



CHETO[®]

CNC DEEP HOLE DRILLING WITH MILLING

www.cheto.eu

IXN Series 6 and 7 Axes



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

■
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.





Technical Data

	1000		2000		3000	
CNC Axis						
W drilling one stroke	1700 mm	67 in	1700 mm	67 in	1700 mm	67 in
X longitudinal travel	1000 mm	39.4 in	2000 mm	78.7 in	3000 mm	118.1 in
Y vertical travel	1000 mm	39.4 in	1200 mm	47.2 in	1200 mm	47.2 in
Z cross travel	800 mm	31.5 in	800 mm	31.5 in	800 mm	31.5 in
B table rotation	360°		360°		360°	
A tilting rotation	+35°/-25°		+35°/-25°		+35°/-25°	
Drilling capacity						
Max. drilling stroke W+Z	1700+800 mm	67+31.5 in	1700+800 mm	67+31.5 in	1700+800 mm	67+31.5 in
Drilling capacity	ø5-40 mm	ø0.2-1.58 in	ø5-40 mm	ø0.2-1.58 in	ø5-40 mm	ø0.2-1.58 in
Milling capacity						
Milling	300 cm³/min	18.3 in³/min	400 cm³/min	24.4 in³/min	500 cm³/min	30.5 in³/min
Rigid tapping	M30		M32		M34	
Helical threading	Standard		Standard		Standard	
Spindle						
Spindle taper	ISO 50 DIN 69871		ISO 50 DIN 69871		ISO 50 DIN 69871	
Speed	0-6000 rpm		0-6000 rpm		0-6000 rpm	
Power	15/25 kW	20/33 hp	20/30 kW	26/40 hp	24/38 kW	32/51 hp
Torque	134/223 Nm	99/165 ft-lbs	178/267 Nm	131/197 ft-lbs	214/338 Nm	158/249 ft-lbs
Automatic rotary table						
Table size	1300x1300 mm	51.2x51.2 in	1600x1300 mm	63.0x51.2 in	1800x1800 mm	70.9x70.9 in
Resolution	0.001°		0.001°		0.001°	
Max. load in rotation	10 Ton	22,047 lbs	20 Ton	44,093 lbs	30 Ton	66,139 lbs
Layout dimensions						
Total weight	29 Ton	63,934 lbs	34 Ton	74,957 lbs	39 Ton	85,980 lbs
Total weight ¹ GDATC			40 Ton	89,600 lbs	45 Ton	100,800 lbs
² Foot print (WxL)	7140x5760 mm	281.1x226.8 in	8690x6160 mm	342.1x242.5 in	9520x7410 mm	374.8x291.7 in

