Expanded cutter and grade options for maximum high feed milling performance
MillQuadFeed-09 offers expanded application coverage

In addition to a new modular style cutter head, additional cutter diameter options are available for up to 63 mm in a close or coarse pitch design for chatter solutions.

Expanded insert grade options for expanded materials coverage.
CUTTING PERFORMANCE

Comparisons of tool life

**Over 300% tool life with AH3225 grade**

- **Cutter**: EXSW09M025C25.0R03 (ø = 25 mm, z = 3)
- **Insert**: SWMT0904ZER-MM AH3225
- **Insert**: SWMT0904UER-MM AH3225
- **Workpiece material**: S55C / C55 (180HB)
- **Cutting speed**: Vc = 150 m/min
- **Feed per tooth**: fz = 1.5 mm/t
- **Depth of cut**: ap = 0.8 mm
- **Depth of width**: ae = 9 mm
- **Number of teeth**: 1
- **Coolant**: Dry
- **Machine**: Vertical M/C, BT50

**200% tool life with AH130 grade and UER insert**

- **Cutter**: TXSW09M050B22.0R07 (ø = 50 mm, z = 7)
- **Insert**: SWMT0904ZER-MM AH130
- **Insert**: SWMT0904UER-MM AH130
- **Workpiece material**: SUS304 / X5CrNi18-9
- **Cutting speed**: Vc = 120 m/min
- **Feed per tooth**: fz = 0.8 mm/t
- **Depth of cut**: ap = 0.8 mm
- **Depth of width**: ae = 32 mm
- **Number of teeth**: 1
- **Coolant**: Wet
- **Machine**: Vertical M/C, BT50

**240% tool life with AH130 grade and UER insert**

- **Cutter**: TXSW09M050B22.0R07 (ø = 50 mm, z = 7)
- **Insert**: SWMT0904ZER-MM AH130
- **Insert**: SWMT0904UER-MM AH130
- **Workpiece material**: SUS630 / X5CrNi18-9 (40HRC)
- **Cutting speed**: Vc = 100 m/min
- **Feed per tooth**: fz = 0.6 mm/t
- **Depth of cut**: ap = 0.8 mm
- **Depth of width**: ae = 32 mm
- **Number of teeth**: 1
- **Coolant**: Wet
- **Machine**: Vertical M/C, BT50
Comparisons of tool life

**Cutter**: TXSW09M050B22.0R07 (ø = 50 mm, z = 7)
**Insert**: SWMT0904ZER-MM AH130
**Insert**: SWMT0904UER-MM AH130

**Workpiece material**: Ti-6Al-4V (42HRC)
**Cutting speed**: Vc = 60 m/min
**Feed per tooth**: fz = 0.7 mm/t
**Depth of cut**: ap = 0.8 mm
**Depth of width**: ae = 32 mm
**Number of teeth**: 1
**Coolant**: Wet
**Machine**: Vertical M/C, BT50

320% tool life with AH130 grade and UER insert

**Cutter**: TXSW09M050B22.0R07 (ø = 50 mm, z = 7)
**Insert**: SWMT0904ZER-MM AH8015
**Insert**: SWMT0904UER-MM AH8015

**Workpiece material**: Inconel718 (40HRC)
**Cutting speed**: Vc = 40 m/min
**Feed per tooth**: fz = 0.4 mm/t
**Depth of cut**: ap = 0.8 mm
**Depth of width**: ae = 32 mm
**Number of teeth**: 1
**Coolant**: Wet
**Machine**: Vertical M/C, BT50

220% tool life with AH8015 grade and UER insert

**Cutter**: TXSW09M050B22.0R07 (ø = 50 mm, z = 7)
**Insert**: SWMT0904ZER-MM AH8015
**Insert**: SWMT0904UER-MM AH8015

**Workpiece material**: SKD61 / X40CrMoV5-1 (52HRC)
**Cutting speed**: Vc = 80 m/min
**Feed per tooth**: fz = 0.5 mm/t
**Depth of cut**: ap = 0.8 mm
**Depth of width**: ae = 32 mm
**Number of teeth**: 1
**Coolant**: Dry
**Machine**: Vertical M/C, BT50

