

# **Open CNC Solution for Digital Dental Manufacturing**

The Opened and Digital trend is the latest evolution of dental industry today. ARDENTA is committed to develop all CNC dental technology and provides the German standard solution to the laboratories to get the edge in the future.



# **ARDENTA DT250**

### DENTAL LABORATORY ORIENTED CNC MILLING CENTER

### **Laboratory oriented CNC Controller with features:**

- Easy one-touch graphic operation interface.
- No need for operator with CNC background or training.
- MPG simulation protects the operator from collision on the expensive materials.
- Tool length measurement device makes the process fully automation.

# Precision and high speed 4 or 5 axis milling machines with features:

- Four axis milling machines can mill the square or circular blank at one easy step.
- This machine's smart 5-axis milling can do full contouring, and abutments.
- The strong and precision spindle up to 30,000RPM cuts Titanium, and Chrome Cobalt.



Four axis milling center can quickly and easily cut wax, acrylics and ceramic oxide in precise shape.

#### **DT250-4B**

The Zirconium Cutting Designed four axis milling center has easy setup fixture to clamp the square or circular Zirconium. This open CNC milling center can handle all different brands



### Advantages :

- It is the mass and fast way to produce the wax. It saves the labor intensive operation and increase the efficiency and profit.
- The wax production can be 24 hours around clock and double the output. It can handle 120 teeth per day for the normal work.(8 hours per day)
- The perfect fine parting line makes the Zirconium prosthesis teeth no need for further grinding or finishing.

### DT250-5A

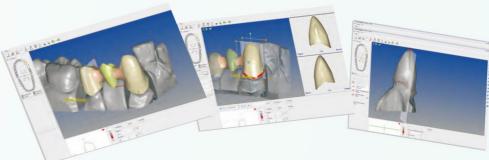
- Cut the Titanium bridges up to 16 units in high precision and high speed.
- Shorten the casting process from days to hours.
- Prevent the casting voids and gains the best strong structure.
- The coolant system with the BT30 rigid high speed spindle can cut a very smooth fine finished surface to gain the best bondage.



# **ARDENTA E01**

### Advanced System-independent 3D Dental Scanner





### Features:

 Scans of everything from a singe tooth up to an entire jaw Scan functions for antagonists, bites and anomalies

 $\bullet$  Scanning time for a stump < 2 min., for a full model < 5 min.

Accuracy up to 10 μm

• Easy to operate user software

Data provided in STL-format

• Open software interface, not bound to the CAD/CAM software.

ARDENTA E01 is an optical 3D-Scanner for high precision digitizing of jaw models. The scanner provides an electronic data file which represents a 3-dimensional image of the model. These data can

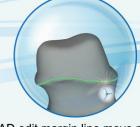
be used for computerized design of artificial dentition. Therefore, ARDENTA E01 is an indispensable part of any dental CAD/CAM manufacturing process. ARDENTA E01 is supplied with a user software which is specially designed for the needs of dental technicians. The software consists of three main modules: patient data interface, scanner control and the 3D viewer to display the scan results.







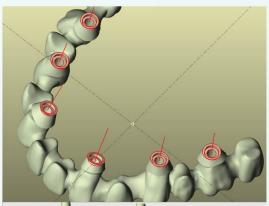


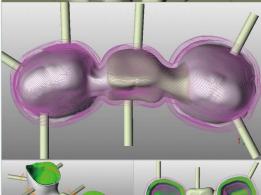


CAD edit margin line move point

# ARDENTA G02

### Open Total CAM Solution for Dental Prosthetists





### **Holes recognition for implant:**

- Holes features creation.
- Automatic drilling cycles.

### **Specific toolpaths for:**

- stock management for minimal air cutting and shorter machining time.
- high surface quality and precision.
- · hard material machining.

### **Automatic operation lists:**

- Customized Operation lists for each material.
- Cutting conditions (feedrate/spindle speed) are included.

#### **EASY TO USE**

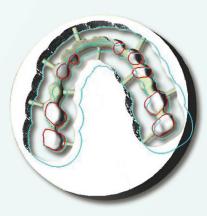
No need to be machining specialist

### **Efficient toolpaths**

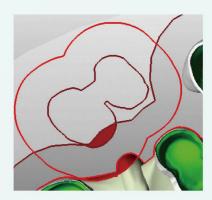
Advanced toolpaths to machine special materials : Zirconium, Titanium...

### **Flexibility for creation of Operation Lists**

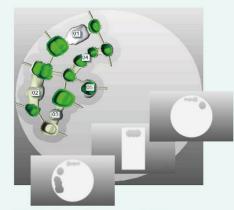
Easy configuration of operation lists and update of customer data base.



**Automatic nesting** 



Collision detection for manual nesting



**Workshop documentation** 



The margin line is found automatically aldentification of 3 zones: interior, exterior and bridge



Part is out stock



Thicker stock is needed



Auto positioning for stock optimisation

# Technical data :

Specifications			DT250 - 4A	DT250 - 4B	DT250 - 5A
ARDENTA CNC MILL	Spindle	Spindle Number	1	2	1
		Spindle Speed	30,000 RPM	24,000 RPM	24,000 RPM
		Tool Holder Bore Dia.	Ø3 mm	Ø6 mm	Ø12 mm (BT30)
	Materials	Processing materials	Zirconia · PMMA		Titanium
		Material Size	100 mm X 100 mm X 30 mm Ø100 mm X 30 mm		
		Machining Range	two sides		
	Input	Supply voltage	Single-phase		Three-phase
			200 –240 V AC		200 –380 V AC
		Nominal supply frequency	50/60 Hz		50/60 Hz
		Nominal current	7 A		10A
		Power fuse (external)	10 A (delay-action)		50 A (delay-action)
		Air pressure	7 bar		7 bar
		electrical box safe distance	500 mm		500 mm
	Dimension	W x D x H (mm)	750 x 1100 x 1700		1050 x 1830 x 2000
		Working height	2500 mm		2000 mm
		Weight	888 kg		1900 kg
	Dimensions		240 x 420 x 650 mm		
ARDENTA 3D Scanner E01	Model size		ca. 90 mm diameter		
	Scanning time for single tooth		< 2 min.		
	Scanning time for 4 element bridge		< 3 min.		
	Scanning time full cast		< 5 min.		
	Accuracy		+/- 10 μm		
	Weight		37 Kg		
	Voltage		110-240 V AC, 50-60 Hz		
	Safety approvals		CE		
	Operating noise		< 70 dB		

<sup>■</sup> Design and specifications are subject to change without prior notice.



### ARIX CNC MACHINES CO., LTD.

No. 69, Keji 5<sup>th</sup> Road, Tainan Technology Industry Park,

709 Tainan City, Taiwan

TEL:+886-6-384-1891 FAX:+886-6-384-1901

http://www.ardenta.com E-mail:arixsales@ardenta.com

