DOOWON USA, INC.

ARUM DENTISTRY

ARUM CATALOG 2020

MILLING MACHINES

Differentiated Dental CAD/CAM Products and Services

With the world best technology, ARUM provides differentiated dental CAD /CAM milling machines and dental materials to laboratories all around, domestic and foreign. We are pleased to introduce our unrivaled technology through various line up and superb partners from all over the world.

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ARUM DENTISTRY's History

Digital Dentistry Innovator

ARUM DENTISTRY Co.,Ltd. specializes in the research, development and manufacture of dental CAD/CAM milling machine in the dental industry.
Founded in 2000, ARUM DENTISTRY Co.,Ltd. became the first company in the same industry that has successfully developed Customized Abutment using Pre-milled Blank and launched 5X-200, a CAD/CAM milling machine, in the dental market for metal milling machine.

ARUM DENTISTRY Co.,Ltd. has established the largest library and dental material line-up in the dental market in response to worldwide CAD/CAM maching cases over many years. Through full-scale inspection of all dental materials and the acquisition of approval from KGMP, FDA, CE, etc.,

ARUM DENTISTRY Co.,Ltd. is also building the unique competitiveness of ARUM DENTISTRY Co.,Ltd. based on quality management, prompt and accurate customer support and after sales services.

ARUM DENTISTRY Co.,Ltd. always listens to the voice of our customers and continuously researches and develops advanced technologies to lead Digital Dentistry Innovation.

24 HOURS
TECHNICAL SUPPORT

HIGH QUALITY
AND FLAWLESS RESULT

ARUM Dental Solution System

Extraordinary precision dental CAD/CAM machining, accurate and superior quality dental materials (Ti 6Al-4V ELI / Stainless Steel 303F) allow you to complete your laboratory. This is a dental CAD/CAM total solution that can only be achieved through ARUM.

CAD/CAM WORKFLOW

ARUM Intraoral Scanbody

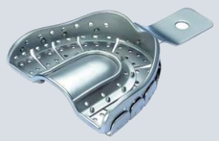
INTRAORAL SCANNING

ARUM Analog

3D PRINT DIGITAL MODEL

The Largest Collection of Implant Library

IMPLANT TRAY



STONE MODEL

ARUM Analog

SCAN

ARUM Model Scanbody

ARUM Pre-milled Blank 10mm,14mm

ARUM Ti-Base Clinical Screw Angled Screw

Design with CAD	Milling with CAM	Sintering
ARUM Open CAD System Exocad® 3 Shape™ Dental wings®	ARUM Milling Machines (9 Different Models) + Open CAM System hyperDENT® WorkNC®	ARUM Sinter Furnace

Patient Delivery

ARUM CAD/CAM Milling Machine

5X-200

4X-100

5X-450

5X-400

300 Series [5X-300/300D]

CAD/CAM etc.

Milling Machine Positioning Map

Milling Machine Line-Up

DOOWON USA, INC.

ARUM DENTISTRY

300 Series

Model	5X-200	4X-100
Axis	5 Axis	4 Axis
Processing	Wet and Dry	Wet and Dry
Materials		
Pre-milled Blank (Titanium)	◎ (5ea)	◎ (10ea)
Co-Cr & Ni-Cr Disk	◎	X
Titanium Disk	◎	X
Lithium Disilicate	○	○
Nanocomposite	◎	◎
Zirconia	◎	◎
PMMA	◎	◎
PEEK	◎	◎
Wax	◎	◎
Applications		
Implant Bar	◎	X
Screw-Retained Bridge (Crown & Coping)	◎	X
Customized Abutment	◎	◎
Hybrid Abutment	◎	○
Inlay & Onlay	◎	○
Crown & Coping	◎	○
Crown & Coping Bridge	◎	○
Model	◎	X
Bite Splint	◎	X
Denture	◎	X
A.T.C	15	8
Page	12p	16p

[◎: High Compatibility /○: Compatibility /X : Non-Compatibility]

5X-450	5X-400	5X-300	5X-300D
5 Axis	5 Axis	5 Axis	5 Axis
Wet and Dry	Wet and Dry	Wet and Dry	Dry
◎ (5ea)	○ (2 ea)	X	X
X	X	X	X
○	X	X	X
○	◎	◎	X
◎	◎	◎	◎
◎	◎	◎	◎
◎	◎	◎	◎
◎	◎	◎	◎
◎	◎	◎	◎
◎	○	X	X
◎	○	X	X
◎	○	X	X
◎	◎	◎	◎
◎	◎	◎	◎
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◎	◎	◎	◎
◎	○	○	○
15	10	12	12
20p	24p	28p	

* Products are subject to change without notice to improve quality, function, design or otherwise.