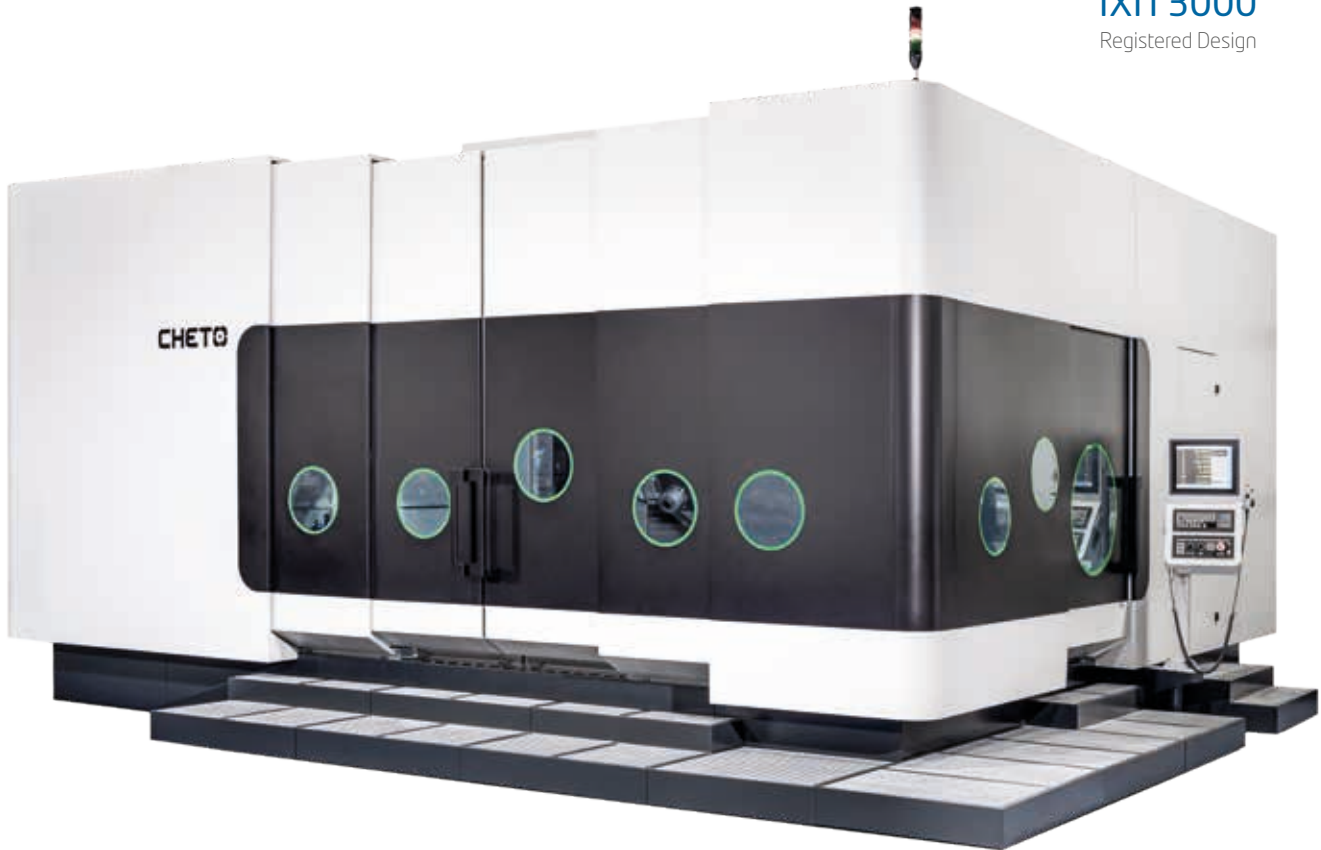
¹GunDrill Automatic Tool Changer

²Approximated values, it depends on the final machine configuration

IXN 1000 | 2000 | 3000 | 4000*

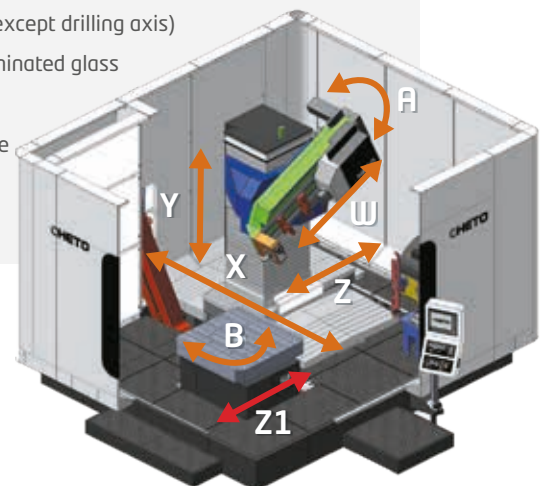
— 6 AXES — 7 AXES

IXN 3000
Registered Design



STANDARD EQUIPMENT

- CNC HEIDENHAIN TNC 640
- CNC FAGOR 8065 as optional equipment
- CNC SIEMENS SINUMERIK ONE as optional equipment
- Electronic handwheel
- Digital drives
- Nitrogen double counterweight
- Absolute linear encoders in axes X, Y and Z
- Absolute angular encoders in axis A and B
- Automatic chip conveyor
- Kinematics / RTCP
- Rigid tapping
- Quick change between drilling/milling
- Coolant tank with automatic filtering
- Submerged pumps for oil recirculation
- High-pressure pump up to 80 bar, 100 l/min | 1,160 psi, 26.5 gal/min
- Telescopic covers in all axes (except drilling axis)
- Complete cover with doors, laminated glass windows and acrylic ceiling
- Automatic Gundrill Tool Change as optional



*Data to be provided on request

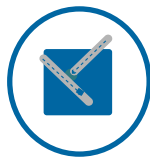


ADAPT MACHINING PARAMETERS ONLINE

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



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.

