



5-Axis Milling System with Servo and Simultaneous Controller



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**NEW World**  
of CAD/CAM  
Dentistry

Manufacturing Company





**PLUS MILL RS5 Premium**

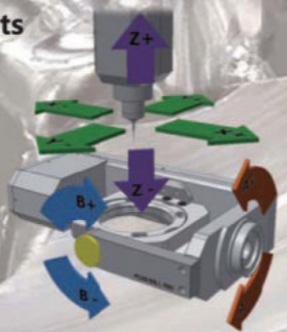
### 5-AXIS Technology


5-Axis Milling system with servo and simultaneous Controller, high-precision Twin Ball screws and Harmonic drive


#### End products without undercuts

Possible to mill without a hitch even in any tilted angle as the intersection point of the two rotation axes is assembled precisely.

Maintain high strength and high precision consistently by using twin ball screws.

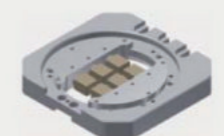







**Disk jig**

Possible to be equipped with a 98.5mm disk. Special-designed jig that can maintain high precision even after a long-time use due to its stable and durable features.



**6P Glass multi jig**

Possible to mill all kinds of glass ceramic regardless of the material and change disk jigs and block jigs without any difficulty. Increase productivity through its simultaneous milling of 6 block cubes.



**Premill multi jig**

Possible to be equipped with 11 premill abutments all at a time and its simultaneous milling of 11 premill abutments can improve productivity for users. Users can mill their desired premill abutments as a variety of premill abutments are available.



### Range of applications

Milling type

-  Copings
-  Full contour crowns
-  Full contour bridges
-  Full contour crowns with inlay
-  Inlay
-  Onlay
-  Models
-  Glued-based abutments
-  Full contour zirconia abutments
-  Screw-retained bridges
-  Attachments
-  Bars
-  Abutments

Possible to mill more various types besides the mentioned types.

Material type

-  Chrome cobalt
-  Titanium
-  Sintering metal
-  Zirconium
-  PMMA
-  WAX
-  Chemical wood
-  Acrylic
-  Resin ceramics
-  Lithium disilicate
-  Lithium disilicate
-  Glass ceramic
-  Premill abutments (Custom abutment)



RS5 Technology

Fulfilling high quality end products

Developed based on our own technical expertise over many years.

Users can operate easily the complicated processes that are necessary in every process.



Disk Type Milling

Various disk material use



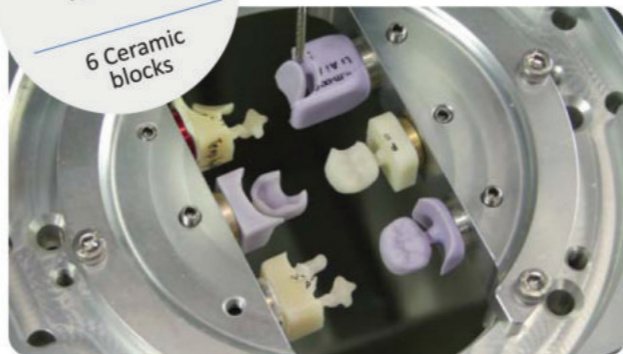
Premill Milling

11 custom abutment



Glass Block Milling

6 Ceramic blocks

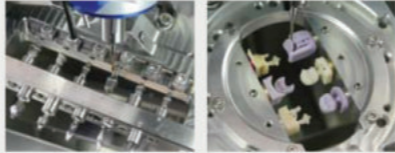


24 Tool Pocket

Sliding tool pocket



**[ 5-Axis base ]**  
Possible to mill a variety of material without difficulty due to the simple change of jigs.



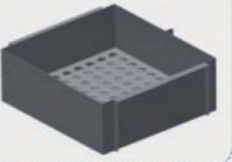
**[ Sliding tool pocket ]**  
This sliding method of tool pocket helps to maintain the precision and increase the durability of the machine through protecting the tools from contaminated materials generated during milling. 24 various tools can be positioned.



