

# FAITHFUL MILL FOR MAIN PROSTHESIS



The 5-axis milling machine for wet and dry machining.



## ARUM 450 series

800+

IMPLANT  
CONNECTIONS

TOTAL CAD/CAM  
SOLUTIONS

- |  |   |   |  |  |
|--|---|---|--|--|
| <br>Wet    | <br>Dry      | <br>Disk | <br>CAD Block | <br>Connectorless |
| <br>Labial | <br>Occlusal | <br>Cuff | <br>5Axis     | <br>Pre-milled    |

ARUM

# ARUM Milling Machine Line-up



Model	5X-500L	5X-500	5X-200	5X-450
Axis	5 Axis	5 Axis	5 Axis	5 Axis
Processing	Wet and Dry	Wet and Dry	Wet and Dry	Wet and Dry
Max. RPM	60,000	60,000	60,000	60,000
Spindle Power	AC 2.2kw	AC 2.2kw	AC 3.0kw	AC 1.28kw
A.T.C	20	20	15	15
Tool Shank (mm)	Ø6	Ø6	Ø6	Ø6
Motor	Servo	Servo	Servo	Stepping
Drive Mechanism	Ball Screw	Ball Screw	Ball Screw	Ball Screw
Way System	Linear Guide	Linear Guide	Linear Guide	Linear Guide
Total Size (W*D*H)	1078*921*1713mm	689*918*1706mm	815*949*1755mm	791*791*1657mm
Weight (Machine / Table)	360 kg / 110 kg	230kg / 65kg	270kg / 135kg	185kg / 65kg
Travel	X, Y, Z axis	227.5*125*131mm	227.5*125*131mm	245*116*130mm
	A axis / B axis	360° / +40° ~ -31.5°	360° / +40° ~ -31.5°	360° / ±30°
Disk Jig or Cartridge Type	O type, C type	O type, C type	O type	C type
Number of Jig	12	-	-	-
Jig exchange	Auto	-	-	-

## Materials

Pre-milled Blank	◎ (10ea)	◎ (10ea)	◎ (5ea)	◎ (5ea)
Co-Cr & Ni-Cr Disk	○	○	◎	X
Titanium Disk	◎	◎	◎	○
Lithium Disilicate	○	○	○	○
Nanocomposite	◎	◎	◎	◎
Zirconia	◎	◎	◎	◎
PMMA	◎	◎	◎	◎
PEEK	◎	◎	◎	◎
Wax	◎	◎	◎	◎

## Applications

Implant Bar	◎	◎	◎	◎
Screw-Retained Bridge	◎	◎	◎	◎
Customized Abutment	◎	◎	◎	◎
Hybrid Abutment	◎	◎	◎	◎
Inlay & Onlay	◎	◎	◎	◎
Crown & Coping	◎	◎	◎	◎
Crown & Coping Bridge	◎	◎	◎	◎
Model	◎	◎	◎	◎
Bite Splint	◎	◎	◎	◎
Denture	◎	◎	◎	◎



4X-450	5X-400	5X-300 Pro	5X-300D
4 Axis	5 Axis	5 Axis	5 Axis
Wet	Wet and Dry	Wet and Dry	Dry
50,000	80,000	80,000	60,000
AC 1.8kw	AC 0.5kw	AC 0.5kw	AC 0.5kw
6	10	12	12
Ø6	Ø4	Ø4	Ø4
Stepping	Stepping	Stepping	Stepping
Ball Screw	Ball Screw	Ball Screw	Ball Screw
Linear Guide	Linear Guide	Linear Guide	Linear Guide
791*791*1657mm	568*643*1616mm	568*641*1583mm	568*641*645mm
185kg / 65kg	100kg / 65kg	90kg / 65kg	90kg / -
241*116*130mm	146*122.3*106.5mm	167*119.8*94mm	167*119.8*94mm
360° / -	±35.2° / 360°	±30° / 360°	±30° / 360°
-	O type	C type	C type
-	-	-	-
-	-	-	-
◎ (10ea)	○ (2ea)	X	X
X	X	X	X
X	X	X	X
X	◎	◎	X
X	◎	◎	◎
X	◎	◎	◎
X	◎	◎	◎
X	◎	◎	◎
X	◎	◎	◎
X	X	X	X
X	X	X	X
◎	○	X	X
X	◎	◎	◎
X	◎	◎	◎
X	◎	◎	◎
X	◎	◎	◎
X	◎	◎	◎
X	◎	◎	◎
X	◎	◎	◎
X	○	◎	◎

\* Products are subject to change without notice to improve quality, function, design or otherwise. / ◎: High Compatibility / ○: Compatibility / X: Non-Compatibility