ATC GUNDRILL
UP TO 5 TOOLS



W AXIS = 1700 mm | 67 in
UP TO = 2100 mm | 82.7 in

TILTING = +35°/-25°

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

SPINDLE GEARBOX



X AXIS
UP TO 4000

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



TABLE SIZE
ACCORDING TO CLIENT SPECIFICATIONS
UP TO 40 Ton | 88,185 lbs

Z AXIS = 800 mm | 31.5 in

OPTION Z1 AXIS = 700 mm | 27.6 in
UP TO 1900 mm

ATC UP TO 120 TOOLS
L = 600 mm | 23.6 in

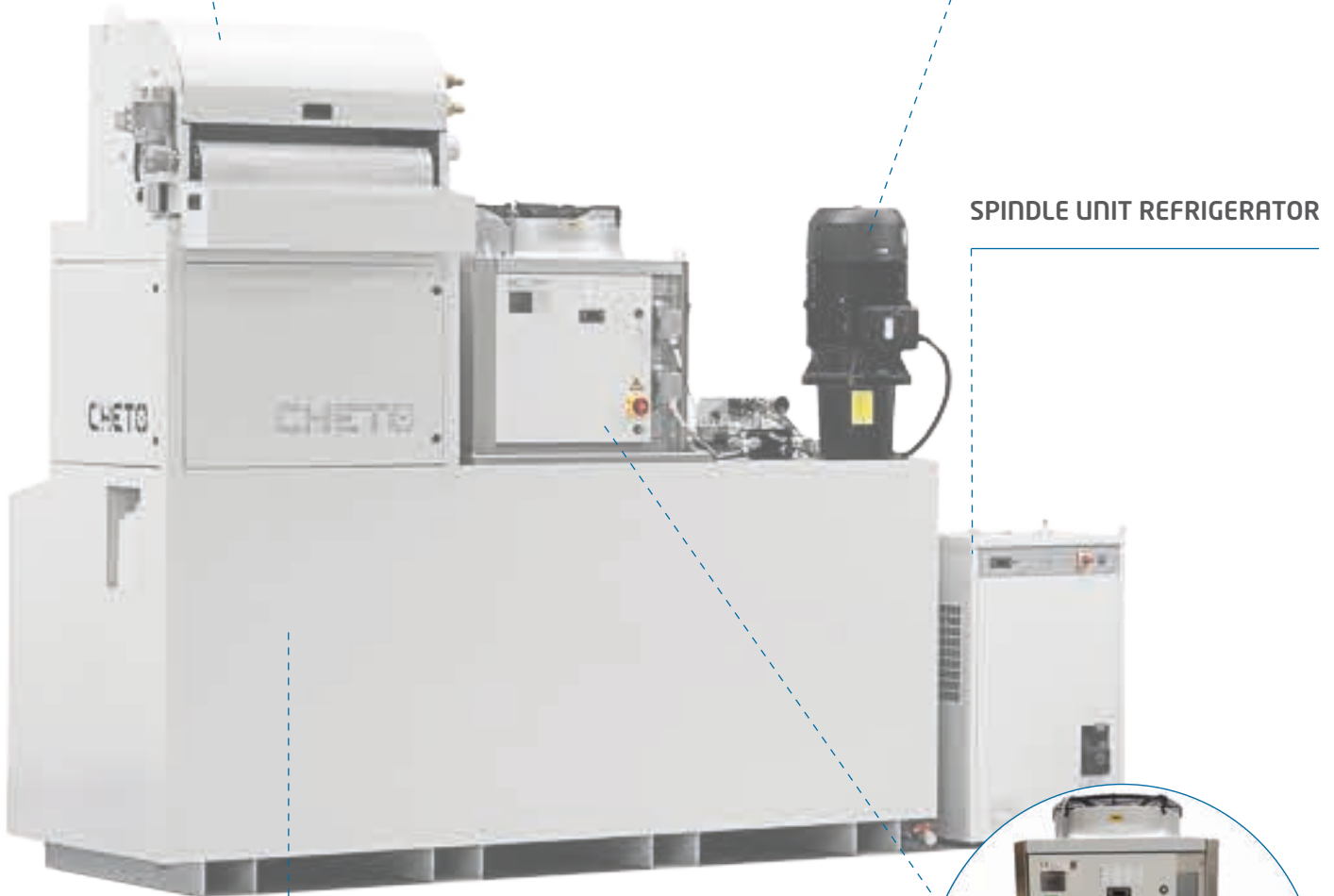




PAPER FILTRATION SYSTEM



HIGH-PRESSURE PUMP 80 bar 100 l/min
others upon request



SPINDLE UNIT REFRIGERATOR

FILTER UNIT
2000 / 3000 L

***IMMERSION CHILLER FOR OIL/EMULSION**





***AIR CLEANING UNIT**
(ELECTROSTATIC OIL MIST COLLECTOR)



EASY ACCESS TO THE
ELECTRICAL CABINET

***ATC 120 TOOLS**



CHETO
