ABOUT US

INNOVATIVE CONCEPT TO OPTIMIZE DEEP HOLE DRILLING, STANDARD DRILLING AND MILLING

LOCATION

CHETO TECHNOLOGICAL CENTER

Área de Acolhimento Empresarial
UL-Loureiro, Lotes 13-21
3720-075 Loureiro, Oliveira de Azeméis
Portugal

GPS: 40°48’00.5”N | 8°30’35.3”W

CONTACT US

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WORLDWIDE PRESENCE
CHETO was officially established in 2009, when the founders started a project to fully develop a deep hole drilling and milling machine-tool up to 7-axes, specialized for the mold making and energy industry.

Since then, a continuous improvement and investigation allowed CHETO to offer the market a versatile product with high levels of accuracy and reliability.

This concept quickly positioned CHETO as a world-renowned brand. With machines sold in four continents, it is our goal to keep improving and innovating, to offer a highly competitive and value-creating product.
## Technical Data

### CNC Axes

<table>
<thead>
<tr>
<th></th>
<th>1000</th>
<th>2000</th>
<th>3000</th>
</tr>
</thead>
<tbody>
<tr>
<td>W drilling one stroke</td>
<td>1630 mm</td>
<td>1630 mm</td>
<td>1630 mm</td>
</tr>
<tr>
<td>X longitudinal travel</td>
<td>1000 mm</td>
<td>2000 mm</td>
<td>3000 mm</td>
</tr>
<tr>
<td>Y vertical travel</td>
<td>1000 mm</td>
<td>1200 mm</td>
<td>1200 mm</td>
</tr>
<tr>
<td>Z cross travel</td>
<td>800 mm</td>
<td>800 mm</td>
<td>800 mm</td>
</tr>
<tr>
<td>B table rotation</td>
<td>360,000</td>
<td>360,000</td>
<td>360,000</td>
</tr>
<tr>
<td>A tilting rotation</td>
<td>+25º/-15º</td>
<td>+25º/-15º</td>
<td>+25º/-15º</td>
</tr>
</tbody>
</table>

### Drilling capacity

<table>
<thead>
<tr>
<th></th>
<th>1000</th>
<th>2000</th>
<th>3000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. drilling stroke W+Z</td>
<td>ø5-40 mm</td>
<td>ø5-40 mm</td>
<td>ø5-40 mm</td>
</tr>
<tr>
<td>Drilling capacity</td>
<td>ø2.0-1.58 in</td>
<td>ø2.0-1.58 in</td>
<td>ø2.0-1.58 in</td>
</tr>
</tbody>
</table>

### Milling capacity

<table>
<thead>
<tr>
<th></th>
<th>1000</th>
<th>2000</th>
<th>3000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milling</td>
<td>300 cm³/min</td>
<td>400 cm³/min</td>
<td>500 cm³/min</td>
</tr>
<tr>
<td>Rigid tapping</td>
<td>M30</td>
<td>M32</td>
<td>M34</td>
</tr>
<tr>
<td>Helical threading</td>
<td>Standard</td>
<td>Standard</td>
<td>Standard</td>
</tr>
</tbody>
</table>

### Spindle

<table>
<thead>
<tr>
<th></th>
<th>1000</th>
<th>2000</th>
<th>3000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spindle taper</td>
<td>ISO 50 DIN 69871</td>
<td>ISO 50 DIN 69871</td>
<td>ISO 50 DIN 69871</td>
</tr>
<tr>
<td>Speed</td>
<td>0-4500 rpm</td>
<td>0-4500 rpm</td>
<td>0-4500 rpm</td>
</tr>
<tr>
<td>Power</td>
<td>11/15 kW</td>
<td>15/22 kW</td>
<td>22/33 kW</td>
</tr>
<tr>
<td>Torque</td>
<td>140/200 Nm</td>
<td>191/287 Nm</td>
<td>280/420 Nm</td>
</tr>
</tbody>
</table>

### Automatic rotary table

<table>
<thead>
<tr>
<th></th>
<th>1000</th>
<th>2000</th>
<th>3000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table size</td>
<td>1300x1300 mm</td>
<td>1600x1300 mm</td>
<td>1800x1600 mm</td>
</tr>
<tr>
<td>Positioning type</td>
<td>360,000</td>
<td>360,000</td>
<td>360,000</td>
</tr>
<tr>
<td>Max. load in rotation</td>
<td>10 Ton</td>
<td>20 Ton</td>
<td>30 Ton</td>
</tr>
<tr>
<td></td>
<td>22,047 lbs</td>
<td>44,093 lbs</td>
<td>66,139 lbs</td>
</tr>
</tbody>
</table>

