



CHETO[®]

CNC DEEP HOLE DRILLING WITH MILLING

www.cheto.eu

SiC Series 6 Axes



OUR PRODUCTS & DESIGN



INL MODEL

BTA / GUNDRILL

up to **3** Axes



IXN MODEL

1000 / 2000 / 3000 / 4000

6 & 7 Axes



PWN MODEL

1000 / 2000 / 3000

5 Axes



CSHI MODEL

Versions 4.0 / 9.0



SiC MODEL

650 / 1000 / 1000 HD

6 Axes with Gun Drill Arm

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

Location

CHETO TECHNOLOGICAL CENTER:

Área de Acolhimento Empresarial
UI-Loureiro, Lotes 13-21
3720-070 Loureiro, Oliveira de Azeméis
Portugal
GPS: 40°48'00.5"N | 8°30'35.3"W

CONTACT US

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WORLDWIDE PRESENCE

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



inovadora'21



PME líder



PME excelência'16

CHETO[®]

CNC DEEP HOLE DRILLING WITH MILLING

INNOVATIVE --- machine tools

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-axis, 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.





SiC650

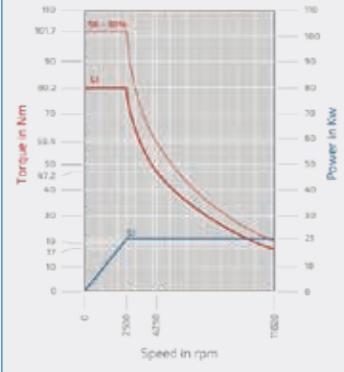


SiC650

| | SiC650 | | SiC1000 | | SiC1000 HD | |
|-------------------------------|---------------|-----------------|---------------|-----------------|-----------------------|--------------------|
| CNC Axis | | | | | | |
| W drilling stroke | 1100 mm | 43.4 in | 1100 mm | 43.4 in | 1400 mm | 55.1 in |
| X longitudinal travel | 650 mm | 25.6 in | 1000 mm | 39.4 in | 1200 mm | 47.2 in |
| Y vertical travel | 840 mm | 33.1 in | 840 mm | 33.1 in | 1100 mm | 43.3 in |
| Z cross travel | 500 mm | 19.7 in | 500 mm | 19.7 in | 700 mm | 27.6 in |
| B table rotation | 360° | | 360° | | 360° | |
| A table tilting rotation | +90°/-45° | | +90°/-45° | | +110°/-45° | |
| Drilling capacity | | | | | | |
| Drilling capacity | ø3-25 mm | ø0.1-1.0 in | ø3-25 mm | ø0.1-1.0 in | ø3-32 mm | ø0.1-1.3 in |
| Milling capacity | | | | | | |
| Milling | 250 cm³/min | 15.3 in³/min | 250 cm³/min | 15.3 in³/min | 450 cm³/min | 27.5 in³/min |
| Rigid tapping | M16 | | M16 | | M20 | |
| Helical threading | Standard | | Standard | | Standard | |
| Spindle | | | | | | |
| Spindle taper | HSK-A63 | | HSK-A63 | | HSK-A100 / SK 50BIG + | |
| Speed | 0-11.820 rpm | | 0-11.820 rpm | | 0-12.000 rpm | |
| Power | 21/26 kW | 28/35 hp | 21/26 kW | 28/35 hp | 45/49.5 kW | 60.3/66.4 hp |
| Torque | 80.2/101.7 Nm | 59/75 ft-lbs | 80.2/101.7 Nm | 59/75 ft-lbs | 285/315 Nm | 210.2/232.3 ft-lbs |
| Automatic rotary table | | | | | | |
| Table size | 500x500 mm | 20x20 in | 500x500 mm | 20x20 in | ø800 mm | ø31.5 in |
| Positioning type | 0.001° | | 0.001° | | 0.001° | |
| Max. load in rotation | 750/600 kg | 1,653/1,323 lbs | 750/600 kg | 1,653/1,323 lbs | 1200/925 kg | 2,646/2,039 lbs |
| Layout dimensions | | | | | | |
| Total weight | 13 Ton | 28,660 lbs | 15 Ton | 33,069 lbs | 18 Ton | 39,683 lbs |
| Foot print (WxL) | 6840x2901 mm | 267.3x124.4 in | 6840x3300 mm | 267.3x129.9 in | 8216x4555 mm | 323.5x179.3 in |

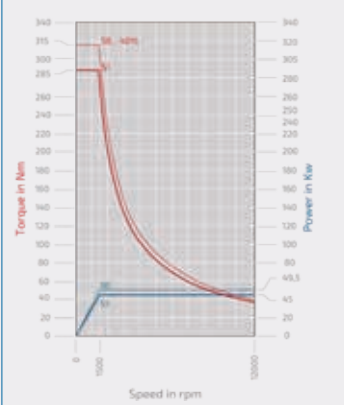
SiC650 | 1000

Power / Torque Diagram



SiC1000 HD

Power / Torque Diagram



Subject to technical change without notice

SIC Small Indexable CHETO

— 6 AXES

6 Axes with Gun Drill Arm

Registered Design



STANDARD EQUIPMENT

- CNC HEIDENHAIN TNC 640
- CNC FAGOR 8065 as optional equipment
- Electronic handwheel
- Digital drives
- Encoders in linear axis X, Y, and Z
- Angular encoders in rotating axis A and B
- Positioning table with continuous movement controlled with servo motor
- 3+2 milling / 5 axes
- External status led indication
- ATC 60 tools, L=600 mm | 23.6 in
- High-pressure pump up to 100 bar, 75 l/min | 1,450 psi, 19.5 gal/min
- Machine prepared to use emulsion or oil
- Coolant tank with automatic filtering
- Pumps for oil recirculation
- Automatic chip conveyor
- Quick change between drilling/milling
- Rigid tapping
- Complete cover with doors