**[ Dry-type conversion box ]**  
Convert to the dry type easily by replacing the box for dry type in the drawer.



**[ Wet-type filter box ]**  
Easy to clean and filter out milling chips through the milling chip filter box when milling metals.



**[ RS5 dedicated table ]**  
This dedicated table can bear the weight of the machine stably. In addition, users can store the accessories and other materials in its 3 drawers.

**[Twin ball screw system ]**  
Designed to suitable for high-intensity milling by using two precision ball screws. Using ball screws with the precision of below 5µm in all axes.



**[ Easy-to-use interface ]**  
Easy operation for everyone and even a novice by providing an easy-to-use interface. Calibration can be done easily through the calibration wizard.



**[ Touch screen ]**  
Provide a touch screen in order to use the milling machine simply without a keyboard and a mouse.



**[ E-stop ]**  
Maintain its luxurious design even for the switch of an emergency stop.



**[ Digital air pressure gauge ]**  
Check the air input with the digital method and stop processing or wait automatically if the air is insufficient or there is a problem with the air input.



**[ Large cutting oil tank ]**  
Provide a large cutting oil tank and a filter cage to filter milling chips. Easy to clean milling chips and replace with new cutting oil without taking out the tank by using the cutting oil drain.





RS5 Components

RS5 milling machine



RS5 dedicated table

CAM Software included for RS5



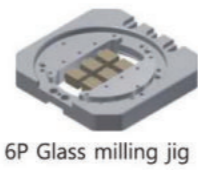
Users can choose the CAM software and are provided the CAM software plus the milling strategy with RS5.



Jig



Disk jig

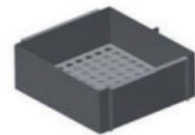


6P Glass milling jig



11P Premill jig

Wet and Dry Accessories



Wet milling filter box



Dry milling dust box



Coolant tank

The design of the dust collector may be modified for upgrading its performance.

Setup Kit (Sold separately)



Disk	Quantity
Chrome Cobalt	1ea
Sintering Metal	1ea
Zirconium	1ea
PMMA	1ea
WAX	2ea
Lithium disilicate	3ea
Premill abutment	3ea

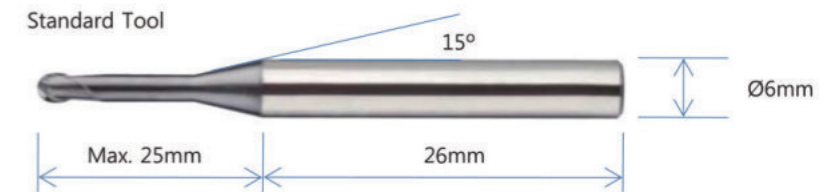
Endmill for Metal	Quantity
Ball - Ø3mm, Ø2mm, Ø1.5mm, Ø1mm	1ea on each
Flat - Ø1.5mm, Ø1mm, Ø0.5mm	1ea on each
Flat round - Ø1.5mm, Ø1mm	1ea on each
Ball endmill for Soft material	Quantity
Ø2.5mm, Ø2mm, Ø1mm, Ø0.6mm	1ea on each
Ball endmill for Glass ceramic	Quantity
Ø2.5mm, Ø2mm, Ø1mm, Ø0.6mm	1ea on each

Tools

Soft Material Milling	Ball End Mill Ø2	Ball End Mill Ø1	Ball End Mill Ø0.6
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Glass Ceramic Hybrid-Resin Milling	Diamond Bur Ø2.5	Diamond Bur Ø2	Diamond Bur Ø1
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Metal Milling	Ball End Mill Ø3	Ball End Mill Ø2	Ball End Mill Ø1.5	Ball End Mill Ø1	Flat End Mill Ø1.5	Flat End Mill Ø1	Flat End Mill Ø0.5	Flat Round Mill Ø1.5	Flat Round Mill Ø1
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Accessories

Wrench Set, 3mm Wrench Driver, 4mm Wrench Driver, Chuck Remover, Pump Signal Cable, Dust Collector Signal Cable, Power Booster 110V to 220V, Vernier Calipers, Chuck Cleaning Brush, Milling Room Cleaning Brush, Power Cable, Water Valve, Mouse Keyboard

and  
- Cutting Oil Filter  
- Redundancy Bolts  
- Etc.