### Layout dimensions

<table>
<thead>
<tr>
<th></th>
<th>1000</th>
<th>2000</th>
<th>3000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total weight</td>
<td>25 Ton</td>
<td>28 Ton</td>
<td>34 Ton</td>
</tr>
<tr>
<td>Foot print (WxL)</td>
<td>7140x5760 mm</td>
<td>8690x6160 mm</td>
<td>9520x7410 mm</td>
</tr>
</tbody>
</table>
STANDARD EQUIPMENT

- CNC FAGOR 8065
- Option CNC HEIDENHAIN TNC 640
- Electronic handwheel
- Digital drives
- Nitrogen double counterweight
- Absolute linear encoders in axes X, Y and Z
- Absolute angular encoders in axes A and B
- Telescopic covers in all axes (except drilling axis)
- Kinematics / RTCP
- Rigid tapping

- Quick change between drilling/milling
- Coolant tank with automatic filtering
- Submerged pumps for oil recirculation
- High-pressure pump 80 bar, 100 l/min | 1,160 psi, 26.5 gal/min
- Automatic chip conveyor
- Complete cover with doors, laminated glass windows and acrylic ceiling
ADAPT MACHINING PARAMETERS ONLINE
- Spindle torque
- Feed
- Coolant pressure
- Coolant flow
- Vibration

INTERSECTION
The system automatically detects intersections in the process and sets the parameters accordingly to keep the quality of the operation and to protect the tool lifetime.

PROCESS
The system detects variations of the efforts of the process and automatically adjust the drilling parameters online to keep a continuous process.

The diversity of operations, the lack of raw materials homogeneity, the deficient parameter settings, and intersection holes often lead to the reduction of the tool lifetime. As hole intersections are a constant matter on mold making, and considering the difficulty of these operations, it’s common to have problems on final results as unexpected hole drifts, premature tool wear or tool break.
TABLE SIZE
ACCORDING TO CLIENT SPECIFICATIONS
MAX SIZE: 2000x2000 mm | 78.7x78.7 in

Y AXIS = 1200 mm | 47.2 in
OPTION = 1500 mm | 59.0 in

W AXIS = 1630 mm | 62.4 in
OPTION = 2000 mm | 78.7 in

TILTING = +25°/-15°
OPTION = +25°/-25°

Z AXIS = 800 mm | 31.5 in

ATC 24 TOOLS
L = 300 mm | 11.8 in

ATC 40/60 TOOLS
L = 300/600 mm
11.8/23.6 in

ATC UP TO 250 TOOLS
L = 600 mm | 23.6 in

X AXIS

ATC GUNDRILL
UP TO 5 TOOLS

OPTION Z1 AXIS = 700 mm | 27.6 in
IXN STANDARD & OPTIONAL EQUIPMENTS

AIR CLEANING UNIT

PAPER FILTRATION SYSTEM

IMMERSION CHILLER FOR OIL/EMULSION

FILTER UNIT
2000 / 3000 L
528 / 793 gal
HIGH-PRESSURE PUMP
80 bar 100 l/min | 1,160 psi, 26.5 gal/min
others upon request

COOLING UNIT
AC TO COOL THE ELECTRICAL CABINET

EASY ACCESS TO THE
ELECTRICAL CABINET

CHIP CONVEYOR
IXN

OPTIONAL EQUIPMENT

LASER MEASURING SYSTEM
BLUM MCA7

ELECTRIC PROBE
BLUM TC60

TOOL CABINET

CHETO RE100
GUNDRILL GRINDER Ø5-32 MM | Ø0.2-1.26 in
OUR PRODUCTS & DESIGN

CHETO CNC deep hole drilling with milling

FOOT PRINT IXN MODELS

CHETO CNC deep hole drilling with milling

CC MODEL
1000
5 Axes

IXN MODEL
1000 / 2000 / 3000
6 & 7 Axes

PWN MODEL
1000 / 2000 / 3000

IXN MODEL
1000 / 2000 / 3000

MT MODEL
1500 / 2500

SX MODEL
6 Axes

NEW MODEL

- Efficient Deep Hole Drilling with milling for Small Size Parts
- Working 5 Faces on a Single Setup
- 3+2 milling
- No Angle Limitation

FOOT PRINT IXN MODELS

IXN1000

IXN2000

Registered Design
CHETOCORPORATION, S.A.
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