>23.40</td>
<td>70</td>
<td>5</td>
<td>**</td>
</tr>
</tbody>
</table>

Further sizes upon request

Dimensions in mm

** Ordering note:**

Toolholders can be used with right and left hand inserts.

## Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B/BU105...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type

B105
with through coolant supply

Bore Ø from
Depth of groove up to
Width of groove up to

.008* (0.2 mm)
.098* (2.5 mm)
.079* (2.0 mm)

Further sizes upon request
Dimensions in mm

Ordering note:
Toolholders can be used with right and left hand inserts.

Part number | d | l₁ | h | l₄ | l₅
---|---|---|---|---|---
B105.0022.1.2.01 | 22 | 120 | 20 | 72 | 5

for use with Insert

Type 105
U105

Picture = right hand cutting version shown

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B105.0022.1.2.01</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type B105
with through coolant supply

Bore Ø from .008" (0.2 mm)
Depth of groove up to .098" (2.5 mm)
Width of groove up to .079" (2.0 mm)

for use with Insert
Type 105 U105

with additional through coolant bores

Picture = right hand cutting version shown

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>h</th>
<th>l₄</th>
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</thead>
<tbody>
<tr>
<td>B105.0012.K.01</td>
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<td>75</td>
<td>11</td>
<td>50</td>
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<tr>
<td>B105.0016.K.01</td>
<td>16</td>
<td>75</td>
<td>14</td>
<td>50</td>
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<tr>
<td>B105.0020.K.01</td>
<td>20</td>
<td>90</td>
<td>18</td>
<td>50</td>
</tr>
</tbody>
</table>

Further sizes upon request
Dimensions in mm

Ordering note:
Toolholders can be used with right and left hand inserts.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B105.00...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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### GROOVING and BORING

**TOOLHOLDER Type**

**B105**

with through coolant supply

Bore Ø from 0.008" (0.2 mm)

Depth of groove up to 0.098" (2.5 mm)

Width of groove up to 0.079" (2.0 mm)

**Picture = right hand cutting version shown**

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>l₃</th>
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</thead>
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<td>B105.0010.01A</td>
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<td>57</td>
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<td>B105.0012.01A</td>
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<td>B105.0016.01A</td>
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<td>75</td>
<td>63</td>
</tr>
</tbody>
</table>

Further sizes upon request

**Ordering note:**

Toolholders can be used with right and left hand inserts.

### Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
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</thead>
<tbody>
<tr>
<td>B105.001...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
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</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type B105
with through coolant supply

| Bore Ø from | .008" (0.2 mm) |
| Depth of groove up to | .098" (2.5 mm) |
| Width of groove up to | .079" (2.0 mm) |

for use with Insert

Type 105
U105

Picture = right hand cutting version shown

Part number | d | l₁ |
---|---|---|
B105.0020.2.01 | 20 | 150 |
B105.0025.2.01 | 25 | 150 |

Further sizes upon request
Dimensions in mm

Ordering note:
Toolholders can be used with right and left hand inserts.

Adjusting ring is not combined with the toolholder - separate order required!

Adjusting ring

<table>
<thead>
<tr>
<th>Part number &quot;Adjusting ring&quot;</th>
<th>d</th>
<th>Type of machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>020.0020.1665</td>
<td>20</td>
<td>Tornos DECO</td>
</tr>
<tr>
<td>020.0025.2234</td>
<td>25</td>
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</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type

B105
with through coolant supply

Bore Ø from ≤.118”(3.0mm) or ≥.197”(5.0mm)

for use with Insert

Type 105/U105
(Ø ≤.118”/3.0mm)
(Ø ≥.197”/5.0mm)

Picture = right hand cutting version shown

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>h</th>
<th>d₂</th>
<th>l₄</th>
<th>Bore Range</th>
<th>SW</th>
</tr>
</thead>
<tbody>
<tr>
<td>B105.0010.9.01</td>
<td>10</td>
<td>100</td>
<td>9</td>
<td>11</td>
<td>50</td>
<td>≤ 3.0</td>
<td>10</td>
</tr>
<tr>
<td>B105.0012.11.01</td>
<td>12</td>
<td>100</td>
<td>11</td>
<td>15</td>
<td>50</td>
<td>≥ 5.0</td>
<td>13</td>
</tr>
<tr>
<td>B105.0016.11.01</td>
<td>16</td>
<td>100</td>
<td>11</td>
<td>15</td>
<td>50</td>
<td>≥ 5.0</td>
<td>13</td>
</tr>
</tbody>
</table>

Further sizes upon request

f see inserts type 105

Dimensions in mm

* only valid for standard inserts

Ordering note:
Toolholders can be used with right and left hand inserts.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Chucking nut</th>
</tr>
</thead>
<tbody>
<tr>
<td>B105.0010.9.01</td>
<td>020.0010.1719</td>
</tr>
<tr>
<td>B105.001...01</td>
<td>020.0016.1999</td>
</tr>
</tbody>
</table>
GROOVING and BORING

TOOLHOLDER Type

BU105

Bore Ø from 0.008"
Depth of groove up to 0.098"
Width of groove up to 0.079"

for use with Insert

Type 105 U105

Part number | d | l₁ | h | b
---|---|---|---|---
BU105.0750.2.2.01 | .750 | 4.724 | .671 | .671

Further sizes upon request
Dimensions in inch

Ordering note:
Toolholders can be used with right and left hand inserts.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>BU105.0750.2.2.01</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type

B105
no coolant supply

Bore Ø from .008" (0.2 mm)
Depth of groove up to .098" (2.5 mm)
Width of groove up to .079" (2.0 mm)

for use with Insert

Type 105
105..2
U105

Ordering note:
Toolholders can be used with right and left hand inserts.

Part number | d | l₁ | h | b
--- | --- | --- | --- | ---
B105.0020.1.03 | 20 | 80 | 18 | 18

Further sizes upon request
Dimensions in mm

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GROOVING and BORING

TOOLHOLDER Type

B105
with through coolant supply

Bore Ø from
Depth of groove up to
Width of groove up to

.008/.236" (0.2/6.0 mm)
.098/.157" (2.5/4.0 mm)
.079/.118" (2.0/3.0 mm)

for use with Insert

Type 105/U105
110/U110

Picture = right and left hand cutting version shown

Part number

<table>
<thead>
<tr>
<th>B105.0020.1.10</th>
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</thead>
<tbody>
<tr>
<td>d</td>
</tr>
<tr>
<td>20</td>
</tr>
</tbody>
</table>

Further sizes upon request

Dimensions in mm

Ordering note:
Toolholders can be used with right and left hand inserts.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B105.0020.1.10</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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SOLUTIONS PLUS Program

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GROOVING and BORING

BASIC TOOLHOLDER Type

IR105
with through coolant supply

Bore Ø from

.008" (0.2 mm)

for use with Insert

Type 105
U105

Picture = right hand cutting version shown

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>Type of machine</th>
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</thead>
<tbody>
<tr>
<td>IR105.34.100</td>
<td>3/4”</td>
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<td>CITIZEN</td>
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<tr>
<td>IR105.34.40</td>
<td>3/4”</td>
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<td>IR105.34.50</td>
<td>3/4”</td>
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<td></td>
</tr>
<tr>
<td>IR105.34.70</td>
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<td>70</td>
<td></td>
</tr>
<tr>
<td>IR105.20.30</td>
<td>20,00</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>IR105.20.50</td>
<td>20,00</td>
<td>50</td>
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<tr>
<td>IR105.10.100</td>
<td>1”</td>
<td>100</td>
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<tr>
<td>IR105.10.60</td>
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<tr>
<td>IR105.16.30</td>
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<td>IR105.16.50</td>
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<td>IR105.22.100</td>
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<td>IR105.22.70</td>
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<tr>
<td>IR105.18.310</td>
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<tr>
<td>IR105.20.170</td>
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<td>IR105.20.185</td>
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<td>IR105.25.100</td>
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<tr>
<td>IR105.25.150</td>
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<tr>
<td>IR105.28.80</td>
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<td>80</td>
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</tr>
</tbody>
</table>

Further sizes upon request

Dimensions in mm and inch

Note:
Coolant supply must be ordered separately!

A16
CARTRIDGE Type

**IR105**
with through coolant supply

Bore Ø from .008" (0.2 mm)

![Diagram of IR105](image)

Note:
Coolant supply must be ordered separately!

### Part number

<table>
<thead>
<tr>
<th>Part number</th>
<th>I₁</th>
<th>I₂</th>
<th>d₁</th>
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</thead>
<tbody>
<tr>
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<td>IR105.2240.IKV</td>
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<td>IR105.1060.IKV</td>
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</table>

Further sizes upon request
Dimensions in mm and inch

Spare parts

<table>
<thead>
<tr>
<th>Cartridge Graf</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>IR105...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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A17
GROOVING and BORING

TOOLHOLDER Type

HC105
with screwed clamping

Bore Ø from .008" (0.2 mm)

Coolant supply through cranked fitting

for use with Insert

Type 105
U105

Spare parts
Toolholder | Screw | TORX PLUS® Wrench | Screwed angle fittin
---|---|---|---
R/LHC105...07./08... | 6.075T15P | T15PQ | -
RHC105...11 | 6.075T15P | T15PQ | -
R/LHC105.1...21/41 | 6.075T15P | T15PQ | KQ2L06-M5

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Notation:
* = no through coolant supply!
GROOVING and BORING

TOOLHOLDER Type  

HC105  
with screwed clamping

Bore Ø from .008” (0.2 mm)

R = right hand version shown   L = left hand version

State R or L version

Further sizes upon request

<table>
<thead>
<tr>
<th>Part number</th>
<th>l₁</th>
<th>l₂</th>
<th>h</th>
<th>h₁</th>
<th>f₁</th>
<th>b</th>
<th>b₁</th>
<th>Hₖ</th>
</tr>
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<tbody>
<tr>
<td>R/LHC105.1212.01</td>
<td>90</td>
<td>17</td>
<td>12</td>
<td>12</td>
<td>7.5</td>
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<td>16</td>
<td>18</td>
</tr>
<tr>
<td>R/LHC105.1616.01</td>
<td>130</td>
<td>17</td>
<td>16</td>
<td>16</td>
<td>22</td>
<td></td>
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</table>

Dimensions in mm

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LHC105.1...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type

H105
with screwed clamping

Bore Ø from .008" (0.2 mm)

L = left hand version shown  R = right hand version

for use with Insert

Type 105
U105

Part number  l₁  l₂  h  h₁  f₁  b  Bₖ  Hₖ
R/LH105.0808.01  90  17  8  8  7.5  8  16  14
R/LH105.1010.01  90  17  10  10  7.5  10  16  16
R/LH105.1212.01  90  17  12  12  7.5  12  16  18
R/LH105.1616.01  110  17  16  16  7.5  16  16  22

State R or L version  Dimensions in mm

Further sizes upon request

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LH105...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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HORN - THE LEADERS IN GROOVING TECHNOLOGY

High Performance Reaming

SYSTEM DR
URMA Licence

Large selection of base material, coatings and geometries.
High repeatability when replacing inserts.
Diameters from 11.9 mm - 140.6 mm.

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For further information, please contact HORN USA.
GROOVING and BORING

TOOLHOLDER Type 962
with screwed clamping

Bore Ø from .008" (0.2 mm)

Coolant through fitting

for use with Insert

Type 105 U105

R = right hand version shown
L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>l₁</th>
<th>l₂</th>
<th>h</th>
<th>h₁</th>
<th>f₁</th>
<th>l₃</th>
<th>b</th>
<th>b₁</th>
<th>Dₐ max</th>
<th>Hₖ</th>
</tr>
</thead>
<tbody>
<tr>
<td>962.08.01R</td>
<td>130</td>
<td>15</td>
<td>8</td>
<td>8</td>
<td>27</td>
<td>37</td>
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<td></td>
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<tr>
<td>962.10.01R</td>
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<td>27</td>
<td>37</td>
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<td>17</td>
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<tr>
<td>962.10.02L</td>
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<td>27</td>
<td>37</td>
<td>12</td>
<td>42</td>
<td>26</td>
<td>19</td>
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<td>962.12.02L</td>
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<tr>
<td>962.20.01R</td>
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<td>962.20.02L</td>
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</tr>
</tbody>
</table>

Further sizes upon request
Dimensions in mm

Note:
Coolant supply must be ordered separately!

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
<th>Coolant supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>962....</td>
<td>6.075T15P</td>
<td>T15PQ</td>
<td>004.00.19</td>
</tr>
</tbody>
</table>

A22
GROOVING and BORING

TOOLHOLDER Type 962
with screwed clamping

Bore Ø from .008" (0.2 mm)

Coolant through fitting

for use with Insert

Type 105
U105

R = right hand version shown
L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>l₁</th>
<th>l₂</th>
<th>h</th>
<th>h₁</th>
<th>f₁</th>
<th>l₃</th>
<th>b</th>
<th>b₁</th>
<th>Dₐ max</th>
<th>Hₖ</th>
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</thead>
<tbody>
<tr>
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<td>37</td>
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<td>57</td>
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<td>27</td>
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</table>

Further sizes upon request
Dimensions in mm

Note:
Coolant supply must be ordered separately!

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
<th>Coolant supply</th>
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</thead>
<tbody>
<tr>
<td>962....</td>
<td>6.075T15P</td>
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<td>004.00.19</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type 963
with screwed clamping

Bore Ø from .008" (0.2 mm)

Coolant through fitting

for use with Insert

Type 105 U105

R = right hand version shown  L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>l₁</th>
<th>l₂</th>
<th>h₁</th>
<th>h₁</th>
<th>f₁</th>
<th>l₃</th>
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<th>b₁</th>
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<tr>
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<td>27</td>
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</tbody>
</table>

Further sizes upon request
Dimensions in mm

Note:
Coolant supply must be ordered separately!

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
<th>Coolant supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>963 ....</td>
<td>6.075T15P</td>
<td>T15PQ</td>
<td>004.00.19</td>
</tr>
</tbody>
</table>

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1 - 888 - 818 HORN

A24
## GROOVING and BORING

### TOOLHOLDER Type AIH

<table>
<thead>
<tr>
<th>Part number</th>
<th>l₁</th>
<th>l₂</th>
<th>h</th>
<th>h₁</th>
<th>f₁</th>
<th>l₃</th>
<th>b</th>
<th>b₁</th>
<th>Dₐ max</th>
<th>Hₐ</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIH.974.R/L1010.K04</td>
<td>130</td>
<td>15</td>
<td>10</td>
<td>10</td>
<td>23</td>
<td>35</td>
<td>10</td>
<td>20</td>
<td>17</td>
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<td>AIH.974.R/L1212.K04</td>
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<td>12</td>
<td>23</td>
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<td>12</td>
<td>30</td>
<td>20</td>
<td>19</td>
<td>26</td>
<td>23</td>
<td>**</td>
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<tr>
<td>AIH.974.R/L1616.K04</td>
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<td>26</td>
<td>38</td>
<td>16</td>
<td>30</td>
<td>20</td>
<td>19</td>
<td>26</td>
<td>23</td>
<td>**</td>
</tr>
</tbody>
</table>

**Note:**

* These toolholders can be equipped with HORN inserts type 105 and S274
** These toolholders can be equipped with HORN inserts type 105 and Graf inserts CS08

Further sizes upon request

### Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIH....</td>
<td>030.3509.T15P</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

Tools for Tornos DECO2000

for Insert

- Type 105

---

Bore Ø from

<table>
<thead>
<tr>
<th>Basic toolholder</th>
<th>Insert</th>
<th>Machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>RHC105.0710.21</td>
<td>105...21 l₂ up to .591&quot; (15 mm)</td>
<td>DECO7/10</td>
</tr>
<tr>
<td>RHC105.0710.41</td>
<td>105...41 l₂ up to .984&quot; (25 mm)</td>
<td></td>
</tr>
</tbody>
</table>

Dimensions in inch (mm)
Tools for Tornos DECO2000

for Cassettes

- Type RKC760

<table>
<thead>
<tr>
<th>Basic toolholder</th>
<th>Cassette</th>
<th>Insert</th>
<th>Machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>L760.0013.K1</td>
<td>RKC760.0105.21</td>
<td>105...21 I_2 up to .591&quot; (15 mm)</td>
<td>DECO13</td>
</tr>
<tr>
<td>L760.2026.K1</td>
<td>RKC760.0105.41</td>
<td>105...41 I_2 up to .984&quot; (25 mm)</td>
<td>DECO20/26</td>
</tr>
</tbody>
</table>

Dimensions in inch (mm)

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GROOVING and BORING

BASIC TOOLHOLDER Type

BGT
without cartridge

Adjustable round shanks for toolholder BKT105.2445.01/2

with through coolant supply

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>h</th>
<th>l₃</th>
<th>l₄</th>
<th>Machine tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>BGT001.0010.50</td>
<td>10</td>
<td>57.50</td>
<td>9</td>
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<tr>
<td>BGT001.0016.21</td>
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<td>28.50</td>
<td>14</td>
<td>21</td>
<td>18</td>
<td>Star</td>
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<tr>
<td>BGT001.0R16.21</td>
<td>16</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BGT001.0020.100</td>
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<td>107.50</td>
<td>18</td>
<td>100</td>
<td>97</td>
<td>Tornos</td>
</tr>
<tr>
<td>BGT001.0022.30</td>
<td>22</td>
<td>36.35</td>
<td>20</td>
<td>30</td>
<td>27</td>
<td>Star</td>
</tr>
<tr>
<td>BGT001.0022.70</td>
<td>22</td>
<td>77.50</td>
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<td>BGT001.0025.70</td>
<td>25</td>
<td>77.50</td>
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<tr>
<td>BGT001.0028.80</td>
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<td>87.50</td>
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<td>81</td>
<td>77</td>
<td>Traub</td>
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</table>

Further sizes upon request

Note:
BGT001.0022.30 without through coolant supply

Spare parts

<table>
<thead>
<tr>
<th>Basic toolholder</th>
<th>Screw</th>
<th>O-ring</th>
</tr>
</thead>
<tbody>
<tr>
<td>BGT001.0...</td>
<td>DIN912M5X10</td>
<td>DIN37707X3</td>
</tr>
</tbody>
</table>

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A28
GROOVING and BORING

ADJUSTABLE HOLDER Type BKT

Bore Ø from 0.008" (0.2 mm)
Depth of groove up to 0.098" (2.5 mm)
Width of groove up to 0.079" (2.0 mm)

with through coolant supply

for use with Insert

Type 105
U105

Part number | d | l₁ | l₃
---|---|---|---
BKT105.2445.01 | 20 | 22 | 16
BKT105.2445.02 | 32 | 32 | 26

Further sizes upon request

Dimensions in mm

Spare parts

<table>
<thead>
<tr>
<th>Adjustable holder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>BKT105.2445.0...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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## Basic Toolholder Type: BGT

without cartridge

Adjustable round shanks for toolholder BKT105.2327.01
with through coolant supply

### Dimensions

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>h</th>
<th>l₃</th>
<th>l₄</th>
<th>Machine tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>BGT001.1627.10</td>
<td>16</td>
<td>17.5</td>
<td>14</td>
<td>10</td>
<td>7.5</td>
<td>Star</td>
</tr>
</tbody>
</table>

Further sizes upon request

---

### Spare parts

<table>
<thead>
<tr>
<th>Basic toolholder</th>
<th>Screw</th>
<th>O-ring</th>
</tr>
</thead>
<tbody>
<tr>
<td>BGT001.1627.10</td>
<td>DIN912M5X10</td>
<td>DIN37707X3</td>
</tr>
</tbody>
</table>

---

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GROOVING and BORING

BASIC TOOLHOLDER Type BGT
without cartridge

Adjustable round shanks for toolholder BKT105.2327.01
with through coolant supply

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>h</th>
<th>l₃</th>
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</thead>
<tbody>
<tr>
<td>BGT001.0R22.25</td>
<td>22</td>
<td>37</td>
<td>20</td>
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</tbody>
</table>

Further sizes upon request

Dimensions in mm

Spare parts

<table>
<thead>
<tr>
<th>Basic toolholder</th>
<th>Screw</th>
</tr>
</thead>
<tbody>
<tr>
<td>BGT001.0R22.25</td>
<td>DIN912M5X10</td>
</tr>
</tbody>
</table>

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A31
A32

GROOVING and BORING

ADJUSTABLE HOLDER Type BKT

Bore Ø from
Depth of groove up to
Width of groove up to

with through coolant supply

for use with Insert

Type 105 U105

BKT105.2327.01

Part number | d | l₁ | l₃ | b
---|---|---|---|---
BKT105.2327.01 | 20 | 22 | 16 | 12

Further sizes upon request

Dimensions in mm

Spare parts

<table>
<thead>
<tr>
<th>Adjustable holder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>BKT105.2327.01</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type **B105**
with through coolant supply

Bore Ø from .008" (0.2 mm)
Depth of groove up to .098" (2.5 mm)
Width of groove up to .079" (2.0 mm)

Through coolant supply G1/8"

for use with Insert

Type 105
U105

Star SV 12/20/32
SR 10/20/32 and SB 16

L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>l₃</th>
</tr>
</thead>
<tbody>
<tr>
<td>LB105.A022.26.31</td>
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<td>34</td>
<td>28</td>
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</tbody>
</table>

Further sizes upon request

Dimensions in mm

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>LB105.A022.26.31</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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### BASIC TOOLHOLDER Type G

without cartridge

---

for adjustable holder Graf type N and HORN
BKT105.2445.01/2

---

![Diagram of toolholder](image)

### Part numbers and specifications

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>h</th>
<th>b</th>
<th>Machine tool</th>
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<tbody>
<tr>
<td>G016021</td>
<td>16.00</td>
<td>21</td>
<td>14</td>
<td>6</td>
<td>Star</td>
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<tr>
<td>G016040</td>
<td>40</td>
<td>20</td>
<td></td>
<td></td>
<td>Traub/Manurhin</td>
</tr>
<tr>
<td>G034040</td>
<td>3/4&quot;</td>
<td>40</td>
<td>18</td>
<td>6</td>
<td>Citizen</td>
</tr>
<tr>
<td>G034050</td>
<td>18</td>
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<td></td>
<td></td>
<td></td>
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<td>120</td>
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<td>20.00</td>
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<td>18</td>
<td>6</td>
<td>Citizen</td>
</tr>
<tr>
<td>G020040</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td>Hanwha</td>
</tr>
<tr>
<td>G020100</td>
<td>100</td>
<td>18</td>
<td>6</td>
<td></td>
<td>Tornos</td>
</tr>
<tr>
<td>G020150</td>
<td>150</td>
<td>18</td>
<td>6</td>
<td></td>
<td>Manurhin/Tornos</td>
</tr>
<tr>
<td>G022023</td>
<td>22.00</td>
<td>23</td>
<td>20</td>
<td>6</td>
<td>Star</td>
</tr>
<tr>
<td>G022025SR16/20R</td>
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<td>20</td>
<td>12</td>
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<tr>
<td>G022030</td>
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<td>20</td>
<td>12</td>
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<tr>
<td>G022030SR32</td>
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<td>G022070</td>
<td>70</td>
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<td>12</td>
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</table>

Further sizes upon request

Dimensions in mm and inch

---

---
## GROOVING and BORING

### BASIC TOOLHOLDER Type G

without cartridge

for adjustable holder Graf type N and HORN
BKT105.2445.01/2

![Diagram of toolholder](image)

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>( l_1 )</th>
<th>h</th>
<th>b</th>
<th>Machine tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>G025060</td>
<td>25,0</td>
<td>60</td>
<td>23</td>
<td>12</td>
<td>Hanwha</td>
</tr>
<tr>
<td>G025070</td>
<td>25,0</td>
<td>70</td>
<td>23</td>
<td>6</td>
<td>Manurhin/Tornos</td>
</tr>
<tr>
<td>G025100</td>
<td>25,0</td>
<td>100</td>
<td>23</td>
<td>6</td>
<td>Manurhin/Tornos</td>
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<tr>
<td>G025160</td>
<td>25,0</td>
<td>160</td>
<td></td>
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<td>Manurhin/Tornos</td>
</tr>
<tr>
<td>G010060</td>
<td>1&quot;</td>
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<td>23</td>
<td>6</td>
<td>Citizen</td>
</tr>
<tr>
<td>G010100</td>
<td>1&quot;</td>
<td>100</td>
<td>23</td>
<td>6</td>
<td>Citizen</td>
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<tr>
<td>G028006</td>
<td>28,0</td>
<td>6</td>
<td>26</td>
<td>12</td>
<td>Hanwha</td>
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<tr>
<td>G028080</td>
<td>28,0</td>
<td>80</td>
<td>26</td>
<td>12</td>
<td>Traub</td>
</tr>
<tr>
<td>G030045</td>
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<td>45</td>
<td>27</td>
<td>12</td>
<td>Maier</td>
</tr>
<tr>
<td>G033040</td>
<td>33,0</td>
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<td>31</td>
<td>12</td>
<td>Hanwha</td>
</tr>
<tr>
<td>G034020</td>
<td>34,0</td>
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<td>32</td>
<td>12</td>
<td>Maier</td>
</tr>
<tr>
<td>G034044</td>
<td>34,0</td>
<td>44</td>
<td></td>
<td></td>
<td>Maier/Hanwha</td>
</tr>
</tbody>
</table>

Further sizes upon request

Dimensions in mm and inch
**GROOVING and BORING**

**ADAPTOR Type**  
Z  
without cartridge

For adjustable holder Graf type N and HORN BKT105.2445.01/2

**Part number** | **b** | **Form**
---|---|---
Z5 | 5 | A
Z10 | 10 | A
Z15 | 15 | A
Z20 | 20 | B
Z25 | 25 | B
Z30 | 30 | B
Z5SR16/20R | 5 | B
Z10SR16/20R | 10 | B
Z15SR16/20R | 15 | B
Z20SR16/20R | 20 | B
Z25SR16/20R | 25 | B
Z30SR16/20R | 30 | B

Further sizes upon request  
Dimensions in mm

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GROOVING and BORING

ADAPTOR Type

**Z**

without cartridge

for adjustable holder HORN BKT.105.2327.01

<table>
<thead>
<tr>
<th>Part number</th>
<th>b</th>
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<tr>
<td>Z10SW7</td>
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<td>Z15SW7</td>
<td>15</td>
</tr>
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<td>Z20SW7</td>
<td>20</td>
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<tr>
<td>Z25SW7</td>
<td>25</td>
</tr>
<tr>
<td>Z30SW7</td>
<td>30</td>
</tr>
</tbody>
</table>

Further sizes upon request

Dimensions in mm

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GROOVING and BORING

ADAPTOR Type N
without Cartridge

for adjustable holder Graf type N and HORN BKT105.2445.01/2
for back working

Part number N11
For alternatively 2 cartridges

Part number N12
For alternatively 3 cartridges

Part number N93IK
with through coolant supply

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DEVICE FOR HEIGHT ADJUSTING Type HVR40

for back working holder HVR40

<table>
<thead>
<tr>
<th>Part number</th>
<th>d₁</th>
<th>d₂</th>
<th>l₁</th>
<th>l₂</th>
<th>System</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.0506</td>
<td>16</td>
<td>22</td>
<td></td>
<td></td>
<td>STAR</td>
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<tr>
<td>12.0507</td>
<td>3/4&quot;</td>
<td>1&quot;</td>
<td></td>
<td></td>
<td>CITIZEN</td>
</tr>
<tr>
<td>12.0508</td>
<td>30</td>
<td>34</td>
<td>250</td>
<td>180</td>
<td>MAIER</td>
</tr>
<tr>
<td>12.0511</td>
<td>25</td>
<td>33</td>
<td></td>
<td></td>
<td>HANWHA</td>
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<tr>
<td>12.0523</td>
<td>20</td>
<td>28</td>
<td></td>
<td></td>
<td>HANWHA</td>
</tr>
</tbody>
</table>

Dimensions in mm and inch
GROOVING and BORING

ADJUSTABLE HOLDER Type N

Bore Ø from .008" (0.2 mm)
Depth of groove up to .098" (2.5 mm)
Width of groove up to .079" (2.0 mm)

with through coolant supply

for use with Insert

Type 105
U105

Picture = right hand cutting version shown

Part number | \( l_1 \) | \( l_3 \)
--- | --- | ---
N09IK | 40 | 15

Further sizes upon request

Dimensions in mm

Spare parts

<table>
<thead>
<tr>
<th>Adjustable holder</th>
<th>Screw</th>
<th>Height adjustment screw</th>
<th>Coolant supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>N09IK</td>
<td>6.075T15P</td>
<td>002.00.69</td>
<td>004.00.19</td>
</tr>
</tbody>
</table>

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A40
GROOVING and BORING

ADJUSTABLE HOLDER Type N

Bore Ø from .008" (0.2 mm)
Depth of groove up to .098" (2.5 mm)
Width of groove up to .079" (2.0 mm)

no through coolant supply

for use with Insert
Type 105
U105

Picture = right hand cutting version shown

<table>
<thead>
<tr>
<th>Part number</th>
<th>l₁</th>
<th>l₃</th>
</tr>
</thead>
<tbody>
<tr>
<td>N09</td>
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<td>20</td>
</tr>
</tbody>
</table>

Further sizes upon request

Dimensions in mm

Spare parts

<table>
<thead>
<tr>
<th>Adjustable holder</th>
<th>Screw</th>
<th>Height adjustment screw</th>
</tr>
</thead>
<tbody>
<tr>
<td>N09</td>
<td>6.075T15P</td>
<td>002.00.69</td>
</tr>
</tbody>
</table>
GROOVING and BORING

ADJUSTABLE HOLDER Type N

Bore Ø from .008" (0.2 mm)
Depth of groove up to .098" (2.5 mm)
Width of groove up to .079" (2.0 mm)

with through coolant supply

for use with Insert

Type 105
U105

Picture = right hand cutting version shown

<table>
<thead>
<tr>
<th>Part number</th>
<th>I₁</th>
<th>I₃</th>
</tr>
</thead>
<tbody>
<tr>
<td>N73IK</td>
<td>40</td>
<td>15</td>
</tr>
</tbody>
</table>

Further sizes upon request

Dimensions in mm

Spare parts

<table>
<thead>
<tr>
<th>Adjustable holder</th>
<th>Screw</th>
<th>Height adjustment screw</th>
<th>Coolant supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>N73IK</td>
<td>6.075T15P</td>
<td>002.00.69</td>
<td>004.00.19</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

ADJUSTABLE HOLDER Type N

Bore Ø from .008" (0.2 mm)
Depth of groove up to .098" (2.5 mm)
Width of groove up to .079" (2.0 mm)

no through coolant supply

for use with Insert

Type 105
U105

Picture = right hand cutting version shown

<table>
<thead>
<tr>
<th>Part number</th>
<th>l₁</th>
<th>l₃</th>
</tr>
</thead>
<tbody>
<tr>
<td>N73</td>
<td>30</td>
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</tr>
</tbody>
</table>

Further sizes upon request

Dimensions in mm

Spare parts

<table>
<thead>
<tr>
<th>Adjustable holder</th>
<th>Screw</th>
<th>Height adjustment screw</th>
</tr>
</thead>
<tbody>
<tr>
<td>N73</td>
<td>6.075T15P</td>
<td>002.00.69</td>
</tr>
</tbody>
</table>
SPARE PARTS

**Standard connection for through cooling**

for pipe Ø 6 mm

Connection for through cooling
004.00.19

M8 x 1 for pipe Ø 6 mm

Connection for through cooling
004.00.22

M8 x 1

**Clip connection for through cooling**

Clip connection
004.00.49

M10 x 1

for pipe Ø 6 mm

Plug
M8 x 1 - 004.00.56
G1/8" - 004.00.57

Plug
Ø 6 mm - 004.00.59

Coupling
M8 x 1 - 004.00.61
G1/8" - 004.00.16

---

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Polygon cutter

For use on lathes with ability to machine polygon profiles

For further information, please see HORN catalog "CARBIDE MILLING TOOLS".
GROOVING and BORING

TOOLHOLDER Type  VDI
with through coolant supply

Bore Ø from  .008” (0.2 mm)

L = left hand version shown  R = right hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>l₂</th>
<th>d₂</th>
<th>d₁</th>
</tr>
</thead>
<tbody>
<tr>
<td>VDI16.R/L105.20.01</td>
<td>16</td>
<td>38</td>
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<td>VDI20.R/L105.20.01</td>
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<td>20</td>
<td>50</td>
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<tr>
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<td>VDI30.R/L105.20.01</td>
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<td>20</td>
<td>83</td>
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</table>

State R or L version  Dimensions in mm

Further sizes upon request

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>VDI...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type B105C

Adapter for inserts type 105 HORN-Capto

for use with Insert

Type 105 U105

R = right hand version shown
L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>l₁</th>
<th>l₂</th>
<th>d₂</th>
<th>d₁</th>
<th>Remark</th>
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<tbody>
<tr>
<td>R/LB105.00C3.20.1.01</td>
<td>30</td>
<td>15</td>
<td>20</td>
<td>32</td>
<td>C3</td>
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<tr>
<td>R/LB105.00C4.20.1.01</td>
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<td>C4</td>
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<tr>
<td>R/LB105.00C5.20.1.01</td>
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<td>20</td>
<td></td>
<td>50</td>
<td>C5</td>
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<tr>
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<td>22</td>
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</table>

State R or L version

Dimensions in mm

Further sizes upon request

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LB105.00C...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type B105C

Adapter for inserts type 105 HORN-Capto for INDEX Multi spindle machines

For use with Insert Type 105 U105

Licence Sandvik

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>l₃</th>
<th>b₁</th>
<th>l₄</th>
<th>d₁</th>
<th>Type of machine</th>
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</thead>
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<tr>
<td>RB105.00C3.2.2.01</td>
<td>30</td>
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<td>17</td>
<td>14</td>
<td>45</td>
<td>32</td>
<td>MS32</td>
</tr>
<tr>
<td>RB105.00C3.2.2.02</td>
<td>36</td>
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<td>15</td>
<td>18</td>
<td>45</td>
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<td>MS32</td>
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<tr>
<td>RB105.00C4.2.2.01</td>
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<td>26</td>
<td>14</td>
<td>45</td>
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<td>MS52</td>
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<tr>
<td>RB105.00C4.2.2.02</td>
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<td>55</td>
<td>22</td>
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<td>45</td>
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<td>MS52</td>
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</table>

Further sizes upon request f, l₂ see inserts type 105 Dimensions in mm

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>RB105.00C...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>
System KM16 Micro

Supermini® 105 from Ø .008” (0.2 mm)
MINI 108 from Ø .315” (8.0 mm)
Grooving system 264

External and internal machining
- not only for Swiss Type Machines -
## BASIC TOOLHOLDER Type KM16

Basic toolholder for use with toolholder ...KM16...