Possible to support for using more various tools besides the above tools depending on the milling types.

The design of the accessories may be modified for upgrading its performance.



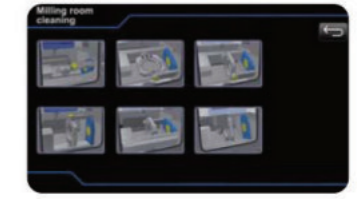
[ Easy-to-use Interface ]



Machine calibration



Premill calibration (Custom abutment)



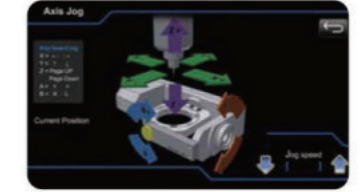
Cleaning positions



On / Out list of sensors and machine coordinates



G-Code view



Axis jog

Plus Mill RS5 can be used for everyone without difficulty through its touch screen and easy-to-use interface. Simple conversion for wet and dry by touching the screen. Online checking is possible with our online technical support.

[ NC Data Transmission method ]

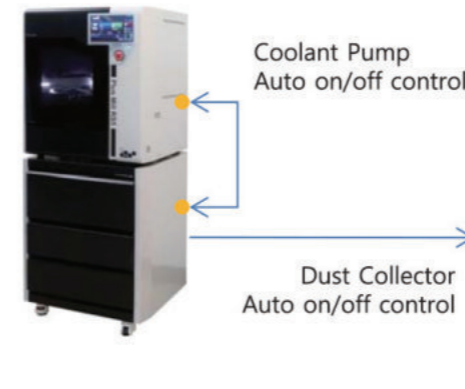


NC Data

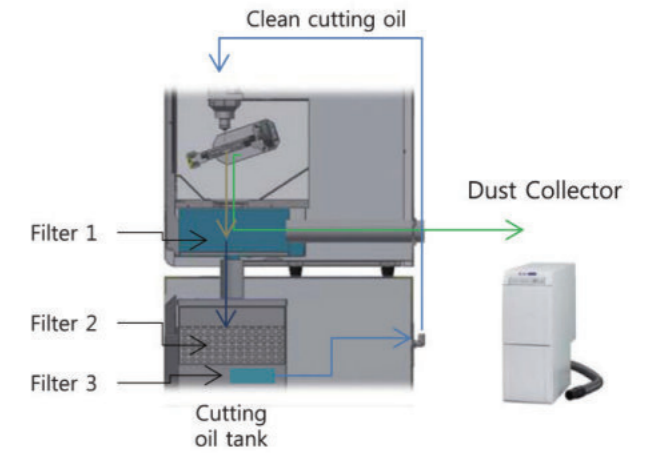
- LAN
- USB Wireless LAN (Wi-Fi)
- USB Memory



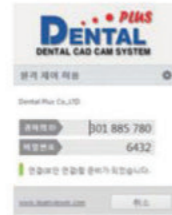
[ External device control ]



[Wet and Dry system ]



[ Online technical support method ]



- LAN
- USB Wireless LAN (Wi-Fi)

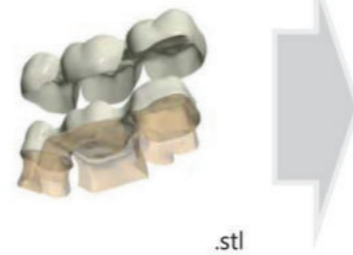
Online technical support is possible by checking and controlling the machine through the internet.