150% tool life with AH8015 grade and UER insert
ACCELERATED MACHINING

New

HXSW09
High feed mill, modular type, for 4-corner single sided inserts

<table>
<thead>
<tr>
<th>Designation</th>
<th>APMX</th>
<th>APMX2</th>
<th>DCX</th>
<th>CICT</th>
<th>DC</th>
<th>DC2</th>
<th>OAL</th>
<th>LF</th>
<th>H</th>
<th>DCSFMS</th>
<th>KAPR</th>
<th>KAPR2</th>
<th>CRKS</th>
<th>WT (kg)</th>
<th>Air hole</th>
<th>Insert</th>
</tr>
</thead>
<tbody>
<tr>
<td>HXSW09M025M12R03</td>
<td>1.5</td>
<td>1</td>
<td>25</td>
<td>10</td>
<td>9</td>
<td>57</td>
<td>35</td>
<td>17</td>
<td>20.8</td>
<td>12°</td>
<td>7°</td>
<td>M12</td>
<td>0.09</td>
<td>With</td>
<td>SWMT09...</td>
<td></td>
</tr>
<tr>
<td>HXSW09M032M16R04</td>
<td>1.5</td>
<td>1</td>
<td>32</td>
<td>17</td>
<td>16</td>
<td>63</td>
<td>40</td>
<td>22</td>
<td>28.8</td>
<td>12°</td>
<td>7°</td>
<td>M16</td>
<td>0.18</td>
<td>With</td>
<td>SWMT09...</td>
<td></td>
</tr>
</tbody>
</table>

SPARE PARTS

<table>
<thead>
<tr>
<th>Designation</th>
<th>Clamping screw</th>
<th>Mono block wrench</th>
<th>Lubricant</th>
</tr>
</thead>
<tbody>
<tr>
<td>HXSW09...</td>
<td>CSPD-3</td>
<td>IP-12D</td>
<td>M-1000</td>
</tr>
</tbody>
</table>

*Recommended clamping torque (N·m): CSPD-3=2.5

---

TXSW09
High feed mill, for 4-corner single sided inserts

<table>
<thead>
<tr>
<th>Designation</th>
<th>APMX</th>
<th>APMX2</th>
<th>DCX</th>
<th>CICT</th>
<th>DC</th>
<th>DC2</th>
<th>OAL</th>
<th>LF</th>
<th>KWW</th>
<th>b</th>
<th>KAPR</th>
<th>KAPR2</th>
<th>WT (kg)</th>
<th>Air hole</th>
<th>Insert</th>
</tr>
</thead>
<tbody>
<tr>
<td>TXSW09M040B16.0R04</td>
<td>1.5</td>
<td>1</td>
<td>40</td>
<td>25</td>
<td>24</td>
<td>38</td>
<td>16</td>
<td>18</td>
<td>8.4</td>
<td>5.6</td>
<td>12°</td>
<td>7°</td>
<td>0.2</td>
<td>With</td>
<td>SWMT09...</td>
</tr>
<tr>
<td>TXSW09M050B22.0R05</td>
<td>1.5</td>
<td>1</td>
<td>50</td>
<td>35</td>
<td>34</td>
<td>47</td>
<td>22</td>
<td>20</td>
<td>10.4</td>
<td>6.3</td>
<td>12°</td>
<td>7°</td>
<td>0.37</td>
<td>With</td>
<td>SWMT09...</td>
</tr>
<tr>
<td>TXSW09M052B22.0R07</td>
<td>1.5</td>
<td>1</td>
<td>52</td>
<td>37</td>
<td>36</td>
<td>49</td>
<td>22</td>
<td>20</td>
<td>10.4</td>
<td>6.3</td>
<td>12°</td>
<td>7°</td>
<td>0.38</td>
<td>With</td>
<td>SWMT09...</td>
</tr>
<tr>
<td>TXSW09M063B22.0R06</td>
<td>1.5</td>
<td>1</td>
<td>63</td>
<td>48</td>
<td>47</td>
<td>59</td>
<td>22</td>
<td>20</td>
<td>10.4</td>
<td>6.3</td>
<td>12°</td>
<td>7°</td>
<td>0.69</td>
<td>With</td>
<td>SWMT09...</td>
</tr>
<tr>
<td>TXSW09M063B22.0R08</td>
<td>1.5</td>
<td>1</td>
<td>63</td>
<td>48</td>
<td>47</td>
<td>59</td>
<td>22</td>
<td>20</td>
<td>10.4</td>
<td>6.3</td>
<td>12°</td>
<td>7°</td>
<td>0.7</td>
<td>With</td>
<td>SWMT09...</td>
</tr>
</tbody>
</table>