![Diagram of KM16 and KM2016 toolholders]

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>d₁</th>
<th>d₂</th>
<th>l₁</th>
<th>l₂</th>
<th>h</th>
<th>b</th>
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</thead>
<tbody>
<tr>
<td>KM16 NCM 1616 100</td>
<td>16</td>
<td>-</td>
<td>-</td>
<td>100</td>
<td>-</td>
<td>16</td>
<td>16</td>
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<tr>
<td>KM2016 NCM SS20 16</td>
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<td>20</td>
<td>26</td>
<td>100</td>
<td>16</td>
<td>-</td>
<td>-</td>
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<td>KM2016 NCM SS22 16</td>
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<td>28</td>
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</table>

Dimensions in mm

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### Spare parts

<table>
<thead>
<tr>
<th>Basic toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Blade</th>
</tr>
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<tbody>
<tr>
<td>KM16 NCM 1616 100</td>
<td>KM16-NSPKG</td>
<td>DT27PQ</td>
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<tr>
<td>KM2016 NCM SS2...</td>
<td>KM16-NAPKG</td>
<td>DT27PQ</td>
</tr>
</tbody>
</table>

---

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FLANGE

FLANGE Type

KM16

Basic toolholder for use with toolholder ...KM16...

KM16... no through coolant supply

KM2016... with through coolant supply

System Kennametal
KM16 Micro

<table>
<thead>
<tr>
<th>Part number</th>
<th>l</th>
<th>d</th>
<th>d₁</th>
<th>l₁</th>
<th>h</th>
<th>b</th>
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<tr>
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</table>

Spare parts

<table>
<thead>
<tr>
<th>Flange</th>
<th>Screw</th>
<th>TORX PLUS® Blade</th>
</tr>
</thead>
<tbody>
<tr>
<td>KM16NCMSF1928</td>
<td>KM16-NSPKG</td>
<td>DT27PQ</td>
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<tr>
<td>KM2016NCMSF2434</td>
<td>KM16-NAPKG</td>
<td>DT27PQ</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type

B105KM

with through coolant supply

Bore Ø from .008” (0.2 mm)

for use with Insert

Type 105 U105

System Kennametal KM16 Micro

Picture = right hand cutting version shown

Part number | d | l₁
--- | --- | ---
B105.KM16.90.01 | 20 | 17

Further sizes upon request

Dimensions in mm

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B105.KM16.90.01</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>
GROOVING and BORING

TOOLHOLDER Type B105KM
with through coolant supply

Bore Ø from .008" (0.2 mm)

Picture = right hand cutting version shown

for use with Insert

Type 105
U105

System Kennametal
KM16 Micro

Part number | d | I₁
---|---|---
B105.KM16.01 | 20 | 17

Further sizes upon request

Dimensions in mm

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B105.KM16.01</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type

**B105KM**

with through coolant supply

Adapter for inserts type 105 System KM

R = right hand version shown  L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>l₁</th>
<th>l₂</th>
<th>d₂</th>
<th>d₁</th>
<th>Remark</th>
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</thead>
<tbody>
<tr>
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<td>12</td>
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<td>KM40</td>
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</table>

State R or L version
Dimensions in mm

Further sizes upon request

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LB105.KM40.20.1.01</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type  B105KM

Adapter for inserts type 105 HORN-KM

for INDEX Multi spindle machines

![Diagram](image)

Picture = right hand cutting version shown

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>l₃</th>
<th>b₁</th>
<th>l₄</th>
<th>d₁</th>
<th>Type of machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>RB105.KM40.2.2.01</td>
<td>36</td>
<td>55</td>
<td>17</td>
<td>14</td>
<td>45</td>
<td>40</td>
<td>MS32</td>
</tr>
<tr>
<td>RB105.KM40.2.2.02</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RB105.KM50.2.2.01</td>
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<td>55</td>
<td>26</td>
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<td>45</td>
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<td>MS52</td>
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<tr>
<td>RB105.KM50.2.2.02</td>
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</tr>
</tbody>
</table>

Further sizes upon request

f, l₂ see inserts type 105

Dimensions in mm

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>RB105.KM...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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**BORING and PROFILING ≥ Ø .008”**

**INSERT Type 105**

Bore Ø from .008”

R = right hand version shown  L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>f</th>
<th>a</th>
<th>l₂</th>
<th>l₅</th>
<th>tₘₐₓ</th>
<th>Dₘᵢₙ</th>
<th>r</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L105.1802.02</td>
<td>.039</td>
<td>.007</td>
<td>.039</td>
<td>.906</td>
<td>.001</td>
<td>.008</td>
<td>.001</td>
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<tr>
<td>R/L105.1802.03</td>
<td>.039</td>
<td>.010</td>
<td>.039</td>
<td>.906</td>
<td>.001</td>
<td>.012</td>
<td>.001</td>
<td>B</td>
</tr>
<tr>
<td>R/L105.1802.05</td>
<td>.039</td>
<td>.016</td>
<td>.079</td>
<td>.906</td>
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<td>.020</td>
<td>.002</td>
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<td>.002</td>
<td>.028</td>
<td>.002</td>
<td>A</td>
</tr>
</tbody>
</table>

▲ on stock  △ 4 weeks
● main recommendation
○ alternative recommendation
◆ uncoated grades
■ coated grades
□ brazed/Cermet

Dimensions in inch

State R or L version

**Type**
- BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

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**BORING and PROFILING ≥ Ø .039”**

**INSERT Type 105**

Bore Ø from .039" for use with Toolholder

<table>
<thead>
<tr>
<th>Part number</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>l₂</th>
<th>l₅</th>
<th>tmax</th>
<th>Dmin</th>
<th>r</th>
<th>Carbide grades</th>
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<tbody>
<tr>
<td>R/L105.1805.005.0.1</td>
<td>.020</td>
<td>.035</td>
<td>.026</td>
<td>.157</td>
<td>.236</td>
<td>.315</td>
<td>.984</td>
<td>.004</td>
<td>.039</td>
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<tr>
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<td>.020</td>
<td>.035</td>
<td>.026</td>
<td>.157</td>
<td>.236</td>
<td>.315</td>
<td>.984</td>
<td>.004</td>
<td>.039</td>
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<tr>
<td>R/L105.1805.0.1</td>
<td>.051</td>
<td>.055</td>
<td>.043</td>
<td>.236</td>
<td>.354</td>
<td>.472</td>
<td>.984</td>
<td>.006</td>
<td>.059</td>
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<td>.984</td>
<td>.1.181</td>
<td>.006</td>
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<tr>
<td>R/L105.1813.005.0.15</td>
<td>.051</td>
<td>.055</td>
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<td>.354</td>
<td>.472</td>
<td>.984</td>
<td>.1.181</td>
<td>.006</td>
</tr>
</tbody>
</table>

- ▲ on stock  △ 4 weeks
- • main recommendation
- ○ alternative recommendation
- ■ uncoated grades
- □ coated grades
- ▴ brazed/Cermet

Dimensions in inch

State R or L version

---

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**BORING and PROFILING ≥ Ø 0.079”**

**INSERT Type 105**

<table>
<thead>
<tr>
<th>Part number</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>l₂</th>
<th>l₅</th>
<th>t_max</th>
<th>D_min</th>
<th>r</th>
<th>MG12</th>
<th>TN35</th>
<th>TG6</th>
<th>TF45</th>
<th>TH65</th>
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- ▲ on stock  △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ■ uncoated grades
- ▲ coated grades
- ▲ brazed/Cermet

Dimensions in inch

State R or L version

R = right hand version shown  L = left hand version

**Type**  BU105  B105  B105C  B105KM  BKT  H105  HC105  VDI

In the UNITED STATES call us toll free 1 - 888 - 818 HORN

A58
BORING and PROFILING ≥ Ø .118”

**INSERT Type 105**

Bore Ø from .118”

---

**Part number**

| Part number       | f  | a  | d   | l₂  | l₃  | tₘₐₓ | Dₘᵢₙ | r   | MG12 | TN35 | TC5 | TF45 | TH55 |
|-------------------|----|----|-----|-----|-----|------|------|-----|------|------|-----|-----|------|------|
| R/L105.1813.005.1.3 | .051 | .102 | .091 | .394 |  1.811 | .006 | .118 | .002 |      |      |    |     |      |
| R/L105.1813.005.2.3 | .051 | .102 | .091 | .391 |  1.811 | .006 | .118 | .004 |      |      |    |     |      |
| R/L105.1813.005.3.3 | .051 | .102 | .091 | .394 |  1.811 | .006 | .118 | .008 |      |      |    |     |      |
| R/L105.1813.01.1.3  | .051 | .102 | .091 | .394 |  1.811 | .006 | .118 | .008 |      |      |    |     |      |
| R/L105.1813.01.2.3  | .051 | .102 | .091 | .394 |  1.811 | .006 | .118 | .008 |      |      |    |     |      |
| R/L105.1813.01.3.3  | .051 | .102 | .091 | .394 |  1.811 | .006 | .118 | .008 |      |      |    |     |      |
| R/L105.1819.005.1.4 | .075 | .146 | .114 | .394 |  1.811 | .012 | .157 | .002 |      |      |    |     |      |
| R/L105.1819.005.2.4 | .075 | .146 | .114 | .394 |  1.811 | .012 | .157 | .008 |      |      |    |     |      |
| R/L105.1819.005.3.4 | .075 | .146 | .114 | .394 |  1.811 | .012 | .157 | .008 |      |      |    |     |      |

- ▲ on stock △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- □ uncoated grades
- △ coated grades
- ▼ brazed/Cermet

Dimensions in inch

State R or L version

---

for use with Toolholder

Type
- BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
### BORING and PROFILING ≥ Ø .197"

#### INSERT Type

**105**

**Dimensions in inch**

- Carbide grades
- State R or L version

<table>
<thead>
<tr>
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<th>d</th>
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<th>$l_5$</th>
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- ▲ on stock
- △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- □ uncoated grades
- ◼ coated grades
- ◓ brazed/Cermet

Dimensions in inch

State R or L version

---

**for use with Toolholder**

Type
- BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

**Bore Ø from** .197" for use with Toolholder

- Type BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

**INSERT Type 105**

**BORING and PROFILING ≥ Ø .197”**

**Dimensions in inch**

- Carbide grades
- State R or L version

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<td>H</td>
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**In the UNITED STATES call us toll free**

1 - 888 - 818 HORN
## INSERT Type

### 105

Bore Ø from 0.236" for use with Toolholder

| Part number         | f   | a   | d   | l₂   | l₅   | tₘₐₓ | Dₘᵢₙ | r | MG12 | TN35 | TC5 | TF45 | TH55 |
|---------------------|-----|-----|-----|------|------|------|------|---|-----|------|-----|-----|------|------|
| R/L105.1833.005.2.6 |
| R/L105.1833.005.3.6 |
| R/L105.1833.005.4.6 |
| R/L105.1833.005.5.6 |
| .130               | .224| .185|     | .591 | 1.181| .020 | .236 | .002|
| R/L105.1833.2.6    |
| R/L105.1833.3.6    |
| R/L105.1833.4.6    |
| R/L105.1833.5.6    |
| .130               | .224| .185|     | .591 | 1.181| .020 | .236 | .008|
| R/L105.1840.005.3.7 |
| R/L105.1840.005.4.7 |
| R/L105.1840.005.5.7 |
| .157               | .252| .205|     | .787 | 1.378| .020 | .268 | .002|
| R/L105.1840.3.7    |
| R/L105.1840.4.7    |
| R/L105.1840.5.7    |
| .157               | .252| .205|     | .787 | 1.378| .020 | .268 | .008|

- ▲ on stock  Δ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- [ ] uncoated grades
- [ ] coated grades
- [ ] brazed/Cermet

Dimensions in inch

State R or L version

▲ on stock  Δ 4 weeks
● main recommendation
○ alternative recommendation
[ ] uncoated grades
[ ] coated grades
[ ] brazed/Cermet

Carbide grades

In the UNITED STATES call us toll free 1-888-818 HORN
**BORING and PROFILING ≥ Ø .157”**

**INSERT Type**

**105**

Bore Ø from .157" for use with Toolholder

Type BU105
B105
B105C
B105KM
BKT
H105
HC105
VDI

R = right hand version shown  L = left hand version

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<th>l₅</th>
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▲ on stock  △ 4 weeks
● main recommendation
ο alternative recommendation
■ uncoated grades
■ coated grades
■ brazed/Cermet

Dimensions in inch
State R or L version

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
BORING and PROFILING ≥ Ø .157"

### INSERT Type

**Type 105**

Bore Ø from: .157"

![Diagram of insert type 105]

- **R** = right hand version shown
- **L** = left hand version

For use with Toolholder

**Type** BU105

- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

---

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</tbody>
</table>

- **▲** on stock  △ 4 weeks
- • main recommendation
- ○ alternative recommendation
- [] uncoated grades
- [] coated grades
- [] brazed/Cermet

Dimensions in inch

State R or L version

---

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
### BORING and PROFILING ≥ Ø .157”

**INSERT Type**  
**105**

Bore Ø from .157”

---

**Type**  
BU105  
B105  
B105C  
B105KM  
BKT  
H105  
HC105  
VD1

---

**Dimensions in inch**  
 Carbide grades

**State R or L version**

---

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<tr>
<th>Part number</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>l2</th>
<th>l5</th>
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\[\text{▲ on stock} \quad \Delta 4 \text{ weeks}\]

• main recommendation  
ο alternative recommendation

---

**Carbide grades**

- MG12  
- TN10  
- TC5  
- TF45  
- TH55

---

In the UNITED STATES call us toll free  
1 - 888 - 818 HORN

---

A64
BORING and PROFILING ≥ Ø .157”

**INSERT Type 105**

Bore Ø from 0.157”

---

**Dimensions in inch**

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**R/L 105.4719.1.4**

- f: 0.075
- a: 0.146
- d: 0.114
- l₂: 0.394
- l₆: 0.984
- t_max: 0.024
- D_min: 0.157
- r: 0.06

**R/L 105.4719.3.4**

- f: 0.091
- a: 0.185
- d: 0.146
- l₂: 0.591
- l₆: 1.181
- t_max: 0.031
- D_min: 0.197
- r: 0.06

**R/L 105.4723.2.5**

- f: 0.130
- a: 0.224
- d: 0.146
- l₂: 0.787
- l₆: 1.378
- t_max: 0.071
- D_min: 0.236
- r: 0.06

R = right hand version shown
L = left hand version

**Part number**

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- ▲ on stock
- ▲ 4 weeks
- ● main recommendation
- o alternative recommendation
- □ uncoated grades
- □ coated grades
- □ brazed/Cermet

**Type**

- BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

**Boring and Profiling ≥ Ø .157”**

**INSERT Type 105**

for use with Toolholder

**Type**

- BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

---

Dimensions in inch

State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN

A65
BORING and PROFILING ≥ Ø .157"  

**INSERT Type**  

105  
reinforced version  

Bore Ø from .157"  

for use with Toolholder  

Type  BU105  
B105  
B105C  
B105KM  
BKT  
H105  
HC105  
VDI  

R = right hand version shown  
L = left hand version  

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▲ on stock  
Δ 4 weeks  
○ main recommendation  
Ο alternative recommendation  
■ uncoated grades  
□ coated grades  
▲ brazed/Cermet  

Dimensions in inch  

State R or L version  

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
**BORING and PROFILING ≥ Ø .197”**

**INSERT Type 105**
reinforced version

Bore Ø from .197”

for use with Toolholder

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▲ on stock △ 4 weeks
● main recommendation ○ alternative recommendation
■ uncoated grades ■ coated grades ■ brazed/Cermet

Dimensions in inch
State R or L version

R = right hand version shown
L = left hand version

Type BU105
B105
B105C
B105KM
BKT
H105
HC105
VDI

In the UNITED STATES call us toll free
1-888-818 HORN
### INSERT Type

**105**

reinforced version

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- **Dimensions in inch**
- **Carbide grades**
- **State R or L version**

**R** = right hand version shown  
**L** = left hand version

**R/L105.1033.1.6**  
**R/L105.1033.2.6**  
**R/L105.1033.3.6**  
**R/L105.1033.4.6**  
**R/L105.1033.5.6**  
**R/L105.1033.6.6**

**Carbide grades**

- ▲ on stock  
- Δ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- □ uncoated grades
- □□ coated grades
- □□□ brazed/Cermet

**BORING and PROFILING ≥ Ø .236”**

**INSERT Type 105**

Reinforced version

Bore Ø from .236”

for use with Toolholder

**Type**
- BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

**In the UNITED STATES call us toll free**
1 - 888 - 818 HORN
BORING and PROFILING ≥ Ø .268”

**INSERT Type 105**

reinforced version

Bore Ø from .268”

for use with Toolholder

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▲ on stock △ 4 weeks
● main recommendation
ο alternative recommendation

uncoated grades coated grades brazed/Cermet

Dimensions in inch

State R or L version

In the UNITED STATES call us toll free 1 - 888 - 818 HORN

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R = right hand version shown  L = left hand version
**BORING and PROFILING ≥ Ø .118”**

**INSERT Type 105**

Bore Ø from .118”

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R = right hand version shown      
L = left hand version

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▲ on stock  △ 4 weeks
● main recommendation
ο alternative recommendation
[[uncoated grades]
[[coated grades]
[[ brazed/Cermet]

Dimensions in inch

State R or L version

---

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
BORING and PROFILING ≥ Ø .197”

INSERT Type 105

for use with Toolholder

Type  BU105
B105
B105C
B105KM
BKT
H105
HC105
VDI

R = right hand version shown  L = left hand version

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- ▲ on stock  △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- uncoated grades
- coated grades
- brazed/Cermet

Dimensions in inch

State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
# HARD BORING

## INSERT Type 105

![Diagram of INSERT Type 105](image)

Bore Ø from .118"

### For use with Toolholder

- **Type**: BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

---

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- ▲ on stock ▲ 4 weeks
- ● main recommendation
- ○ alternative recommendation

- ▲ uncoated grades
- ▲ coated grades
- ▲ brazed/Cermet

Dimensions in inch

---

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
## BACKBORING (internal)

**INSERT Type 105**

**Bore Ø from** .118"

**for use with Toolholder**

- **Type BU105**
- **B105**
- **B105C**
- **B105KM**
- **BKT**
- **H105**
- **HC105**
- **VDI**

**R = right hand version shown**  
**L = left hand version**

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- ▲ on stock  
- ▲ 4 weeks  
- ● main recommendation  
- ○ alternative recommendation  
- ■ uncoated grades  
- ♦ coated grades  
- ♠ brazed/Cermet  

Dimensions in inch  

State R or L version

---

**In the UNITED STATES call us toll free**  
1 - 888 - 818 HORN

A73
## INSERT Type 105

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- ▲: on stock
- △: 4 weeks
- ○: main recommendation
- ▼: alternative recommendation
- □: uncoated grades
- ■: coated grades
- ▲: brazed/Cermet

Dimensions in inch

State R or L version

R = right hand version shown  L = left hand version

**BORING, PROFILING and CHAMFERING**

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
PREGROOVING and CHAMFERING

**INSERT Type**

**105**

Bore Ø from .197"

---

**for use with Toolholder**

Type
- BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

R = right hand version shown  
L = left hand version

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▲ on stock  
Δ 4 weeks

- P = main recommendation
- M = alternative recommendation
- S = uncoated grades
- K = coated grades
- N = brazed/Cermet

Dimensions in inch

State R or L version

---

In the UNITED STATES call us toll free  
1 - 888 - 818 HORN

---

A75
GROOVING (internal) ≥ Ø .079”

INSERT Type 105

Bore Ø from .079”
Depth of groove up to .016”

for use with Toolholder

Type BU105
B105
B105C
B105KM
BKT
H105
HC105
VDI

R = right hand version shown
L = left hand version

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▲ on stock ▲ 4 weeks
● main recommendation
ο alternative recommendation
□ uncoated grades
■ coated grades
□ brazed/Cermet

Dimensions in inch
State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
GROOVING (internal) ≥ Ø .118”

INSERT Type 105

Bore Ø from .118”
Depth of groove up to .024”

for use with Toolholder

Type BU105
B105
B105C
B105KM
BKT
H105
HC105
VDI

R = right hand version shown
L = left hand version

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▲ on stock △ 4 weeks
* main recommendation
ο alternative recommendation
uncoated grades
coated grades
brazed/Cermet

Dimensions in inch

State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN

A77
GROOVING (internal) ≥ Ø .157”

**INSERT Type**

**105**

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▲ on stock △ 4 weeks
● main recommendation
ο alternative recommendation
■ uncoated grades
■ coated grades
■ brazed/Cermet

Dimensions in inch

State R or L version

for use with Toolholder

Type BU105
B105
B105C
B105KM
BKT
H105
HC105
VDI

R = right hand version shown
L = left hand version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
GROOVING (internal) ≥ Ø .157”

INSERT Type

U105

Bore Ø from

Depth of groove up to

for use with Toolholder

Type    BU105
        B105
        B105C
        B105KM
        BKT
        H105
        HC105
        VDI

R = right hand version shown   L = left hand version

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▲ on stock   □ on stock after 4 weeks

• main recommendation

ο alternative recommendation

uncoated grades

coated grades

brazed/Cermet

Dimensions in inch

State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN

A79
GROOVING (internal) ≥ Ø .197"
## GROOVING (internal) ≥ Ø .197"

**INSERT Type**

**U105**

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- **w**: Bore Ø from
- **f**: Depth of groove up to

---

**Type**

- BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

---

**Dimensions in Inch Carbide Grades**

- **MG12**
- **TN15**
- **TD25**
- **TF45**
- **TH55**

---

**R** = right hand version shown

**L** = left hand version

---

**In the United States call us toll free**
1-888-818-HORN

---

**GROOVING (internal) ≥ Ø .197”**

---

**part number**

- **w**: Bore Ø from
- **f**: Depth of groove up to

---

**Type BU105**

- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

---

**Part number**

- **R/LU105.0031.1.5**
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- **R/LU105.0062.5.5**
- **R/LU105.0078.5.5**

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**on stock**

- **Δ** 4 weeks

**State R or L version**

- **P**: main recommendation
- **M**: alternative recommendation
- **S**: uncoated grades
- **N**: coated grades
- **H**: brazed/Cermet
GROOVING (internal) ≥ Ø .236”

INSERT Type 105

Bore Ø from .236"
Depth of groove up to .071"

for use with Toolholder

Type BU105
B105
B105C
B105KM
BKT
H105
HC105
VDI

R = right hand version shown      L = left hand version

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▲ on stock      Δ 4 weeks
● main recommendation
ο alternative recommendation
 ██ uncoated grades
 ██ coated grades
██ brazed/Cermet

Dimensions in inch

State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN

A82
GROOVING (internal) ≥ Ø .236”

**INSERT Type**

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**Carbide grades**

- P
- M
- K
- S
- N
- H

Dimensions in inch

State R or L version

R = right hand version shown
L = left hand version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
**GROOVING (internal) ≥ Ø .268”**

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▲ on stock △ 4 weeks
● main recommendation
ο alternative recommendation
■ uncoated grades
■ coated grades
■ brazed/Cermet

Dimensions in inch

State R or L version

**Type**

- BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

**In the UNITED STATES call us toll free**

1 - 888 - 818 HORN

**A84**
GROOVING (internal) ≥ Ø .268"

INSERT Type  

**U105**

Bore Ø from  
Depth of groove up to  

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▲ on stock  △ 4 weeks  
● main recommendation  ○ alternative recommendation  
■ uncoated grades  □ coated grades  ▪ brazed/Cermet  

Dimensions in inch

Carbide grades

In the UNITED STATES call us toll free  1 - 888 - 818 HORN

A85
## INSERT Type

**U105**

Bore Ø from 0.197" to 0.039"

---

### Dimensions in inch

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- ▲ on stock  △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ▉ uncoated grades
- ▌ coated grades
- ▍ brazed/Cermet

State R or L version

---

**Type BU105**

- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

---

**with corner radius**

---

** INSERT Type U105**

- for use with Toolholder

---

In the UNITED STATES call us toll free
1-888-818-HORN
# Grooving (internal) ≥ Ø .236”

## Insert Type

**U105**

| Part number | w  | f   | a  | d  | l₂  | l₅  | tₘₐₓ | Dₘᵟₓ | r   | MG12 | TN15 | TC25 | TF45 | TH55 |
|-------------|----|-----|----|----|-----|-----|-------|-------|-----|------|------|------|------|------|------|
| R/LU105.4604.1.6 | .046 | .130 | .224 | .146 | .394 | .984 | .071 | .236 | .004 | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ |
| R/LU105.6204.1.6 | .062 | .130 | .224 | .146 | .394 | .984 | .071 | .236 | .004 | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ |
| R/LU105.7804.1.6 | .078 | .130 | .224 | .146 | .394 | .984 | .071 | .236 | .004 | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ |
| R/LU105.4604.3.6 | .046 | .130 | .224 | .146 | .787 | 1.378 | .071 | .236 | .004 | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ |
| R/LU105.6204.3.6 | .062 | .130 | .224 | .146 | .787 | 1.378 | .071 | .236 | .004 | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ |
| R/LU105.7804.3.6 | .078 | .130 | .224 | .146 | .787 | 1.378 | .071 | .236 | .004 | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ |
| R/LU105.4604.5.6 | .046 | .130 | .224 | .146 | 1.181 | 1.772 | .071 | .236 | .004 | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ |
| R/LU105.6204.5.6 | .062 | .130 | .224 | .146 | 1.181 | 1.772 | .071 | .236 | .004 | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ |
| R/LU105.7804.5.6 | .078 | .130 | .224 | .146 | 1.181 | 1.772 | .071 | .236 | .004 | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ |
| R/LU105.7808.5.6 | .078 | .130 | .224 | .146 | 1.181 | 1.772 | .071 | .236 | .008 | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ |

- ▲ on stock  △ 4 weeks
- • main recommendation
- ○ alternative recommendation
- □ uncoated grades
- □ coated grades
- □ brazed/Cermet

**Dimensions in inch**

**State R or L version**

**For use with Toolholder**

- Type BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

**Bore Ø from**

**Depth of groove up to**

- 0.236”
- 0.071”

**In the United States call us toll free**

1-888-818 HORN
**INSERT Type**

**U105**

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▲ on stock  △ 4 weeks
● main recommendation
○ alternative recommendation

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Dimensions in inch

**CARBIDE grades**

**In the UNITED STATES call us toll free**

1 - 888 - 818 HORN
GROOVING (internal) ≥ Ø .268"

INSERT Type

**U105**

Bore Ø from
Depth of groove up to .268" .098"

R = right hand version shown
L = left hand version

for use with Toolholder

Type
- BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

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<th>tₚ</th>
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▲ on stock △ 4 weeks
● main recommendation
ο alternative recommendation
■ uncoated grades
■■ coated grades
■■■ brazed/Cermet
Dimensions in inch

State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN

Carbide grades
GROOVING (internal) ≥ Ø .157”

INSERT Type

R/L 105

Bore Ø from
Full radius
r .020 - .039”

for use with Toolholder

Type
BU105
B105
B105C
B105KM
BKT
H105
HC105
VDI

R = right hand version shown  L = left hand version

### Part number

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▲ on stock  △ 4 weeks
● main recommendation
ο alternative recommendation
uncoated grades
carbo-coated grades
brazed/Cermet

Dimensions in inch

State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
BORING and PROFILING ≥ Ø .157”

**INSERT Type**

**U105**

Bore Ø from
Full radius .157”
r .023 -.039”

for use with Toolholder

Type BU105
B105
B105C
B105KM
BKT
H105
HC105
VDI

R = right hand version shown  L = left hand version

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<tr>
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▲ on stock  Δ 4 weeks
● main recommendation
ο alternative recommendation
■ uncoated grades
■ coated grades
■ brazed/Cermet

Dimensions in inch

State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN

BORING and PROFILING ≥ Ø .157”
THREADING (internal) Partial profile

INSERT Type 105

Bore Ø from .118" (3.0 mm)
Pitch P 0.25 mm

for use with Toolholder

Type
- BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

Dimensions in mm

Part number | P | E | f | a | d | l₂ | l₃ | Dₘᵟₙ | MG12 | TN15 | TD25 | TF45 | TH45
---|---|---|---|---|---|---|---|---|---|---|---|---|---
R/L105.0102.2.3 | 0.25 | 0.3 | 1.4 | 2.7 | 2.2 | 15 | 30 | 3 | ▲ | □ | □ | □ | □

▲ on stock △ 4 weeks
● main recommendation
○ alternative recommendation

---

Carbide grades

---

A92
THREADING (internal) Partial profile

INSERT Type 105

Bore Ø from .118" (3.0 mm)
Pitch P 0.35 mm

for use with Toolholder

Type BU105
B105
B105C
B105KM
BKT
H105
HC105
VDI

R = right hand version shown  L = left hand version

Part number | P  | E  | f  | a  | d  | l2  | l3  | Dmin |
--- | --- | --- | --- | --- | --- | --- | --- | --- |
R/L105.0203.1.3 | 0.35 | 0.3 | 1.4 | 2.7 | 2.1 | 10  | 25  | 3    |
R/L105.0203.2.5 | 0.35 | 0.3 | 2.3 | 4.7 | 3.5 | 15  | 30  | 5    |

