



# CHETO<sup>®</sup>

CNC DEEP HOLE DRILLING WITH MILLING

[www.cheto.eu](http://www.cheto.eu)

SiC Series 6 Axes



# OUR PRODUCTS & DESIGN



## CC MODEL

1000

5 Axes

## PWN MODEL

1000 / 2000 / 3000



## IXN MODEL

1000 / 2000 / 3000 / 4000

6 & 7 Axes



## SiC MODEL

650 / 1000

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**
- **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

T. +351 256 247 970  
E. info@cheto.eu



WORLDWIDE PRESENCE

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



PME líder



PME  
excelência'16

inovadora'21

# CHETO<sup>®</sup>

## 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

#### CNC Axis

- W drilling stroke
- X longitudinal travel
- Y vertical travel
- Z cross travel
- B table rotation
- A table tilting rotation

1100 mm	43.4 in
650 mm	25.6 in
840 mm	33.1 in
500 mm	19.7 in
360,000	
+90°/-45°	

#### Drilling capacity

Drilling capacity

∅3-25 mm	∅0.1-1.0 in
----------	-------------

#### Milling capacity

- Milling
- Rigid tapping
- Helical threading

250 cm <sup>3</sup> /min	15.3 in <sup>3</sup> /min
M16	3/8"
Standard	

#### Spindle

- Spindle taper
- Speed
- Power
- Torque

HSK-A63 / BTT 40

0-11,820 rpm

21/26kW	28/35 hp
80.2/101.7 Nm	59/75 ft-lbs

#### Automatic rotary table

- Table size
- Positioning type
- Max. load in rotation

500x500 mm	20x20 in
360,000	
750 kg / 600 kg	1653 lbs / 1323 lbs

#### Layout dimensions

- Total weight
- Foot print (WxL)

1.3 Ton	28,660 lbs
6840x2901 mm	267.3x124.4 in

### SiC1000

1400 mm	55.1 in
1200 mm	47.2 in
1100 mm	43.3 in
700 mm	27.6 in
360,000	
+110°/-45°	

∅3-32 mm	∅0.1-1.3 in
----------	-------------

450 cm <sup>3</sup> /min	27.5 in <sup>3</sup> /min
M20	3/4"
Standard	

HSK-A100 / SK 50 BIG + / BTT 50

0-12,000 rpm

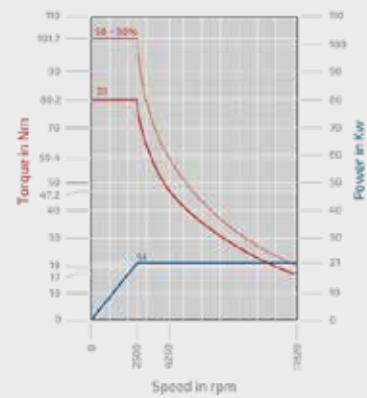
45 / 49.5 kW	60.3 / 66.4 hp
285 / 315 Nm	210.2 / 232.3 ft-lbs