IXN3000 GDATC

Registered Design

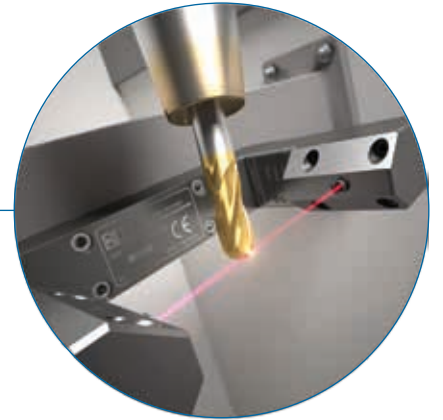


***COOLING UNIT**
AC TO COOL THE ELECTRICAL CABINET

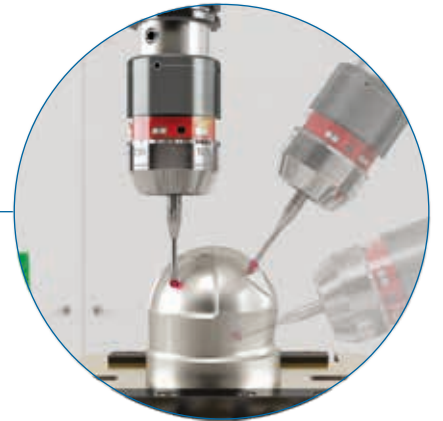


CHIP CONVEYOR
1 OR 2* UNITS

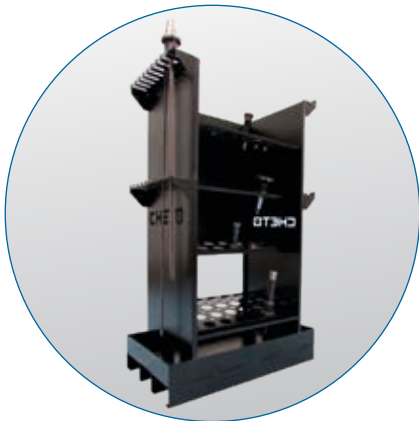
*LASER MEASURING SYSTEM
BLUM MCA7



*ELECTRIC PROBE
BLUM TC60



*TOOL CABINET



*CHETO RE100
GUNDRILL GRINDER Ø5-32 mm | Ø0.2-1.26 in



OUR PRODUCTS & DESIGN



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

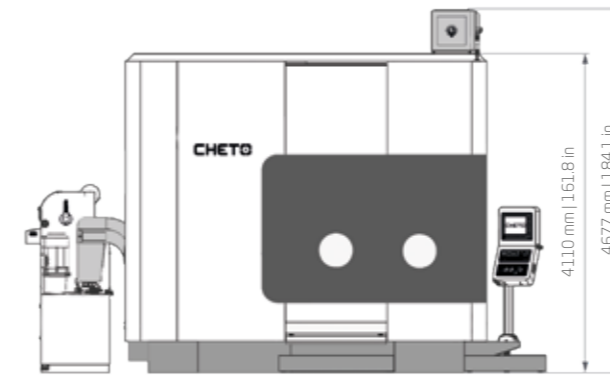
- Efficient **Deep Hole Drilling** with **Milling** for **Small Size Parts**
- Working **5 Faces** on a **Single Setup**
- **3+2** milling / **5 axes**
- **No Angle Limitation**



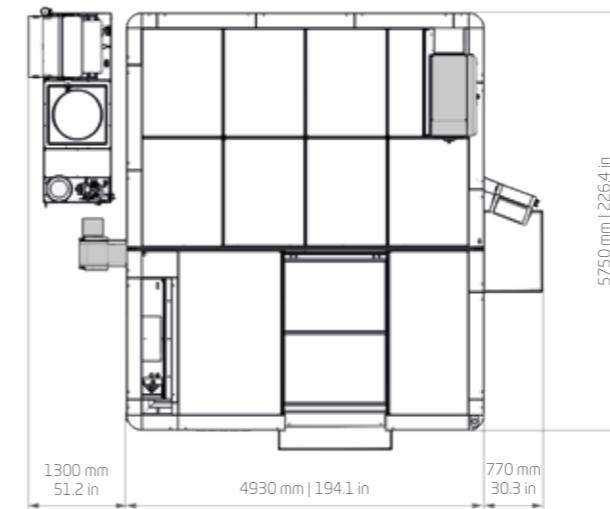
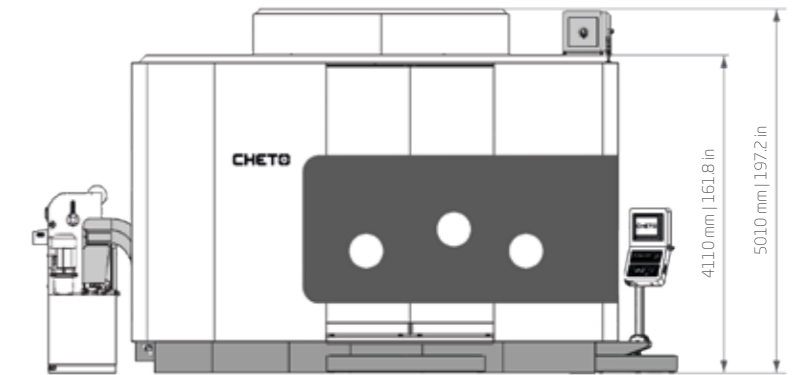
Registered Design