5X-200

Amazing milling power

With DC 3.0kw spindle, Servo Motor & Linear Guide, you can mill any dental material such as Titanium, Co-Cr, Pre-milled Blank, Zirconia, Lithium Disilicate, Nanocomposite, PMMA, PEEK, and WAX and more.

A standard of METAL milling

This machine can be compared with none of the metal milling machine. You can mill various shapes such as Implant Bar Bridge, Screw-retain Bridge, and Partial Framework using various materials such as Titanium, Co-Cr, and Ni-Cr, etc.
Based on unsurpassed metal milling capability and extensive know-how accumulated over many years, the excellence of our product has been proven in the global market.

Mounting of 5 pre-milled blanks

With a function of mounting of 5 pre-milled blanks simultaneously. Also, you can product Customized Abutment without Connector with AT Holder.

Easy materialreplacement

As it is easy to replace Disk Cartridge, you can replace Disk quickly and easily and use materials economically. In addition to Disk, you can also exchange materials quickly such as Pre-milled Blank and CAD Block, etc.

Special tool designed for perfection

The optimal tool designed to increase the completeness of milling. With use of ARUM's special tools such as Drill Tool, Reamer Tool, and Thread Tool, etc., you can achieve the best milling restoration.

5X-200

Co-Cr & Titanium Disk

Screw-Retained Bridge Crown & Coping

Implant Bar &
Screw-Retained Bridge Coping

Materials & Applications Info.

Materials		Applications	
Pre-milled Blank (Titanium)	◎ (5ea)	Implant Bar	◎
Co-Cr & Ni-Cr Disk	◎	Screw-Retained Bridge (Crown & Coping)	◎
Titanium Disk	◎	Customized Abutment	◎
Lithium Disilicate	○	Hybrid Abutment	◎
Nanocomposite	◎	Inlay & Onlay	◎
Zirconia	◎	Crown & Coping	◎
PMMA	◎	Crown & Coping Bridge	◎
PEEK	◎	Model	◎
Wax	◎	Bite Splint	◎
		Denture	◎

[◎: High Compatibility /○: Compatibility /X : Non-Compatibility]

Specifications

Axis	5-Axis	Drive Mechanism	Ball Screw
Processing	Wet and Dry	Way System	Linear Guide
Spindle Power	DC 3.0kw	Machine Size (W*D*H)	800*950*940mm
Max. RPM	60,000	Total Size (W*D*H)	800*950*1760mm
A.T.C	15	Weight (Machine /Table)	270kg /135kg
Tool Shank (mm)	Ø6	Travel X,Y,Z axis	330*146*145mm
Motor	Servo	Travel A /B axis	360˚ / ±30˚

Tool List

	Code	Size	Code	Size	Code	Size
Basic	ZB-05	D2.0*L20*55	MB-14	D0.6*L03*50	MF-15	D2.0*L18*55
	ZB-06	D1.0*L14*53	MD-18	D1.5*L14*50	MF-45	D1.5*L07*50
	ZB-07	D0.6*L08*50	MD-19	D2.0*L18*55	MF-71	D0.6*L05*50
	MB-09	D3.0*L12*50	DG-21	D1.0*L10*50	MFR-44	D1.5*L05*R0.1*50
	MB-10	D2.0*L12*50	DG-22	D0.6*L08*50	MFR-66	D1.5*L14*50
	MB-11	D1.5*L10*50	DG-37	D2.5*L12*50	MTR-72	M2*P0.4
	MB-12	D1.0*L10*50	DG-38	D1.5*L10*50		
Special	Code	Size	Code	Size	Code	Size
	MB-67	D1.5*L16*52	MR-01	D3.5*L18*55*180˚	MR-10	D2.6*L18*55*30˚
	TC-40	D2.0*L08*50	MR-02	D2.6*L18*55*180˚	MR-11	D2.4*L18*55*140˚
	TC-41	D1.5*L08*50	MR-03	D2.5*L18*55*180˚	MR-12	D2.6*L18*55*90˚
	TC-42	D1.8*L08*50	MR-05	D2.3*L18*55*120˚	MR-13	D2.7*L18*55*70˚
	MD-73	D1.1*L05*50	MR-06	D2.3*L18*55*90˚	MR-14	D2.3*L18*55*70˚
	MFR-43	D2.0*L18*R0.2*55	MR-07	D2.3*L18*55*30˚	MR-15	D2.3*L18*55*180˚
	MTR-74	M1.4*P0.3	MR-09	D2.4*L18*55*70˚	MR-16	D2.4*L18*55*90˚