▲ on stock  △ 4 weeks
● main recommendation
○ alternative recommendation
■ uncoated grades
■■ coated grades
■■■ brazed/Cermet

Dimensions in mm

State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
THREADING (internal) Partial profile

INSERT Type 105

Bore Ø from .118° (3.0 mm)
Pitch P 0.50 mm

for use with Toolholder

Type BU105
B105
B105C
B105KM
BKT
H105
HC105
VDI

R = right hand version shown  L = left hand version

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▲ on stock  △ 4 weeks
● main recommendation
ο alternative recommendation
■ uncoated grades
□ coated grades
██ brazed/Cermet

Dimensions in mm
State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
### INSERT Type 105

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- ▲ on stock △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- uncoated grades
- coated grades
- brazed/Cermet

Dimensions in mm

State R or L version

---

**FOR USE WITH TOOLHOLDER**

Type
- BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

**Metric ISO thread**

**In the UNITED STATES call us toll free**
1 - 888 - 818 HORN
THREADING (internal) Partial profile

INSERT Type 105

Bore Ø from .189" (4.8 mm)
Pitch P 1.00 - 1.50 mm

for use with Toolholder

Type BU105
B105
B105C
B105KM
BKT
H105
HC105
VDI

R = right hand version shown
L = left hand version

Part number | P | E | f | a | d | I₂ | I₅ | Dₘᵡₐᵲₜ
---|---|---|---|---|---|---|---|---
R/L105.0510.25 | 1.00 | 0.55 | 2.1 | 4.5 | 3.5 | 15 | 20 | 30
R/L105.0510.35 | 1.00 | 0.55 | 2.1 | 4.5 | 3.5 | 15 | 20 | 30
R/L105.0510.45 | 1.00 | 0.55 | 3.3 | 5.7 | 3.7 | 15 | 20 | 30
R/L105.0513.26 | 1.00 | 0.55 | 3.3 | 5.7 | 3.7 | 15 | 20 | 30
R/L105.0513.36 | 1.50 | 0.75 | 4.0 | 6.4 | 3.7 | 15 | 20 | 30
R/L105.0513.46 | 1.50 | 0.75 | 4.0 | 6.4 | 3.7 | 15 | 20 | 30

▲ on stock  △ 4 weeks
● main recommendation
○ alternative recommendation
[[ uncoated grades
[[ coated grades
[[ brazed/Cermet

Dimensions in mm
State R or L version

Carbide grades

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
THREADING (internal) Partial profile

**INSERT Type 105**

Bore Ø from Threads per inch

- R = right hand version shown
- L = left hand version

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<th>Part number</th>
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<th>f</th>
<th>a</th>
<th>d</th>
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<th>I₅</th>
<th>Dₘₘₙ</th>
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- ▲ on stock △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ▲ uncoated grades
- △ coated grades
- □ brazed/Cermet

Dimensions in inch Carbide grades

**Type** BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

For use with Toolholder

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
**THREADING (internal) Full profile**

**INSERT Type 105**

**Bore Ø from**

*0.094" (2.4 mm)*

**Pitch**

*P 0.50 - 1.25 mm*

---

**for use with Toolholder**

**Type**

- BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

---

**Part number**

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- **▲ on stock**  
- **Δ 4 weeks**  
- ● main recommendation  
- ○ alternative recommendation

---

**Dimensions in mm**

State R or L version

---

**Metric ISO thread**

**In the UNITED STATES call us toll free**

1 - 888 - 818 HORN
THREADING (internal) Partial profile

INSERT Type 105

Bore Ø from Threads per inch
.236″ 18 - 27

for use with Toolholder

Type BU105
B105
B105C
B105KM
BKT
H105
HC105
VDI

R = right hand version shown  L = left hand version

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▲ on stock △ 4 weeks
● main recommendation
ο alternative recommendation

Dimensions in inch

State R or L version
### INSERT Type 105

**Whitworth thread**

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**Dimensions in inch**

**Carbide grades**

- MG12
- TN35
- TI25
- TF45
- TH55

**For use with Toolholder**

**Type BU105**
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

**Thread BSW/BSF**

- R = right hand version shown

#### Part number

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<th>Part number</th>
<th>Threads per Inch</th>
<th>E</th>
<th>f</th>
<th>a</th>
<th>d</th>
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<th>I₅</th>
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- ▲ on stock
- △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- □ uncoated grades
- □□ coated grades
- □□□ brazed/Cermet

**In the UNITED STATES call us toll free**

1 - 888 - 818 HORN
THREADING (internal) Full profile

INSERT Type 105
Whitworth thread

Bore Ø from
Threads per inch

.197" 19 - 28

for use with Toolholder

Type BU105
B105
B105C
B105KM
BKT
H105
HC105
VDI

Thread BSW/BSF

Part number Threads per Inch E f a d I₂ I₅ Dₘ₃ M12 TN5 T25 T45 TH55
R/L105.5524.2.5 24 .031 .091 .185 .138 .591 1.181 .197
R/L105.5526.2.5 26 .031 .091 .185 .138 .591 1.181 .197
R/L105.5528.2.5 28 .031 .091 .185 .138 .591 1.181 .197
R/L105.5524.2.6 24 .031 .130 .224 .146 .591 1.181 .236
R/L105.5526.2.6 26 .031 .130 .224 .146 .591 1.181 .236
R/L105.5528.2.6 28 .031 .130 .224 .146 .591 1.181 .236
R/L105.5519.2.6 19 .039 .130 .224 .146 .591 1.181 .236
R/L105.5520.2.6 20 .039 .130 .224 .146 .591 1.181 .236
R/L105.5522.2.6 22 .039 .130 .224 .146 .591 1.181 .236

▲ on stock △ 4 weeks
● main recommendation
○ alternative recommendation
■ uncoated grades
□ coated grades
◆ brazed/Cermet

Dimensions in inch

State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN

Carbide grades

This page has been electronically modified
THREADING (internal) Partial profile

INSERT Type  U105

Bore Ø from Threads per inch

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▲ on stock  △ 4 weeks
• main recommendation
ο alternative recommendation
■ uncoated grades
□ coated grades
■ brazed/Cermet

Dimensions in inch

State R or L version

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
### THREADING (internal) Partial profile

**INSERT Type**

**U105**

**Bore Ø from**

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**for use with Toolholder**

**Type**
- BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

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</tbody>
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- ▲ on stock
- △ 4 weeks
- * main recommendation
- o alternative recommendation
- Carbide grades
- Dimensions in inch
- State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
# FACE GROOVING

## INSERT Type 105

| Part number | w  | f  | l₂ | l₉  | tₘₐₓ a | Dₐₘᵢₙ | r   | MG12 | TN15 | TC25 | TF45 | TH55 |
|-------------|----|----|----|-----|---------|--------|-----|------|------|------|------|------|------|
| R/L105.0510.1.8 | .039 | .079 | .394 | .984 | .079    | .197   | .002 |      |      |      |      |      |
| R/L105.0515.1.8 | .059 | .079 | .394 | .984 | .118    | .197   |      |      |      |      |      |      |
| R/L105.0520.1.8 | .079 | .079 | .394 | .984 | .197    |        |      |      |      |      |      |      |
| R/L105.0510.2.8 | .039 | .079 | .591 | 1.378 | .079    | .197   | .002 |      |      |      |      |      |
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- ▲ on stock  Δ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ■ uncoated grades
- □ coated grades
- ▢ brazed/Cermet

Dimensions in inch

State R or L version

In the UNITED STATES call us toll free 1-888-818-HORN

**R** = right hand version shown  **L** = left hand version

for use with Toolholder

Type BU105
B105
B105C
B105KM
BKT
H105
HC105
VDI
FACE GROOVING

INSERT Type 105

from outer groove Ø .236"
Depth of groove up to .197"
Width of groove up to .079"

for use with Toolholder

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▲ on stock  Δ 4 weeks
● main recommendation
ο alternative recommendation
■ uncoated grades
□ coated grades
★ brazed/Cermet

Dimensions in inch

State R or L version

R = right hand version shown  L = left hand version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
## FACE GROOVING

### INSERT Type 105

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**Dimensions in inch**

- from outer groove Ø
- Depth of groove up to .315"
- Width of groove up to .118"

**R/L = right hand version shown, L = left hand version**

**Type BU105**
- B105
- B105C
- B105KM
- BK7
- H105
- HC105
- VDI

**Carbide grades**

- Carbide grades
- Brazed/Cermet
- Uncoated grades
- Coated grades

**In the UNITED STATES call us toll free**

1-888-818 HORN
## FACE GROOVING

### INSERT Type

#### U105

- **Dimensions in inch**
  - Carbide grades

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- **▲ on stock**
- ▲ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- Carbide grades

**State R or L version**

- R = right hand version shown
- L = left hand version

---

For use with Toolholder:

- Type BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

---

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### FACE GROOVING

**INSERT Type**

**U105**

- **from outer groove Ø:** .315"
- **Depth of groove up to:** .236"
- **Width of groove up to:** .125"

---

**for use with Toolholder**

- **Type BU105**
- **B105**
- **B105C**
- **B105KM**
- **BKT**
- **H105**
- **HC105**
- **VDI**

---

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- ▲ on stock  △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ▢ uncoated grades
- □ coated grades
- ■ brazed/Cermet

Dimensions in inch

State R or L version

---

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---

A108
# FACE GROOVING

## INSERT Type 105

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| R = right hand version shown | L = left hand version |

- ▲ on stock  △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- □ uncoated grades
- ● coated grades
- □ brazed/Cermet

Dimensions in inch

State R or L version

---

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A109
## FACE GROOVING

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- **\( \Delta \)** on stock  \( \Delta 4 \) weeks
- ● main recommendation
- ○ alternative recommendation
- ▲ uncoated grades
- ▲ coated grades
- ▲ brazed/Cermet

Dimensions in inch

State R or L version

---

R = right hand version shown
L = left hand version

---

for use with Toolholder

Type  BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

---

In the UNITED STATES call us toll free
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### CHAMFERING

#### INSERT Type 105

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- ▲ on stock ❄ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ⬇️ uncoated grades
- ⬆️ coated grades
- ☢️ brazed/Cermet

Dimensions in inch

State R or L version

For use with Toolholder

- Type BU105
- B105
- B105C
- B105KM
- BKT
- H105
- HC105
- VDI

In the UNITED STATES call us toll free
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**FACE GROOVING**

**TOOLHOLDER Type BU105**

with through coolant supply

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<th>h</th>
<th>( l_3 )</th>
<th>( l_4 )</th>
</tr>
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<tbody>
<tr>
<td>R/LBU105.0625.12.2</td>
<td>.625</td>
<td>3.347</td>
<td>.546</td>
<td>2.480</td>
<td>1.969</td>
</tr>
<tr>
<td>R/LBU105.0750.12.2</td>
<td>.750</td>
<td>3.937</td>
<td>.671</td>
<td>-</td>
<td>2.165</td>
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<tr>
<td>R/LBU105.1000.12.2</td>
<td>1.000</td>
<td>-</td>
<td>.921</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

State R or L version

Dimensions in inch

Further sizes upon request

L = left hand version shown  R = right hand version

**Clamping length 22 mm**

**for use with Insert**

Type A105

only usable for inserts with extended clamping length

**Spare parts**

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LBU105...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

A112
FACE GROOVING

TOOLHOLDER Type

B105
with through coolant supply

from outer groove Ø .394" (10.0 mm)
Depth of groove up to .591" (15.0 mm)
Width of groove up to .118" (3.0 mm)

Clamping length 22 mm

for use with Insert

Type A105

only usable for inserts with extended clamping length

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>h</th>
<th>l₃</th>
<th>l₄</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LB105.0016.12.2</td>
<td>16</td>
<td>85</td>
<td>14</td>
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<tr>
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<td>100</td>
<td>18</td>
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<td>55</td>
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</tbody>
</table>

State R or L version

Further sizes upon request

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LB105.00...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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FACE GROOVING

INSERT Type

A105

from outer groove Ø .394"
Depth of groove up to .591"
Width of groove up to .118"

for use with Toolholder

Type BU105...12.2
    B105...12.2

L = left hand version shown   R = right hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>f</th>
<th>Iₙ</th>
<th>tₘₐₓ a</th>
<th>Dₐₘᵢₙ</th>
<th>r</th>
<th>MG12</th>
<th>TN15</th>
<th>TG25</th>
<th>TF45</th>
<th>TH85</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LA105.1020.2.2</td>
<td>.079</td>
<td>.055</td>
<td>1.575</td>
<td>.591</td>
<td>.394</td>
<td>.004</td>
<td>A/A</td>
<td>A/A</td>
<td>A/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R/LA105.1025.2.2</td>
<td>.098</td>
<td>.063</td>
<td>1.575</td>
<td>.591</td>
<td>.394</td>
<td>.004</td>
<td>A/A</td>
<td>A/A</td>
<td>A/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R/LA105.1030.2.2</td>
<td>.118</td>
<td>.075</td>
<td>1.575</td>
<td>.591</td>
<td>.394</td>
<td>.004</td>
<td>A/A</td>
<td>A/A</td>
<td>A/A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

▲ on stock   △ 4 weeks   ● main recommendation   ○ alternative recommendation

uncoated grades
coated grades
brazed/Cermet

Dimensions in inch

State R or L version

Note:
Use insert RA105 in toolholder RB105
Use insert LA105 in toolholder LB105

Face grooving with full width of the full depth only possible between Dₐₘᵢₙ .394" - 1.575"!
GROOVE MILLING by circular interpolation

Groove milling with System 275 from Cutting edge Ø

Ø 1.221” (31.0 mm)

Example:
Milling cutter M275.0078.A32.14
Cutting edge Ø 3.071” (78.0 mm)

For further information, please see HORN catalog "CARBIDE MILLING TOOLS".


**TOOLHOLDER Type**

**BU105...02**  
with through coolant supply

**Bore Ø from** .197"  

for use with Insert

**Type** 105...2

![Picture = right hand cutting version shown](image)

only usable for inserts with extended clamping length

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>h</th>
<th>l₄</th>
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</thead>
<tbody>
<tr>
<td>BU105.0500.02</td>
<td>.500</td>
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<tr>
<td>BU105.0625.02</td>
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<td>3.346</td>
<td>.551</td>
<td>1.969</td>
</tr>
<tr>
<td>BU105.0750.02</td>
<td>.750</td>
<td>3.937</td>
<td>.709</td>
<td>2.165</td>
</tr>
</tbody>
</table>

Further sizes upon request  
Dimensions in inch

---

**Spare parts**

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>BU105.0...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

---

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A116
TOOLHOLDER Type

B105...02
with through coolant supply

Bore Ø from .472" (12.0 mm)

for use with Insert Type 105...2

Part number | d | l₁ | h | l₄
---|---:|---:|---:|---:|
B105.0012.02 | 12 | 85 | 11 | 50
B105.0016.02 | 16 | 85 | 14 | 50
B105.0020.02 | 20 | 100 | 18 | 55
B105.0022.02 | 22 | 100 | 20 | 55

Further sizes upon request

Dimensions in mm

Ordering note:
Toolholders can be used with right and left hand inserts.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B105.00...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

Picture = right hand cutting version shown

only usable for inserts with extended clamping length

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GROOVING and BORING

TOOLHOLDER Type

B105C
with through coolant supply

Adapter for inserts type 105 HORN-Capto

Clamping length 22 mm

L = left hand version shown
R = right hand version

for use with Insert

Type 105...2

only usable for inserts with
extended clamping length

Part number

<table>
<thead>
<tr>
<th>Part number</th>
<th>l₁</th>
<th>l₂</th>
<th>d₂</th>
<th>d₁</th>
<th>Remark</th>
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</thead>
<tbody>
<tr>
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<td>40</td>
<td>C4</td>
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<tr>
<td>R/LB105.00C6.20.1.02</td>
<td>52</td>
<td>22</td>
<td>20</td>
<td>63</td>
<td>C6</td>
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</table>

State R or L version

Dimensions in mm

Further sizes upon request

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LB105.00C...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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A118
# BORING and PROFILING

## INSERT Type 105

**Bore Ø from**

<table>
<thead>
<tr>
<th>Part number</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>I₂</th>
<th>I₅</th>
<th>t_max</th>
<th>D_min</th>
<th>r</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L105.1823.4.5.2</td>
<td>.091</td>
<td>.185</td>
<td>.165</td>
<td>.984</td>
<td>1.181</td>
<td>1.969</td>
<td>.012</td>
<td>.197</td>
<td>.004</td>
</tr>
<tr>
<td>R/L105.1823.5.5.2</td>
<td>.130</td>
<td>.224</td>
<td>.193</td>
<td>.964</td>
<td>1.181</td>
<td>1.969</td>
<td>.012</td>
<td>.236</td>
<td>.004</td>
</tr>
<tr>
<td>R/L105.1833.4.6.2</td>
<td>.157</td>
<td>.252</td>
<td>.213</td>
<td>.984</td>
<td>1.181</td>
<td>1.969</td>
<td>.012</td>
<td>.268</td>
<td>.004</td>
</tr>
<tr>
<td>R/L105.1840.4.7.2</td>
<td>.157</td>
<td>.252</td>
<td>.213</td>
<td>1.181</td>
<td>1.575</td>
<td>2.559</td>
<td>.012</td>
<td>.236</td>
<td>.004</td>
</tr>
</tbody>
</table>

- **R** = right hand version shown
- **L** = left hand version

- **Type** BU105...02
  - B105...02
  - B105C...02

**Clamping length 22 mm**

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**BORING and PROFILING**

**INSERT Type 105**

**R/L105.1823.4.5.2**

- **f**
- **a**
- **d**
- **I₂**
- **I₅**
- **t_max**
- **D_min**
- **r**
- **α**

**Part number**

<table>
<thead>
<tr>
<th>Part number</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>I₂</th>
<th>I₅</th>
<th>t_max</th>
<th>D_min</th>
<th>r</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L105.1823.4.5.2</td>
<td>.091</td>
<td>.185</td>
<td>.165</td>
<td>.984</td>
<td>1.181</td>
<td>1.969</td>
<td>.012</td>
<td>.197</td>
<td>.004</td>
</tr>
<tr>
<td>R/L105.1823.5.5.2</td>
<td>.130</td>
<td>.224</td>
<td>.193</td>
<td>.964</td>
<td>1.181</td>
<td>1.969</td>
<td>.012</td>
<td>.236</td>
<td>.004</td>
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<tr>
<td>R/L105.1833.4.6.2</td>
<td>.157</td>
<td>.252</td>
<td>.213</td>
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<td>1.181</td>
<td>1.969</td>
<td>.012</td>
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<td>.004</td>
</tr>
<tr>
<td>R/L105.1840.4.7.2</td>
<td>.157</td>
<td>.252</td>
<td>.213</td>
<td>1.181</td>
<td>1.575</td>
<td>2.559</td>
<td>.012</td>
<td>.236</td>
<td>.004</td>
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</tbody>
</table>

**Dimensions in inch**

State R or L version

**Carbide grades**

<table>
<thead>
<tr>
<th><strong>Mg12</strong></th>
<th><strong>TN55</strong></th>
<th><strong>TF65</strong></th>
<th><strong>TH56</strong></th>
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</thead>
<tbody>
<tr>
<td>A/Α</td>
<td>A/Α</td>
<td>A/Α</td>
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</tbody>
</table>

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**BORING and PROFILING**
# HCG - HORN Catalog Guide

## Bore Ø

<table>
<thead>
<tr>
<th>Groove depth ≤ (inch)</th>
<th>.098&quot;</th>
<th>.157&quot;</th>
<th>.039&quot;</th>
<th>.118&quot;</th>
<th>.091&quot;</th>
<th>.138&quot;</th>
<th>.256&quot;</th>
<th>.169&quot;</th>
<th>.315&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groove depth ≤ (mm)</td>
<td>2.5</td>
<td>4.0</td>
<td>1.0</td>
<td>3.0</td>
<td>2.3</td>
<td>3.5</td>
<td>6.5</td>
<td>4.3</td>
<td>8.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Width of groove inch</th>
<th>.020&quot;-.079&quot;</th>
<th>.020&quot;-.250&quot;</th>
<th>.029&quot;-.091&quot;</th>
<th>.029&quot;-.118&quot;</th>
<th>.029&quot;-.125&quot;</th>
<th>.029&quot;-.188&quot;</th>
<th>.029&quot;-.125&quot;</th>
<th>.029&quot;-.157&quot;</th>
<th>.071&quot;-.118&quot;</th>
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</thead>
<tbody>
<tr>
<td>Width of groove mm</td>
<td>0.5 - 2.0</td>
<td>1.0 - 6.35</td>
<td>0.74 - 2.0</td>
<td>1.0 - 3.0</td>
<td>0.74 - 3.18</td>
<td>1.0 - 3.0</td>
<td>0.74 - 3.18</td>
<td>0.74 - 4.0</td>
<td>1.8 - 3.0</td>
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</tbody>
</table>

## Application

<table>
<thead>
<tr>
<th>Product line</th>
<th>105</th>
<th>110</th>
<th>108</th>
<th>10P</th>
<th>111</th>
<th>11P</th>
<th>114</th>
<th>116</th>
<th>18P</th>
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<tbody>
<tr>
<td>Grooving</td>
<td>•</td>
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<tr>
<td>Boring</td>
<td>•</td>
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<td>•</td>
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<tr>
<td>Threading</td>
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<td>Chamfering</td>
<td>•</td>
<td>•</td>
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<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
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</tr>
<tr>
<td>Face Grooving</td>
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<td>•</td>
<td>•</td>
<td>•</td>
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<td>•</td>
<td>•</td>
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</tr>
<tr>
<td>Hard turning</td>
<td>•</td>
<td>•</td>
<td>•</td>
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</tbody>
</table>

## Chapter

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
</tr>
</thead>
</table>

Special tools upon request
GROOVING and BORING

TOOLHOLDER Type

BU110
with through coolant supply

Bore Ø from
Depth of groove up to
Width of groove up to

.236"
.157"
.250"

for use with Insert

Type 110
U110

Picture = right hand cutting version shown

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>h</th>
<th>l₃</th>
<th>l₄</th>
</tr>
</thead>
<tbody>
<tr>
<td>BU110.0625.02</td>
<td>.625</td>
<td>3.937</td>
<td>.551</td>
<td>2.756</td>
<td>2.165</td>
</tr>
<tr>
<td>BU110.0750.02</td>
<td>.750</td>
<td>3.937</td>
<td>.709</td>
<td>-</td>
<td>2.165</td>
</tr>
</tbody>
</table>

Further sizes upon request f, l₂ see inserts type 110

Dimensions in inch

Ordering note:
Toolholders can be used with right and left hand inserts.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>BU110.0...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

B2
GROOVING and BORING

TOOLHOLDER Type B110
with through coolant supply

Bore Ø from .236” (6.0 mm)
Depth of groove up to .157” (4.0 mm)
Width of groove up to .250” (6.35 mm)

Extended depth of insert seat

for use with Insert

Type 110 U110

Part number | d | l₁ | h | l₃ | l₄
--- | --- | --- | --- | --- | ---
B110.0016.02 | 16 | 100 | 14 | 70 | 55
B110.0020.02 | 20 | 100 | 18 | - | 55
B110.0022.02 | 22 | 100 | 20 | - | 55
B110.0025.02 | 25 | 100 | 23 | - | 55

Further sizes upon request
f, l₁ see inserts type 110

Dimensions in mm

Ordering note:
Toolholders can be used with right and left hand inserts.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110.00...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type

B110
with through coolant supply

Bore Ø from .236" (6.0 mm)
Depth of groove up to .157" (4.0 mm)
Width of groove up to .250" (6.35 mm)

Picture = right hand cutting version shown

Part number | d | l₁ | h | l₄
---|---|---|---|---
B110.0020.K.02 | 20 | 100 | 18 | 55

Further sizes upon request f, L see inserts type 110
Dimensions in mm

Ordering note:
Toolholders can be used with right and left hand inserts.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B110.0020.K.02</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>
GROOVING and BORING

TOOLHOLDER Type B110C

Adapter for inserts type 110 HORN-Capto

for use with Insert

Type 110 U110

R = right hand version shown  L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>( l_1 )</th>
<th>( l_2 )</th>
<th>( d_2 )</th>
<th>( d_1 )</th>
<th>Remark</th>
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<tbody>
<tr>
<td>R/LB110.00C5.22.1.02</td>
<td>50</td>
<td>30</td>
<td>22</td>
<td>50</td>
<td>C5</td>
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</table>

Further sizes upon request

Dimensions in mm

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LB110.00C5.22.1.02</td>
<td>6.075T15P</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>
**GROOVING and BORING**

**TOOLHOLDER Type B110C**

Adapter for inserts type 110 HORN-Capto

for INDEX Multi spindle machines

![Diagram of TOOLHOLDER Type B110C](image)

Picture = right hand cutting version shown

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>l₃</th>
<th>b₁</th>
<th>l₄</th>
<th>d₁</th>
<th>Remark</th>
<th>Type of machine</th>
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</table>

Further sizes upon request

f, l₂ see inserts type 110

Dimensions in mm

**Spare parts**

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
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<tr>
<td>RB110.00C...</td>
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<td>T15PQ</td>
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</table>

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
GROOVING and BORING

TOOLHOLDER Type  B110KM

Adapter for inserts type 110 HORN-KM

for INDEX Multi spindle machines

Picture = right hand cutting version shown

for use with Insert

Type  110
U110

Licence Kennametal

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>l₃</th>
<th>b₁</th>
<th>l₄</th>
<th>d₁</th>
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Further sizes upon request  f, i₂ see inserts type 110

Dimensions in mm

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>RB110.KM...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
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</tbody>
</table>
TOOLHOLDER Type

TIP

Bore Ø from 0.236" (6.0 mm)

for use with Insert

Type 110 U110

L = left hand version shown R = right hand version

<table>
<thead>
<tr>
<th>Part number</th>
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<th>l₂</th>
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State R or L version

Dimensions in mm

Further sizes upon request

Spare parts

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<th>Screw</th>
<th>TORX PLUS® Wrench</th>
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<tbody>
<tr>
<td>VDI...</td>
<td>6.075T15P</td>
<td>T15PQ</td>
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</tbody>
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GROOVING and BORING

ADJUSTABLE HOLDER Type N

Bore Ø from .236" (6.0 mm)
Depth of groove up to .157" (4.0 mm)
Width of groove up to .250" (6.35 mm)

with through coolant supply

for use with Insert

Type 110
U110

Picture = right hand cutting version shown

<table>
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<tr>
<th>Part number</th>
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Further sizes upon request

Dimensions in mm

Spare parts

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<th>Height adjustment screw</th>
<th>Coolant supply</th>
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**BORING and PROFILING ≥ Ø .236”**

**INSERT Type 110**

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<thead>
<tr>
<th>Bore Ø from</th>
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**Dimensions in inch**

<table>
<thead>
<tr>
<th>Carbide grades</th>
<th>MG12</th>
<th>TN15</th>
<th>TF45</th>
<th>TH85</th>
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<tr>
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**State R or L version**

**Part number**

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<th>d</th>
<th>l₂</th>
<th>l₅</th>
<th>t_max</th>
<th>D_min</th>
<th>r</th>
<th>MG12</th>
<th>TN15</th>
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<tr>
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</table>

**Notes:**
- ▲ on stock △ 4 weeks
- ● main recommendation
- ○ alternative recommendation

**Dimensions in inch**

<table>
<thead>
<tr>
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</tbody>
</table>

**For use with Toolholder**

**Type**
- BU110
- B110
- B110C
- VDI

**R = right hand version shown**

**L = left hand version**

**Bore Ø from**

**.236”**

**In the UNITED STATES call us toll free**

1 - 888 - 818 HORN
BORING and PROFILING ≥ Ø .236"  

INSERT Type 110

Bore Ø from .236" for use with Toolholder

Type BU110
B110
B110C
VDI

with chip breaker (geometry H)

R = right hand version shown

Part number | f | a | d | l₂ | l₅ | t_max | D_min | r |
--- | --- | --- | --- | --- | --- | --- | --- | --- |
R110.1829.9.H6 | .114 | .224 | .189 | 1.969 | 3.150 | .020 | .236 | .008 |
R110.1829.9.H8 | .157 | .291 | .236 | 1.969 | 3.150 | .020 | .315 | .008 |

▲ on stock △ 4 weeks
● main recommendation
ο alternative recommendation

uncoated grades
coated grades
brazed/Cermet

Dimensions in inch

Carbide grades

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
**GROOVING (internal) ≥ Ø .315”**

**INSERT Type 110**

---

**Bore Ø from**

<table>
<thead>
<tr>
<th>Depth of groove up to</th>
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<td>.315”</td>
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<tr>
<td>.110”</td>
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</tbody>
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**for use with Toolholder**

- Type: BU110
- B110
- B110C
- VDI

---

**R = right hand version shown**

---

**with corner radius**

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**Part number**

<table>
<thead>
<tr>
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<th>f</th>
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<td>.787</td>
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</tbody>
</table>

- ▲ on stock
- ▲ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ⫝̸ uncoated grades
- ⫥ coated grades
- ⫎ brazed/Cermet

Dimensions in inch

---

**Carbide grades**

---

In the UNITED STATES call us toll free 1 - 888 - 818 HORN

---

B12
GROOVING (internal) ≥ Ø .315”

**INSERT Type**

| Bore Ø from | .315” |
| Depth of groove up to | .157” |

for use with Toolholder

- Type BU110
- B110
- B110C
- VDI

**Part number**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>l₂</th>
<th>l₅</th>
<th>t_max</th>
<th>D_min</th>
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<td>1.181</td>
<td>2.362</td>
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<td>.197</td>
<td>1.969</td>
<td>3.150</td>
<td>.157</td>
<td>.394</td>
</tr>
</tbody>
</table>

▲ on stock  △ 4 weeks
● main recommendation
○ alternative recommendation
□ uncoated grades
□ coated grades
□ brazed/Cermet

Dimensions in inch

State R or L version

Carbide grades

In the UNITED STATES call us toll free
1-888-818 HORN
GROOVING (internal) ≥ Ø .315”

INSERT Type

U110

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>l₂</th>
<th>l₅</th>
<th>tₘₐₓ</th>
<th>Dₘᵟₙ</th>
<th>r</th>
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<tbody>
<tr>
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<tr>
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<td>.008</td>
</tr>
</tbody>
</table>

Dimensions in inch

State R or L version

for use with Toolholder

Type BU110
B110
B110C
VDI

Dimensions in inch

Carbide grades

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
GROOVING (internal) ≥ Ø .315”

INSERT Type U110

Bore Ø from .046
Depth of groove up to .315”

Dimensions in inch
Carbide grades

For use with Toolholder

Type
- BU110
- B110
- B110C
- VDI

R = right hand version shown
L = left hand version

| Part number   | w   | f   | a   | d   | l₂  | l₅  | tmax | Dmin   | MG12  | TN05 | K05  | TF45 | TH55 |
|---------------|-----|-----|-----|-----|-----|-----|------|--------|-------|------|------|------|------|------|
| R/LU110.0046.3.8 | .046 | .157 | .291 | .165 | .787 | 1.969 | .110  | .315   | ▲/Δ  | ▲/Δ  | ▲/Δ  | ▲/Δ  | ▲/Δ  |
| R/LU110.0062.3.8 | .062 | .157 | .291 | .165 | .787 | 1.969 | .110  | ▲/Δ    | ▲/Δ  | ▲/Δ  | ▲/Δ  | ▲/Δ  | ▲/Δ  |
| R/LU110.0078.3.8 | .078 | .157 | .291 | .165 | .787 | 1.969 | .110  | ▲/Δ    | ▲/Δ  | ▲/Δ  | ▲/Δ  | ▲/Δ  | ▲/Δ  |
| R/LU110.0094.3.8 | .094 | .157 | .291 | .165 | 1.575| 2.756 | .110  | ▲/Δ    | ▲/Δ  | ▲/Δ  | ▲/Δ  | ▲/Δ  | ▲/Δ  |
| R/LU110.0125.3.8 | .125 | .157 | .291 | .165 | 1.575| 2.756 | .110  | ▲/Δ    | ▲/Δ  | ▲/Δ  | ▲/Δ  | ▲/Δ  | ▲/Δ  |
| R/LU110.0250.3.8 | .250 | .157 | .291 | .165 | 1.575| 2.756 | .110  | ▲/Δ    | ▲/Δ  | ▲/Δ  | ▲/Δ  | ▲/Δ  | ▲/Δ  |

- ▲ on stock
- ▲ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ▲/Δ uncoated grades
- ▲ coated grades
- ▲ brazed/Cermet

Dimensions in inch
State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
### INSERT Type

**U110**

**GROOVING (internal) ≥ Ø .394”**

**Bore Ø from**

**Depth of groove up to**

- .394”
- .157”

**for use with Toolholder**

- Type BU110
- B110
- B110C
- VDI

**Dimensions in inch**

**Carbide grades**

- Carbide grades
- T55
- T65
- T75
- T85

**State R or L version**

**Part number**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>l₂</th>
<th>l₃</th>
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<th>D_min</th>
<th>r</th>
<th>MG12</th>
<th>TN55</th>
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- ▲ on stock
- ▲/ ▲ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ▲ uncoated grades
- ▲ coated grades
- ▲ brazed/Cermet

- Carbide grades
- MG12
- TN55
- T65
- T75
- T85

**In the UNITED STATES call us toll free**

1 - 888 - 818 HORN
**GROOVING (internal) ≥ Ø .394”**

**INSERT Type U110**

Bore Ø from .394”
Depth of groove up to .157”

---

for use with Toolholder

Type BU110
B110
B110C
VDI

---

R = right hand version shown
L = left hand version

---

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▲ on stock  △ 4 weeks
● main recommendation
○ alternative recommendation
■ uncoated grades
□ coated grades
≡ brazed/Cermet

Dimensions in inch
State R or L version

---

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
# GROOVING (internal) ≥ Ø .394”

## INSERT Type

**U110**

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- ▲ on stock
- △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ▭ uncoated grades
- ▪ coated grades
- ▬ brazed/Cermet

Dimensions in inch

State R or L version

---

- Carbide grades

**Type BU110**

- B110
- B110C
- VDI

R = right hand version shown
L = left hand version
High polish turning with diamond tools type 105 and S117

For further information please see HORN catalog "CARBIDE GROOVING TOOLS".
GROOVING (internal) ≥ Ø .315"

INSERT Type

U110

Bore Ø from .315"
Depth of groove up to .110"

for use with Toolholder

Type BU110
B110
B110C
VDI

R = right hand version shown
L = left hand version

Full radius

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▲ on stock  △ 4 weeks
● main recommendation
ο alternative recommendation
■ uncoated grades
■ coated grades
■ brazed/Cermet

Dimensions in inch
State R or L version

Carbide grades

In the UNITED STATES call us toll free
1 - 888 - 818 HORN

B20
**GROOVING (internal) ≥ Ø .394”**

**INSERT Type**

**U110**

For use with Toolholder

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- ▲ on stock △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ◆ uncoated grades
- ■ coated grades
- ☑ brazed/Cermet

Dimensions in inch

State R or L version

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---

**Dimensions in inch Carbide grades**
FACE GROOVING

TOOLHOLDER Type

BU110

with through coolant supply

from outer groove Ø
Depth of groove up to
Width of groove up to

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R = right hand version shown
L = left hand version

for use with Insert

Type A110

Spare parts

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<th>Screw</th>
<th>TORX PLUS® Wrench</th>
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B22
**FACE GROOVING**

**TOOLHOLDER Type B110**

with through coolant supply

- from outer groove Ø .787" (20.0 mm)
- Depth of groove up to 1.181" (30.0 mm)
- Width of groove up to .118" (3.0 mm)

Extended depth of insert seat

**Type A110**

for use with Insert

R = right hand version shown  
L = left hand version

<table>
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State R or L version  
Dimensions in mm

Further sizes upon request

**Spare parts**

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B23
Face Grooving

**INSERT Type**

**A110**

- Depth of groove up to 1.181".
- Width of groove up to 0.118".