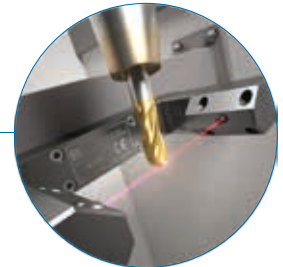




**TABLE WITH CLAMPING SYSTEM
AUTOMATIC DOOR**



CHILLER FOR OIL/EMULSION



LASER MEASURING SYSTEM BLUM NT MC A7-2
ELECTRONIC PROBE BLUM TC60



AIR CLEANING UNIT



ADAPT MACHINING PARAMETERS ONLINE

- Spindle torque
- Coolant pressure
- Vibration
- Feed
- Coolant flow



**TWO CONTROL
OPTIONS**



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.



**INTERFACE
REQUIREMENTS**

HEIDENHAIN
TNC 640

SIEMENS
SINUMERIK ONE

FAGOR
CNC 8065



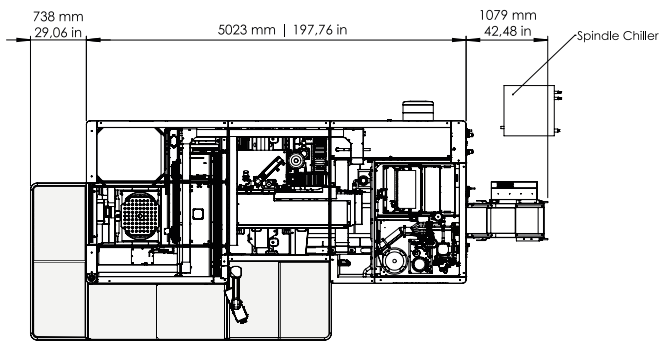
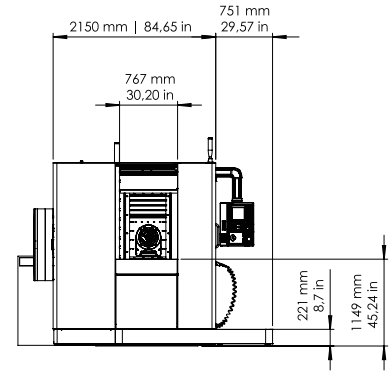
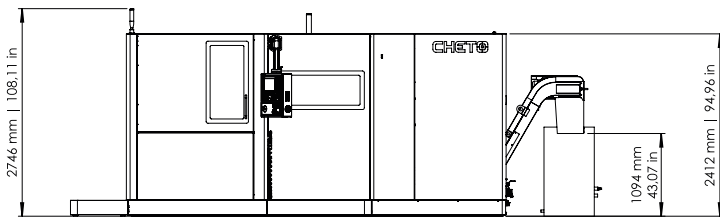
**END OF
EXTRAORDINARY COSTS**



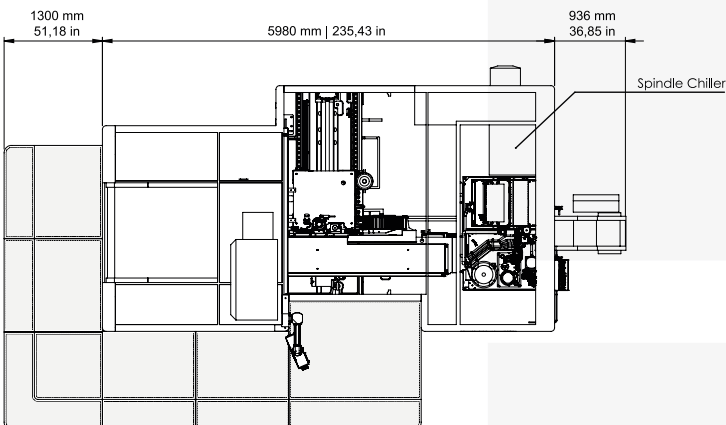
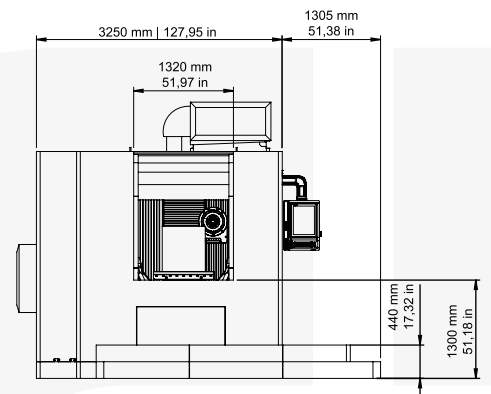
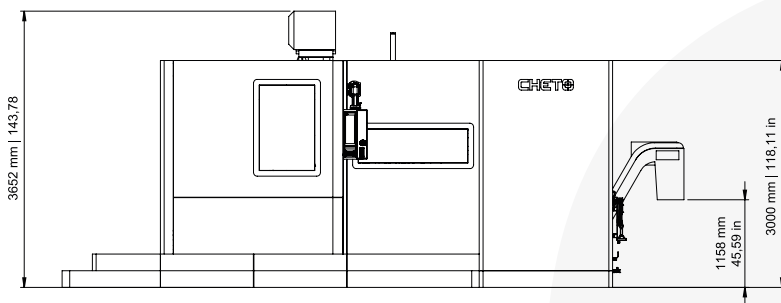
END OF EXTRAORDINARY COSTS OF NONCONFORMANCE

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.

FOOT PRINT SiC 650



FOOT PRINT SiC 1000



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CHETOCORPORATION, S.A.

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