Accessories

Disk Cartridge

AT Holder

Attachment

Bushing

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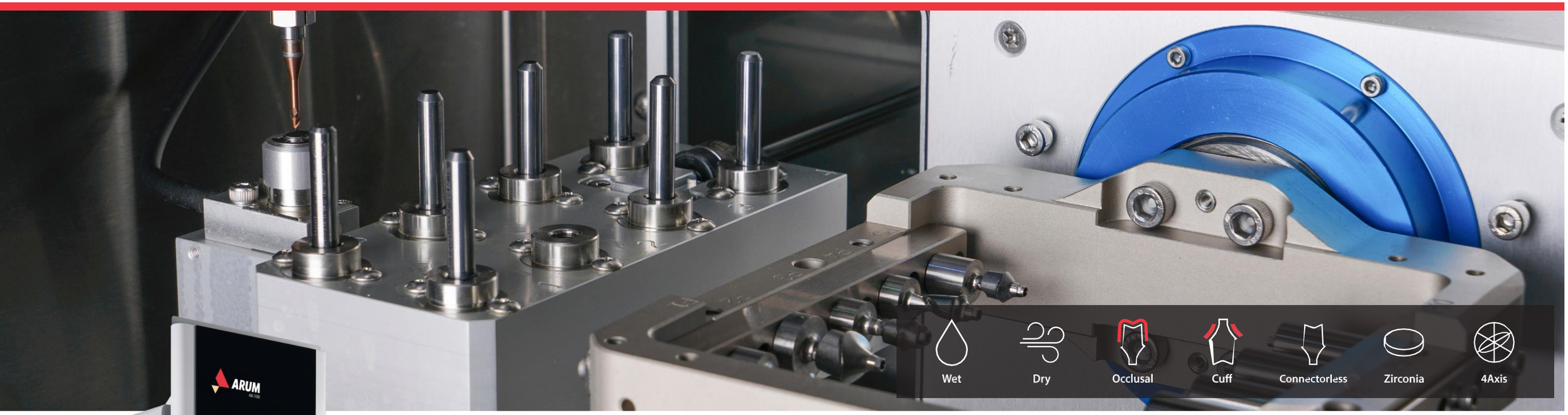
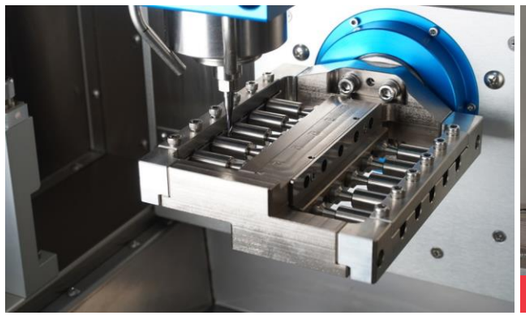


Dedicated template for ARUM, Outcome of our extensive know-how

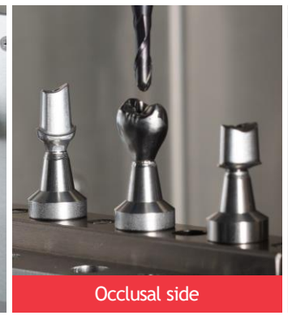
Based on our extensive know-how accumulated over many years and various milling bases around the world, we provide the optimal dedicated template for ARUM for any case of Customized Abutment. This is ARUM's unique asset that cannot be provided anywhere else.

From Disk to Pre-milled Blank

'From Zirconia Disk milling using removable Disk Cartridge to Pre-milled Blank milling (10 pieces simultaneously)' become possible.



Cuff Side (Gingiva area) & Occlusal Side precision milling



Occlusal side

Cuff Side (Gingival area)

With use of Attachment on Jig T Type, you can select the precision milling area according to the pre-milled blank mounting direction. Cuff Side (Gingival area) or Occlusal Side precision milling improves the completeness of Customized Abutment.

Titanium Customized Abutment
& Hybrid Abutment (Ti-base)

Zirconia Crown

Lithium Disilicate & Nanocomposite
Crown & Coping Bridge

Materials & Applications Info.