**Part number**

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- ▲ on stock, △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- □ uncoated grades
- □ coated grades
- □ brazed/Cermet

**Carbide grades**

- P
- T
- TN
- TN65
- TC5
- TF45
- TH55

**Note:**

- Use insert RA110 in toolholder RB110
- Use insert LA110 in toolholder LB110

Face grooving with full width of the full depth only possible between $D_{max} = 0.787" - 1.969".$
FACE GROOVING

INSERT Type A110

-from outer groove Ø 0.787"
-Depth of groove up to 1.181"
-Width of groove up to 0.118"

for use with Toolholder

Type B110...16.2
BU110...16.2

L = left hand version shown  R = right hand version

Part number w f l a max min r
R/LA110.2030.15.5.0 .118 .059 2.362 1.181 .787 .059

△ on stock  △ 4 weeks
● main recommendation
○ alternative recommendation
■ uncoated grades
■ coated grades
■ brazed/Cermet

Dimensions in inch
State R or L version

Note:
Use insert RA110 in toolholder RB110
Use insert LA110 in toolholder LB110

Face grooving with full width of the full depth only possible between Dmax .787" - 1.969".

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HCG - HORN Catalog Guide

<table>
<thead>
<tr>
<th>Bore Ø</th>
<th>105</th>
<th>110</th>
<th>108</th>
<th>10P</th>
<th>111</th>
<th>11P</th>
<th>114</th>
<th>116</th>
<th>18P</th>
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<td>≥ .008” (0.2 mm)</td>
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<tr>
<td>≥ .268” (6.8 mm)</td>
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<tr>
<th>Groove depth ≤ (inch)</th>
<th>.086”</th>
<th>.157”</th>
<th>.039”</th>
<th>.118”</th>
<th>.091”</th>
<th>.138”</th>
<th>.256”</th>
<th>.169”</th>
<th>.315”</th>
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<td>6.5</td>
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<td>Width of groove inch</td>
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<td>.039”- .250”</td>
<td>.029”- .079”</td>
<td>.039”- .118”</td>
<td>.029”- .125”</td>
<td>.039”- .118”</td>
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<td>.097”- .157”</td>
<td>.071”- .118”</td>
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<td>Width of groove mm</td>
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<td>1.0 - 6.35</td>
<td>0.74 - 2.0</td>
<td>1.0 - 3.0</td>
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<th>110</th>
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<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
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</table>

Special tools upon request
SUMMARY

MINI CARBIDE GROOVING TOOLS

Toolholder
BU108 / B108

Page C2-C5
Page C6-C7

Inserts
U108 / 108 / S108
≥ Ø .315” (8.0 mm)

Page C8-C9
Page C10-C14
Page C15
Page C16-C17

Page C18-C20
Page C21
Page C23
Page C24

Page C25
Page C26-C27
Page C28-C29

Technical Instructions Page L1 - L9
GROOVING and BORING

TOOLHOLDER Type

BU108
with through coolant supply

Bore Ø from
Depth of groove up to
Width of groove up to

Material of shank: Carbide - Giving a good vibration resistance

Picture = right hand cutting version shown

Part number | d | l₁ | l₂ | h | l₄ | d₁ | Remark
---|---|---|---|---|---|---|---
BU108.ST05.00 | .500 | 2.756 | .492 | .460 | 1.570 | .236 | * Steel Toolholder
BU108.0500.01 | 3.150 | .827 | .460 | 1.770 | .236
BU108.0500.02 | .500 | 3.543 | 1.181 | .460 | 1.770 | .236
BU108.0500.03 | 3.937 | 1.654

Further sizes upon request w, a, tₘₐₓ, and f see inserts
Dimensions in inch

Ordering note:
Toolholders can be used in right and left hand inserts.
Toolholders with damaged seating can be repaired by HORN.

* Steel toolholder is not repairable.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>BU108...</td>
<td>2.6.5T8EP</td>
<td>T8PL</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type B108
with through coolant supply

Bore Ø from .315" (8.0 mm)
Depth of groove up to .039" (1.0 mm)
Width of groove up to .079" (2.0 mm)

Material of shank: Carbide - Giving a good vibration resistance

Further sizes upon request w, a, tmax and f see inserts
Dimensions in mm

Ordering note:
Toolholders can be used in right and left hand inserts.
Toolholders with damaged seating can be repaired by HORN.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B108.00...</td>
<td>2.6.5T8EP</td>
<td>T8PL</td>
</tr>
</tbody>
</table>

Picture = right hand cutting version shown

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GROOVING and BORING

TOOLHOLDER Type

B108
with through coolant supply

Bore Ø from
Depth of groove up to
Width of groove up to
.315” (8.0 mm)
.039” (1.0 mm)
.079” (2.0 mm)

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert

Type 108
S108
U108

Picture = right hand cutting version shown

Part number | d | l₁
--- | --- | ---
B108.0006.01A | 6 | 65

Further sizes upon request w, a, t max and f see inserts

Dimensions in mm

Ordering note:
Toolholders can be used in right and left hand inserts.
Toolholders with damaged seating can be repaired by HORN.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B108.0006.01A</td>
<td>2.6T8EP</td>
<td>T8PL</td>
</tr>
</tbody>
</table>
GROOVING and BORING

TOOLHOLDER Type B108

with through coolant supply

Bore Ø from .315" (8.0 mm)
Depth of groove up to .039" (1.0 mm)
Width of groove up to .079" (2.0 mm)

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert

Type 108
S108
U108

Picture = right hand cutting version shown

for shrinkage location
S = orientation

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>l₂</th>
<th>d₁</th>
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Further sizes upon request w, a, t_max and f see inserts
Dimensions in mm

Ordering note:
Toolholders can be used in right and left hand inserts.
Toolholders with damaged seating can be repaired by HORN.

Example of assembly System „W&F“

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
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<td>B108.0012.0...</td>
<td>2.6.5T8EP</td>
<td>T8PL</td>
</tr>
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</table>

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GROOVING and BORING

TOOLHOLDER Type

B108KM
with through coolant supply

Bore Ø from .315" (8.0 mm)

for use with Insert

Type 108
S108
U108

System Kennametal
KM16 Micro

Part number | d | l₁ | l₂ | d₁
---|---|---|---|---
B108.KM16.01 | 20 | 21 | 30 | 6
B108.KM16.02 | 26 | 35 | | |

Further sizes upon request w, a, tₘ₉₉ and f see inserts

Dimensions in mm

Spare parts

<table>
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<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
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<td>T8PL</td>
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GROOVING and BORING

TOOLHOLDER Type

B108KM
with through coolant supply

Bore Ø from .315" (8.0 mm)

for use with Insert

Type 108
S108
U108

System Kennametal KM16 Micro

Part number | d | l₁ | l₂ | d₁
---|---|---|---|---
B108.KM16.90.01 | 20 | 21 | 30 | 6
B108.KM16.90.02 | 26 | 35 |

Further sizes upon request
w, a, t_max and f see inserts

Dimensions in mm

Spare parts

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<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
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<td>T8PL</td>
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</table>

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GROOVING (internal) ≥ Ø .315”

INSERT Type

**U108**

| Bore Ø from | .315” |
| Depth of groove up to | .039” |
| Width of groove | .031 -. .039” |

for use with Toolholder

Type  
B108  
B108KM  
BU108

R = right hand version  
L = left hand version

**Part number**

<table>
<thead>
<tr>
<th>w</th>
<th>s</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t max</th>
<th>D min</th>
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<td>.142</td>
<td>.189</td>
<td>.307</td>
<td>.236</td>
<td>.039</td>
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▲ on stock  
Δ 4 weeks  
● main recommendation  
ο alternative recommendation

uncoated grades  
coated grades  
brazed/Cermet

Dimensions in inch

State R or L version

Carbide grades

C8
GROOVING (internal) ≥ Ø .315”

INSERT Type 108

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- ▲ on stock △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ▉ uncoated grades
- ▌ coated grades
- ▍ brazed/Cermet

Dimensions in inch

State R or L version

for use with Toolholder

Type B108
B108KM
BU108

not face cutting, limited depth of cut

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Dimensions in inch Carbide grades
**NC-PROFILING (internal) ≥ Ø .315”**

**INSERT Type**

**U108**

Bore Ø from .315”
Depth of groove up to .039”
Width of groove .031 - .078”

for use with Toolholder

Type B108
B108KM
BU108

R = right hand version shown  
L = left hand version

R = right hand version shown  
L = left hand version

<table>
<thead>
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<th>Part number</th>
<th>w</th>
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<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t_{max}</th>
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▲ on stock  
Δ 4 weeks  
● main recommendation  
ο alternative recommendation  
uncoated grades  
coated grades  
brazed/Cermet  
Dimensions in inch  
State R or L version  

Carbide grades

In the UNITED STATES call us toll free  
1 - 888 - 818 HORN
NC-PROFILING (internal) ≥ Ø .315”

**INSERT Type** 108

- **Bore Ø from** .315”
- **Depth of groove up to** .039”
- **Width of groove** .059”

R = right hand version shown  
L = left hand version

**Part number**

<table>
<thead>
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<th>f</th>
<th>a</th>
<th>d</th>
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</table>

- ▲ on stock  
- ▲ 4 weeks  
- ● main recommendation  
- ○ alternative recommendation  
- □ uncoated grades  
- □ coated grades  
- □ brazed/Cermet

Dimensions in inch  
State R or L version

**for use with Toolholder**

- **Type** B108  
- B108KM  
- BU108

**with corner radius**

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C11
GROOVING (internal) ≥ Ø .315”

INSERT Type U108

Bore Ø from .315”
Depth of groove up to .039”
Width of groove .046 - .078”

R = right hand version shown
L = left hand version

for use with Toolholder

Type B108
B108KM
BU108

Part number | w | s | f | a | d | t_max | D_min |
---|---|---|---|---|---|---|---|
R/LU108.0046.00 | .046 | .126 | .189 | .307 | .236 | .039 | .315 |
R/LU108.0056.00 | .056 | ▲/▲/ | ▲/▲/ | | | | |
R/LU108.0062.00 | .062 | ▲/▲/ | ▲/▲/ | | | | |
R/LU108.0078.00 | .078 | ▲/▲/ | ▲/▲/ | | | | |
▲ on stock △ 4 weeks
● main recommendation
○ alternative recommendation
■ uncoated grades
■ coated grades
■ brazed/Cermet

Dimensions in inch
State R or L version

Carbide grades

In the UNITED STATES call us toll free 1 - 888 - 818 HORN

G12
GROOVING (internal) ≥ Ø .315”

INSERT Type

108

Bore Ø from .315”
Depth of groove up to .039”
Width of circlip Nw .043 - .063”

Widths for circlip grooves DIN 471/472

R = right hand version shown  L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>Nw</th>
<th>w</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t_max</th>
<th>D_min</th>
<th>Carbide grades</th>
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<tbody>
<tr>
<td>R/L108.0110.00</td>
<td>.043</td>
<td>.047</td>
<td></td>
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<td>.055</td>
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<td>.126</td>
<td>.189</td>
<td>.307</td>
<td>.236</td>
<td>.039</td>
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<tr>
<td>R/L108.0160.00</td>
<td>.063</td>
<td>.067</td>
<td>.315</td>
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<td></td>
<td>▲ on stock</td>
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<td>Δ 4 weeks</td>
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<td></td>
<td>◉ alternative recommendation</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>▲ uncoated grades</td>
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<tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>▲ coated grades</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>▲ brazed/Cermet</td>
</tr>
</tbody>
</table>

Dimensions in inch

State R or L version

for use with Toolholder

Type B108
B108KM
BU108
GROOVING (internal) ≥ Ø .315”

INSERT Type 108

Bore Ø from .315”
Depth of groove up to .039”
Width of groove .059 - .079”

for use with Toolholder

Type B108
B108KM
BU108

R = right hand version shown
L = left hand version

Part number | w | s | f | a | d | t max | D min | MG12 | TN55 | TC5 | TF45 | TH55
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---
R/L108.0150.00 | .059 | .126 | .189 | .307 | .236 | .039 | .315 | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲
R/L108.0200.00 | .079 | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲

▲ on stock △ 4 weeks
● main recommendation
○ alternative recommendation
■ uncoated grades
□ coated grades
□ brazed/Cermet

Dimensions in inch
State R or L version

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C14
GROOVING (internal) ≥ Ø .315”

**INSERT Type**

**S108**

- **Part number**
  - R/LS108.0100.D1: .039 .004 .039 .079 .126 .189 .307 .236 .039 .315
  - R/LS108.0150.D1: .059 .004 ▲/▲
  - R/LS108.0200.D2: .079 .008 ▲/▲

- **Bore Ø from** .315”
- **Depth of groove up to** .039”
- **Width of groove** .039 - .079”

- **R** = right hand version shown
- **L** = left hand version

- **for use with Toolholder**
  - Type: B108, B108KM, BU108

- **Geometry .D**

- **Dimensions in inch**

**Carbide grades**

- **C15**

---

*In the UNITED STATES call us toll free 1 - 888 - 818 HORN*
GROOVING (internal) ≥ Ø .315”

INSERT Type  

**U108**

**Dimensions in inch**

<table>
<thead>
<tr>
<th>Carbide grades</th>
<th>MG12</th>
<th>TN05</th>
<th>TC25</th>
<th>TF45</th>
<th>TH05</th>
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<td>∆ on stock</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
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<tr>
<td>Δ 4 weeks</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>○ alternative recommendation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● main recommendation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ uncoated grades</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>□ coated grades</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>□ brazed/Cermet</td>
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</tr>
</tbody>
</table>

**Part number**  

| R/LU108.0015.31 | .031 | .015 | .126 | .189 | .307 | .236 | .039 | .315 |
| R/LU108.0023.46 | .046 | .023 |      |      |      |      |      |      |
| R/LU108.0031.62 | .062 | .031 |      |      |      |      |      |      |
| R/LU108.0039.78 | .078 | .039 |      |      |      |      |      |      |

**State R or L version**

- **R** = right hand version shown
- **L** = left hand version

**Bore Ø from** .315”
**Depth of groove up to** .039”
**Width of groove** .031 - .078”

**For use with Toolholder**

- **Type** B108
- **B108KM**
- **BU108**

**Bore Ø from** .315”
**Depth of groove up to** .039”
**Width of groove** .031 - .078”

**Dimensions in inch**

**Full radius**

**In the UNITED STATES call us toll free**
1 - 888 - 818 HORN
**GROOVING (internal) ≥ Ø .315”**

**INSERT Type**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t_{max}</th>
<th>D_{min}</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L108.0004.08</td>
<td>.031</td>
<td>.016</td>
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<td>.315</td>
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<tr>
<td>R/L108.0006.12</td>
<td>.047</td>
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<td>.126</td>
<td>.189</td>
<td>.307</td>
<td>.236</td>
<td>.039</td>
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<td>R/L108.0009.18</td>
<td>.071</td>
<td>.035</td>
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<td></td>
</tr>
</tbody>
</table>

▲ on stock △ 4 weeks
● main recommendation
○ alternative recommendation

- uncoated grades
- coated grades
- brazed/Cermet

Dimensions in inch

State R or L version

---

**Type**

- B108
- B108KM
- BU108

For use with Toolholder:

- Full radius

---

R = right hand version shown

L = left hand version
BORING and PROFILING ≥ Ø .307”

INSERT Type

108

Bore Ø from .307”
Depth of undercut up to .051”

for use with Toolholder

Type  B108
     B108KM
     BU108

R = right hand version shown  L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>D_{min}</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L108.1846.02</td>
<td>.008</td>
<td>.134</td>
<td>.183</td>
<td>.301</td>
<td>.236</td>
<td>.307</td>
</tr>
</tbody>
</table>

▲ on stock  △ 4 weeks
● main recommendation
ο alternative recommendation
■ uncoated grades
■ coated grades
■ brazed/Cermet

Dimensions in inch

Carbide grades

State R or L version

The modified geometry allows boring of bores ≥ Ø .307” and profiling of reliefs as per DIN 509 form E and .
BORING and PROFILING ≥ Ø .307”

INSERT Type

S108

Bore Ø from 0.307”
Depth of undercut up to 0.051”

for use with Toolholder

Type B108
B108KM
BU108

R = right hand version shown
L = left hand version

Part number  r  s  f  a  d  D_{min}  MG12  TN55  T25  TF45  TH65
LS108.1846.R2  .008  .134  .183  .301  .236  .307
RS108.1846.R2  .008  .134  .183  .301  .236  .307
RS108.1846.R4  .016  .134  .183  .301  .236  .307

▲ on stock  Δ 4 weeks
● main recommendation
○ alternative recommendation
■ uncoated grades
□ coated grades
△ brazed/Cermet

Dimensions in inch

State R or L version

The modified geometry allows boring of bores ≥ Ø .307” and profiling of reliefs as per DIN 509 form E and F.
BORING and PROFILING ≥ Ø .307”

**INSERT Type 108**

<table>
<thead>
<tr>
<th>Part number</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t(_{\text{max}})</th>
<th>D(_{\text{min}})</th>
<th>Carbide grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L108.4748.01</td>
<td>.004</td>
<td>.008</td>
<td>.126</td>
<td>.183</td>
<td>.301</td>
<td>.236</td>
<td>.047</td>
<td>MG12, TN35</td>
</tr>
<tr>
<td>R/L108.4748.02</td>
<td></td>
<td></td>
<td>.047</td>
<td></td>
<td></td>
<td></td>
<td>.307</td>
<td>TN55, TC5, TF45, TH55</td>
</tr>
</tbody>
</table>

▲ on stock  Δ 4 weeks
● main recommendation
ο alternative recommendation
▌ uncoated grades
▌ coated grades
▌ brazed/Cermet

Dimensions in inch

State R or L version

The modified geometry allows boring of bores ≥ Ø .307” and profiling of reliefs as per DIN 509 form

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In the UNITED STATES call us toll free 1 - 888 - 818 HORN

R = right hand version shown  L = left hand version
HARD BORING

INSERT Type 108

Bore Ø from .307"

for use with Toolholder

Type B108
B108KM
BU108

R = right hand version shown

CBN tipped

<table>
<thead>
<tr>
<th>Part number</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>D_{min}</th>
<th>Carbide grades</th>
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</thead>
<tbody>
<tr>
<td>R108.0547.03.B</td>
<td>.012</td>
<td>.138</td>
<td>.183</td>
<td>.301</td>
<td>.236</td>
<td>.307</td>
<td>P</td>
</tr>
</tbody>
</table>

▲ on stock △ 4 weeks
● main recommendation
ο alternative recommendation

uncoated grades
coated grades
brazed/Cermet

Dimensions in inch

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
BROACHING
on CNC lathes

BROACHING TOOLS TYPE SB105/SB110 and SH117

KEYWAYS ACCORDING DIN138 and DIN6885

For further information please see HORN catalog "CARBIDE GROOVING TOOLS".

C22
## BACKBORING (internal)

### INSERT Type 108

Bore Ø from \( .307" \)

R = right hand version shown  
L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>r</th>
<th>( s_1 )</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>( t_{\text{max}} )</th>
<th>( D_{\text{min}} )</th>
<th>MG12</th>
<th>TN55</th>
<th>T25</th>
<th>TF45</th>
<th>TH65</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L108.3046.02</td>
<td>.008</td>
<td>.031</td>
<td>.142</td>
<td>.183</td>
<td>.301</td>
<td>.236</td>
<td>.051</td>
<td>( .307&quot; )</td>
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<td></td>
</tr>
</tbody>
</table>

- ▲ on stock
- △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- █ uncoated grades
- ■ coated grades
- □ brazed/Cermet

Dimensions in inch

State R or L version

For use with Toolholder

Type B108  
B108KM  
BU108

In the UNITED STATES call us toll free  
1 - 888 - 818 HORN
### INSERT Type 108

Bore Ø from .307" for use with Toolholder

- **Type**: B108
- **Part Numbers**: B108KM, BU108

<table>
<thead>
<tr>
<th>Part number</th>
<th>E</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t_max</th>
<th>D_min</th>
<th>Carbide grades</th>
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</thead>
<tbody>
<tr>
<td>R/L108.4545.02</td>
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<td>.183</td>
<td>.301</td>
<td>.236</td>
<td>.055</td>
<td>.307</td>
<td>** MG12, TN35, TC5, TA65, TH55 **</td>
</tr>
</tbody>
</table>

- **R** = right hand version shown
- **L** = left hand version

Dimensions in inch

**State R or L version**

---

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C24
### INSERT Type 108

**Bore Ø from** .315"  

**R = right hand version shown**  
**L = left hand version**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t₁</th>
<th>t_max</th>
<th>D_min</th>
<th>MG12</th>
<th>TN55</th>
<th>TC5</th>
<th>TF45</th>
<th>TH55</th>
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</thead>
<tbody>
<tr>
<td>R/L108.0810.45</td>
<td>.039</td>
<td>.126</td>
<td>.189</td>
<td>.307</td>
<td>.236</td>
<td>.008</td>
<td>.059</td>
<td>.315</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- ▲ on stock  
- ▲/▲ 4 weeks  
- ● main recommendation  
- ○ alternative recommendation  
- ▬ uncoated grades  
- ▬ coated grades  
- ▬ brazed/Cermet

Dimensions in inch

State R or L version

**for use with Toolholder**

**Type** B108  
B108KM  
BU108

**In the UNITED STATES call us toll free**  
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**PREGROOVING and CHAMFERING (int.)**

**Part number**

**Dimensions in inch Carbide grades**

<table>
<thead>
<tr>
<th>Carbide grades</th>
<th>P</th>
<th>M</th>
<th>K</th>
<th>S</th>
<th>N</th>
<th>H</th>
</tr>
</thead>
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<td>MG12</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
</tr>
<tr>
<td>TN55</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
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<tr>
<td>TC5</td>
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<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
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<tr>
<td>TF45</td>
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<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
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<tr>
<td>TH55</td>
<td>▲/▲</td>
<td>▲/▲</td>
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<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
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</table>
## THREADING (internal) Partial profile

### INSERT Type 108

**Bore Ø from**

**Pitch**

<table>
<thead>
<tr>
<th>Part number</th>
<th>P</th>
<th>P&lt;sub&gt;max&lt;/sub&gt;</th>
<th>E</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>D&lt;sub&gt;min&lt;/sub&gt;</th>
<th>MG12</th>
<th>TN55</th>
<th>T25</th>
<th>TF45</th>
<th>TH55</th>
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</thead>
<tbody>
<tr>
<td>R/L108.0815.01</td>
<td>1.5</td>
<td>1.75</td>
<td>2.6</td>
<td>3.6</td>
<td>4.8</td>
<td>7.8</td>
<td>6</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- ▲ on stock
- ▲ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ▼ uncoated grades
- ▼ coated grades
- ▼ brazed/Cermet

Dimensions in mm

State R or L version

---

**for use with Toolholder**

- **Type**: B108
- **B108KM**
- **BU108**

**Metric ISO standard thread**

R = right hand version shown  
L = left hand version

---

**C26**
THREADING (internal) Partial profile

INSERT Type 108

Bore Ø from .315" (8.0 mm)
Pitch 0.50 - 1.25 mm

for use with Toolholder

Type B108
B108KM
BU108

R = right hand version shown
L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>P</th>
<th>P_max</th>
<th>E</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>D_min</th>
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</thead>
<tbody>
<tr>
<td>R/L108.0205.01</td>
<td>0.5</td>
<td>1.0</td>
<td>.75</td>
<td>2.8</td>
<td>4.8</td>
<td>7.8</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>R/L108.0510.01</td>
<td>1.0</td>
<td>1.25</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

▲ on stock △ 4 weeks
● main recommendation
ο alternative recommendation
■ uncoated grades
□ coated grades
● brazed/Cermet

Dimensions in mm
State R or L version

C27
THREADING (internal) Full profile

INSERT Type

108

Threads per inch

14 / 18 / 27

for use with Toolholder

Type B108
BU108

R = right hand version shown

Thread NPT

<table>
<thead>
<tr>
<th>Part number</th>
<th>Threads per Inch</th>
<th>E</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>Dmin</th>
</tr>
</thead>
<tbody>
<tr>
<td>R108.NP14.02</td>
<td>14</td>
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<td>.142</td>
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<td>.236</td>
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</tbody>
</table>

▲ on stock △ 4 weeks
● main recommendation
○ alternative recommendation

uncoated grades coated grades brazed/Cermet

Dimensions in inch

Carbide grades

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### THREADING (internal) Full profile

**INSERT Type 108**

- **Threads per inch**: 18 / 20

**For use with Toolholder**

- **Type**: B108
- **BU108**

**Thread profile PG**

**Dimensions in inch**

#### Carbide grades

- **MG12**
- **TN55**
- **TF25**
- **TF45**
- **TH55**

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<th>f</th>
<th>a</th>
<th>d</th>
<th>D_min</th>
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**Notes**:
- ▲ on stock    △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ▼ uncoated grades
- ▲ coated grades
- ▲ brazed/Cermet

---

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
### HCG - HORN Catalog Guide

<table>
<thead>
<tr>
<th>Bore Ø</th>
<th>Product line</th>
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<tr>
<td>≥ .008˝ (0.2 mm)</td>
<td>105</td>
</tr>
<tr>
<td>≥ .236˝ (6.0 mm)</td>
<td>105</td>
</tr>
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<td>≥ .268˝ (6.8 mm)</td>
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<tr>
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<td>≥ .354˝ (9.0 mm)</td>
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<tr>
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<td>≥ .433˝ (11.0 mm)</td>
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<tr>
<td>≥ .492˝ (12.5 mm)</td>
<td>105</td>
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<td>≥ .551˝ (14.0 mm)</td>
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<td>≥ .630˝ (16.0 mm)</td>
<td>105</td>
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<tr>
<td>≥ .650˝ (16.5 mm)</td>
<td>105</td>
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<tr>
<td>≥ .689˝ (17.5 mm)</td>
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<table>
<thead>
<tr>
<th>Groove depth ≤ (inch)</th>
<th>.098˝</th>
<th>.157˝</th>
<th>.039˝</th>
<th>.118˝</th>
<th>.091˝</th>
<th>.138˝</th>
<th>.256˝</th>
<th>.169˝</th>
<th>.315˝</th>
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<tbody>
<tr>
<td>Groove depth ≤ (mm)</td>
<td>2.5</td>
<td>4.0</td>
<td>1.0</td>
<td>3.0</td>
<td>2.3</td>
<td>3.5</td>
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<table>
<thead>
<tr>
<th>Width of groove inch</th>
<th>.020˝-.079˝</th>
<th>.039˝-.250˝</th>
<th>.029˝-.079˝</th>
<th>.039˝-.118˝</th>
<th>.029˝-.125˝</th>
<th>.039˝-.118˝</th>
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<tbody>
<tr>
<td>Width of groove mm</td>
<td>0.5 - 2.0</td>
<td>1.0 - 6.35</td>
<td>0.74 - 2.0</td>
<td>1.0 - 3.0</td>
<td>0.74 - 3.18</td>
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### Application

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<th>Product line</th>
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<tr>
<td>Grooving</td>
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<tr>
<td>Boring</td>
<td>105</td>
</tr>
<tr>
<td>Threading</td>
<td>105</td>
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<tr>
<td>Chamfering</td>
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<tr>
<td>Face Grooving</td>
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<td>Hard turning</td>
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### Chapter

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<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
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Special tools upon request
SUMMARY

MINI CARBIDE GROOVING TOOLS

Toolholder
BU10P / B10P

Page D2-D5

Inserts
10P / S10P
≥ Ø .354" (9.0 mm)

Page D6, D8
Page D7, D9
Page D10

Technical Instructions Page L1 - L9
GROOVING and BORING

TOOLHOLDER Type

BU10P
with through coolant supply

Bore Ø from .354"
Depth of groove up to .118"
Width of groove up to .118"

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert

Type 10P
S10P

R = right hand version shown
L = left hand version

Part number | d | l₁ | l₂ | h | l₄ |
---|---|---|---|---|---|
R/LBU10P.0500.00 | .500 | 2.756 | .492 | .461 | 1.575 |
R/LBU10P.0500.01 | 3.150 | .827 | .461 | 1.772 |
R/LBU10P.0500.02 | 3.543 | 1.181 | .461 | 1.772 |

State R or L version
w, a, tₘₐₓ and f see inserts
Dimensions in inch

Further sizes upon request

Ordering note:
Toolholders with damaged seating can be repaired by HORN.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LBU10P.0500.01</td>
<td>2.6.5T8EP</td>
<td>T8PL</td>
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D2
GROOVING and BORING

TOOLHOLDER Type

B10P
with through coolant supply

Bore Ø from
Depth of groove up to
Width of groove up to

.354" (9.0 mm)
.118" (3.0 mm)
.118" (3.0 mm)

Material of shank: Carbide - Giving a good vibration resistance

R = right hand version shown
L = left hand version

Type 10P
S10P

Part number
d l1 l2 h l4
R/LB10P.0012.00 12 70 12.5 11 40
R/LB10P.0012.01 12 80 21.0 11 45
R/LB10P.0012.02 12 90 30.0 11 45

State R or L version w, a, t max and f see inserts

Dimensions in mm

Further sizes upon request

Ordering note:
Toolholders with damaged seating can be repaired by HORN.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
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</thead>
<tbody>
<tr>
<td>R/LB10P.0012.0...</td>
<td>2.6.5T8EP</td>
<td>T8PL</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type  B10P
with through coolant supply

Bore Ø from  .354" (9.0 mm)
Depth of groove up to  .118" (3.0 mm)
Width of groove up to  .118" (3.0 mm)

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert
Type  10P
S10P

with 2 clamping flats

R = right hand version shown   L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>l₂</th>
<th>h</th>
<th>l₄</th>
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State R or L version  w, a, tₘₐₓ and f see inserts
Dimensions in mm

Further sizes upon request

Ordering note:
Toolholders with damaged seating can be repaired by HORN.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LB10P.0012.2.0...</td>
<td>2.6T8EP</td>
<td>T8PL</td>
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</tbody>
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In the UNITED STATES call us toll free
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GROOVING and BORING

TOOLHOLDER Type

B10P
with through coolant supply

Bore Ø from
Depth of groove up to
Width of groove up to
.354" (9.0 mm)
.118" (3.0 mm)
.118" (3.0 mm)

Material of shank: Carbide - Giving a good vibration resistance

R = right hand version shown
L = left hand version

Type 10P S10P

for use with Insert

for shrinkage location

S = orientation

Material of shank: Carbide - Giving a good vibration resistance

Part number

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
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<th>l₂</th>
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State R or L version w, a, tₘₐₓ and f see inserts
Dimensions in mm

Further sizes upon request

Ordering note:
Toolholders with damaged seating can be repaired by HORN.