FOOT PRINT IXN MODELS

*IXN1000



*IXN2000

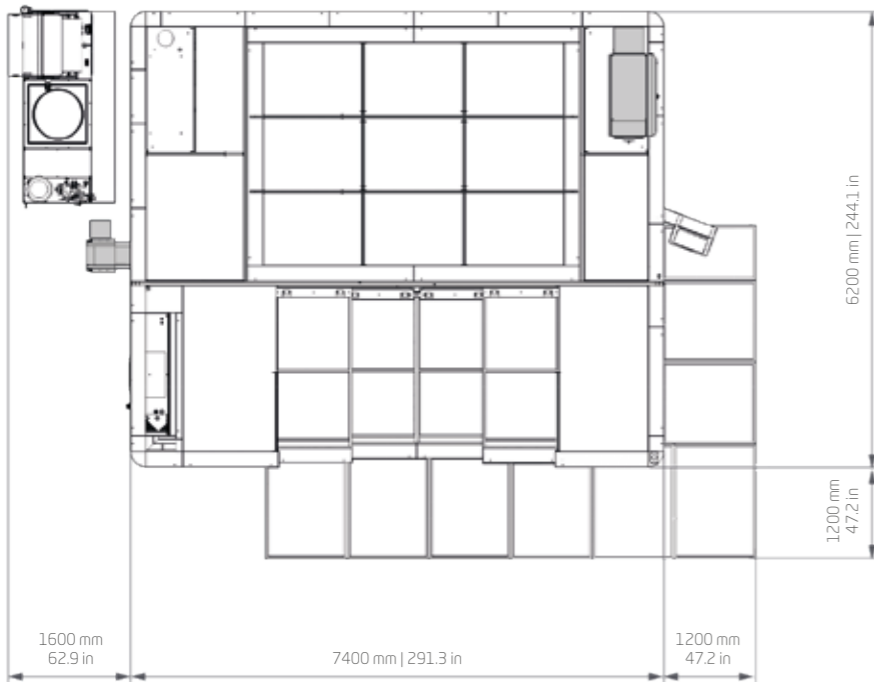
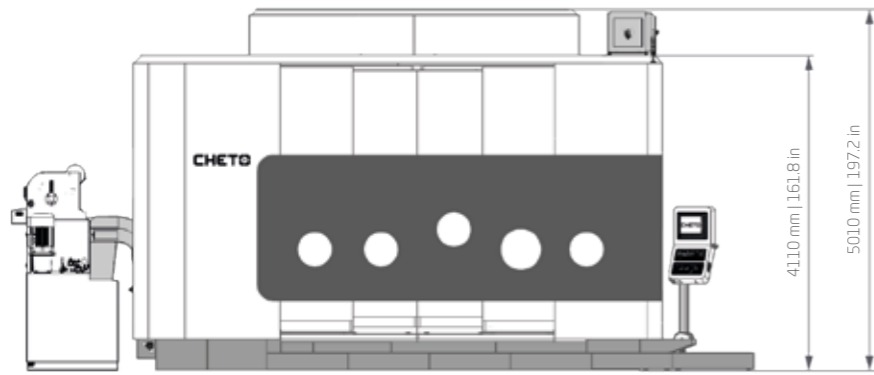


* Dimensions are subjected to modifications depending on the selected optional equipments



Registered Design

*IXN3000 —



* Dimensions are subjected to modifications depending on the selected optional equipments

Registered Design

©HETO

CHETOCORPORATION, S.A.

Área de Acolhimento Empresarial
Ul-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
info@cheto.eu