Materials			Applications		
Jig Type	Basic	T type	Jig Type	Basic	T type
Pre-milled Blank (Titanium)	◎ (10ea)	◎ (10ea)	Implant Bar	X	X
Co-Cr & Ni-Cr Disk	X	X	Screw-Retained Bridge (Crown & Coping)	X	X
Titanium Disk	X	X	Customized Abutment	◎	◎
Lithium Disilicate	○	X	Hybrid Abutment	○	X
Nanocomposite	◎	X	Inlay & Onlay	○	X
Zirconia	◎	X	Crown & Coping	○	X
PMMA	◎	X	Crown & Coping Bridge	○	X
PEEK	◎	X	Model	X	X
Wax	◎	X	Bite Splint	X	X
			Denture	X	X

[◎: High Compatibility /○: Compatibility /X : Non-Compatibility]

Specifications

Axis	4-Axis	Drive Mechanism		Ball Screw
Processing	Wet and Dry	Way System		Linear Guide
Spindle Power	AC 1.8kw	Machine Size (W*D*H)		710*890*850mm
Max. RPM	50,000	Total Size (W*D*H)		710*890*1750mm
A.T.C	8	Weight (Machine /Table)		210kg /82kg
Tool Shank (mm)	Ø6	Travel	X,Y,Z axis	250*116*110mm
Motor	Servo		A /B axis	- /360˚

Tool List

	Code	Size	Code	Size
Basic	ZB-05	D2.0*L20*55	MB-12	D1.0*L10*50
	ZB-06	D1.0*L14*53	DG-21	D1.0*L10*50
	ZB-07	D0.6*L08*50	DG-22	D0.6*L08*50
	MB-09	D3.0*L12*50	DG-37	D2.5*L12*50
	MB-10	D2.0*L12*50	DG-38	D1.5*L10*50
	MB-11	D1.5*L10*50		

Accessories

Disk Cartridge

AT Cartridge

AT Holder A/B

Attachment

Bushing

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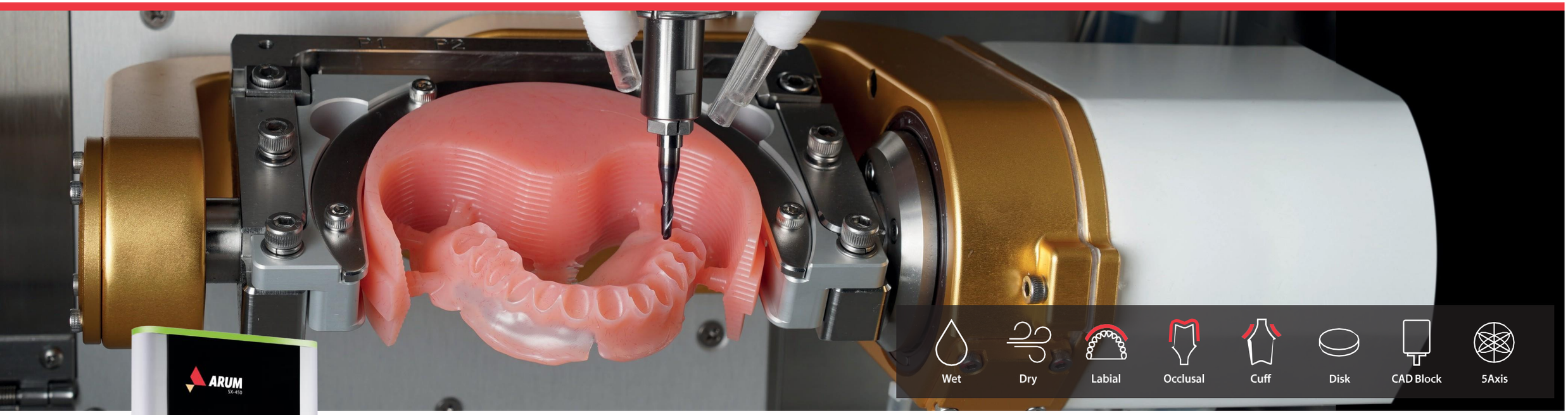
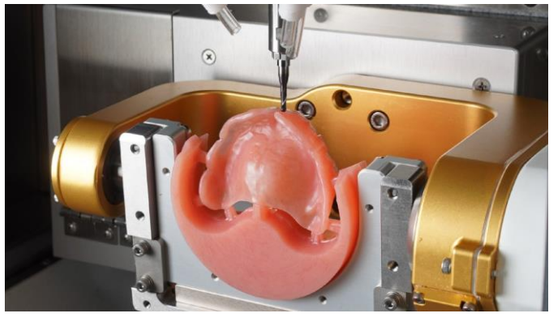
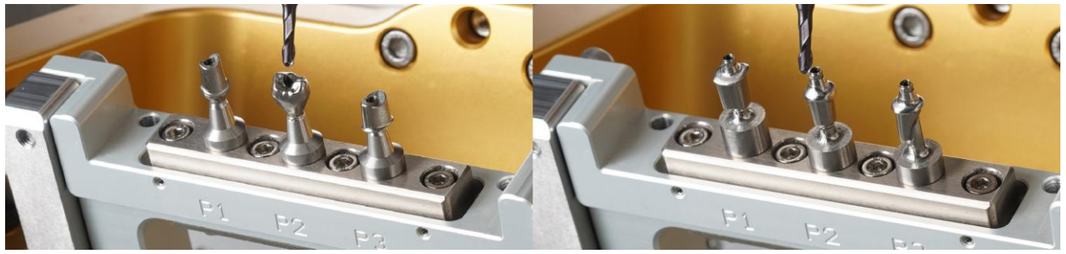
5X-450