Example of assembly System „W&F”

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
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<td>R/LB10P.0012.0...</td>
<td>2.6.5T8EP</td>
<td>T8PL</td>
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</tbody>
</table>

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D5
GROOVING (internal) ≥ Ø .354”

INSERT Type 10P

Bore Ø from .354”
Depth of groove up to .079”
Width of groove .039 -.118”

for use with Toolholder

Type B10P
BU10P

R = right hand version shown
L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t_max</th>
<th>D_min</th>
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<td>.335</td>
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<td>.079</td>
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<tr>
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<td>-</td>
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<td>.335</td>
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<td>.079</td>
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<tr>
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<td>-</td>
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<td>.079</td>
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<td>.142</td>
<td>.217</td>
<td>.335</td>
<td>.236</td>
<td>.079</td>
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▲ on stock ▲/▲ 4 weeks
● main recommendation
ο alternative recommendation

Carbide grades

Dimensions in inch

State R or L version
GROOVING (internal) ≥ Ø .354”

INSERT Type

S10P

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
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▲ on stock △ 4 weeks
● main recommendation
○ alternative recommendation
██ uncoated grades
██ coated grades
██ brazed/Cermet

Dimensions in inch

State R or L version

for use with Toolholder

Type B10P BU10P

Geometry .D

R = right hand version shown
L = left hand version
**GROOVING (internal) ≥ Ø .394”**

**INSERT Type**

**10P**

<table>
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<th>Part number</th>
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<td>.008</td>
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</table>

▲ on stock  △ 4 weeks
● main recommendation
ο alternative recommendation
■ uncoated grades
■ coated grades
■ brazed/Cermet

Dimensions in inch

State R or L version

**Toolholder face**

R = right hand version shown  L = left hand version

**for use with Toolholder**

Type  B10P  BU10P

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**In the UNITED STATES call us toll free**

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**GROOVING (internal) ≥ Ø .394”**

**INSERT Type**  
**S10P**

- **Bore Ø from**  
  - .394”
- **Depth of groove up to**  
  - .118”
- **Width of groove**  
  - .059 -.079”

**Part number**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t&lt;sub&gt;max&lt;/sub&gt;</th>
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▲ on stock  
△ 4 weeks  
● main recommendation  
ο alternative recommendation  
███ uncoated grades  
███ coated grades  
███ brazed/Cermet

**Dimensions in inch**

**State R or L version**

**for use with Toolholder**

Type  
B10P  
BU10P

Geometry .D

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D9
BORING and PROFILING ≥ Ø .346”

INSERT Type S10P

Bore Ø from .346”
Depth of undercut up to .075”

for use with Toolholder Type B10P BU10P

R = right hand version shown L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>D_min</th>
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<td>.016</td>
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<td>.213</td>
<td>.331</td>
<td>.236</td>
</tr>
</tbody>
</table>

▲ on stock ▲ 4 weeks
● main recommendation
○ alternative recommendation

Dimensions in inch

State R or L version

The modified geometry allows boring of bores ≥ Ø .346” and profiling of reliefs as per DIN 509 form E and F.
PCD- or CBN-tipped inserts upon request.

Supermini®,
Turning of hardened parts from bore Ø > .118"

MINI
PCD-tipped insert
## HCG - HORN Catalog Guide

### Bore Ø

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</tr>
<tr>
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<tr>
<td>≥ .268” (6.8 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .307” (7.8 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .315” (8.0 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .346” (8.8 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .354” (9.0 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .386” (9.8 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .394” (10.0 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .419” (10.5 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .433” (11.0 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .492” (12.5 mm)</td>
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</tr>
<tr>
<td>≥ .551” (14.0 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .630” (16.0 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .650” (16.5 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .689” (17.5 mm)</td>
<td>•</td>
</tr>
</tbody>
</table>

### Groove depth ≤ (inch)

<table>
<thead>
<tr>
<th>Groove depth ≤ (inch)</th>
<th>.086”</th>
<th>.157”</th>
<th>.039”</th>
<th>.118”</th>
<th>.091”</th>
<th>.138”</th>
<th>.256”</th>
<th>.169”</th>
<th>.315”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groove depth ≤ (mm)</td>
<td>2.5</td>
<td>4.0</td>
<td>1.0</td>
<td>3.0</td>
<td>2.3</td>
<td>3.5</td>
<td>6.5</td>
<td>4.3</td>
<td>8.0</td>
</tr>
</tbody>
</table>

### Width of groove

<table>
<thead>
<tr>
<th>Width of groove inch</th>
<th>.020”-.079”</th>
<th>.039”-.250”</th>
<th>.029”-.079”</th>
<th>.039”-.118”</th>
<th>.029”-.125”</th>
<th>.039”-.118”</th>
<th>.029”-.125”</th>
<th>.029”-.157”</th>
<th>.071”-118”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width of groove mm</td>
<td>0.5 - 2.0</td>
<td>1.0 - 6.35</td>
<td>0.74 - 2.0</td>
<td>1.0 - 3.0</td>
<td>0.74 - 3.18</td>
<td>1.0 - 3.0</td>
<td>0.74 - 3.18</td>
<td>0.74 - 4.0</td>
<td>1.8 - 3.0</td>
</tr>
</tbody>
</table>

### Application

<table>
<thead>
<tr>
<th>Application</th>
<th>Product line</th>
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<tbody>
<tr>
<td>Grooving</td>
<td>•</td>
</tr>
<tr>
<td>Boring</td>
<td>•</td>
</tr>
<tr>
<td>Threading</td>
<td>•</td>
</tr>
<tr>
<td>Chamfering</td>
<td>•</td>
</tr>
<tr>
<td>Face Grooving</td>
<td>•</td>
</tr>
<tr>
<td>Hard turning</td>
<td>•</td>
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</tbody>
</table>

### Chapter

<table>
<thead>
<tr>
<th>Chapter</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
</tr>
</thead>
</table>

Special tools upon request
MINI CARBIDE GROOVING TOOLS

Toolholder
BU111 / B111
Page E2-E6

Toolholder
R/L125
Page E7

Inserts
U111 / 111 / S111
≥ Ø .433˝ (11.0 mm)
Page E8-E9 Page E10-E11 Page E12-E14 Page E15
Page E30-E31 Page E32

Technical Instructions
Page L1 - L9
GROOVING and BORING

TOOLHOLDER Type BU111
with through coolant supply

Bore Ø from .433"
Depth of groove up to .091"
Width of groove up to .125"

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert
Type 111
S111
U111

Picture = right hand cutting version shown

Part number  d  l₁  l₂  h  l₄  d₁  Remark
BU111.ST05.00  .500  2.953  .650  .460  1.570  .315  * Steel toolholder
BU111.0500.01  3.740  1.142
BU111.0500.02  4.331  1.654
BU111.0500.03  4.724  2.205

Further sizes upon request w, a, t_max and f see inserts
Dimensions in inch

Note:
Toolholders can be used in right and left hand inserts.
Toolholders with damaged seating can be repaired by HORN.

* Steel toolholder is not repairable.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>BU111....</td>
<td>3.5.12T10EP</td>
<td>T10PL</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type

B111
with through coolant supply

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>l₂</th>
<th>h</th>
<th>l₄</th>
<th>d₁</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111.0012.00</td>
<td>12</td>
<td>75</td>
<td>16.5</td>
<td>11</td>
<td>40</td>
<td>8</td>
</tr>
<tr>
<td>B111.0012.01</td>
<td>95</td>
<td>29.0</td>
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<tr>
<td>B111.0012.02</td>
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<td>42.0</td>
<td>50</td>
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<td>50</td>
<td></td>
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<tr>
<td>B111.0012.03</td>
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<td>56.0</td>
<td></td>
<td></td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

Further sizes upon request
w, a, tₘₐₓ and f see inserts
Dimensions in mm

Ordering note:
Toolholders can be used in right and left hand inserts.
Toolholders with damaged seating can be repaired by HORN.

Material of shank: Carbide - Giving a good vibration resistance

Picture = right hand cutting version shown

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111.0012.0</td>
<td>3.5.12T10EP</td>
<td>T10PL</td>
</tr>
</tbody>
</table>
**GROOVING and BORING**

**TOOLHOLDER Type**

**B111**  
with through coolant supply

---

**Bore Ø from** \(\frac{3}{8}''\) (11.0 mm)  
**Depth of groove up to** \(\frac{3}{32}''\) (2.3 mm)  
**Width of groove up to** \(\frac{1}{8}''\) (3.18 mm)

Material of shank: Carbide - Giving a good vibration resistance

---

**Picture** = right hand cutting version shown

---

**Part number** | \(d\) | \(l_1\) | \(h\) | \(l_4\) | \(d_1\)
---|---|---|---|---|---
B111.0008.01 | 8 | 80 | 7 | 55 | 8
B111.0008.01A | 8 | 80 | - | - | -

**Further sizes upon request**  
\(w, a, t_{max}\) and \(f\) see inserts

**Dimensions in mm**

---

**Ordering note:**  
Toolholders can be used in right and left hand inserts.  
Toolholders with damaged seating can be repaired by HORN.

---

**Spare parts**

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111.0008.01</td>
<td>3.5.12T10EP</td>
<td>T10PL</td>
</tr>
</tbody>
</table>
GROOVING and BORING

TOOLHOLDER Type

**B111**

with through coolant supply

| Bore Ø from | .433" (11.0 mm) |
| Depth of groove up to | .091" (2.3 mm) |
| Width of groove up to | .125" (3.18 mm) |

Material of shank: Carbide - Giving a good vibration resistance

Picture = right hand cutting version shown

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>l₂</th>
<th>h</th>
<th>l₄</th>
<th>d₁</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111.0012.2.00</td>
<td>12</td>
<td>75</td>
<td>16.5</td>
<td>11</td>
<td>40</td>
<td>8</td>
</tr>
<tr>
<td>B111.0012.2.01</td>
<td>95</td>
<td>29.0</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B111.0012.2.02</td>
<td>110</td>
<td>42.0</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B111.0012.2.03</td>
<td>120</td>
<td>56.0</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Further sizes upon request

w, a, tₘₐₓ and f see inserts

Dimensions in mm

Ordering note:
Toolholders can be used in right and left hand inserts.
Toolholders with damaged seating can be repaired by HORN.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111.0012.2.0...</td>
<td>3.5.12T10EP</td>
<td>T10PL</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

TOOLHOLDER Type

B111

with through coolant supply

Bore Ø from 0.433" (11.0 mm)
Depth of groove up to 0.091" (2.3 mm)
Width of groove up to 0.125" (3.18 mm)

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert

Type 111
S111
U111

for shrinkage location
S = orientation

Picture = right hand cutting version shown

Part number  d  l₁  l₂  d₁
B111.0012.00S  12  50.7  16.5
B111.0012.01S  62.7  29.0
B111.0012.02S  75.7  42.0
B111.0012.03S  89.7  56.0

Further sizes upon request
w, a, tₘₐₓ and f see inserts

Dimensions in mm

Ordering note:
Toolholders can be used in right and left hand inserts.
Toolholders with damaged seating can be repaired by HORN.

Example of assembly System „W&F“

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B111.0012.00...</td>
<td>3.5.12T10EP</td>
<td>T10PL</td>
</tr>
</tbody>
</table>

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GROOVING and BORING

CARTRIDGE Type

125
for customized tools

Bore Ø from
Depth of groove up to
Width of groove up to

.787" (20.0 mm)
.091" (2.3 mm)
.125" (3.18 mm)

for use with Insert

Type 111
S111
U111

R/L125.0608.00
6 11.2 10 30 20 12.8 5 2 4.5 0.5 - 3.0

Part number
h₁ f h l₁ Dₘₐₙ e₁ l₂ c g Clamping range

State R or L version w and tₘₐₓ see inserts
Dimensions in mm

Height of cutting edge h₁
Special height h₁ = 5 mm available upon request

Seating sizes

<table>
<thead>
<tr>
<th>H</th>
<th>T</th>
<th>B</th>
<th>G</th>
<th>dₘᵢₙ</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>4.5</td>
<td>8.5</td>
<td>M4</td>
<td>16</td>
</tr>
</tbody>
</table>

R/L125.0608.00

Spare parts

<table>
<thead>
<tr>
<th>Cartridge</th>
<th>Screw</th>
<th>Screw</th>
<th>Adjust screw axial</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L125.0608.00</td>
<td>4.12.125</td>
<td>3.5.12T10EP</td>
<td>4.06.020</td>
<td>T10PL</td>
</tr>
</tbody>
</table>

In the UNITED STATES call us toll free
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GROOVING (internal) ≥ Ø .433”

**INSERT Type**

**U111**

| Bore Ø from | .433” |
| Depth of groove up to | .047” |
| Width of groove | .031 - .039” |

**for use with Toolholder**

| Type | 125 |
| R/LU111 | BU111 |

R = right hand version  
L = left hand version

Dimensions in inch

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>s₁</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t max</th>
<th>D min</th>
<th>Carbide grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LU111.0031.00</td>
<td>.031</td>
<td>.039</td>
<td>.156</td>
<td>.163</td>
<td>.264</td>
<td>.421</td>
<td>.315</td>
<td>.047</td>
<td>MG12</td>
</tr>
<tr>
<td>R/LU111.0039.00</td>
<td>▲/▲/▲</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

▲ on stock  
Δ 4 weeks  
● main recommendation  
o alternative recommendation  
■ uncoated grades  
■ coated grades  
■ brazed/Cermet

**Dimensions in inch**

State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
GROOVING (internal) ≥ Ø .433”

<table>
<thead>
<tr>
<th>INSERT Type</th>
<th>111</th>
</tr>
</thead>
</table>

Bore Ø from .433”
Depth of groove up to .059”
Width of circlip Nw .028 -.035”

Widths for circlip grooves DIN 471/472

for use with Toolholder

Type 125
B111
BU111

R = right hand version shown
L = left hand version

not face cutting,
limited depth of cut

<table>
<thead>
<tr>
<th>Part number</th>
<th>Nw</th>
<th>w</th>
<th>s₁</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t_max</th>
<th>D_min</th>
<th>Carbide grades</th>
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<tbody>
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<td>.421</td>
<td>.315</td>
<td>.047</td>
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<tr>
<td>R/L111.0080.00</td>
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<td>.033</td>
<td>.156</td>
<td>.163</td>
<td>.264</td>
<td>.421</td>
<td>.315</td>
<td>.051</td>
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<tr>
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<td>.037</td>
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<td>.163</td>
<td>.264</td>
<td>.421</td>
<td>.315</td>
<td>.059</td>
<td>TF-45, TH65</td>
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</tr>
</tbody>
</table>

▲ on stock  △ 4 weeks
● main recommendation
○ alternative recommendation
■ uncoated grades
■ coated grades
■ brazed/Cermet

Dimensions in inch

State R or L version

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
## INSERT Type

**U111**

**Bore Ø from .433”**

**Depth of groove up to .091”**

**Width of groove .031 - .125”**

---

### for use with Toolholder

**Type 125**

- **B111**
- **BU111**

---

### Dimensions in inch

- **R = right hand version shown**
- **L = left hand version**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t_max</th>
<th>D_min</th>
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<tbody>
<tr>
<td>R/LU110.0031.08</td>
<td>.031</td>
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<td>.433</td>
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<tr>
<td>R/LU110.0046.08</td>
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<td>.008</td>
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<td>.264</td>
<td>.421</td>
<td>.315</td>
<td>.091</td>
<td></td>
</tr>
<tr>
<td>R/LU110.0062.08</td>
<td>.062</td>
<td>.008</td>
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<td>.264</td>
<td>.421</td>
<td>.315</td>
<td>.091</td>
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</tr>
<tr>
<td>R/LU110.0078.08</td>
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<td>.315</td>
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</tr>
<tr>
<td>R/LU111.0125.08</td>
<td>.125</td>
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<td>.421</td>
<td>.315</td>
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<tr>
<td>R/LU111.0062.16</td>
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<td>.156</td>
<td>.264</td>
<td>.421</td>
<td>.315</td>
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<td></td>
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<tr>
<td>R/LU111.0078.16</td>
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<td>.016</td>
<td>.156</td>
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<td>.421</td>
<td>.315</td>
<td>.091</td>
<td></td>
</tr>
<tr>
<td>R/LU111.0094.16</td>
<td>.094</td>
<td>.016</td>
<td>.156</td>
<td>.264</td>
<td>.421</td>
<td>.315</td>
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</tr>
<tr>
<td>R/LU111.0125.16</td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

- ▲ on stock
- △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- uncoated grades
- coated grades
- brazed/Cermet

---

**Carbide grades**

**Dimensions in inch**

**State R or L version**

---

**In the UNITED STATES call us toll free**

1 - 888 - 818 HORN
**NC-PROFILING (internal) ≥ Ø .433”**

**INSERT Type**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>( t_{\text{max}} )</th>
<th>( D_{\text{min}} )</th>
<th>Carbide grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L111.0200.02</td>
<td>.079</td>
<td>.008</td>
<td>.156</td>
<td>.264</td>
<td>.421</td>
<td>.315</td>
<td>.091</td>
<td>.433</td>
<td></td>
</tr>
</tbody>
</table>

- **▲** on stock
- **Δ** 4 weeks
- **●** main recommendation
- **ο** alternative recommendation
- **███** uncoated grades
- **███** coated grades
- **███** brazed/Cermet

Dimensions in inch

State R or L version

---

**for use with Toolholder**

**Type** 125

- B111
- BU111

**with corner radius**
GROOVING (internal) ≥ Ø .433”

INSERT Type U111

| Bore Ø from | .433” |
| Depth of groove up to | .091” |
| Width of groove | .046 -.078” |

for use with Toolholder

Type 125
B111
BU111

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t_{max}</th>
<th>D_{min}</th>
<th>MG12</th>
<th>TN05</th>
<th>TD3</th>
<th>TF45</th>
<th>TH55</th>
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<tr>
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<td>.421</td>
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<td>.091</td>
<td>.433</td>
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<td></td>
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<tr>
<td>R/LU111.0056.00</td>
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<td>.264</td>
<td>.421</td>
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<td>.091</td>
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<td></td>
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</tr>
<tr>
<td>R/LU111.0062.00</td>
<td>.062</td>
<td>.156</td>
<td>.264</td>
<td>.421</td>
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<td>.091</td>
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<td>.264</td>
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<td>.315</td>
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<td>.433</td>
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</table>

▲ on stock △ 4 weeks
● main recommendation
○ alternative recommendation
uncoated grades
coated grades
brazed/Cermet

Dimensions in inch

State R or L version
GROOVING (internal) ≥ Ø .433”

**INSERT Type** 111

<table>
<thead>
<tr>
<th>Part number</th>
<th>Nw</th>
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<th>d</th>
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<th>TF45</th>
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</table>

- ▲ on stock
- △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- □ uncoated grades
- □ coated grades
- □ brazed/Cermet

Dimensions in inch

State R or L version

for use with Toolholder

Type 125
B111
BU111

R = right hand version shown  L = left hand version

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
GROOVING (internal) ≥ Ø .433”

INSERT Type 111

Bore Ø from .433”
Depth of groove up to .091”
Width of groove .059 -.118”

for use with Toolholder

Type 125
B111
BU111

R = right hand version shown
L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
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</table>

▲ on stock △ 4 weeks
● main recommendation
ο alternative recommendation
■ uncoated grades
■ coated grades
■ brazed/Cermet

Dimensions in inch

State R or L version

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
**GROOVING (internal) ≥ Ø .433”**

**INSERT Type**

| Bore Ø from | .433” |
| Depth of groove up to | .091” |
| Width of groove | .059 - .098” |

**Part number**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
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<th>s</th>
<th>f</th>
<th>a</th>
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<td>.315</td>
<td>.091</td>
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▲ on stock  △ 4 weeks
● main recommendation
ο alternative recommendation

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</tbody>
</table>

Dimensions in inch

State R or L version

**Geometry .D**

**for use with Toolholder**

Type 125
B111
BU111
**GROOVING (internal) ≥ Ø .433”**

**INSERT Type**

<table>
<thead>
<tr>
<th>Part number</th>
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<th>s</th>
<th>f</th>
<th>a</th>
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<th>D&lt;sub&gt;min&lt;/sub&gt;</th>
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<td>.062</td>
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</tbody>
</table>

▲ on stock  △ 4 weeks
● main recommendation
○ alternative recommendation

uncoated grades
coated grades
brazed/Cermet

Dimensions in inch

State R or L version

**for use with Toolholder**

Type 125
B111
BU111

**Dimensions in Carbide grades**

<table>
<thead>
<tr>
<th>Carbide grades</th>
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</thead>
<tbody>
<tr>
<td>D</td>
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**In the UNITED STATES call us toll free 1-888-818 HORN**
GROOVING (internal) ≥ Ø .433”

**INSERT Type**

<table>
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<th>s</th>
<th>f</th>
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<td>315</td>
<td>0.091</td>
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</tbody>
</table>

▲ on stock   △ 4 weeks
• main recommendation
ο alternative recommendation

- uncoated grades
- coated grades
- brazed/Cermet

Dimensions in inch

State R or L version

**for use with Toolholder**

Type 125
B111
BU111

**Full radius**

Insert Type 111

- R = right hand version shown
- L = left hand version

<table>
<thead>
<tr>
<th>Bore Ø from</th>
<th>Depth of groove up to</th>
<th>Width of groove</th>
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<tbody>
<tr>
<td>.433”</td>
<td>.091”</td>
<td>.031 - .118”</td>
</tr>
</tbody>
</table>

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
BORING and PROFILING ≥ Ø .386”

INSERT Type 111

Bore Ø from .386”
Depth of undercut up to .091”

for use with Toolholder

Type 125
B111
BU111

R = right hand version shown
L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t_max</th>
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<td>.421</td>
<td>.315</td>
<td>.091</td>
<td>.433</td>
</tr>
</tbody>
</table>

▲ on stock △ 4 weeks
● main recommendation
○ alternative recommendation
■ uncoated grades
□ coated grades
△ brazed/Cermet

Dimensions in inch

Carbide grades

State R or L version

The modified geometry allows boring of bores ≥ Ø .386” and profiling of reliefs as per DIN 509 form E and .

E18

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
BORING and PROFILING ≥ Ø .433”

INSERT Type

S111

Bore Ø from
Depth of undercut up to .433” .091”

for use with Toolholder

Type 125
B111
BU111

Geometry .R

Part number | r   | s   | f   | a   | d   | D_{\text{min}} | Carbide grades
--- | --- | --- | --- | --- | --- | --- | ---
LS111.1867.R2 | .008 | .156 | .264 | .421 | .315 | .433 | M
RS111.1867.R2 | .008 | .164 | .264 | .421 | .315 | .433 | M
LS111.1867.R4 | .016 | .016 | .164 | .264 | .421 | .315 | M
RS111.1867.R4 | .016 | .016 | .164 | .264 | .421 | .315 | M

▲ on stock △ 4 weeks
● main recommendation
○ alternative recommendation
■ uncoated grades
□ coated grades
▲ brazed/Cermet

Dimensions in inch

State R or L version

The modified geometry allows boring of bores ≥ Ø .433” and profiling of reliefs as per DIN 509 form E and F.
## INSERT Type 111

**Bore Ø from** .433"
**Depth of undercut up to** .091"

---

for use with Toolholder

<table>
<thead>
<tr>
<th>Part number</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t&lt;sub&gt;max&lt;/sub&gt;</th>
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▲ on stock  △ 4 weeks
● main recommendation
ο alternative recommendation
☑ uncoated grades
☑ coated grades
☑ brazed/Cermet

Dimensions in inch

State R or L version

The modified geometry allows boring of bores ≥ Ø .433" and profiling of reliefs as per DIN 509 form
HARD BORING

INSERT Type 111

Bore Ø from .394”

R = right hand version shown

for use with Toolholder

Type  125
B111
BU111

CBN tipped

<table>
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<th>Part number</th>
<th>r</th>
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<td>.421</td>
<td>.315</td>
<td>.433</td>
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▲ on stock △ 4 weeks
● main recommendation
ο alternative recommendation
■ uncoated grades
■■ coated grades
■■■ brazed/Cermet

Dimensions in inch

Carbide grades

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
THREAD MILLING

Thread milling (by circular interpolation)

- high cylindricity
- constant milled profil
- simple checking of thread
- in high strength material

For further information please see HORN catalog "CARBIDE MILLING TOOLS".
# BACKBORING (internal)

## INSERT Type 111

Bore Ø from .433" for use with Toolholder

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<thead>
<tr>
<th>R/L11.3067.02</th>
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- **R** = right hand version shown
- **L** = left hand version

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<td>☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐</td>
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</tbody>
</table>

- ☐ on stock  △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ■ uncoated grades
- □ coated grades
- △ brazed/Cermet

Dimensions in inch

State R or L version

In the UNITED STATES call us toll free 1 - 888 - 818 HORN

E23
CHAMFERING and BACKBORING (internal)

INSERT Type 111

Bore Ø from .433" for use with Toolholder

Type 125
B111
BU111

R = right hand version shown
L = left hand version

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<th>s</th>
<th>f</th>
<th>a</th>
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<th>D_min</th>
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<th>TC5</th>
<th>TF-45</th>
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</table>

▲ on stock △ 4 weeks
● main recommendation
ο alternative recommendation
### uncoated grades
### coated grades
### brazed/Cermet

Dimensions in inch
State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
**PREGROOVING and CHAMFERING (int.)**

**INSERT Type** 111

Bore Ø from .433"

for use with Toolholder

Type 125
B111
BU111

R = right hand version shown  L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
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<th>f</th>
<th>a</th>
<th>d</th>
<th>t₁</th>
<th>t_max</th>
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</tbody>
</table>

Dimensions in inch

State R or L version
INSERT Type 111

Bore Ø from .433" (11.0 mm)
Pitch 2.0 - 2.5 mm

for use with Toolholder

Type 125
B111
BU111

R = right hand version shown  L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>P</th>
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<th>s</th>
<th>f</th>
<th>a</th>
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▲ on stock  Δ 4 weeks
● main recommendation
○ alternative recommendation
■ uncoated grades
■ coated grades
■ brazed/Cermet

Dimensions in mm

State R or L version

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
THREADING (internal) Partial profile

**INSERT Type**

111

<table>
<thead>
<tr>
<th>Bore Ø from</th>
<th>0.433&quot; (11.0 mm)</th>
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<tbody>
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<td>Pitch</td>
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R = right hand version shown  L = left hand version

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**Part number**

<table>
<thead>
<tr>
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<th>f</th>
<th>a</th>
<th>d</th>
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▲ on stock  △ 4 weeks  ● main recommendation  ○ alternative recommendation

---

**Note**

- Carbide grades:
  - S = uncoated grades
  - N = coated grades
  - H = brazed/Cermet

Dimensions in mm

State R or L version
**INSERT Type 111**

Bore Ø from 0.433" (11.0 mm)
Pitch 2.0 - 3.0 mm

---

**R = right hand version shown**  **L = left hand version**

---

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---

**Metric ISO standard thread**

**Type 125**
B111
BU111

---

**Dimensions in mm**

**State R or L version**
THREADING (internal) Full profile

INSERT Type 111

Bore Ø from .433" (11.0 mm)
Pitch 1.0 - 1.5 mm

for use with Toolholder

Type 125
B111
BU111

R = right hand version shown
L = left hand version

Part number | P | E | s | f | a | d | D_min | MG12 | TN35 | TF3 | TF45 | TH55
---|---|---|---|---|---|---|---|---|---|---|---|---
R/L111.0510.02 | 1.0 | 3.3 | 4.15 | 6.7 | 10.7 | 8 | 11 | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲
R/L111.0815.02 | 1.5 | ▲ | ▲/△ | ▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲ | ▲/▲

▲ on stock △ 4 weeks
● main recommendation
○ alternative recommendation
■ uncoated grades
■ coated grades
■ brazed/Cermet

Dimensions in mm
State R or L version

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
## THREADING (internal) Partial profile

### INSERT Type

**U111**

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<th>f</th>
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- ▲ on stock  △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ☐ uncoated grades
- ☐ coated grades
- ☐ brazed/Cermet

**Dimensions in inch**

- State R or L version

---

**For use with Toolholder**

- Type 125
- B111
- BU111

**ACME / Stub ACME thread**
THREADING (internal) Partial profile

INSERT Type 111

Bore Ø from .433" (11.0 mm)
Pitch 1.5 - 4.0 mm

for use with Toolholder

Type 125
B111
BU111

Metric ISO trapezoidal thread DIN 103

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<th>f</th>
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▲ on stock  △ 4 weeks
● main recommendation
○ alternative recommendation

uncoated grades
coated grades
brazed/Cermet

Dimensions in mm
State R or L version

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**INSERT Type 111**

<table>
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<th>Threads per Inch</th>
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<th>f</th>
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<th>d</th>
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▲ on stock  △ 4 weeks
● main recommendation
ο alternative recommendation
uncoated grades
coated grades
brazed/Cermet

Dimensions in inch
State R or L version

**Whitworth pipe thread as per DIN ISO 228: (259) and 2999**

**for use with Toolholder**

Type 125
B111
BU111

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HORN - THE LEADERS IN GROOVING TECHNOLOGY

EXTREME FEED RATES

SYSTEM DAH

Remove material fast through high feed milling, not only for the stamping and mold industry.

