This new Milling Selection Guide leads you easily to the tool selection and to the corresponding user information. 6 steps enable you to select the suitable cutter, insert geometry and grade in relation with recommended parameters for Feed and Speeds.

### 6 Step Tool Selection

1. Go to the Tool guide on pages 10 - 17. **Select the milling family** according to the application.
   
   Available diameters, body fixation and type of inserts can also be found. (7792VX family selected)

2. Go to the referred Family page with the entire product range and technical information

   **2.1 Select a Cutter Body Diameter**

   **2.2 Technical Information**
   - Facing pitch
   - Ramping angles
   - Helical hole (min - max)
   - \( a_p \) max Helical / Linear
   - \( a_e \) max plunging
   (for 7792VX and 7791VS only)
   - RPM max

<table>
<thead>
<tr>
<th>Diameter Range</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.478</td>
<td>2.70</td>
<td>8.00</td>
</tr>
<tr>
<td>0.980</td>
<td>1.10</td>
<td>2.70</td>
</tr>
<tr>
<td>1.478</td>
<td>0.70</td>
<td>1.80</td>
</tr>
<tr>
<td>0.728</td>
<td>1.50</td>
<td>4.50</td>
</tr>
</tbody>
</table>

### Tooling Selection Guide

Cutters, Inserts & Cutting Parameters

<table>
<thead>
<tr>
<th>Tooling Selection Guide</th>
<th>Cutters, Inserts &amp; Cutting Parameters</th>
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<tbody>
<tr>
<td>Family Range</td>
<td>Body Fixation</td>
</tr>
<tr>
<td>Applications</td>
<td>Diameter Range</td>
</tr>
</tbody>
</table>

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**7792VD09**

High Feed Milling Cutter

**792VXD09**

Cutting Tool Systems

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Note: For cylindrical shank extensions in high density alloy with through coolant refer to page 86.
6 Step Tool Selection (continued)

3. Select the Insert according to the application and material to be machined.

3.1 Application Section

- Facing, Semi-Finishing and Finishing
- Or
- Facing, Slotting and Plunging

3.2 Material to be machined

For each insert, a colored symbol will advise you about the performance, as well as the materials which can be machined. The color of the symbol corresponds to the ISO Material designation.

Symbol explanation:

- 1st choice: Excellent performance
- 2nd choice: Good performance
- 3rd choice: Alternative option

ISO Material designation:

Material Guide – Key to Recommended Inserts

|----------------------|-----------------|---------------|-----------------|--------------|------------|------------------|-----------------|---------------|

Select the recommended Feed range according to the operation and the material to be machined.

Example:

Feed range for XDLW090408SR-D X400 for Facing in Alloyed Steel 0.012" – 0.079"
6 Step Tool Selection (continued)

5 Select the recommended Cutting Speed (vc) and Coolant recommendations according to the material to be machined.

Example:
Speed range for XDLW090408SR-D X400 for Facing in Alloyed Steel (Rm 950-1200 N/mm² and 280-355 HBN) 230 – 490 SFM

Material specifications can be found in the Materials Reference Charts pages 378 - 411.

6 Technical information can be found at the end of each selected family which contains calculation formulas, mounting instructions, etc…

Technical Information

The 7792VX machines with a constant volume of chip throughout all aspects of producing cavities and produces a side wall that is close to profile. Round insert tools have increasing chip volume through the process.

7792VX
- Constant cutting forces provide high productivity.
- Relationship between cutting edge and workpiece is at its most stable.
- Resultant in high tool life and consistent tool life.

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Round Insert Tools
- Tangential forces around the tool.
- Leads to vibration and damage of the cutting edge.
- Leads to reduced feed and lower productivity.

Round Insert
- Greater surface contact.
- Increased chip section for side wall machining.
- Vibration in corners.
- Undulating side wall cause.