1 meter

45 m/min in X, Y and Z axes, with optional 60 m/min in X and Y. Machine of large dimensions and high speed.

Stand-by function and Auto Switch off function, saving 20% of the total energy consumption.

Octagonal ram section
Reduced distance between the ram centre and the crossbeam centre. By decreasing the force applied during the movements of the X axis, the precision of the surface finish is improved.

Crossbeam isolation
The crossbeam is composed by three layers of steel-insulation-steel. This system minimises the crossbeam geometrical changes due to the temperature variations in the workshop.

Mixed structure of “HDC” concrete and steel. The “HDC” concrete is a material of high density mixed with micro-fibres developed by Nicolás Correa. What are the advantages of the “HDC”?

• High damping capacity
• High rigidity
• Thermal stability

What makes the difference in the XPIDER?
The XPIDER represents a concept of high-speed “top gantry” machine which incorporates unique structural elements and functions. Temperature stability and high speed combined in this new generation milling machine.

Available in all models of VERSA, FOX and XPIDER

• Steel torsion bars in the crossbeam
• Minimising the deformation due to crossbeam flexion and torsion
• Enhancing the geometry of the machine
• Increasing the roughing capacity

Mixed structure of “HDC” concrete and steel. The “HDC” concrete is a material of high density mixed with micro-fibres developed by Nicolás Correa.

What are the advantages of the “HDC”?

• High damping capacity
• High rigidity
• Thermal stability

Octagonal ram section
Reduced distance between the ram centre and the crossbeam centre. By decreasing the force applied during the movements of the X axis, the precision of the surface finish is improved.

Crossbeam isolation
The crossbeam is composed by three layers of steel-insulation-steel. This system minimises the crossbeam geometrical changes due to the temperature variations in the workshop.

Mixed structure of “HDC” concrete and steel. The “HDC” concrete is a material of high density mixed with micro-fibres developed by Nicolás Correa.

What are the advantages of the “HDC”?

• High damping capacity
• High rigidity
• Thermal stability

Stand-by function and Auto Switch off function, saving 20% of the total energy consumption.

Direct transmission to the drive of the vertical axis, guaranteeing the maximum precision and rigidity.

Direct transmission of the spindle with a cylindrical water-cooled motor.

45 m/min in X, Y and Z axes, with optional 60 m/min in X and Y. Machine of large dimensions and high speed.

Air flow
System of air recirculation through the ram. Improving the geometrical stability faced with temperature changes in the workshop.

Direct transmission to the drive of the vertical axis, guaranteeing the maximum precision and rigidity.

Direct transmission of the spindle with a cylindrical water-cooled motor.
### Technical Features

#### Standard Equipment

- Five-axes twist drill head equipped with electrospindle
- Hydraulic and cooling group
- Numerical control Heidenhain or Siemens (Operate HMI)
- Linear scales in all axes
- Portable handwheel
- External Coolant with adjustable nozzles
- Air-conditioned electrical cabinet
- Internal and external air flow
- Linear guides in the X, Y and Z axes
- Guarding
- Lamp in the working area
- Tele-service

---

#### XPIDER TABLE

<table>
<thead>
<tr>
<th>Surface</th>
<th>mm</th>
<th>3.500 + 1.500N x 1.500 – 2.500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum load on the table</td>
<td>Kg/m²</td>
<td>10.000</td>
</tr>
<tr>
<td>Longitudinal</td>
<td>X mm</td>
<td>3.500 - 1.500N</td>
</tr>
<tr>
<td>Cross</td>
<td>Y mm</td>
<td>2.000 - 3.000</td>
</tr>
<tr>
<td>Vertical</td>
<td>Z mm</td>
<td>1.000 - 1.500</td>
</tr>
<tr>
<td>Distance between columns</td>
<td>mm</td>
<td>3.000 - 4.000</td>
</tr>
</tbody>
</table>

#### TRAVERSES

<table>
<thead>
<tr>
<th>Feed X mm/min</th>
<th>45 / 60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed Y mm/min</td>
<td>45 / 60</td>
</tr>
<tr>
<td>Feed Z mm/min</td>
<td>45 / 45</td>
</tr>
</tbody>
</table>

#### WORK CAPACITY

<table>
<thead>
<tr>
<th>Feeds</th>
<th>m/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>45 / 60</td>
</tr>
<tr>
<td>Y</td>
<td>45 / 60</td>
</tr>
<tr>
<td>Z</td>
<td>45 / 45</td>
</tr>
</tbody>
</table>

#### FEEDS

<table>
<thead>
<tr>
<th>Maximum power</th>
<th>kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spindle nose</td>
<td>ISO-50</td>
</tr>
<tr>
<td>Programmable speed</td>
<td>rpm</td>
</tr>
<tr>
<td>Maximum power</td>
<td>kW</td>
</tr>
</tbody>
</table>

* Only with ESE milling head (Electrospindle).
Optional Equipment

Other heads
- Automatic head-changer
- Tool and parts measurement probes
- Automatic changer for 30, 40, 60, 120 tools
- Pick up station for 6, 8, 12 tools
- Air/Coolant cleaning gun

Self-cleaning filter
- Rotary tables
- Chip conveyors
- Perimeter fence
- Different enclosures according to user’s needs (only in some models)
- Coolant through spindle 17, 36, 70 bar
- Zero Point Clamping System integrated in the machine

ESE Milling Head

**Flexibility**
- Axis C rotation, from -200° to +200°
  - Optional -360° to +360°
- Axis B rotation, from -110° to +110°
- 3 configurable electrospindles on the same boring head
- Cutting fluid and/or air through the spindle, which can be adjusted from 17 to 70 bar
- Cutting fluid and/or outside air with integrated adjustable nozzles

**Robustness**
- C axis working torque: 2200 Nm (Motor-Torque)
- C axis braking torque: 4000 Nm
- B axis working torque: 2026 Nm (Motor + reduction + gears)
- B axis braking torque: 4000 Nm
- Superior quality Kessler or Fischer electrospindle

**Productivity**
- C axis rotation speed: 45 rpm
- C axis acceleration: 10 rev / sec²
- B axis rotation speed: 25 rpm
- B axis acceleration: 10 rev / sec²

**Reliability**
- Head designed and manufactured in Nicolás Correa
- Head assembled in white room at 22°C
- Kessler / Fischer electrospindle
- More demanding cutting tests
- Automatic lubrication

**Precision**
- Temperature-based pivoting distance correction main axis bearings
- Mean Ps error < 0.001°
- Total P error < 0.002°
- B axis encoder placed on last rotation axis
- Completely symmetrical transmission in the B axis. The heat generated during the transmission in the B axis is uniformly distributed among the milling head