HORN - INTELLIGENT TOOL DESIGN AT WORK.

For further information, please see HORN catalog "CARBIDE MILLING TOOLS".

E33
## Bore Ø

<table>
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<th>110</th>
<th>108</th>
<th>10P</th>
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<th>116</th>
<th>18P</th>
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<td>≥ .008˝ (0.2 mm)</td>
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<td>≥ .236˝ (6.0 mm)</td>
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<tr>
<td>≥ .268˝ (6.8 mm)</td>
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<td>≥ .307˝ (7.8 mm)</td>
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<tr>
<td>≥ .315˝ (8.0 mm)</td>
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<tr>
<td>≥ .346˝ (8.8 mm)</td>
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<td>≥ .354˝ (9.0 mm)</td>
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<td>≥ .366˝ (9.8 mm)</td>
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<td>≥ .630˝ (16.0 mm)</td>
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<td>≥ .650˝ (16.5 mm)</td>
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## Groove depth ≤ (inch)

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<th>.039˝</th>
<th>.118˝</th>
<th>.091˝</th>
<th>.138˝</th>
<th>.256˝</th>
<th>.169˝</th>
<th>.315˝</th>
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</table>

## Groove depth ≤ (mm)

| Groove depth ≤ | 2.5  | 4.0  | 1.0  | 3.0  | 2.3  | 3.5  | 6.5  | 4.3  | 8.0  |

## Width of groove inch

| Width of groove | .020”-.079” | .039”-.250” | .029”-.079” | .039”-.118” | .029”-.125” | .039”-.118” | .029”-.125” | .029”-.157” | .071”-.118” |

## Width of groove mm

| Width of groove | 0.5 - 2.0 | 1.0 - 6.35 | 0.74 - 2.0 | 1.0 - 3.0 | 0.74 - 3.18 | 1.0 - 3.0 | 0.74 - 3.18 | 0.74 - 4.0 | 1.8 - 3.0 |

## Application

<table>
<thead>
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<th>105</th>
<th>110</th>
<th>108</th>
<th>10P</th>
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## Chapter

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<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
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Special tools upon request
SUMMARY

MINI CARBIDE GROOVING TOOLS

Toolholder
BU11P / B11P

Page F2-F5

Inserts
11P / S11P
≥ Ø 0.413” (10.5 mm)

Page F6, F8
Page F7, F9
Page F10-F11

Technical Instructions  Page L1 - L9
GROOVING and BORING

TOOLHOLDER Type

BU11P

with through coolant supply

Bore Ø from .413"
Depth of groove up to .138"
Width of groove up to .118"

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert
Type 11P S11P

Part number d l₁ l₂ h l₄
R/LBU11P.0500.00 .500 2.953 .591 .461 1.575
R/LBU11P.0500.01 3.740 1.024
R/LBU11P.0500.02 4.331 1.457

State R or L version w, a, tₘₐₓ and f see inserts Dimensions in inch

Further sizes upon request

Ordering note:
Toolholders with damaged seating can be repaired by HORN.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
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<tr>
<td>R/LBU11P.0500.0...</td>
<td>3.10T9P</td>
<td>T9PL</td>
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GROOVING and Boring

TOOLHOLDER Type B11P

with through coolant supply

Bore Ø from .413” (10.5 mm)
Depth of groove up to .138” (3.5 mm)
Width of groove up to .118” (3.0 mm)

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert

Type 11P
S11P

R = right hand version shown
L = left hand version

Part number | d | l₁ | l₂ | h | l₄
---|---|---|---|---|---
R/LB11P.0012.00 | 12 | 75 | 15 | | 40
R/LB11P.0012.01 | 95 | 15 | 26 | | 50
R/LB11P.0012.02 | 110 | 15 | 37 | 11 | 50
R/LB11P.0012.03 | 120 | 15 | 50 | | 50

State R or L version w, a, tₘₐₓ and f see inserts
Dimensions in mm

Further sizes upon request

Ordering note:
Toolholders with damaged seating can be repaired by HORN.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
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<tbody>
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<td>R/LB11P.0012.0...</td>
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<td>T9PL</td>
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</table>

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GROOVING and BORING

TOOLHOLDER Type \textbf{B11P}
with through coolant supply

Bore Ø from \hfill .413" (10.5 mm)
Depth of groove up to \hfill .138" (3.5 mm)
Width of groove up to \hfill .118" (3.0 mm)

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert

Type \textit{11P} \textit{S11P}

with 2 clamping flats

\begin{center}
\begin{tabular}{|c|c|c|c|c|c|}
\hline
Part number & d & l_{1} & l_{2} & h & l_{4} \\
\hline
R/LB11P.0012.2.00 & 12 & 75 & 15 & 40 \\
R/LB11P.0012.2.01 & 100 & 20 & 26 & 50 \\
R/LB11P.0012.2.02 & 105 & 30 & 37 & 50 \\
R/LB11P.0012.2.03 & 110 & 40 & 50 & 50 \\
\hline
\end{tabular}
\end{center}

State R or L version \textit{w, a, t_{max}} and \textit{f} see inserts

Dimensions in mm

Further sizes upon request

\textbf{Ordering note:}
Toolholders with damaged seating can be repaired by HORN.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LB11P.0012.2</td>
<td>3.10T9P</td>
<td>T9PL</td>
</tr>
</tbody>
</table>

In the \textit{UNITED STATES call us toll free 1 - 888 - 818 HORN}
**GROOVING and BORING**

**TOOLHOLDER Type**

**B11P**

*with through coolant supply*

- **Bore Ø from** .413" (10.5 mm)
- **Depth of groove up to** .138" (3.5 mm)
- **Width of groove up to** .118" (3.0 mm)

Material of shank: Carbide - Giving a good vibration resistance

**Part number**

<table>
<thead>
<tr>
<th></th>
<th>d</th>
<th>( l_1 )</th>
<th>( l_2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LB11P.0012.00S</td>
<td>12</td>
<td>49.7</td>
<td>15</td>
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<tr>
<td>R/LB11P.0012.01S</td>
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State R or L version

\( w, a, t_{\text{max}}, \) and \( f \) see inserts

Dimensions in mm

Further sizes upon request

**Ordering note:**

Toolholders with damaged seating can be repaired by HORN.

**Spare parts**

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LB11P.0012.00S</td>
<td>3.10T9P</td>
<td>T9PL</td>
</tr>
</tbody>
</table>

Example of assembly System „W&F”

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
GROOVING (internal) ≥ Ø .413"

**INSERT Type**

**11P**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t&lt;sub&gt;max&lt;/sub&gt;</th>
<th>D&lt;sub&gt;min&lt;/sub&gt;</th>
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<tbody>
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<td>.165</td>
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<td>.394</td>
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<tr>
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<td>.008</td>
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<td>.394</td>
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<td>.008</td>
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▲ on stock  △ 4 weeks
● main recommendation
ο alternative recommendation
■ uncoated grades
■ coated grades
■ brazed/Cermet

Dimensions in inch
State R or L version

for use with Toolholder

Type B11P
BU11P

R = right hand version shown  L = left hand version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
**GROOVING (internal) ≥ Ø .413”**

**INSERT Type**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
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<th>a</th>
<th>d</th>
<th>t_max</th>
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<td>.413</td>
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▲ on stock  △ 4 weeks
● main recommendation
ο alternative recommendation

---

**Dimensions in inch**

State R or L version

---

**for use with Toolholder**

Type

- B11P
- BU11P

---

**R = right hand version shown   L = left hand version**

---

**In the UNITED STATES call us toll free**

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GROOVING (internal) ≥ Ø .453”

INSERT Type 11P

Bore Ø from .453”
Depth of groove up to .138”
Width of groove .039 - .079”

R = right hand version shown  L = left hand version

Part number | w  | r  | s  | f  | a  | d  | 𝑡_max | D_min |
--- | --- | --- | --- | --- | --- | --- | --- | --- |
R/L11P.0100.2.00 | .039 | - | - | .165 | .295 | .433 | .276 | .138 | .453
R/L11P.0150.2.00 | .059 | - | .008 | - | .276 | .453
R/L11P.0200.2.02 | .079 | .039 | .079 | .138 | .453

▲ on stock  ❁ 4 weeks
● main recommendation  ○ alternative recommendation

uncoated grades  coated grades  brazed/Cermet

State R or L version

for use with Toolholder

Type B11P
BU11P
GROOVING (internal) ≥ Ø .453”

INSERT Type

**S11P**

Bore Ø from .453”
Depth of groove up to .138”
Width of groove .059 - .098”

for use with Toolholder

Type B11P
BU11P

R = right hand version shown  L = left hand version

Geometry .D

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
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<th>f</th>
<th>a</th>
<th>d</th>
<th>t_max</th>
<th>D_min</th>
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<tbody>
<tr>
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<td>.138</td>
<td>.453</td>
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<td>R/LS11P.0200.2.D2</td>
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<td>.008</td>
<td>.165</td>
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<td>.276</td>
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<td>.453</td>
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<tr>
<td>R/LS11P.0250.2.D2</td>
<td>.098</td>
<td>.008</td>
<td>.165</td>
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<td>.433</td>
<td>.276</td>
<td>.138</td>
<td>.453</td>
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</tbody>
</table>

▲ on stock  △ 4 weeks
● main recommendation
○ alternative recommendation

Carbide grades

Dimensions in inch

State R or L version
BORING and PROFILING ≥ Ø .413”

**INSERT Type** 11P

<table>
<thead>
<tr>
<th>Part number</th>
<th>r</th>
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<th>f</th>
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<th>d</th>
<th>D&lt;sub&gt;min&lt;/sub&gt;</th>
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</thead>
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<table>
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<th>Carbide grades</th>
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<td>MG12</td>
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<tr>
<td>P</td>
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<tr>
<td>●</td>
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- **R** = right hand version shown
- **L** = left hand version

The modified geometry allows boring of bores ≥ Ø .406” and profiling of reliefs as per DIN 509 form E and .

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
BORING and PROFILING ≥ Ø .386”

**INSERT Type**

**S11P**

Bore Ø from .386”
Depth of undercut up to .075”

for use with Toolholder

Type B11P
BU11P

Geometry .R

R = right hand version shown  L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>D_{min}</th>
<th>MG12</th>
<th>TN65</th>
<th>T25</th>
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<tr>
<td>RS11P.1859.R4</td>
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</table>

▲ on stock  △ 4 weeks
● main recommendation
○ alternative recommendation

<table>
<thead>
<tr>
<th>Carbide grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>H</td>
</tr>
</tbody>
</table>

Dimensions in inch

State R or L version

The modified geometry allows boring of bores ≥ Ø 9,8 mm and profiling of reliefs as per DIN 509 form E and F.
## HCG - HORN Catalog Guide

### Bore Ø

<table>
<thead>
<tr>
<th>Grooving</th>
<th>Boring</th>
<th>Threading</th>
<th>Chamfering</th>
<th>Face Grooving</th>
<th>Hard turning</th>
</tr>
</thead>
<tbody>
<tr>
<td>105</td>
<td>110</td>
<td>108</td>
<td>10P</td>
<td>111</td>
<td>11P</td>
</tr>
<tr>
<td>≥ .008˝ (0.2 mm) •</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>≥ .236˝ (6.0 mm) • •</td>
<td>•</td>
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<tr>
<td>≥ .268˝ (6.8 mm) • •</td>
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</tr>
<tr>
<td>≥ .307˝ (7.8 mm) • •</td>
<td>•</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>≥ .315˝ (8.0 mm) • •</td>
<td>•</td>
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</tr>
<tr>
<td>≥ .346˝ (8.8 mm) • • •</td>
<td>•</td>
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<tr>
<td>≥ .354˝ (9.0 mm) • • •</td>
<td>•</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>≥ .386˝ (9.8 mm) • • •</td>
<td>•</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>≥ .394˝ (10.0 mm) • • •</td>
<td>•</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>≥ .419˝ (10.5 mm) •</td>
<td>•</td>
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<td></td>
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</tr>
<tr>
<td>≥ .433˝ (11.0 mm) • •</td>
<td>•</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>≥ .492˝ (12.5 mm) • •</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ .551˝ (14.0 mm) • •</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ .630˝ (16.0 mm) •</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ .650˝ (16.5 mm) •</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ .689˝ (17.5 mm) •</td>
<td>•</td>
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</tr>
</tbody>
</table>

### Groove depth ≤ (inch)

<table>
<thead>
<tr>
<th>Groove depth ≤ (inch)</th>
<th>.098”</th>
<th>.157”</th>
<th>.039”</th>
<th>.118”</th>
<th>.091”</th>
<th>.138”</th>
<th>.256”</th>
<th>.169”</th>
<th>.315”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width of groove inch</td>
<td>.020”-.079”</td>
<td>.039”-.250”</td>
<td>.029”-.079”</td>
<td>.039”-.118”</td>
<td>.029”-.125”</td>
<td>.039”-.118”</td>
<td>.029”-.125”</td>
<td>.29”-.157”</td>
<td>.071”-.118”</td>
</tr>
<tr>
<td>Width of groove mm</td>
<td>0.5 - 2.0</td>
<td>1.0 - 6.35</td>
<td>0.74 - 2.0</td>
<td>1.0 - 3.0</td>
<td>0.74 - 3.18</td>
<td>1.0 - 3.0</td>
<td>0.74 - 3.18</td>
<td>0.74 - 4.0</td>
<td>1.8 - 3.0</td>
</tr>
</tbody>
</table>

### Application

<table>
<thead>
<tr>
<th>Application</th>
<th>Product line</th>
</tr>
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<tbody>
<tr>
<td>Grooving</td>
<td>105 110 108 10P 111 11P 114 116 18P</td>
</tr>
<tr>
<td>Boring</td>
<td>105 110 108 10P 111 11P 114 116 18P</td>
</tr>
<tr>
<td>Threading</td>
<td>105 110 108 10P 111 11P 114 116 18P</td>
</tr>
<tr>
<td>Chamfering</td>
<td>105 110 108 10P 111 11P 114 116 18P</td>
</tr>
<tr>
<td>Face Grooving</td>
<td>105 110 108 10P 111 11P 114 116 18P</td>
</tr>
<tr>
<td>Hard turning</td>
<td>105 110 108 10P 111 11P 114 116 18P</td>
</tr>
</tbody>
</table>

### Chapter

<table>
<thead>
<tr>
<th>Chapter</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
</tr>
</thead>
</table>

Special tools upon request
GROOVING and BORING

TOOLHOLDER Type

BU114
with through coolant supply

Bore Ø from
Depth of groove up to
Width of groove up to

Material of shank: Carbide - Giving a good vibration resistance

Picture = right hand cutting version shown

Part number | d | l₁ | l₂ | h | l₄ | Remark
---|---|---|---|---|---|---
BU114.ST05.00 | .500 | 2.953 | .748 | .460 | 1.570 | * Steel toolholder
BU114.0500.01 | .500 | 3.937 | 1.338 | 1.771 | .460 | 1.970
BU114.0500.02 | 5.118 | 2.520 | .585 | 1.570 | * Steel toolholder
BU114.0500.03 | .625 | 3.150 | .748 | .585 | 1.970
BU114.0625.01 | .625 | 3.937 | 1.338 | 1.771 | .585 | 1.970
BU114.0625.02 | 5.118 | 2.520 | .585 | 1.970
BU114.0625.03 | .551" | .256" | .125"

Further sizes upon request

Note:
Toolholders can be used in right and left hand inserts.
Toolholders with damaged seating can be repaired by HORN.

* Steel toolholder is not repairable.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>BU114....</td>
<td>4.12T15EP</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
GROOVING and BORING

TOOLHOLDER Type **B114**

with through coolant supply

Bore Ø from **.551" (14.0 mm)**
Depth of groove up to **.256" (6.5 mm)**
Width of groove up to **.125" (3.18 mm)**

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert

Type 114
S114
U114

Picture = right hand cutting version shown

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>(l_1)</th>
<th>(l_2)</th>
<th>h</th>
<th>(l_4)</th>
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<tr>
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<td>19.5</td>
<td>40</td>
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<tr>
<td>B114.0016.01</td>
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<td>100</td>
<td>34.0</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>B114.0016.02</td>
<td></td>
<td>110</td>
<td>45.0</td>
<td>50</td>
<td></td>
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<tr>
<td>B114.0016.03</td>
<td></td>
<td>130</td>
<td>64.0</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

Further sizes upon request

w, a, \(t_{\text{max}}\), and f see inserts

Dimensions in mm

Ordering note:
Toolholders can be used in right and left hand inserts.
Toolholders with damaged seating can be repaired by HORN.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B114.001...</td>
<td>4.12T15EP</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
**GROOVING and BORING**

**TOOLHOLDER Type**

B114

with through coolant supply

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>l₂</th>
<th>h</th>
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<tr>
<td>B114.0012.2.00</td>
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<td>50</td>
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<tr>
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<td>12</td>
<td>130</td>
<td>64.0</td>
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<td>50</td>
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<td>110</td>
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<td>15</td>
<td>50</td>
</tr>
<tr>
<td>B114.0016.2.03</td>
<td>16</td>
<td>130</td>
<td>64.0</td>
<td>15</td>
<td>50</td>
</tr>
</tbody>
</table>

Material of shank: Carbide - Giving a good vibration resistance

**Spare parts**

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B114.001...</td>
<td>4.12T15EP</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

**Ordering note:**

Toolholders can be used in right and left hand inserts.

Toolholders with damaged seating can be repaired by HORN.

In the UNITED STATES call us toll free

1 - 888 - 818 HORN
GROOVING and BORING

TOOLHOLDER Type B114
with through coolant supply

Bore Ø from .551" (14.0 mm)
Depth of groove up to .256" (6.5 mm)
Width of groove up to .125" (3.18 mm)

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert

Type 114
S114
U114

for shrinkage location
S = orientation

Picture = right hand cutting version shown

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>l₂</th>
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</thead>
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<tr>
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<td>19.5</td>
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<td>B114.0012.03S</td>
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<td>64.0</td>
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</table>

Further sizes upon request w, a, t max and f see inserts
Dimensions in mm

Ordering note:
Toolholders can be used in right and left hand inserts.
Toolholders with damaged seating can be repaired by HORN.

Example of assembly System »W&F«

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B114.0012.0...</td>
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<td>T15PQ</td>
</tr>
</tbody>
</table>

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
GROOVING and FACE GROOVING

TOOLHOLDER Type  HCU114

from outer groove Ø .472"
Depth of groove up to .236"
Width of groove up to .125"

for use with Insert

Type  114
S114
U114

Part number  h  h₁  l₁  l₂  b  b₁  Hₖ
R/LHCU114.0500.01  .500  .500  3.819  .441  .500  .374  .642
R/LHCU114.0625.01  .625  .625  4.803  .441  .625  .374  .768
R/LHCU114.0750.01  .750  .750  4.803  .559  .750  .492  .894
R/LHCU114.1000.01  1.000  1.000  5.787  .815  1.000  .728  1.142

Further sizes upon request * see inserts
Dimensions in inch

State R or L version

Right hand toolholders use left hand inserts.
Left hand toolholders use right hand inserts.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LHCU114...</td>
<td>4.12T15EP</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

G6
**GROOVING and FACE GROOVING**

**TOOLHOLDER Type**

**HC114**

- from outer groove Ø .472" (12.0 mm)
- Depth of groove up to .236" (6.0 mm)
- Width of groove up to .125" (3.18 mm)

For use with Insert

<table>
<thead>
<tr>
<th>Type</th>
<th>S114</th>
<th>U114</th>
</tr>
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<tbody>
<tr>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R = right hand version shown  
L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>h</th>
<th>h₁</th>
<th>l₁</th>
<th>l₂</th>
<th>b</th>
<th>b₁</th>
<th>Hₖ</th>
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<td>122</td>
<td>11.2</td>
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</tr>
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<td><strong>R/LHC114.2020.01</strong></td>
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<td>122</td>
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<td><strong>R/LHC114.2525.01</strong></td>
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</table>

Further sizes upon request  
* see inserts

Dimensions in mm

State R or L version

Right hand toolholders use left hand inserts.  
Left hand toolholders use right hand inserts.

**Spare parts**

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LHC114...</td>
<td>4.12T15EP</td>
<td>T15PQ</td>
</tr>
</tbody>
</table>

In the UNITED STATES call us toll free  
1 - 888 - 818 HORN
GROOVING (internal) ≥ Ø .551”

**INSERT Type**

**U114**

- **Bore Ø from**
  - .551”
- **Depth of groove up to**
  - .059”
- **Width of groove**
  - .031 - .039”

For use with Toolholder

**Type**

- B114
- BU114

R = right hand version
L = left hand version

**Part number**

<table>
<thead>
<tr>
<th>Part number</th>
<th>W</th>
<th>s₁</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>tₘₐₓ</th>
<th>Dₘᵟᵝₙ</th>
<th>Carbide grades</th>
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</thead>
<tbody>
<tr>
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<td>.209</td>
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<td>.531</td>
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</table>

▲ on stock  Δ 4 weeks
● main recommendation
ο alternative recommendation

- ▲ uncoated grades
- ▲ coated grades
- ▲ brazed/Cermet

Dimensions in inch

State R or L version

Depth of groove \( t_{\text{max}} = .059" \times w \)
GROOVING (internal) ≥ Ø .551”

INSERT Type 114

Bore Ø from .551”
Depth of groove up to .059”
Width of circlip Nw .028 - .035”

Widths for circlip grooves DIN 471/472

for use with Toolholder

Type B114
BU114

R = right hand version shown
L = left hand version

not face cutting, limited depth of cut

Part number | Nw | w | s₁ | s | f | a | d | t_max | D_min | MG12 | TN55 | TC5 | TF45 | TH55
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---
R/L114.0070.00 | .028 | .029 | .029 | .029 | .029 | .029 | .029 | .029 | .029 | .029 | .029 | .029 | .029 | .029
R/L114.0080.00 | .031 | .033 | .035 | .037 | .039 | .041 | .043 | .045 | .047 | .049 | .051 | .053 | .055 | .057
R/L114.0090.00 | .035 | .037 | .039 | .041 | .043 | .045 | .047 | .049 | .051 | .049 | .051 | .053 | .055 | .057

▲ on stock △ 4 weeks
● main recommendation
ο alternative recommendation

uncoated grades coated grades brazed/Cermet

Dimensions in inch

State R or L version

Depth of groove t_max = .059” x w
**NC-PROFILING (internal) ≥ Ø .551”**

**INSERT Type**

**U114**

**Bore Ø from**

**Depth of groove up to**

**Width of groove**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>( t_{\text{max}} )</th>
<th>( D_{\text{min}} )</th>
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<td>.157</td>
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<td>.354</td>
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<td>.354</td>
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<tr>
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<td>.354</td>
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<td>.354</td>
<td>.531</td>
<td>.354</td>
<td>.157</td>
<td></td>
</tr>
</tbody>
</table>

- ▲ on stock  △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- uncoated grades
- coated grades
- brazed/Cermet

Dimensions in inch

State R or L version

**for use with Toolholder**

Type B114
BU114

R = right hand version shown  L = left hand version

**Carbide grades**

**G10**

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
NC-PROFILING (internal) ≥ Ø 0.551”

INSERT Type 114

Bore Ø from 0.551”
Depth of groove up to 0.157”
Width of groove 0.079”

for use with Toolholder

Type B114 BU114

R = right hand version shown  L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t_max</th>
<th>D_min</th>
<th>Carbide grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L114.0200.02</td>
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<td>0.008</td>
<td>0.209</td>
<td>0.354</td>
<td>0.531</td>
<td>0.354</td>
<td>0.157</td>
<td>0.551</td>
<td>P ● ● ●</td>
</tr>
<tr>
<td></td>
<td>A on stock △ 4 weeks  ● main recommendation  ○ alternative recommendation  ▲ uncoated grades  ▲ coated grades  ▲ brazed/Cermet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Dimensions in inch
State R or L version

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
GROOVING (internal) ≥ Ø .551”

INSERT Type
U114

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t max</th>
<th>D min</th>
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<tr>
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<tr>
<td>R/LU114.0125.00</td>
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<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

- ▲ on stock
- Δ 4 weeks
- • main recommendation
- o alternative recommendation
- □ uncoated grades
- □ coated grades
- □ brazed/Cermet

Dimensions in inch
State R or L version

for use with Toolholder
Type B114
BU114

R = right hand version shown
L = left hand version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
GROOVING (internal) ≥ Ø .551”

INSERT Type 114

Bore Ø from .551”
Depth of groove up to .157”
Width of circlip Nw .043 - .063”

Widths for circlip grooves DIN 471/472

R/L114.0110.00 .043 .047 .209 .354 .051 .055 .063 .067 .209 .354 .051 .055 .063 .067

▲ on stock Δ 4 weeks
● main recommendation
ο alternative recommendation
██ uncoated grades
██ coated grades
██ brazed/Cermet

Dimensions in inch
State R or L version

For use with Toolholder

Type B114 BU114
## GROOVING (internal) ≥ Ø .551”

**INSERT Type** 114

- **Bore Ø from**
- **Depth of groove up to**
- **Width of groove**
  - MG12
  - TN35
  - TI25
  - TF45
  - TH35

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
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<td>.551</td>
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</table>

- ▲ on stock   △ 4 weeks
- ● main recommendation
- ○ alternative recommendation

- ▲ uncoated grades
- ■ coated grades
- ※ brazed/Cermet

**Dimensions in inch**

- **State R or L version**

---

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
**GROOVING (internal) ≥ Ø .551”**

**INSERT Type**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t_{max}</th>
<th>D_{min}</th>
<th>Carbide grades</th>
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</thead>
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<td>.008</td>
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<td>.354</td>
<td>.157</td>
<td>.551</td>
<td>P ✫ ✫ ✫</td>
</tr>
</tbody>
</table>

▲ ▲ ▲ on stock   Δ 4 weeks
● main recommendation
ο alternative recommendation
███ uncoated grades
███ coated grades
███ brazed/Cermet

Dimensions in inch
State R or L version

R = right hand version shown  L = left hand version

for use with Toolholder

Type B114
BU114
GROOVING (internal) ≥ Ø .650”

INSERT Type

**U114**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t(_{\text{max}})</th>
<th>D(_{\text{min}})</th>
<th>MG12</th>
<th>TN55</th>
<th>TC65</th>
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<th>TH55</th>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

▲ on stock  △ 4 weeks  ● main recommendation  ○ alternative recommendation  □ uncoated grades  □ coated grades  □ brazed/Cermet

Dimensions in inch  State R or L version

R = right hand version shown  L = left hand version

In the UNITED STATES call us toll free  1 - 888 - 818 HORN
GROOVING (internal) ≥ Ø .650”

## INSERT Type

### 114

<table>
<thead>
<tr>
<th>Bore Ø from</th>
<th>.650”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth of groove up to</td>
<td>.256”</td>
</tr>
<tr>
<td>Width of groove</td>
<td>.059 -.118”</td>
</tr>
</tbody>
</table>

for use with Toolholder

**Type**  B114

BU114

R = right hand version shown          L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t&lt;sub&gt;max&lt;/sub&gt;</th>
<th>D&lt;sub&gt;min&lt;/sub&gt;</th>
<th>Carbide grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L114.0150.1.02</td>
<td>.059</td>
<td>.008</td>
<td>.209</td>
<td>.445</td>
<td>.622</td>
<td>.354</td>
<td>.256 .650</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R/L114.0200.1.02</td>
<td>.079</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R/L114.0250.1.02</td>
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<td></td>
<td></td>
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<tr>
<td>R/L114.0300.1.02</td>
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<td></td>
</tr>
</tbody>
</table>

▲ on stock  △ 4 weeks
● main recommendation
○ alternative recommendation
- uncoated grades
- coated grades
- brazed/Cermet

Dimensions in inch

State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
GROOVING (internal) $\geq \varnothing .650''$

**INSERT Type**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>$t_{\text{max}}$</th>
<th>$D_{\text{min}}$</th>
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</thead>
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<tr>
<td>R/LS114.0250.1.D2</td>
<td>.098</td>
<td>.118</td>
<td>.209</td>
<td>.445</td>
<td>.622</td>
<td>.354</td>
<td>.256</td>
<td>.650</td>
</tr>
<tr>
<td>R/LS114.0300.1.D2</td>
<td>.118</td>
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<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
</tr>
</tbody>
</table>

- ▲ on stock  △ 4 weeks
- ● main recommendation
- ○ alternative recommendation

- □ uncoated grades
- □ coated grades
- □ brazed/Cermet

Dimensions in inch

State R or L version

**Type**

- B114
- BU114

**Geometry .D**

R = right hand version shown
L = left hand version

**Carbide grades**

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
HORN - THE LEADERS IN GROOVING TECHNOLOGY

SETTING THE STANDARD

GROOVE MILLING

HORN groove milling sets the standard. For productivity, nothing else come close.

HORN - INTELLIGENT TOOL DESIGN AT WORK.

For further information please see HORN catalog "CARBIDE MILLING TOOLS".
**GROOVING (internal) ≥ Ø .551”**

**INSERT Type**

**U114**

- **Bore Ø from**: .551”
- **Depth of groove up to**: .157”
- **Width of groove**: .062 - .125”

For use with Toolholder

Type B114 BU114

---

**Part number**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t_max</th>
<th>D_min</th>
<th>Carbide grades</th>
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</table>

- ▲ on stock
- △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ■ uncoated grades
- ▪ coated grades
- □ brazed/Cermet

Dimensions in inch

State R or L version

---

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
GROOVING (internal) ≥ Ø .551”

INSERT Type 114

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
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<td>M</td>
<td>● ●</td>
</tr>
<tr>
<td>S</td>
<td>● ●</td>
</tr>
<tr>
<td>N</td>
<td>● ●</td>
</tr>
<tr>
<td>H</td>
<td>● ●</td>
</tr>
</tbody>
</table>

Dimensions in inch

Carbide grades

Full radius

R = right hand version shown
L = left hand version

for use with Toolholder

Type B114
BU114

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
BORING and PROFILING ≥ Ø 0.543”

**INSERT Type 114**

Bore Ø from
Depth of undercut up to

<table>
<thead>
<tr>
<th>Part number</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>D_{min}</th>
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</thead>
<tbody>
<tr>
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<td>.354</td>
<td>.543</td>
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</tbody>
</table>

▲ on stock  △ 4 weeks
● main recommendation
ο alternative recommendation

Dimensions in inch

State R or L version

The modified geometry allows boring of bores ≥ Ø 0.543” and profiling of reliefs as per DIN 509 form E and .