5X-450 for machining various prostheses at reasonable price

With use of open C type cartridge, you can precisely machine Labial Side (Buccal Side) and Under-Cut zone that requires additional machining.
With the amazing power of the best-in-class spindle AC 1.28kw, you can machine various shapes and materials such as Denture, Zirconia, CAD Block, and Titanium milled Bar. etc. (Except for Ni-Cr / Co-Cr Disk)



Differentiated round bar machining

You can machine Cuff Side (Gingival area), Occlusal Side, Connectorless, and Retention Groove in simple Top & Bottom Side milling using AT cartridge. Anyone can easily produce high quality Customized Abutment.

Machining with the removal of connector

You can mount 5 Pre-milled Blanks and machine Customized Abutment with removal of Connector using AT Holder and Attachment. The removal of Connector increases the degree of bonding with the upper prosthesis and reduces the workers' post-stage works, improving work efficiency.

Maintenance of the best use conditions

With Auto Calibration Function, users can maintain the best condition of machine anytime. In particular, with Auto Calibration function by the location of Pre-milled Blank, you can produce high accuracy Customized Abutment.

Titanium Disk

Denture

Zirconia
Crown Bridge

Materials & Applications Info.

Materials		Applications	
Pre-milled Blank (Titanium)	◎ (5ea)	Implant Bar	◎
Co-Cr & Ni-Cr Disk	X	Screw-Retained Bridge (Crown & Coping)	◎
Titanium Disk	○	Customized Abutment	◎
Lithium Disilicate	○	Hybrid Abutment	◎
Nanocomposite	◎	Inlay & Onlay	◎
Zirconia	◎	Crown & Coping	◎
PMMA	◎	Crown & Coping Bridge	◎
PEEK	◎	Model	◎
Wax	◎	Bite Splint	◎
		Denture	◎

[◎: High Compatibility /○: Compatibility /X : Non-Compatibility]

Specifications

Axis	5-Axis	Drive Mechanism		Ball Screw	
Processing	Wet and Dry	Way System		Linear Guide	
Spindle Power	AC 1.28kw	Machine Size (W*D*H)		790*790*790mm	
Max. RPM	60,000	Total Size (W*D*H)		790*790*1645mm	
A.T.C	15	Weight (Machine /Table)		185kg /65kg	
Tool Shank (mm)	Ø6	Travel	X,Y,Z axis	245*116*130mm	
Motor	Stepping		A /B axis	360˚/ ±35˚	

Tool List

	Code	Size	Code	Size	Code	Size
Basic	ZB-05	D2.0*L20*55	MB-14	D0.6*L03*50	MF-15	D2.0*L18*55
	ZB-06	D1.0*L14*53	MD-18	D1.5*L14*50	MF-45	D1.5*L07*50
	ZB-07	D0.6*L08*50	MD-19	D2.0*L18*55	MF-71	D0.6*L05*50
	MB-09	D3.0*L12*50	DG-21	D1.0*L10*50	MFR-44	D1.5*L05*R0.1*50
	MB-10	D2.0*L12*50	DG-22	D0.6*L08*50	MFR-66	D1.5*L14*50
	MB-11	D1.5*L10*50	DG-37	D2.5*L12*50	MTR-72	M2*P0.4
	MB-12	D1.0*L10*50	DG-38	D1.5*L10*50		
Special	Code	Size	Code	Size	Code	Size
	MB-67	D1.5*L16*52	MR-01	D3.5*L18*55*180˚	MR-10	D2.6*L18*55*30˚
	TC-40	D2.0*L08*50	MR-02	D2.6*L18*55*180˚	MR-11	D2.4*L18*55*140˚
	TC-41	D1.5*L08*50	MR-03	D2.5*L18*55*180˚	MR-12	D2.6*L18*55*90˚
	TC-42	D1.8*L08*50	MR-05	D2.3*L18*55*120˚	MR-13	D2.7*L18*55*70˚
	MD-73	D1.1*L05*50	MR-06	D2.3*L18*55*90˚	MR-14	D2.3*L18*55*70˚
	MFR-43	D2.0*L18*R0.2*55	MR-07	D2.3*L18*55*30˚	MR-15	D2.3*L18*55*180˚
	MTR-74	M1.4*P0.3	MR-09	D2.4*L18*55*70˚	MR-16	D2.4*L18*55*90˚