∅800 mm	31x31 in
360,000	
1200 kg / 925 kg	2646 lbs / 2039 lbs

20 Ton	44092 lbs
8216x4555 mm	323.5x179.3 in

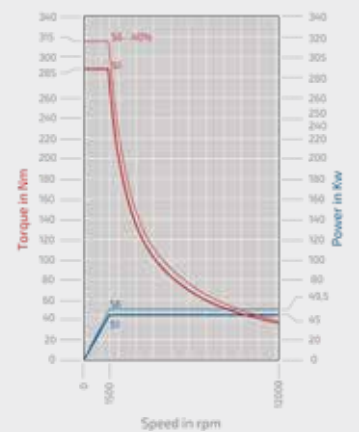
### SiC650

#### Power / Torque Diagram



### SiC1000

#### 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

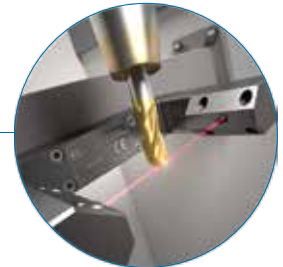




**TABLE WITH CLAMPING SYSTEM  
AUTOMATIC DOOR**



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



**CHILLER FOR OIL/EMULSION**



**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 840**

**FAGOR  
CNC 8065**



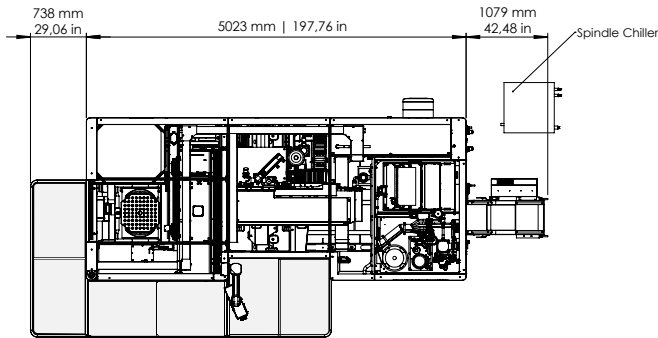
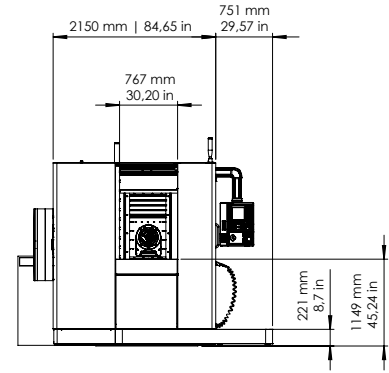
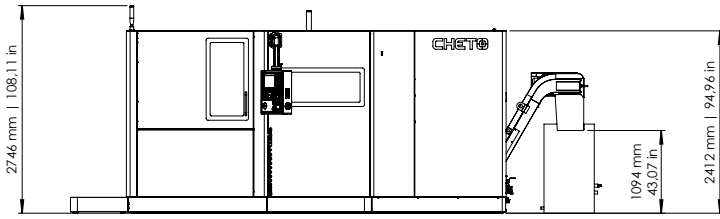
**END OF  
EXTRAORDINARY COSTS**



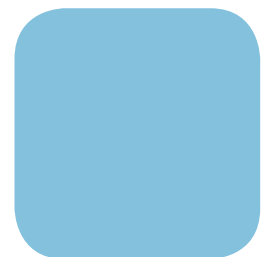
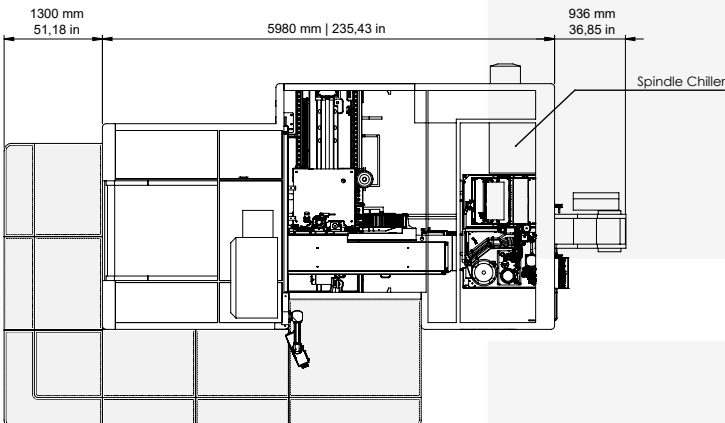
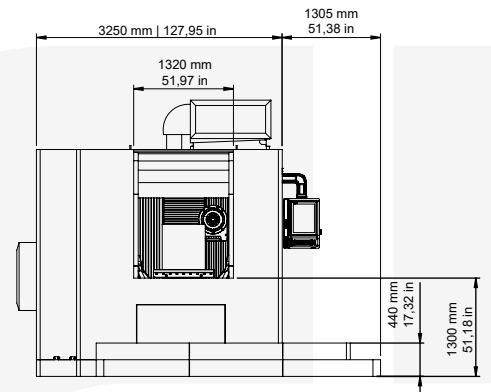
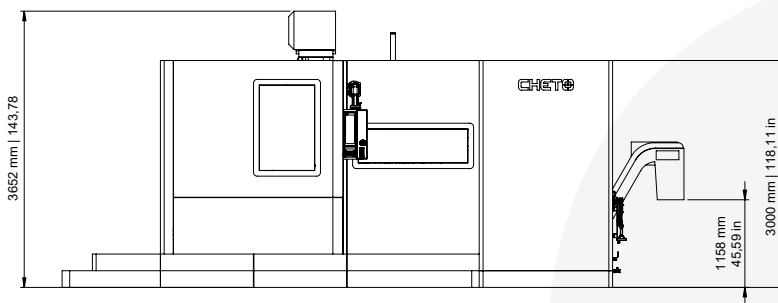
### END OF EXTRAORDINARY COSTS OF NONCONFORMANCE

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



Subject to technical change without notice



Your contact in Switzerland



Mikutec GmbH  
Taubenstrasse 13  
9113 Degersheim

079 346 27 69  
info@mikutec.ch  
www.mikutec.ch

## CHETOCORPORATION, S.A.

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  
T. + 351 256 247 970

[www.cheto.eu](http://www.cheto.eu)  
info@cheto.eu