In the UNITED STATES call us toll free
1 - 888 - 818 HORN

**Type B114 BU114**
BORING and PROFILING ≥ Ø .543″

INSERT Type

S114

Bore Ø from

Depth of undercut up to

for use with Toolholder

Type B114
BU114

Part number

<table>
<thead>
<tr>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>D_{min}</th>
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<th>TN55</th>
<th>TR5</th>
<th>TF45</th>
<th>TH55</th>
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<td>.543</td>
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<tr>
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<td>.343</td>
<td>.520</td>
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<td>.543</td>
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<td>.543</td>
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<tr>
<td>RS114.1890.R4</td>
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<td>.343</td>
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<td>.354</td>
<td>.543</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

▲ on stock ▲ 4 weeks
● main recommendation
○ alternative recommendation
□ uncoated grades
□ coated grades
□ brazed/Cermet

Dimensions in mm

State R or L version

The modified geometry allows boring of bores ≥ Ø .543" and profiling of reliefs as per DIN 509 form E and F.
BORING and PROFILING ≥ Ø .543”

**INSERT Type 114**

**Bore Ø from .543”**

for use with Toolholder

Type B114 BU114

R = right hand version shown  L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t&lt;sub&gt;max&lt;/sub&gt;</th>
<th>D&lt;sub&gt;min&lt;/sub&gt;</th>
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</tr>
<tr>
<td>R/L114.4787.04</td>
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<td>.209</td>
<td>.343</td>
<td>.520</td>
<td>.354</td>
<td>.118</td>
<td>.543</td>
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<tr>
<td>R/L114.4710.02</td>
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<td>.209</td>
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<td>.354</td>
<td>.197</td>
<td>.630</td>
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</table>

▲ on stock  Δ 4 weeks  ● main recommendation  ○ alternative recommendation  □ uncoated grades  □ coated grades  □ brazed/Cermet

Dimensions in inch  Carbide grades

State R or L version

The modified geometry allows boring of bores ≥ Ø .543” and profiling of reliefs as per DIN 509 form E and .
**HARD BORING**

**INSERT Type 114**

Bore Ø from **.492”**

For use with Toolholder

Type **B114**

R = right hand version shown

---

<table>
<thead>
<tr>
<th>Part number</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>D_{min}</th>
</tr>
</thead>
</table>

▲ on stock  △ 4 weeks
● main recommendation
○ alternative recommendation

---

Dimensions in mm

Carbide grades
**BACKBORING (internal)**

**INSERT Type**

114

Bore Ø from .543" for use with Toolholder

<table>
<thead>
<tr>
<th>Part number</th>
<th>r</th>
<th>s₁</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>tₘₐₓ</th>
<th>Dₘᵟᵦ</th>
<th>Carbide grades</th>
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<tbody>
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<td>.094</td>
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<td>.520</td>
<td>.354</td>
<td>.138</td>
<td>.543</td>
<td>MG12</td>
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</table>

▲ on stock

△ 4 weeks

● main recommendation

ο alternative recommendation

uncoated grades

coated grades

brazed/Cermet

Dimensions in inch

State R or L version

R = right hand version shown

L = left hand version

In the UNITED STATES call us toll free

1 - 888 - 818 HORN
**INSERT Type 114**

Bore Ø from .551” for use with Toolholder

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t₁</th>
<th>tₘₐₓ</th>
<th>Dₘᵢₙ</th>
<th>MG12</th>
<th>TN₅₅</th>
<th>TC₅</th>
<th>TF₄₅</th>
<th>TH₅₅</th>
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<td>.551</td>
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<td>●</td>
<td>●</td>
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▲ on stock △ 4 weeks
● main recommendation
ο alternative recommendation

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>P</td>
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<tr>
<td>M</td>
</tr>
<tr>
<td>K</td>
</tr>
<tr>
<td>S</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>H</td>
</tr>
</tbody>
</table>

Dimensions in inch

State R or L version

---

In the UNITED STATES call us toll free 1 - 888 - 818 HORN

G27
INSERT Type 114

Bore Ø from .551" (14.0 mm)
Pitch 2.0 - 2.5 mm

for use with Toolholder

Type B114
BU114

R = right hand version shown
L = left hand version

Part number P E s f a d Dmin MG12 TN55 T25 TF-45 TH95
R/L114.1020.01 2.0 4.2 5.5 9 13.5 9 ▲/▲ ▲/▲
R/L114.1325.01 2.5 ▲/Δ ▲/▲
▲ on stock △ 4 weeks
● main recommendation
ο alternative recommendation
uncoated grades
coated grades
brazed/Cermet

Dimensions in mm
State R or L version

Metric ISO standard thread

Carbide grades
## THREADING (internal) Partial profile

**INSERT Type**

<table>
<thead>
<tr>
<th>Part number</th>
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<th>(P_{\text{max}})</th>
<th>E</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>(D_{\text{min}})</th>
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<tr>
<td>R/L114.0815.01</td>
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<td>4.5</td>
<td></td>
<td></td>
<td>13.5</td>
<td>9</td>
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</tr>
</tbody>
</table>

- ▲ on stock
- ▲/▲ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- □ uncoated grades
- □ coated grades
- □ brazed/Cermet

Dimensions in mm

State R or L version

---

**Bore Ø from**

- 0.551" (14.0 mm)

**Pitch**

- 0.5 - 1.5 mm

**for use with Toolholder**

**Type**

- B114
- BU114

**Metric ISO fine thread**

**Carbide grades**

---

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
**INSERT Type** 114

Bore Ø from .551" (14.0 mm) Pitch 2.0 - 2.5 mm

for use with Toolholder

Type B114 BU114

---

**Part number**

<table>
<thead>
<tr>
<th>Part number</th>
<th>P</th>
<th>E</th>
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<th>f</th>
<th>a</th>
<th>d</th>
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<td></td>
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</tbody>
</table>

▲ on stock ▲/▲ 4 weeks ● main recommendation ο alternative recommendation

- Carbide grades
- Uncoated grades
- Coated grades
- Brazed/Cermet

Dimensions in mm

State R or L version

**Metric ISO standard thread**
THREADING (internal) Full profile

INSERT Type 114

Bore Ø from .551" (14.0 mm)
Pitch 1.0 - 1.5 mm

for use with Toolholder

Type B114 BU114

R = right hand version shown
L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>P</th>
<th>E</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>D_min</th>
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</thead>
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<tr>
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<td>13.5</td>
<td>9</td>
<td>14</td>
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<tr>
<td>R/L114.0815.02</td>
<td>1.5</td>
<td>4.5</td>
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<td></td>
</tr>
</tbody>
</table>

▲ on stock △ 4 weeks
● main recommendation
○ alternative recommendation

Dimensions in mm
State R or L version

In the UNITED STATES call us toll free 1 - 888 - 818 HORN

Carbide grades
THREADING (internal) Partial profile

**INSERT Type 114**

**Bore Ø from**: .551" (14.0 mm)

**Pitch**: 4.0 - 5.0 mm

**Type** B114 BU114

**Details**

- **R/L114.2240.01**
  - R/L114.2750.01
  - **Bore Ø from**
  - **Pitch**

**Part number**

<table>
<thead>
<tr>
<th>Part number</th>
<th>P</th>
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<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
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</tr>
</tbody>
</table>

**Recommendations**

- ▲ on stock
- Δ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ■ uncoated grades
- □ coated grades
- ☐ brazed/Cermet

**Dimensions in mm**

**State R or L version**

**In the UNITED STATES call us toll free**

1 - 888 - 818 HORN
HORN - THE LEADERS IN GROOVING TECHNOLOGY

SETTING THE STANDARD

PARTING OFF

HORN Toolholder and blades -
with screw or self clamping.

HORN - INTELLIGENT TOOL DESIGN AT WORK.

For further information, please see HORN catalog "CARBIDE GROOVING TOOLS".
FACE GROOVING

INSERT Type  U114

from outer groove Ø .472"
Depth of groove up to .118"
Width of groove .046 - .125"

for use with Toolholder

Type  B114
BU114
HC114
HCU114

R = right hand version shown  L = left hand version

Part number  w  r  s  f  a  t\text{max}  D_{a \min}  MG12  TN35  TC5  TF45  TH55
R/LU114.1246.00  .046  -  .327  .295  .472  .059  ▲/▲
R/LU114.1262.00  .062  .008  .327  .295  .472  .088  ▲/▲
R/LU114.1278.00  .078  .008  .327  .295  .472  .118  ▲/▲
R/LU114.1294.00  .094  .008  .327  .295  .472  .118  ▲/▲
R/LU114.1225.00  .125  .008  .327  .295  .472  .118  ▲/▲

▲ on stock  Δ 4 weeks
● main recommendation
ο alternative recommendation

Dimensions in inch
State R or L version

Carbide grades

Note:
R = rotation counter clockwise!
Using the face grooving insert type 114 on toolholder type B114 the size l_i and l_j will be extended by .118".

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
FACE GROOVING

INSERT Type

114

from outer groove Ø .472"
Depth of groove up to .236"
Width of groove .039 -.118"

for use with Toolholder

Type B114
BU114
HC114
HCU114

Note:

R = rotation counter clockwise!
Using face grooving insert type 114 on toolholder type B114, the size l₁ and l₂ will be extended by:

.118" for inserts R/L114...00
.217" for inserts R/L114...5.00
.256" for inserts R/L114...6.00

Part number | w | r | s | f | a | t_{max a} | Dₘₐₜₐₜ | MG12 | TN05 | T25 | TF45 | TH55
---|---|---|---|---|---|---|---|---|---|---|---|---|---|
R/L114.1210.00 | .039 | - | | | | | | ▲/▲ | ▲/▲ | ▲/▲ |
R/L114.1215.00 | .059 | .008 | | | | | | ▲/▲ | ▲/▲ | ▲/▲ |
R/L114.1220.00 | .079 | .008 | .327 | .295 | .472 | .059 | .098 | ▲/▲ | ▲/▲ | ▲/▲ |
R/L114.1225.00 | .098 | .008 | | | | | | ▲/▲ | ▲/▲ | ▲/▲ |
R/L114.1230.00 | .118 | .008 | | | | | | ▲/▲ | ▲/▲ | ▲/▲ |
R/L114.1220.5.00 | .079 | .008 | .425 | .295 | .472 | .197 | .472 | ▲/▲ | ▲/▲ | ▲/▲ |
R/L114.1225.5.00 | .098 | .008 | | | | | | ▲/▲ | ▲/▲ | ▲/▲ |
R/L114.1230.6.00 | .118 | .008 | .465 | .295 | .472 | .236 | .472 | ▲/▲ | ▲/▲ | ▲/▲ |

▲ on stock ∆ 4 weeks
● main recommendation
○ alternative recommendation
uncoated grades
coated grades
brazed/Cermet

Dimensions in inch

State R or L version

Carbide grades

In the UNITED STATES call us toll free
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FACE GROOVING

INSERT Type U114

from outer groove Ø 0.472"
Depth of groove up to 0.118"
Depth of groove 0.046 - 0.125"

for use with Toolholder

Type B114
BU114
HC114
HCU114

R = right hand version shown  L = left hand version

Part number  w  r  s  f  a  t_{\text{max}} a  D_{a \text{min}}  MG12  TN35  TF45  TH65
R/LU114.1223.46  0.046  0.023  0.327  0.295  0.472  0.059  ▲/▲
R/LU114.1231.62  0.062  0.031  0.39  0.295  0.472  0.098  ▲/▲
R/LU114.1239.78  0.078  0.039  0.327  0.295  0.472  0.118  ▲/▲
R/LU114.1247.94  0.094  0.047  0.39  0.295  0.472  0.118  ▲/▲
R/LU114.1262.12  0.125  0.062  0.472  0.295  0.472  0.118  ▲/▲

▲ on stock  Δ 4 weeks
● main recommendation
○ alternative recommendation
uncoated grades
coated grades
brazed/Cermet

Dimensions in inch
State R or L version

Note:
R = rotation counter clockwise!
Using the face grooving insert type 114 on toolholder type B114 the size l_1 and l_2 will be extended by 0.118".

G36
FACE GROOVING

INSERT Type 114

from outer groove Ø .472"
Depth of groove up to .236"
Width of groove .079 -.118"

for use with Toolholder
Type B114
BU114
HC114
HCU114

Part number | w | r | s | f | a | t max a | D a min |
-------------|---|---|---|---|---|---------|---------|
R/L114.1220.5.10 | .079 | .039 | .425 | .295 | .197 | .472 |
R/L114.1225.5.12 | .098 | .049 | .425 | .295 | .197 | .472 |
R/L114.1230.6.15 | .118 | .059 | .465 | .236 | .236 | .472 |

▲ on stock △ 4 weeks
● main recommendation
ο alternative recommendation
uncoated grades
coated grades
brazed/Cermet

Dimensions in inch

State R or L version

Note:
R = rotation counter clockwise!
Using the face grooving insert type 114 on toolholder type B114 the size l_1 and l_2 will be extended by .217” or .256”.

G37
FACE GROOVING

INSERT Type  

U114

from outer groove $\varnothing$ .551"
Depth of groove up to .118"
Width of groove .046 - .125"

for use with Toolholder

Type  B114
      BU114
      HC114
      HCU114

R = right hand version shown  L = left hand version

R/LU114.1446.00  .046  -   .327  .354  .531  .059  .551
R/LU114.1462.00  .062  .008  .327  .354  .531  .059  .551
R/LU114.1478.00  .078  .008  .327  .354  .531  .059  .551
R/LU114.1494.00  .094  .008  .327  .354  .531  .059  .551
R/LU114.1425.00  .125  .008  .327  .354  .531  .059  .551

▲ on stock  Δ 4 weeks
● main recommendation
○ alternative recommendation
  ▢ uncoated grades
  ██ coated grades
  ☼ brazed/Cermet

Dimensions in inch
State R or L version

Note:
R = rotation clockwise!
Using the face grooving insert type 114 on toolholder type B114 the size $l_1$ and $l_2$ will be extended by .118".

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
FACE GROOVING

INSERT Type 114

from outer groove Ø .551"
Depth of groove up to .236"
Width of groove .039 - .118"

Note:

R = rotation clockwise!
Using face grooving type 114 on toolholder type B114, the size l₁ and l₂ will be extended by:

.118" for inserts R/L114...00
.217" for inserts R/L114...5.00
.256" for inserts R/L114...6.00

Part number | w | r | s | f | a | tₘₐₓ a | Dₐₘᵢₙ |
---|---|---|---|---|---|---|---|
R/L114.1410.00 | .039 | - | | | | .059 |
R/L114.1415.00 | .059 | .008 | | | | .098 |
R/L114.1420.00 | .079 | .008 | .327 | .354 | .531 | .118 |
R/L114.1425.00 | .098 | .008 | | | | .118 |
R/L114.1430.00 | .118 | | | | | .118 |
R/L114.1420.5.00 | .079 | .008 | | | | .197 |
R/L114.1425.5.00 | .098 | .008 | | | | .551 |
R/L114.1430.6.00 | .118 | .008 | | | | .236 |

▲ on stock  Δ 4 weeks
● main recommendation
○ alternative recommendation
■ uncoated grades
■ coated grades
■ brazed/Cermet

Dimensions in inch

State R or L version

Note:

R = right hand version shown  L = left hand version
FACE GROOVING

INSERT Type U114

Dimensions in inch

Carbide grades

State R or L version

Note:
R = rotation clockwise!
Using the face grooving insert type 114 on toolholder type B114 the size \( l_1 \) and \( l_2 \) will be extended by \(.118"\).
FACE GROOVING

INSERT Type

**114**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>t&lt;sub&gt;max&lt;/sub&gt;</th>
<th>D&lt;sub&gt;a min&lt;/sub&gt;</th>
<th>Carbide grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L114.1410.05</td>
<td>.039</td>
<td>.020</td>
<td></td>
<td></td>
<td></td>
<td>.059</td>
<td>.551</td>
<td>M</td>
</tr>
<tr>
<td>R/L114.1416.08</td>
<td>.063</td>
<td>.031</td>
<td></td>
<td></td>
<td></td>
<td>.098</td>
<td></td>
<td>N</td>
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<tr>
<td>R/L114.1420.10</td>
<td>.079</td>
<td>.039</td>
<td>.327</td>
<td>.354</td>
<td>.531</td>
<td>.118</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R/L114.1425.12</td>
<td>.098</td>
<td>.049</td>
<td></td>
<td></td>
<td></td>
<td>.118</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R/L114.1430.15</td>
<td>.118</td>
<td>.059</td>
<td></td>
<td></td>
<td></td>
<td>.118</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

▲ on stock  △ 4 weeks
● main recommendation
ο alternative recommendation

- uncoated grades
- coated grades
- brazed/Cermet

Dimensions in inch

State R or L version

**Note:**
R = rotation clockwise!
Using the face grooving insert type 114 on toolholder type B114 the size \( l_i \) and \( l_j \) will be extended by .118".
<table>
<thead>
<tr>
<th>Bore Ø</th>
<th>Product line</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ .008˝ (0.2 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .236˝ (6.0 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .268˝ (6.8 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .307˝ (7.8 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .315˝ (8.0 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .346˝ (8.8 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .354˝ (9.0 mm)</td>
<td>• • •</td>
</tr>
<tr>
<td>≥ .386˝ (9.8 mm)</td>
<td>• • •</td>
</tr>
<tr>
<td>≥ .394˝ (10.0 mm)</td>
<td>• • •</td>
</tr>
<tr>
<td>≥ .419˝ (10.5 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .433˝ (11.0 mm)</td>
<td>• • •</td>
</tr>
<tr>
<td>≥ .492˝ (12.5 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .551˝ (14.0 mm)</td>
<td>• • •</td>
</tr>
<tr>
<td>≥ .630˝ (16.0 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .650˝ (16.5 mm)</td>
<td>•</td>
</tr>
<tr>
<td>≥ .689˝ (17.5 mm)</td>
<td>•</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Groove depth ≤ (inch)</th>
<th>.086˝</th>
<th>.157˝</th>
<th>.039˝</th>
<th>.118˝</th>
<th>.091˝</th>
<th>.138˝</th>
<th>.256˝</th>
<th>.169˝</th>
<th>.315˝</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groove depth ≤ (mm)</td>
<td>2.5</td>
<td>4.0</td>
<td>1.0</td>
<td>3.0</td>
<td>2.3</td>
<td>3.5</td>
<td>6.5</td>
<td>4.3</td>
<td>8.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Width of groove inch</th>
<th>.020˝-.079˝</th>
<th>.039˝-.250˝</th>
<th>.029˝-.079˝</th>
<th>.039˝-.118˝</th>
<th>.029˝-.125˝</th>
<th>.039˝-.118˝</th>
<th>.029˝-.125˝</th>
<th>.029˝-.157˝</th>
<th>.071˝-.118˝</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width of groove mm</td>
<td>0.5 - 2.0</td>
<td>1.0 - 6.35</td>
<td>0.74 - 2.0</td>
<td>1.0 - 3.0</td>
<td>0.74 - 3.18</td>
<td>1.0 - 3.0</td>
<td>0.74 - 3.18</td>
<td>0.74 - 4.0</td>
<td>1.8 - 3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Application</th>
<th>Product line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grooving</td>
<td>•</td>
</tr>
<tr>
<td>Boring</td>
<td>•</td>
</tr>
<tr>
<td>Threading</td>
<td>•</td>
</tr>
<tr>
<td>Chamfering</td>
<td>•</td>
</tr>
<tr>
<td>Face Grooving</td>
<td>•</td>
</tr>
<tr>
<td>Hard turning</td>
<td>•</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Special tools upon request
SUMMARY

MINI CARBIDE GROOVING TOOLS

Toolholder
BU116 / B116
Page H2-H4

Toolholder
R/L145
Page H5

Inserts
U116 / 116 / S116
≥ Ø .630” (16.0 mm)
Page H6-H7
Page H8-H12
Page H13
Page H14-H15
Page H16-H18
Page H19
Page H20
Page H22-H23
Page H24-H25
Page H26-H27
Page H28

Technical Instructions
Page L1 - L9
GROOVING and BORING

TOOLHOLDER Type

BU116
with through coolant supply

Bore Ø from .630"
Depth of groove up to .169"
Width of groove up to .157"

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert

Type 116
S116
U116

Picture = right hand cutting version shown

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>l₁</th>
<th>l₂</th>
<th>h</th>
<th>l₄</th>
<th>d₁</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>BU116.ST05.00</td>
<td>.500</td>
<td>3.150</td>
<td>.787</td>
<td>.460</td>
<td>1.770</td>
<td>.433</td>
<td>* Steel toolholder</td>
</tr>
<tr>
<td>BU116.0500.01</td>
<td>.500</td>
<td>5.118</td>
<td>1.575</td>
<td>.460</td>
<td>1.970</td>
<td>.433</td>
<td></td>
</tr>
<tr>
<td>BU116.0500.02</td>
<td>5.118</td>
<td>2.205</td>
<td>.585</td>
<td>1.770</td>
<td>.433</td>
<td>* Steel toolholder</td>
<td></td>
</tr>
<tr>
<td>BU116.0500.03</td>
<td>5.906</td>
<td>3.150</td>
<td>.585</td>
<td>1.770</td>
<td>.433</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BU116.ST06.00</td>
<td>.625</td>
<td>3.150</td>
<td>.787</td>
<td>.585</td>
<td>1.770</td>
<td>.433</td>
<td>* Steel toolholder</td>
</tr>
<tr>
<td>BU116.0625.01</td>
<td>5.118</td>
<td>1.575</td>
<td>.585</td>
<td>1.970</td>
<td>.433</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BU116.0625.02</td>
<td>5.118</td>
<td>2.205</td>
<td>.585</td>
<td>1.970</td>
<td>.433</td>
<td></td>
<td></td>
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<tr>
<td>BU116.0625.03</td>
<td>5.906</td>
<td>3.150</td>
<td>.585</td>
<td>1.970</td>
<td>.433</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Further sizes upon request w, a, tₘᵢₓ and f see inserts Dimensions in inch

Note:
Toolholders can be used in right and left hand inserts.
Toolholders with damaged seating can be repaired by HORN.

* Steel toolholder is not repairable.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>BU116.....</td>
<td>5.13T20EP</td>
<td>T20PQ</td>
</tr>
</tbody>
</table>

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
GROOVING and BORING

TOOLHOLDER Type B116
with through coolant supply

Bore Ø from .630" (16.0 mm)
Depth of groove up to .169" (4.3 mm)
Width of groove up to .157" (4.0 mm)

Material of shank: Carbide - Giving a good vibration resistance

Type 116
S116
U116

Further sizes upon request w, a, tmax and f see inserts Dimensions in mm

Ordering note:
Toolholders can be used in right and left hand inserts.
Toolholders with damaged seating can be repaired by HORN.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B116.001...</td>
<td>5.13T20EP</td>
<td>T20PQ</td>
</tr>
</tbody>
</table>

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
GROOVING and BORING

TOOLHOLDER Type B116
with through coolant supply

Bore Ø from 0.630" (16.0 mm)
Depth of groove up to 0.169" (4.3 mm)
Width of groove up to 0.157" (4.0 mm)

Material of shank: Carbide - Giving a good vibration resistance

Ordering note:
Toolholders can be used in right and left hand inserts.
Toolholders with damaged seating can be repaired by HORN.

Further sizes upon request w, a, t_{max}, and f see inserts
Dimensions in mm

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>B116.001...</td>
<td>5.13T20EP</td>
<td>T20PQ</td>
</tr>
</tbody>
</table>

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
GROOVING and BORING

CARTRIDGE Type

145
for customized tools

Bore Ø from
1.260\(^\circ\) (32.0 mm)
Depth of groove up to
0.169\(^\circ\) (4.3 mm)
Width of groove up to
0.157\(^\circ\) (4.0 mm)

for use with Insert

Type 116
S116
U116

Part number | \(h_1\) | \(f\) | \(h\) | \(l_1\) | \(D_{\text{min}}\) | \(e_1\) | \(l_2\) | \(c\) | \(g\) | Clamping range
---|---|---|---|---|---|---|---|---|---|---
R/L145.1012.00 | 10 | 16.7 | 17 | 36 | 32 | 13.8 | 5 | 1 | 6.6 | 0.5 - 4.0

State R or L version w and \(t_{\text{max}}\) see inserts Dimensions in mm

Height of cutting edge \(h_1\)
Special height \(h_1 = 6\) or 7 mm available upon request.

Seating sizes

| Seating sizes | \(H\) | \(T\) | \(B\) | \(G\) | \(d_{\text{min}}\) |
---|---|---|---|---|---|
R/L145.1012.00 | 10 | 9.0 | 12.0 | M6 | 26 |

Spare parts

| Cartridge | Screw | Screw | Adjust screw axial | TORX PLUS\(^\circ\) Wrench |
---|---|---|---|---|
R/L145.1012.00 | 6.20.232 | 5.13T20EP | 4.06.020 | T20PQ |

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
GROOVING (internal) ≥ Ø .630”

INSERT Type

U116

Bore Ø from .630”
Depth of groove up to .047”
Width of groove .031 - .039”

for use with Toolholder

Type  145
      B116
      BU116

R = right hand version  L = left hand version

Part number  w  s₁  s  f  a  d  tₘₐₓ  Dₘᵟᵢₙ  MG12  TN55  TC5  TF45  TH55
R/LU116.0031.00  .031  .209  .217  .402  .618  .433  .047  .630  ▲/▲  ●
R/LU116.0039.00  .039  ▲/▲  Δ 4 weeks  ●

▲ on stock  △ 4 weeks  ● main recommendation  ○ alternative recommendation

uncoated grades  coated grades  brazed/Cermet

Dimensions in inch

State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN

H6
### INSERT Type 116

<table>
<thead>
<tr>
<th>Part number</th>
<th>Nw</th>
<th>w</th>
<th>s₁</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>tₘₐₓ</th>
<th>Dₘᵢₙ</th>
<th>Carbide grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L116.0070.00</td>
<td></td>
<td>.028</td>
<td>.029</td>
<td>.209</td>
<td>.217</td>
<td>.402</td>
<td>.618</td>
<td>.433</td>
<td>.047</td>
<td></td>
</tr>
<tr>
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<td>.031</td>
<td>.033</td>
<td>.209</td>
<td>.217</td>
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<td>.618</td>
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<tr>
<td>R/L116.0090.00</td>
<td></td>
<td>.035</td>
<td>.037</td>
<td>.209</td>
<td>.217</td>
<td>.402</td>
<td>.618</td>
<td>.433</td>
<td>.059</td>
<td></td>
</tr>
</tbody>
</table>

- ▲ on stock
- ▲ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- □ uncoated grades
- □ coated grades
- □ brazed/Cermet

**Dimensions in inch**

**State R or L version**

**Widths for circlip grooves DIN 471/472**

**for use with Toolholder**

**Type 145**
- B116
- BU116

**In the UNITED STATES call us toll free**
- 1 - 888 - 818 HORN

**H7**
NC-PROFILING (internal) ≥ Ø .630”

INSERT Type

**U116**

Bore Ø from Depth of groove up to Width of groove

|  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|
| R/LU116.0031.08 | .031 | .008 | .209 | .402 | .618 | .433 | .169 | .630 |
| R/LU116.0046.08 | .046 | .062 | .078 | .094 | .125 |

- ▲ on stock  △ 4 weeks
- ● main recommendation
- ○ alternative recommendation

- Carbide grades
- ▶ uncoated grades
- ▶ coated grades
- ▶ brazed/Cermet

Dimensions in inch

State R or L version

**for use with Toolholder**

Type 145
B116
BU116

**with corner radius**

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
**NC-PROFILING (internal) ≥ Ø .630”**

**INSERT Type**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t&lt;sub&gt;max&lt;/sub&gt;</th>
<th>D&lt;sub&gt;min&lt;/sub&gt;</th>
<th>Carbide grades</th>
</tr>
</thead>
<tbody>
<tr>
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<td>.079</td>
<td>.008</td>
<td>.209</td>
<td>.402</td>
<td>.618</td>
<td>.433</td>
<td>.169</td>
<td>.630</td>
<td>M612</td>
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</table>

- ▲ on stock  △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- □ uncoated grades
- ■ coated grades
- ▼ brazed/Cermet

Dimensions in inch

State R or L version

For use with Toolholder

**Type**

- 145
- B116
- BU116

Toolholder Type

- with corner radius

R = right hand version shown
L = left hand version

Bore Ø from .630”
Depth of groove up to .169”
Width of groove .079”
### INSERT Type

**U116**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t&lt;sub&gt;max&lt;/sub&gt;</th>
<th>D&lt;sub&gt;min&lt;/sub&gt;</th>
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<tbody>
<tr>
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<td>.402</td>
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<td>.433</td>
<td>.169</td>
<td>.630</td>
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<tr>
<td>R/LU116.0056.00</td>
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<td>.402</td>
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<td>.433</td>
<td>.169</td>
<td>.630</td>
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<tr>
<td>R/LU116.0062.00</td>
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<td>.209</td>
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<tr>
<td>R/LU116.0078.00</td>
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<td>.402</td>
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<td>.433</td>
<td>.169</td>
<td>.630</td>
</tr>
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<td>R/LU116.0094.00</td>
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<td>.402</td>
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<td>.433</td>
<td>.169</td>
<td>.630</td>
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</tbody>
</table>

- ▲ on stock  
- △ 4 weeks  
- ● main recommendation  
- ○ alternative recommendation  
- □ uncoated grades  
- ▲ coated grades  
- △ brazed/Cermet  

**Dimensions in inch**  

**State R or L version**

For use with Toolholder  

**Type 145**  

B116  

BU116

---

**H**

---

**GROOVING (internal) ≥ Ø .630”**

---

**Dimensions in inch**

**Carbide grades**

---

**In the UNITED STATES call us toll free**

1 - 888 - 818 HORN
**GROOVING (internal) ≥ Ø 0.630”**

**INSERT Type**

<table>
<thead>
<tr>
<th>Part number</th>
<th>Nw</th>
<th>w</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t&lt;sub&gt;max&lt;/sub&gt;</th>
<th>D&lt;sub&gt;min&lt;/sub&gt;</th>
<th>Carbide grades</th>
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</thead>
<tbody>
<tr>
<td>R/L116.0110.00</td>
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<td>0.047</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>0.630</td>
<td></td>
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<tr>
<td>R/L116.0130.00</td>
<td>0.051</td>
<td>0.055</td>
<td>0.209</td>
<td>0.402</td>
<td>0.618</td>
<td>0.433</td>
<td>0.169</td>
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<td></td>
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<tr>
<td>R/L116.0160.00</td>
<td>0.063</td>
<td>0.067</td>
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<td></td>
<td></td>
<td>0.630</td>
<td></td>
</tr>
</tbody>
</table>

▲ on stock Δ 4 weeks
● main recommendation
ο alternative recommendation

- uncoated grades
- coated grades
- brazed/Cermet

Dimensions in inch

State R or L version

---

**Insert Type 116**

**Bore Ø from**

**Depth of groove up to**

**Width of circlip Nw**

0.630”

0.169”

0.043 - 0.063”

Widths for circlip grooves DIN 471/472

**for use with Toolholder**

Type 145

B116

BU116

---

**In the UNITED STATES call us toll free**

1 - 888 - 818 HORN
**GROOVING (internal) ≥ Ø .630”**

**INSERT Type**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t_max</th>
<th>D_min</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L116.0200.00</td>
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<td>.098</td>
<td>.209</td>
<td>.618</td>
<td>.433</td>
<td>.169</td>
<td>.630</td>
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<tr>
<td>R/L116.0250.00</td>
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<td>.138</td>
<td>.402</td>
<td>.433</td>
<td>.169</td>
<td></td>
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</tr>
<tr>
<td>R/L116.0300.00</td>
<td>.118</td>
<td>.138</td>
<td>.402</td>
<td>.433</td>
<td>.169</td>
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<td></td>
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<td>.402</td>
<td>.433</td>
<td>.169</td>
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<tr>
<td>R/L116.0400.00</td>
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<td>.138</td>
<td>.402</td>
<td>.433</td>
<td>.169</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- ▲ on stock
- Δ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ▪ uncoated grades
- ▼ coated grades
- ■ brazed/Cermet

Dimensions in inch

State R or L version

**Carbide grades**

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
GROOVING (internal) ≥ Ø .630”

INSERT Type

S116

Bore Ø from .630”
Depth of groove up to .169”
Width of groove .079 - .118”

for use with Toolholder

Type 145
B116
BU116

R = right hand version shown
L = left hand version

Part number w r s f a d t max D min
R/LS116.0200.D2 .079 .008 .209 .402 .618 .433 .169 .630
R/LS116.0250.D2 .098 .118
R/LS116.0300.D2

▲ on stock △ 4 weeks
● main recommendation
○ alternative recommendation

Carbide grades

Dimensions in inch
State R or L version

In the UNITED STATES call us toll free 1 - 888 - 818 HORN

H13
## INSERT Type

**U116**

| Bore Ø from | .630“ |
| Depth of groove up to | .169“ |
| Width of groove | .062 - .125“ |

**for use with Toolholder**

- Type 145
- B116
- BU116

R = right hand version shown  
L = left hand version

### Carbide grades

- ▲ on stock  
- Δ 4 weeks  
- ● main recommendation  
- ○ alternative recommendation  
- ▲ uncoated grades  
- N coated grades  
- S brazed/Cermet

Dimensions in inch

- State R or L version

---

### Insert Type U116

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t_{max}</th>
<th>D_{min}</th>
<th>Carbide grades</th>
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<tbody>
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<td>.618</td>
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<td>R/LU116.0047.94</td>
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<td>.618</td>
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<td>.169</td>
<td>▲ ▲</td>
</tr>
</tbody>
</table>

- ▲ on stock  
- Δ 4 weeks  
- ● main recommendation  
- ○ alternative recommendation  
- ▲ uncoated grades  
- N coated grades  
- S brazed/Cermet

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
GROOVING (internal) ≥ Ø .630”

INSERT Type 116

Bore Ø from .630”
Depth of groove up to .169”
Width of groove .071 - .157”

for use with Toolholder

Type 145
B116
BU116

R = right hand version shown
L = left hand version

Part number | w | r | s | f | a | d | t_max | D_min |
---|---|---|---|---|---|---|---|---|
R/L116.0009.18 | .071 | .035 | .209 | .402 | .618 | .433 | .169 | .630 |
R/L116.0011.22 | .087 | .043 | | | | | | |
R/L116.0015.30 | .118 | .043 | | | | | | |
R/L116.0020.40 | .157 | .079 | | | | | | |

▲ on stock
△ 4 weeks
● main recommendation
○ alternative recommendation

uncoated grades
coated grades
brazed/Cermet

Dimensions in inch
State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN

Carbide grades

H15
BORING and PROFILING ≥ Ø .610"

INSERT Type 116

Bore Ø from .610"
Depth of undercut up to .138"

for use with Toolholder

Type 145
B116
BU116

R = right hand version shown
L = left hand version

Part number | r  | s  | f  | a  | d  | D_{min} |
---|---|---|---|---|---|---|
R/L116.1897.02 | .008 | .209 | .382 | .598 | .433 | .610 |

▲ on stock △ 4 weeks  ● main recommendation  ○ alternative recommendation  □ uncoated grades  □ coated grades  □ brazed/Cermet

Carbide grades

State R or L version

The modified geometry allows boring of bores ≥ Ø .610” and profiling of reliefs as per DIN 509 form E and .