Accessories

Disk Cartridge

AT Holder

AT Cartridge

CAD Block Cartridge

Attachment

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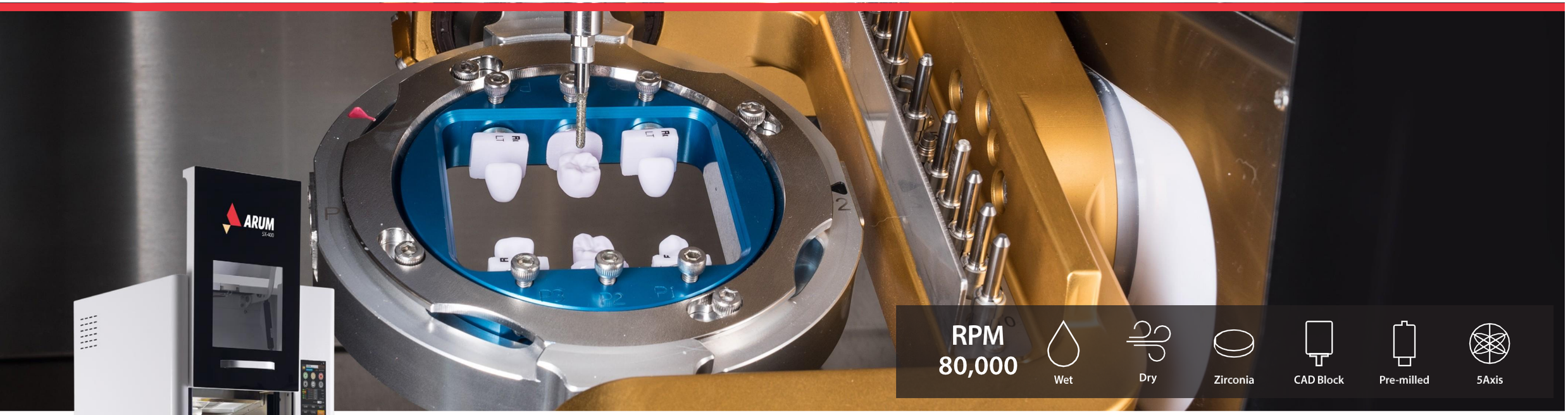
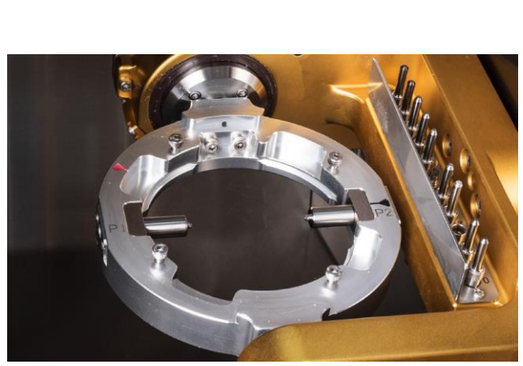
5X-400



Unrivaled grinding capability

With the adoption of a high RPM specialized spindle, this equipment boasts its unrivalled capability of grinding Lithium Disilicate (Glass Ceramic). We improved user convenience by applying the cartridge that can mount and machine up to 6 CAD Blocks (Lithium Disilicate, Nanocomposite), and the application of high-precision ball screws allows you to get high quality machining outputs.



Your reasonable choice

You can machine various materials from Zirconia Disk to CAD Block, Pre-milled Blank, and select between wet and dry machining. You can enjoy the maximum results at a reasonable price.

User-friendly environment

With Auto Calibration Function, you can maintain the best condition of machine anytime, anywhere. You can always see a certain level of machining. U.I design makes operation of equipment easy and simple.

Like natural teeth

Every patient wants a prosthesis that looks natural. With milling the grooved part precisely using ARUM's 0.3mm tool for Zirconia, you can reproduce the teeth that look natural.