Open system

CAD Software & Scanner

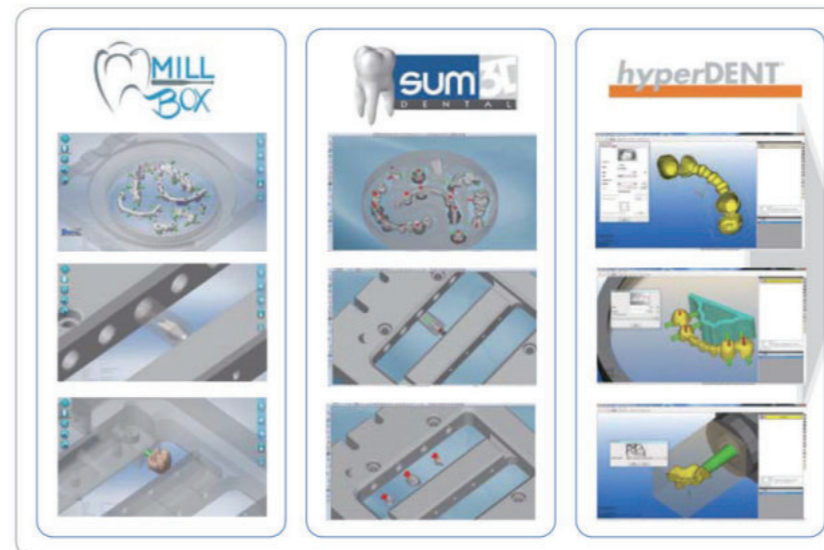


Design



CAM Software

Users can choose CAM software and will be provided CAM software plus the milling strategy with RS5.



Plus Mill RS5 milling machine



RS5 is compatible with all dental scanners and CAD Software as it is an open system.



**Plus Mill RS5 Premium**

**Inside**



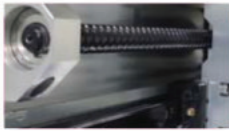
**[ Harmonic Drive ]**

Realize the precise angle of A and B axes and support stiffness by using the high-end precision reducer of harmonic drive.



**[ LM Guide ]**

Support for making the processed products that are suitable for metal milling by using the high-stiffness and high-precision guide. More durable and resistant to moisture due to the corrosion protection coating.



**[ Ball Screws ]**

Realize the position precision of below 5  $\mu$  by using the high-stiffness and high-precision ball screws.



**[ Servo System ]**

Use 200W servo motors in all axes.



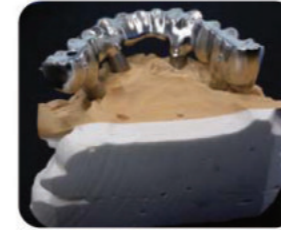
**[ Built-In Computer ]**

Equipped with a control PC and no need for a separate computer.



**[ Air Regulator & Separator ]**

Maintain the compressed air for necessary pressure. Filter the contaminated compressed air and supply the air to the machine to protect the spindle and internal devices.



Product name	Plus Mill RS5
Machine Dimension W x D x H (mm)	696 x 647 x 800
Machine Weight	145kg
Table W x D x H (mm)	696 x 647 x 854
Table Weight	115 kg
Number of Axes	5 axes
Accuracy	$\pm 5\mu m$
Motor Type	200W servo motor 5 axis
Spindle Speed (rpm)	Max. 70,000
Spindle Power	1.2Kw
ATC Number of Tools	24
Voltage	210~250V / 160W / 2.5A
Minimum Air Pressure	Min. 0.5 bar
Remote Maintenance	Application
Automatic Tool Length Measurement with broken tool detection	Application
Filtering Step	3 steps
Coolant Tank Capacity	20 $\ell$
Internet	Application
Touch Screen Control	Application
Disk and Multi Jig – Changeable	Application
Wet Process	Application
Water Pump Control	Application
Dry Process	Application
Dust Collector	Application
Outside Dust Collector Vacuum Control	Application