SPARE PARTS

<table>
<thead>
<tr>
<th>Designation</th>
<th>Clamping screw</th>
<th>Torx bit</th>
<th>Grip</th>
<th>Shell locking bolt</th>
<th>Lubricant</th>
</tr>
</thead>
<tbody>
<tr>
<td>TXSW09M04...</td>
<td>CSPD-3</td>
<td>BLDIP10/S7</td>
<td>H-TB2W</td>
<td>FSHM8-30H</td>
<td>M-1000</td>
</tr>
<tr>
<td>TXSW09M05...</td>
<td>CSPD-3</td>
<td>BLDIP10/S7</td>
<td>H-TB2W</td>
<td>FSHM10-40H</td>
<td>M-1000</td>
</tr>
<tr>
<td>TXSW09M06...</td>
<td>CSPD-3</td>
<td>BLDIP10/S7</td>
<td>H-TB2W</td>
<td>CM10X30H</td>
<td>M-1000</td>
</tr>
</tbody>
</table>

*Recommended clamping torque (N·m): CSPD-3=2.5

www.tungaloy.com
INSERTS

**SWMT0904ZER-MM**

**SWMT0904UER-MM**

<table>
<thead>
<tr>
<th>Designation</th>
<th>RE</th>
<th>APMX</th>
<th>LE</th>
<th>IC</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWMT0904ZER-MM</td>
<td>1</td>
<td>1.5</td>
<td>8.605</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>SWMT0904UER-MM</td>
<td>1</td>
<td>1</td>
<td>9.05</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

- Steel
- Stainless
- Cast iron
- Non-ferrous
- Titanium
- Heat resistant alloy
- Hard materials

*: First choice
**: Second choice

**APPLICATION RANGE**

**09 type**

<table>
<thead>
<tr>
<th>Designation</th>
<th>Tool dia.</th>
<th>Max. depth of cut</th>
<th>Max. plunging depth</th>
<th>Max. ramping angle</th>
<th>Max. cutting width in plunging</th>
<th>Min. machining dia.</th>
<th>Max. machining dia.</th>
<th>Max. cutting width in enlarging</th>
</tr>
</thead>
<tbody>
<tr>
<td>E/HXSW09M025...</td>
<td>25</td>
<td>1.5</td>
<td>1</td>
<td>0.3</td>
<td>4.8</td>
<td>6</td>
<td>7</td>
<td>7.5</td>
</tr>
<tr>
<td>E/HXSW09M032...</td>
<td>32</td>
<td>1.5</td>
<td>1</td>
<td>0.3</td>
<td>2.7</td>
<td>3.2</td>
<td>7</td>
<td>7.5</td>
</tr>
<tr>
<td>TXSW09M040...</td>
<td>40</td>
<td>1.5</td>
<td>1</td>
<td>0.3</td>
<td>1.8</td>
<td>2.1</td>
<td>7</td>
<td>7.5</td>
</tr>
<tr>
<td>TXSW09M050...</td>
<td>50</td>
<td>1.5</td>
<td>1</td>
<td>0.3</td>
<td>1.2</td>
<td>1.4</td>
<td>7</td>
<td>7.5</td>
</tr>
<tr>
<td>TXSW09M052...</td>
<td>52</td>
<td>1.5</td>
<td>1</td>
<td>0.3</td>
<td>1.2</td>
<td>1.4</td>
<td>7</td>
<td>7.5</td>
</tr>
<tr>
<td><strong>New</strong> TXSW09M063...</td>
<td>63</td>
<td>1.5</td>
<td>1</td>
<td>0.3</td>
<td>0.8</td>
<td>1.1</td>
<td>7</td>
<td>7.5</td>
</tr>
</tbody>
</table>