Crown & Coping Bridge
Lithium Disilicate

Zirconia Crown

Customized Abutment

Materials & Applications Info.

Materials		Applications	
Pre-milled Blank (Titanium)	○ (2ea)	Implant Bar	○
Co-Cr & Ni-Cr Disk	X	Screw-Retained Bridge (Crown & Coping)	○
Titanium Disk	X	Customized Abutment	○
Lithium Disilicate	◎	Hybrid Abutment	◎
Nanocomposite	◎	Inlay & Onlay	◎
Zirconia	◎	Crown & Coping	◎
PMMA	◎	Crown & Coping Bridge	◎
PEEK	◎	Model	◎
Wax	◎	Bite Splint	◎
		Denture	○

[◎: High Compatibility /○: Compatibility /X : Non-Compatibility]

Specifications

Axis	5-Axis
Processing	Wet and Dry
Spindle Power	AC 0.5kw
Max. RPM	80,000
A.T.C	10
Tool Shank (mm)	Ø4
Motor	Stepping

Drive Mechanism		Ball Screw
Way System		Linear Guide
Machine Size (W*D*H)		570*655*680mm
Total Size (W*D*H)		570*655*1625mm
Weight (Machine /Table)		100kg /65kg
Travel	X,Y,Z axis	145*110*85mm
	A /B axis	±35° /360°

Tool List

	Code	Size	Code	Size
Basic	ZB-46	D2*L18*50	DG-52	D2.5*L13*44.5
	ZB-47	D1.0*L16*50	DG-53	D1.5*L10*44.5
	ZB-48	D0.6*L10*45	DG-54	D1.0*L10*44.5
	ZB-65	D0.3*L10*45	DG-55	D0.6*L8*41
	PB-49	D2*L18*50	MB-58	D2*L12*44
	PB-50	D1.5*L14*47	MB-59	D1.5*L10*43
	PB-51	D1.0*L10*44	MB-60	D1.0*L8*42
Special	Code	Size	Code	Size
	MOB-56	D3.0*L20*50	ZF-75	D0.6*L8*45

Accessories

CAD Block Cartrige

AT Cartridge

Attachment

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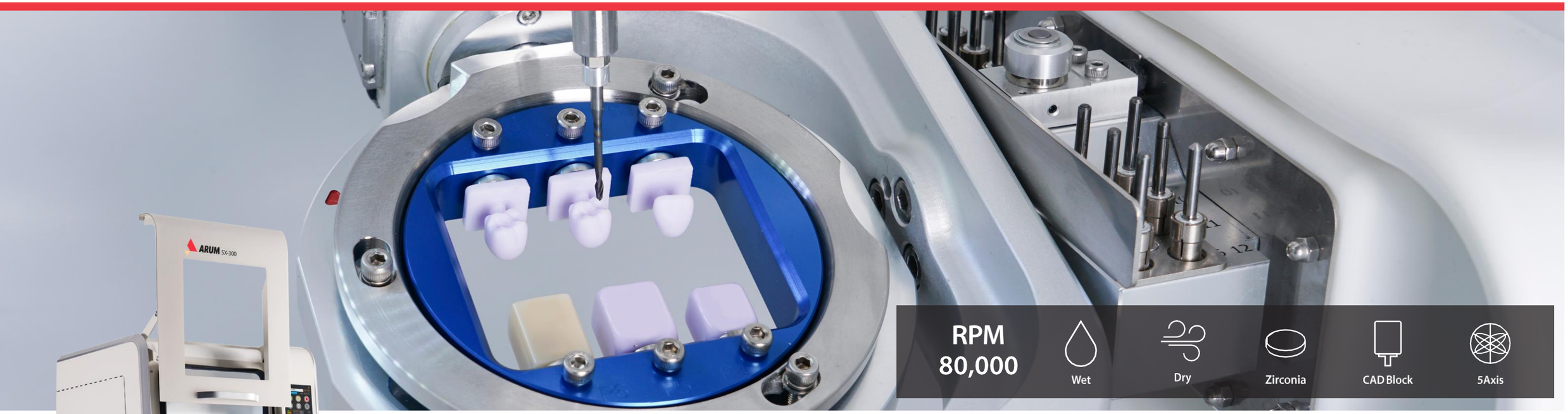
5X-300/5X-300D



