

# Riton Dental ASHM Solution



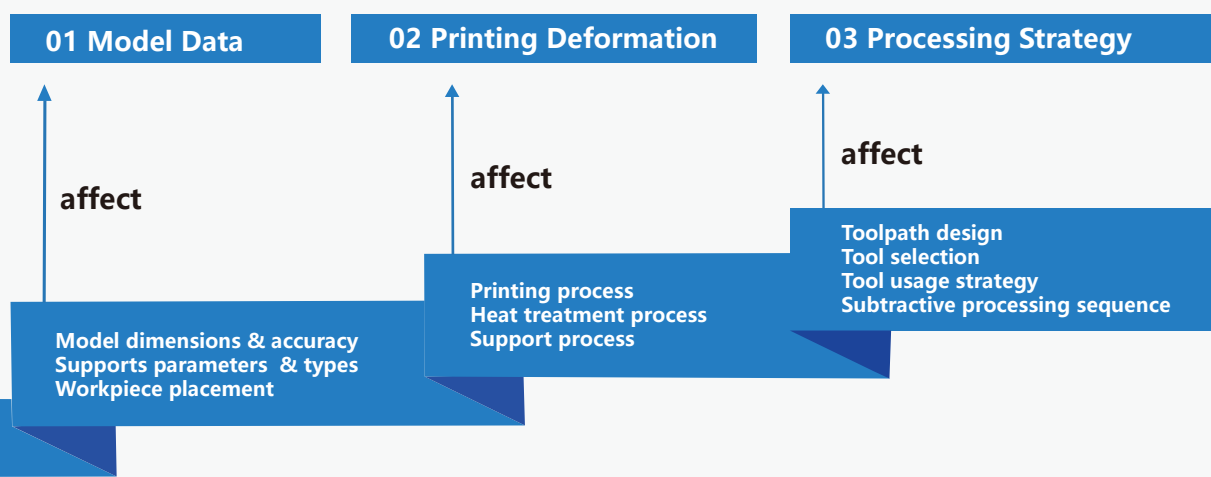
The Right Choice for One-Stop Dental Manufacturing



**Additive & Subtractive Hybrid Manufacturing (ASHM)** is a comprehensive dental solution introduced by Riton to promote dental digitization, help dental laboratories reduce costs and increase efficiency, and improve product quality. It combines product design, software control, 3D printing, and subtractive manufacturing. The basic process is shown in the diagram below.



## ◆ Three Key Factors Determining Workpiece Quality



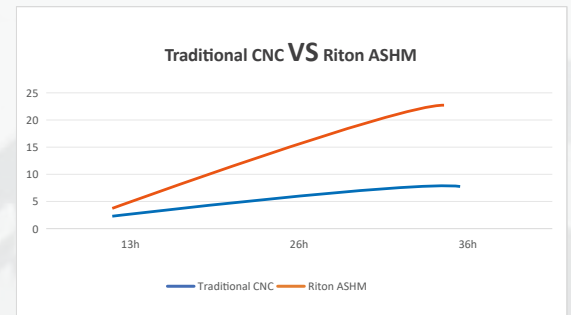
# Why Choose Riton ASHM?

## ◆ Dedicated Database and Fixtures to Ensure Workpiece Precision

Equipped with dedicated manufacturing parameters database and fixtures. From workpiece design to subtractive processing, comprehensive control over workpiece machining precision ensures quality from the source.

## ◆ ASHM, Mass Production & More Efficient

The metal 3D printer and milling machine collaborate in manufacturing, with each Riton milling machine completing the milling of a standard Malo Bridge in just 1 hour. Producing for 36 hours under Riton ASHM, the production of regular Malo Bridge is improved by approximately **163%** compared to traditional CNC, making mass production more competitive.  
(Actual time may vary due to different conditions)



## ◆ Support for Secondary Processing, Reduces Costs

Supports secondary milling processing for strategic supplementation of workpieces, reducing rejects caused by surface detail quality not meeting expectations, thereby lowering production costs.

## ◆ Compatible for Flexible Processing Needs

Supports printing and processing of workpiece data from multiple brands and specifications, offering compatibility to meet personalized processing requirements.

## ◆ Resource Conservation and Environmental Protection

Precisely controls material accumulation and removal during additive and subtractive processes, reducing material consumption.

## ◆ One-Stop Production Process:

From data import to workpiece production, the fully equipped one-stop solution enables autonomous production.

## Samples





# RITON ASHM SOLUTION

## RTM5MAX

### 5-AXIS ULTRA-PRECISION TITANIUM DENTAL MILLING MACHINE

#### Technical Parameters

Model		RTM5MAX
Tools Capacity		25
Machine Size		945*850*1800mm
Net Weight		1095kg
Input Voltage		220V
Spindle Power		2.5kw
Machine Power		8kw
Fixture		Round disc: 98mm
Milled Materials		Cocr/Ti
Spindle	Mode	Wet Milling (water cooling)
	Speed	60,000rpm
Milling Angle	Axis A	360°
	Axis B	±45°
Milling Efficiency	Malo Bridge	As fast as 1 unit/hour
	Implant Bar	As fast as 1 unit/hour

# RITON ASHM SOLUTION

M-150

## DENTAL SLM 3D PRINTER



### Technical Parameters

Laser Source	Single fiber laser
Output Power of Single Laser	≤500W
Laser Wavelength	1.064 μm
Melting Speed	≤14000 mm/s
Melting Area	φ 150mm×120mm
Melting Thickness	20-50μm
Protective Gas	Nitrogen / Argon
Production	3 pieces of Malo Bridges (or Implant Bars) and 64 pieces of Abutments in 6 hours
Power Supply	3KW 220V
Whole Weight	500 kg
Machine Dimensions	790mm x 1010mm x 1670mm
Melting Material	CoCr / Titanium
Environment Request	Temp 15°C-35°C, Humidity: ≤95%, No vibration