H

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
BORING and PROFILING ≥ Ø .610"

INSERT Type

**S116**

Bore Ø from .610"
Depth of undercut up to .138"

for use with Toolholder

Type 145
B116
BU116

R = right hand version shown L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>Dmin</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS116.1897.R2</td>
<td>.008</td>
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<td>.382</td>
<td>.598</td>
<td>.433</td>
<td>.610</td>
</tr>
<tr>
<td>RS116.1897.R2</td>
<td>.008</td>
<td>.016</td>
<td>.209</td>
<td>.382</td>
<td>.598</td>
<td>.433</td>
</tr>
</tbody>
</table>

▲ on stock △ 4 weeks  ● main recommendation  ○ alternative recommendation  ● uncoated grades  ● coated grades  ● brazed/Cermet

Dimensions in inch

State R or L version

The modified geometry allows boring of bores ≥ Ø .610" and profiling of reliefs as per DIN 509 form E and F.
BORING and PROFILING ≥ Ø .630”

INSERT Type 116

Bore Ø from .630” for use with Toolholder

R = right hand version shown L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t max</th>
<th>D min</th>
<th>Carbide grades</th>
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</thead>
<tbody>
<tr>
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<td>.016</td>
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<td>R/L116.4702.04</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

▲ on stock △ 4 weeks ● main recommendation ○ alternative recommendation

Dimensions in inch

State R or L version

The modified geometry allows boring of bores ≥ Ø .630” and profiling of reliefs as per DIN 509 form
## INSERT Type 116

**Bore Ø from** .551”

For use with Toolholder

<table>
<thead>
<tr>
<th>Part number</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>$D_{\min}$</th>
</tr>
</thead>
</table>

- ▲ on stock
- Δ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- □️ uncoated grades
- □️ coated grades
- □️ brazed/Cermet

Dimensions in inch

Carbide grades

H

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
#### INSERT Type 116

**Dimensions in inch**

<table>
<thead>
<tr>
<th>Carbide grades</th>
<th>MG12</th>
<th>TN55</th>
<th>TC65</th>
<th>TF-45</th>
<th>TH-55</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L116.0815.45</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
<td>▲/▲</td>
</tr>
</tbody>
</table>

- **Bore Ø from** 0.630" for use with Toolholder

- **R** = right hand version shown
- **L** = left hand version

---

**Part number**

<table>
<thead>
<tr>
<th>w</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>tₐ</th>
<th>tₜₘₙₓ</th>
<th>Dₘᵟᵦᵦᵦ</th>
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</thead>
<tbody>
<tr>
<td>.059</td>
<td>.209</td>
<td>.402</td>
<td>.618</td>
<td>.433</td>
<td>.008</td>
<td>.059</td>
<td>.630</td>
</tr>
</tbody>
</table>

- ▲ on stock
- ▲ 4 weeks
- ● main recommendation
- ○ alternative recommendation

- ▲ ▲ ▲ ▲ uncoated grades
- ▲ ▲ ▲ ▲ coated grades
- ▲ ▲ ▲ ▲ brazed/Cermet

---

In the UNITED STATES call us toll free 1 - 888 - 818 HORN

H20
SPECIAL MACHINING

Reducing of tool change from Ø .709” (18 mm)

Pregrooving and Chamfering

Finishing
# THREADING (internal) Partial profile

## INSERT Type 116

**Bore Ø from**

<table>
<thead>
<tr>
<th>Part number</th>
<th>P</th>
<th>E</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>D&lt;sub&gt;min&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L116.1020.01</td>
<td>2.0</td>
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<td>5.5</td>
<td>10.2</td>
<td>15.7</td>
<td>11</td>
<td>16</td>
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<tr>
<td>R/L116.1325.01</td>
<td>2.5</td>
<td>4.2</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- ▲ on stock
- Δ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ■ uncoated grades
- ▲ coated grades
- ▲ brazed/Cermet

**Dimensions in mm**

**State R or L version**

- R = right hand version shown
- L = left hand version

---

**Metric ISO standard thread**

**Type 145**

- B116
- BU116

---

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
THREADING (internal) Partial profile

INSERT Type 116

Bore Ø from: 0.630” (16.0 mm)
Pitch: 1.0 - 1.5 mm

for use with Toolholder

Type 145
B116
BU116

In the UNITED STATES call us toll free
1 - 888 - 818 HORN

R = right hand version shown
L = left hand version

Metric ISO fine thread

<table>
<thead>
<tr>
<th>Part number</th>
<th>P</th>
<th>P&lt;sub&gt;max&lt;/sub&gt;</th>
<th>E</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>D&lt;sub&gt;min&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L116.0510.01</td>
<td>1.0</td>
<td>1.25</td>
<td>4.7</td>
<td>5.5</td>
<td>10.2</td>
<td>15.7</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>R/L116.0815.01</td>
<td>1.5</td>
<td>1.75</td>
<td>4.5</td>
<td>5.5</td>
<td>10.2</td>
<td>15.7</td>
<td>11</td>
<td>16</td>
</tr>
</tbody>
</table>

▲ on stock  Δ 4 weeks
● main recommendation
ο alternative recommendation
■ uncoated grades
■ coated grades
■ brazed/Cermet

Dimensions in mm

State R or L version

In the UNITED STATES call us toll free
1 - 888 - 818 HORN
THREADING (internal) Full profile

**INSERT Type**

<table>
<thead>
<tr>
<th>Part number</th>
<th>P</th>
<th>E</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>D_{min}</th>
<th>Carbide grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/L116.1325.02</td>
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<td>4.2</td>
<td>5.5</td>
<td>10.2</td>
<td>15.7</td>
<td>11</td>
<td>16</td>
<td>▲/Δ</td>
</tr>
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<td>3.0</td>
<td>4.0</td>
<td>5.5</td>
<td>10.2</td>
<td>15.7</td>
<td>11</td>
<td>16</td>
<td>▲/Δ</td>
</tr>
<tr>
<td>R/L116.1835.02</td>
<td>3.5</td>
<td>3.8</td>
<td>5.5</td>
<td>10.2</td>
<td>15.7</td>
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<td>16</td>
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<td>R/L116.2140.02</td>
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<td>3.6</td>
<td>5.5</td>
<td>10.2</td>
<td>15.7</td>
<td>11</td>
<td>16</td>
<td>▲/Δ</td>
</tr>
</tbody>
</table>

- ▲ on stock  △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- □ uncoated grades
- □ coated grades
- □ brazed/Cermet

Dimensions in mm

State **R** or **L** version

**for use with Toolholder**

**Type**: 145
- **B116**
- **BU116**

**R** = right hand version shown  **L** = left hand version

**Bore Ø from**  0.630" (16.0 mm)

**Pitch**  2.5 - 4.0 mm

**In the UNITED STATES call us toll free**
1-888-818 HORN
THREADING (internal) Full profile

INSERT Type 116

Bore Ø from .630” (16.0 mm)
Pitch 1.0 - 2.0 mm

for use with Toolholder

Type 145
B116
BU116

R = right hand version shown  L = left hand version

Part number | P  | E  | s  | f  | a  | d  | D_min |
---|---|---|---|---|---|---|---|
R/L116.0510.02 | 1.0 | 4.7 | 5.5 | 10.2 | 15.7 | 11 | 16 |
R/L116.0815.02 | 1.5 | 4.5 | 5.5 | 10.2 | 15.7 | 11 | 16 |
R/L116.1020.02 | 2.0 | 4.3 | 5.5 | 10.2 | 15.7 | 11 | 16 |

▲ on stock ▲ 4 weeks
● main recommendation
ο alternative recommendation

Dimensions in mm

State R or L version

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
**INSERT Type**

**U116**

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<th>Part number</th>
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<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
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- ▲ on stock  △ 4 weeks
- ● main recommendation
- ○ alternative recommendation

Dimensions in inch

State R or L version

Bore Ø from
Pitch 3 - 6 tpi

**for use with Toolholder**

Type 145
B116
BU116

**ACME / Stub ACME thread**

**Carbide grades**
THREADING (internal) Partial profile

INSERT Type 116

Bore Ø from .630” (16.0 mm)
Pitch 2.0 - 6.0 mm

for use with Toolholder

Type 145
B116
BU116

METRIC ISO trapezoidal thread DIN 103

R = right hand version shown
L = left hand version

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<th>a</th>
<th>d</th>
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<th>TN55</th>
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▲ on stock △ 4 weeks
● main recommendation
ο alternative recommendation

uncoated grades coated grades brazed/Cermet

Dimensions in mm

State R or L version

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
## THREADING (internal) Full profile

**INSERT Type** 116

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</table>

- **R** = right hand version shown
- **L** = left hand version
- ▲ on stock △ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- □ uncoated grades
- □□ coated grades
- □□□ brazed/Cermet

**Dimensions in inch**

**State R or L version**

---

**for use with Toolholder**

**Type 145**

B116
BU116

Whitworth pipe thread as per DIN ISO 228: (259) and 2999
HORN - THE LEADERS IN GROOVING TECHNOLOGY

ONE RESOURCE THAT WILL NEVER RUN DRY!

TOOLING SYSTEMS FOR THE OIL INDUSTRY: S117

- Extreme precision
- Optimal repeatability (≤ 0.005 mm)
- Extremely simple handling
- Patented reliability

HORN - INTELLIGENT TOOL DESIGN AT WORK.

For further information, please contact HORN USA.
## Bore Ø

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<th>105</th>
<th>110</th>
<th>108</th>
<th>10P</th>
<th>111</th>
<th>11P</th>
<th>114</th>
<th>116</th>
<th>18P</th>
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<td>≥ .307&quot; (7.8 mm)</td>
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<td>≥ .315&quot; (8.0 mm)</td>
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<td>≥ .492&quot; (12.5 mm)</td>
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<td>≥ .551&quot; (14.0 mm)</td>
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## Groove depth ≤ (inch)

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<th>.099&quot;</th>
<th>.118&quot;</th>
<th>.091&quot;</th>
<th>.138&quot;</th>
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## Groove depth ≤ (mm)

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## Width of groove inch

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## Width of groove mm

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<th>1.0 - 3.0</th>
<th>0.74 - 3.18</th>
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## Application

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<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Boring</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Threading</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
</tr>
<tr>
<td>Chamfering</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Face Grooving</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Hard turning</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

## Chapter

<table>
<thead>
<tr>
<th>Chapter</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
</tr>
</thead>
</table>

Special tools upon request
MINI CARBIDE GROOVING TOOLS

Toolholder
BU18P / B18P

Inserts
18P / S18P
≥ Ø .709” (18 mm)
GROOVING and BORING

TOOLHOLDER Type BU18P
with through coolant supply

Bore Ø from... .709"
Depth of groove up to... .315"
Width of groove up to... .118"

Material of shank: Carbide - Giving a good vibration resistance

Type 18P
S18P

R = right hand version shown
L = left hand version

Part number | d | l₁ | l₂ | h | h₁ | l₄
---|---|---|---|---|---|---
R/LBU18P.0500.00 | .500 | 3.937 | .984 | .461 | .500 | 1.969
R/LBU18P.0500.01 | .500 | 4.724 | 1.575
R/LBU18P.0625.00 | .625 | 3.937 | .984
R/LBU18P.0625.01 | .625 | 4.724 | 1.575
R/LBU18P.0625.02 | .625 | 5.118 | 2.205 | .585 | .512 | 1.969
R/LBU18P.0625.03 | .625 | 5.906 | 3.150

State R or L version w, a, t_max and f see inserts
Dimensions in inch

Further sizes upon request

Ordering note:
Toolholders with damaged seating can be repaired by HORN.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LBU18P.0...</td>
<td>5.13T20EP</td>
<td>T20PQ</td>
</tr>
</tbody>
</table>

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1 - 888 - 818 HORN
GROOVING and BORING

TOOLHOLDER Type

B18P
with through coolant supply

Bore Ø from 0.709" (18.0 mm)
Depth of groove up to 0.315" (8.0 mm)
Width of groove up to 0.118" (3.0 mm)

Material of shank: Carbide - Giving a good vibration resistance

for use with Insert

Type 18P S18P

R = right hand version shown  L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>d</th>
<th>(l_1)</th>
<th>(l_2)</th>
<th>h</th>
<th>(h_1)</th>
<th>(l_4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LB18P.0012.00</td>
<td>12</td>
<td>100</td>
<td>25</td>
<td>11</td>
<td>12.5</td>
<td>50</td>
</tr>
<tr>
<td>R/LB18P.0012.01</td>
<td>12</td>
<td>120</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R/LB18P.0016.00</td>
<td>16</td>
<td>100</td>
<td>25</td>
<td>15</td>
<td>13.0</td>
<td>50</td>
</tr>
<tr>
<td>R/LB18P.0016.01</td>
<td>16</td>
<td>120</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R/LB18P.0016.02</td>
<td>16</td>
<td>130</td>
<td>56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R/LB18P.0016.03</td>
<td>16</td>
<td>150</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

State R or L version
\(w, a, t_{max}\) and \(f\) see inserts
Dimensions in mm

Further sizes upon request

Ordering note:
Toolholders with damaged seating can be repaired by HORN.

Spare parts

<table>
<thead>
<tr>
<th>Toolholder</th>
<th>Screw</th>
<th>TORX PLUS® Wrench</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LB18P.001...</td>
<td>5.13T20EP</td>
<td>T20PQ</td>
</tr>
</tbody>
</table>

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
**GROOVING (internal) ≥ Ø .709”**

**INSERT Type**

**S18P**

- **Bore Ø from** .709”
- **Depth of groove up to** .236”
- **Width of groove** .079 - .118”

For use with Toolholder

- **Type** B18P
- **Type** BU18P

---

**Part number**

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t_max</th>
<th>D_min</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LS18P.0200.1.D2</td>
<td>.079</td>
<td>.008</td>
<td>.209</td>
<td>.472</td>
<td>.689</td>
<td>.433</td>
<td>.236</td>
<td>.709</td>
</tr>
<tr>
<td>R/LS18P.0250.1.D2</td>
<td>.098</td>
<td>.008</td>
<td>.209</td>
<td>.472</td>
<td>.689</td>
<td>.433</td>
<td>.236</td>
<td>.709</td>
</tr>
<tr>
<td>R/LS18P.0300.1.D2</td>
<td>.118</td>
<td>.008</td>
<td>.209</td>
<td>.472</td>
<td>.689</td>
<td>.433</td>
<td>.236</td>
<td>.709</td>
</tr>
</tbody>
</table>

- ▲ on stock  ▲ 4 weeks
- ● main recommendation
- ○ alternative recommendation
- ▪ uncoated grades
- □ coated grades
- ▯ brazed/Cermet

Dimensions in inch

State R or L version

---

In the UNITED STATES call us toll free 1 - 888 - 818 HORN
GROOVING (internal) ≥ Ø .709”

INSERT Type 18P

Bore Ø from .709”
Depth of groove up to .236”
Width of groove .071 - .118”

for use with Toolholder

Type B18P
BU18P

R = right hand version shown
L = left hand version

Full radius

Part number | w | r | s | f | a | d | t_max | D_min
--- | --- | --- | --- | --- | --- | --- | --- | ---
R/L18P.0009.1.18 | .071 | .035 | | | | | | MG12 TNS5 T125 T155
R/L18P.0011.1.22 | .087 | .043 | | | | | | ▲/▲
R/L18P.0015.1.30 | .118 | .059 | | .209 | .472 | .689 | .433 | .236 | ▲/▲

▲ on stock △ 4 weeks
● main recommendation
ο alternative recommendation
██ uncoated grades
██ coated grades
██ brazed/Cermet

In the UNITED STATES call us toll free 1 - 888 - 818 HORN

Dimensions in inch

State R or L version

Carbide grades

J5
GROOVING (internal) ≥ Ø 0.787”

INSERT Type

S18P

Bore Ø from 0.787”
Depth of groove up to 0.315”
Width of groove 0.079 - 0.118”

for use with Toolholder

Type B18P
BU18P

R = right hand version shown
L = left hand version

<table>
<thead>
<tr>
<th>Part number</th>
<th>w</th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>t_max</th>
<th>D_min</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/LS18P.0200.2.D2</td>
<td>.079</td>
<td>.008</td>
<td>.209</td>
<td>.551</td>
<td>.768</td>
<td>.433</td>
<td>.315</td>
<td>.787</td>
</tr>
<tr>
<td>R/LS18P.0250.2.D2</td>
<td>.098</td>
<td>.098</td>
<td>.209</td>
<td>.551</td>
<td>.768</td>
<td>.433</td>
<td>.315</td>
<td>.787</td>
</tr>
<tr>
<td>R/LS18P.0300.2.D2</td>
<td>.118</td>
<td>.118</td>
<td>.209</td>
<td>.551</td>
<td>.768</td>
<td>.433</td>
<td>.315</td>
<td>.787</td>
</tr>
</tbody>
</table>

▲ on stock △ 4 weeks
● main recommendation
○ alternative recommendation

uncoated grades
coated grades
brazed/Cermet

Dimensions in inch
State R or L version

Carbide grades

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**BORING and PROFILING ≥ Ø .689”**

**INSERT Type**

**S18P**

Bore Ø from .689”
Depth of undercut up to .217”

for use with Toolholder

**Part number**

<table>
<thead>
<tr>
<th></th>
<th>r</th>
<th>s</th>
<th>f</th>
<th>a</th>
<th>d</th>
<th>Dmin</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS18P.1815.R2</td>
<td>.008</td>
<td></td>
<td></td>
<td>.209</td>
<td>.453</td>
<td>.669</td>
</tr>
<tr>
<td>RS18P.1815.R2</td>
<td>.008</td>
<td></td>
<td></td>
<td>.016</td>
<td>.433</td>
<td>.689</td>
</tr>
<tr>
<td>LS18P.1815.R4</td>
<td>.016</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS18P.1815.R4</td>
<td>.016</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

▲ on stock   Δ 4 weeks
● main recommendation
ο alternative recommendation
██ uncoated grades
██ coated grades
██ brazed/Cermet

Dimensions in inch
State R or L version

The modified geometry allows boring of bores ≥ Ø .689” and profiling of reliefs as per DIN 509 form E and .
THREAD WHIRLING

- short tool changing times
- high precision guaranteed for smooth cutting
- very good surface finish on the threads
- high tool life per edge due to even cutting action

For further information, please contact HORN USA.
SUMMARY

Examples for machining

Technical Instructions, Additional equipment
EXAMPLE FOR MACHINING

Insert Type 105
Deburring cross holes using a rotating insert with a full radius

Insert Type 105
Profiling a face groove (full radius insert)
EXAMPLE FOR MACHINING

Insert Type 105
Machining a hemisphere

Insert Type 105
Face grooving with chamfers
EXAMPLE FOR MACHINING

Insert Type 105
Machining a flat bottom hole with an undercut

Insert Type 105
Machining of a dovetail face groove
Insert Type 105
Plunge machining of a convexed face in a bore

Insert Type 105
Profiling of deep bore
### TECHNICAL INFORMATION Thread

#### RECOMMENDED NUMBER OF PASSES

<table>
<thead>
<tr>
<th>Carbide grade</th>
<th>Steel (thousands of lb/in² Tensile strength)</th>
<th>Stainless steel</th>
<th>Cast iron</th>
<th>Aluminum</th>
</tr>
</thead>
<tbody>
<tr>
<td>TN35</td>
<td>58-72 72-101 101-123 123-167 &gt; 167</td>
<td>300</td>
<td>330</td>
<td>980</td>
</tr>
<tr>
<td>( V_{\text{max}} ) feet/min</td>
<td>525 460 390 300 230</td>
<td>300</td>
<td>330</td>
<td>980</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pitch</th>
<th>Number of passes mm tpi</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,8</td>
<td>32 8 8 9 9 10 10 9 8</td>
</tr>
<tr>
<td>1,0</td>
<td>24 10 10 12 12 12 12 12 10</td>
</tr>
<tr>
<td>1,25</td>
<td>20-19 12 12 14 14 15 15 14 12</td>
</tr>
<tr>
<td>1,5</td>
<td>16 15 15 17 17 18 18 17 15</td>
</tr>
<tr>
<td>1,75</td>
<td>14 17 17 19 19 21 21 18 17</td>
</tr>
<tr>
<td>2,0</td>
<td>12-11 19 20 22 22 25 25 20 18</td>
</tr>
<tr>
<td>2,5</td>
<td>10 22 24 26 26 31 31 22 20</td>
</tr>
<tr>
<td>3,0-3,5</td>
<td>8 28 30 32 32 38 38 24 22</td>
</tr>
</tbody>
</table>

#### FEED RATE internal threading

**Right hand thread**

**Left hand thread**

#### IN-FEED

**RADIAL IN-FEED**

Metal removed on both sides of the insert simultaneously. The most commonly used method for thread production.

**MODIFIED FLANK IN-FEED**

Less wear of the trailing edge and better surface finish on corresponding flank.

**ALTERNATING FLANK IN-FEED**

Both edges are being fully utilised which means longer insert life.

**FLANK IN-FEED**

More easily formed chip and better heat dissipation.

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TECHNICAL INFORMATION

THREADING
All threads up to 4,5 ° helix angle can be manufactured with HORN standard threading inserts. No special anvils will be necessary.

SEATINGS
The seating design of tooling type MINI as well as Supermini® guarantee the accurate center height of these tools. In spite of this, always check center height because a difference may cause problems, especially when machining small diameters.

TORQUE OF SCREWS
The following torque specifications are required for screws of MINI inserts. We do not recommend the use of anti-seize pastes.

<table>
<thead>
<tr>
<th>Screw</th>
<th>T8(Type108)</th>
<th>T8(Type10P)</th>
<th>T9(Type11P)</th>
<th>T10(Type111)</th>
<th>T15(Type114)</th>
<th>T20(Type116)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torque lbf-in.</td>
<td>9 - 13</td>
<td>9 - 13</td>
<td>13 - 18</td>
<td>22 - 26</td>
<td>35 - 40</td>
<td>50 - 55</td>
</tr>
</tbody>
</table>

REMOVAL OF CHIPS
Please choose inserts with smaller cutting widths, which helps aid chip evacuation and flow out of the bore. To avoid chip packing, use proper machining techniques, such as grooving by steps.

COOLANT
Use a filtered coolant for transporting the chips out and for cooling the insert itself. A coolant pressure of 5 bar min. is recommended.
# CHOICE OF CARBIDE GRADES

## Grey cast iron / Aluminium
- K01
- K02
- K03

## Stainless steel
- M40
- M30

## Steel
- P40
- P30
- P20

### Carbid Grades
- uncoated
- coated

### ISO ANSI
- L01
- L02

<table>
<thead>
<tr>
<th>Hardened materials</th>
<th>High temp. alloys</th>
<th>Non ferrous metal</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>C1</td>
<td>C2</td>
<td>C3</td>
</tr>
</tbody>
</table>

- Toughness
- Feed rate
- Wear resistance
- Cutting speed

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## CUTTING DATA

Nominal cutting speeds with HORN grades

<table>
<thead>
<tr>
<th>ISO</th>
<th>Material</th>
<th>Hardness Brinell</th>
<th>Cutting speed (v_c) ft/m</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>MG12</td>
</tr>
<tr>
<td>P</td>
<td>Carbon steel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C &lt; 0.4%</td>
<td>125</td>
<td>46-361</td>
</tr>
<tr>
<td></td>
<td>C &gt; 0.4% &lt; 0.6 %</td>
<td>150</td>
<td>46-361</td>
</tr>
<tr>
<td></td>
<td>C &gt; 0.4% &lt; 0.6 %</td>
<td>200</td>
<td>46-361</td>
</tr>
<tr>
<td></td>
<td>low alloyed steel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>annealed</td>
<td>180</td>
<td>53-295</td>
</tr>
<tr>
<td></td>
<td>quenched</td>
<td>275</td>
<td>53-295</td>
</tr>
<tr>
<td></td>
<td>quenched</td>
<td>300</td>
<td>53-295</td>
</tr>
<tr>
<td></td>
<td>high alloyed steel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>annealed</td>
<td>200</td>
<td>63-295</td>
</tr>
<tr>
<td></td>
<td>quenched</td>
<td>325</td>
<td>63-295</td>
</tr>
<tr>
<td></td>
<td>Cast steel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>unalloyed</td>
<td>180</td>
<td>63-361</td>
</tr>
<tr>
<td></td>
<td>low alloyed</td>
<td>220</td>
<td>63-361</td>
</tr>
<tr>
<td></td>
<td>high alloyed</td>
<td>225</td>
<td>63-361</td>
</tr>
<tr>
<td>M</td>
<td>Stainless steel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>martensitic, ferritic</td>
<td>200</td>
<td>63-295</td>
</tr>
<tr>
<td></td>
<td>austenitic</td>
<td>180</td>
<td>53-263</td>
</tr>
<tr>
<td>K</td>
<td>Cast iron</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spherical graphite</td>
<td>180-260</td>
<td>53-295</td>
</tr>
<tr>
<td></td>
<td>cast iron</td>
<td></td>
<td>53-295</td>
</tr>
<tr>
<td></td>
<td>Malleable cast iron</td>
<td>130-230</td>
<td>53-425</td>
</tr>
<tr>
<td>S</td>
<td>Heat resistant alloy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NiFe</td>
<td></td>
<td>59-246</td>
</tr>
<tr>
<td></td>
<td>NiCo</td>
<td></td>
<td>59-131</td>
</tr>
<tr>
<td>N</td>
<td>Al-alloy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>hardened material</td>
<td>&gt; 54 HRC</td>
<td>65-455</td>
</tr>
</tbody>
</table>

\(V_c\) is depending on the tool diameter and therefore of the maximum numbers of revolutions of the machine.
CARBIDE GRADES

UNCOATED GRADES
MG12 - a universal grade with good wear resistance. Used at low or medium cutting speeds for machining steel, cast iron and non ferrous materials

COATED GRADES
TN35 - a very popular grade TiN coated used to low or medium cutting speeds. Also recommended for machining stainless steel or exotic alloyed materials

TI25 - a TiCN coated grade with high abrasion resistance. Recommended for machining steel and non ferrous materials at medium cutting speeds

TF45 - a TiAIN coated grade. This coating has a very high temperature stability and high hardness and is only used for special applications.

TH35 - new standard grade - extreme temperature stability with high hardness and very good coefficient of friction
ADDITIONAL EQUIPMENT

Torque screw driver with scale
- variable torque setting
- adjusted torque is shown on display

The Torque can be adjusted with a special torque setter (id.)
Ergonomical form gives perfect handling abilities. Acoustic signal when setted torque is reached.
(Precision: ± 6 %)

D 15 VL
Model 1-5 Nm

D 28 VL
Model 2-8 Nm

Torque setter
Device for setting the required torque.
Handle: Celluloseacetat with micro structured surface
Blade: Octogonal (8 flats) blade, hardened galvanized
ADDITIONAL EQUIPMENT

**Universal Bitholder with T-handle**
For S.DM08, S.DM10 and S.DM12
also for all C6,3 and E6,3 (1/4") Bits

- **Blade:** High quality Chrome-Vanadium steel, through hardened, chrome plated.
- **Collar:** Stainless steel
- **Utilization:** For controlled opening

**Blade for TORX-Plus® screws**

- **Blade:** High quality Chrome-Vanadium steel, through hardened, chrome plated.
- **Collar:** Stainless steel
- **Utilization:** For controlled screw setting with definite torque in combination with Wiha torque screw driver handle.

**Universal Bitholder**
For S.DM08, S.DM10 and S.DM12 also for all C6,3 and E6,3 (1/4") Bits

- **Blade:** High quality Chrome-Vanadium steel, through hardened, chrome plated.
- **Collar:** Stainless steel
- **Utilization:** For controlled screw setting with definite torque in combination with torque screw driver handle.
ADDITIONAL EQUIPMENT

Torque screw driver with scale
- variable torque setting
- adjusted torque is shown on display

The Torque can be adjusted with a special torque setter (id.)
Ergonomical form gives perfect handling abilities. Acoustic signal when setted torque is reached.
(Precision: ± 6 %)

D515QL
Model 5-15 Nm

Torque setter
Device for setting the required torque.
Handle: Celluloseacetate with micro structured surface
Blade: Octogonal (8 flats) blade, hardened galvanized

ED515QL

Universal Bitholder
For S.DM08, S.DM10 and S.DM12 also
for all C6,3 and E6,3 (1/4") Bits

Blade: High quality Chrome-Vanadium steel, through hardened, chrome plated.
Collar: Stainless steel
Utilization: For controlled screw setting with definite torque in combination with torque screw driver handle.
ADDITIONAL EQUIPMENT

Blade for TORX-Plus® screws

Blade: High quality Chrome-Vanadium steel, through hardened, chrome plated. Wiha Chrome Blade guarantees maximum precision. Colored code green

Utilization: For controlled screw setting with definite torque in combination with Wiha torque screwdriver handle.

Wrench for TORX PLUS® Screws

Utilization: For all kind of using TORX PLUS® Screws

Attention: TORX PLUS®-Wrench does NOT fit for Torx-Screws
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Dear customer,

We are pleased to introduce our new catalog of Supermini® and Mini Carbide grooving tools.

This catalog represents part of the most comprehensive range of grooving products available from any single manufacturer.

For more than 40 years, HORN has dedicated its resources to the design and manufacture of tooling specifically for grooving applications.

As a HORN user, you gain access to this wealth of experience in grooving. Our team of engineers will be pleased to give you the help and assistance necessary to ensure you get the very best performance from our products.

If you require any further assistance or information, please do not hesitate to contact us. We look forward to our continued cooperation.

Yours sincerely

Lothar Horn

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**Cutting Material Group per DIN ISO 513**

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DIN ISO 513 does not replace the manufacturers grade description or designation. DIN ISO 513 gives a comparison for grades from various manufacturers.

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Edition March 2011