Amazing grinding capability

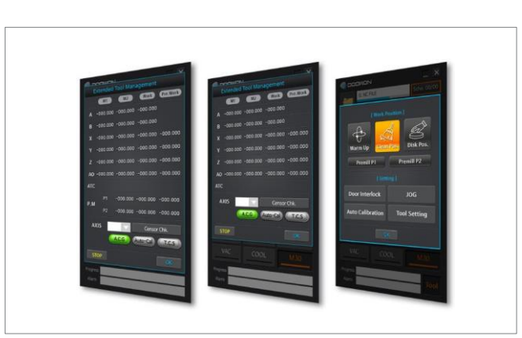
With the adoption of a high RPM spindle, 5X-300 boasts its unsurpassed capability of grinding Lithium Disilicate (Glass Ceramic). We improved user convenience by applying the cartridge that can mount and machine up to 6 CAD Blocks (Lithium Disilicate, Nanocomposite), and the of high-precision ball screws allows you to get high-quality milling outputs.

The beginning of a small change

With a small change of '7° Tilted Door' to ensure user's viewing angle, you can clearly see the milling progress. With the door opening wide, you can secure enough work space to conveniently change materials and setting tools.
In addition, the interior floor is inclined for convenient cleaning.

Device to automatically exchange 12 tools

With a 12-tool pocket, you can machine almost every material such as Zirconia, Lithium Disilicate, PMMA, PEEK, and WAX in just one setting, and the automatic tool change function allow you to use equipment without interruption.



User-friendly environment

With Auto Calibration Function, you can maintain the best condition of machine anytime, anywhere. You can always see a certain level of machining. U.I design makes operation of equipment easy and simple.

Like natural teeth

Every patient wants a prosthesis that looks natural. With milling the grooved part precisely using ARUM's 0.3mm tool for Zirconia, you can reproduce the teeth that look natural.

5X-300/5X-300D

Zirconia Crown

Zirconia Hybrid Abutment

Crown & Coping Bridge

Materials & Applications Info.

Materials			Applications		
Model	5X-300	5X-300D	Model	5X-300	5X-300D
Pre-milled Blank (Titanium)	X	X	Implant Bar	X	X
Co-Cr & Ni-Cr Disk	X	X	Screw-Retained Bridge (Crown & Coping)	X	X
Titanium Disk	X	X	Customized Abutment	X	X
Lithium Disilicate	◎	X	Hybrid Abutment	◎	◎
Nanocomposite	◎	◎	Inlay & Onlay	◎	◎
Zirconia	◎	◎	Crown & Coping	◎	◎
PMMA	◎	◎	Crown & Coping Bridge	◎	◎
PEEK	◎	◎	Model	◎	◎
Wax	◎	◎	Bite Splint	◎	◎
			Denture	○	○

[◎: High Compatibility /○: Compatibility /X :Non-Compatibility]

Specifications

Model		5X-300	5X-300D
Axis		5-Axis	5-Axis
Processing		Wet and Dry	Dry
Spindle Power		AC 0.5kw	AC 0.5kw
Max. RPM		80,000	60,000
A.T.C		12	12
Tool Shank (mm)		Ø4	Ø4
Motor		Stepping	Stepping
Drive Mechanism		Ball Screw	Ball Screw
Way System		Linear Guide	Linear Guide
Machine Size (W*D*H)		570*620*640mm	570*620*640mm
Total Size (W*D*H)		570*620*1580mm	-
Weight (Machine /Table)		90kg /65kg	90kg /-
Travel	X,Y,Z axis	159*120*90mm	159*120*90mm
	A /B axis	±30° /360°	±30° /360°

Tool List

	Code	Size	Code	Size
Basic	ZB-46	D2*L18*50	PB-51	D1.0*L10*44
	ZB-47	D1.0*L16*50	DG-52	D2.5*L13*44.5
	ZB-48	D0.6*L10*45	DG-53	D1.5*L10*44.5
	ZB-65	D0.3*L10*45	DG-54	D1.0*L10*44.5
	PB-49	D2*L18*50	DG-55	D0.6*L8*41
	PB-50	D1.5*L14*47		
Special	Code	Size	Code	Size
	MOB-56	D3.0*L20*50	ZF-75	D0.6*L8*45
	ZF-70	D1.7*L18*50		

Accessories

CAD Block Cartrige

* Products are subject to change without notice to improve quality, function, design or otherwise.

CAD/CAM etc.

Materials

Titanium, Co-Cr, Ni-Cr Disk

Zirconia

PMMA

PEEK

Wax

Lithium Disilicate

Nanocomposite

Pre-milled Blank

Scanner

Dust Collector

CAM Software

hyperDENT
COMPACT · CLASSIC · OPTIONS

worknc

Sintering Furnace

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