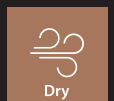
# ARUM

## 5X-450 / 4X-450

5X-450



Wet



Dry

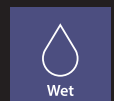


All Disk

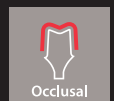


CAD Block

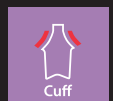
4X-450



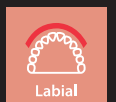
Wet



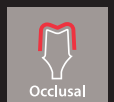
Occlusal



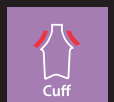
Cuff



Labial



Occlusal



Cuff



5Axis



Connectorless



Pre-milled



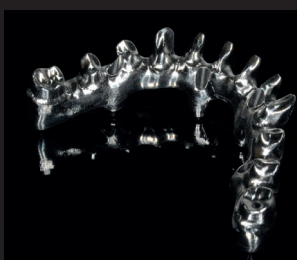
4Axis



### European Milling Strategy Set-up

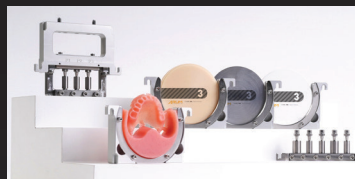
[5X-450]  
For more than 800 implant connections.

### Solid Machine Frame for Incomparable Quality



### C-Clamp

[5X-450]  
C-Clamp for efficiency and quality.



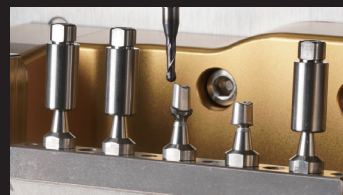
### 5-Axis

[5X-450]  
5-Axis simultaneous machining including undercuts.



### Connectorless Premill Milling

[5X-450] 5ea [4X-450] 10ea



### Straumann Original Pre-mill Milling Available

[5X-450] Straumann PMAB holder.

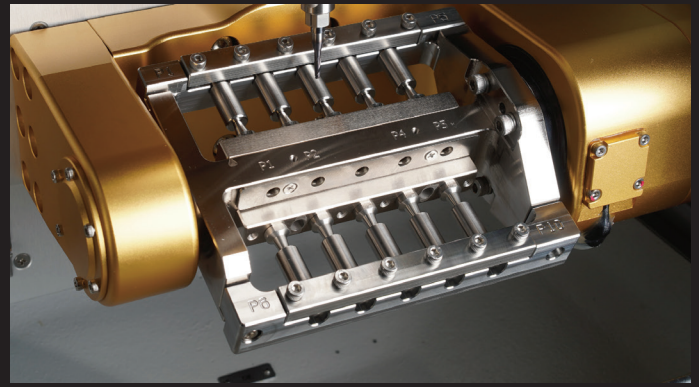


### Machine Hard and Soft Materials up to Titanium

## Materials & Applications Info.

Materials			Applications		
Model	5X-450	4X-450	Model	5X-450	4X-450
Pre-milled Blank	⊙ (5ea)	⊙ (10ea)	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



### [5X-450] Precision Machining Using AT Cartridge

In addition to simple top & bottom side machining, you can machine cuff side (Gingival side), occlusal side, and retention groove using AT Cartridge.

### [4X-450] Differentiated Pre-milled Blank Machining

You can mount 10 pre-milled blanks and machine them simultaneously, and machine the cuff side (Gingival side) and occlusal side area using A-axis 90° rotation in an optimal condition.

## Specifications

Model	5X-450	4X-450	Model	5X-450	4X-450	
Axis	5 Axis	4 Axis	Drive Mechanism	Ball Screw	Ball Screw	
Processing	Wet and Dry	Wet and Dry	Way System	Linear Guide	Linear Guide	
Spindle Power	AC 1.28kw	AC 1.8kw	Machine Size (W*D*H)	791*791*790mm	791*791*790mm	
Max. RPM	60,000	50,000	Total Size (W*D*H)	791*791*1657mm	791*791*1657mm	
A.T.C	15	6	Weight (Machine / Table)	185kg / 65kg	185kg / 65kg	
Tool Shank (mm)	Ø6	Ø6	Travel	X,Y,Z axis	245*116*130mm	241*116*130mm
Motor	Stepping	Stepping		A / B axis	360° / ±35.1°	360° / -

## Tool List

Material	Code	Ø	Size	Material	Code	Ø	Size
Zirconia	ZB-05	2.0	D2.0*L20*55	Glass ceramic	DG-21	1.0	D1.0*L10*50
	ZB-06	1.0	D1.0*L14*53		DG-22	0.6	D0.6*L08*50
	ZB-07	0.6	D0.6*L08*50		DG-37	2.5	D2.5*L12*50
	ZB-78	0.3	D0.3*L1.5*50		DG-38	1.5	D1.5*L10*50
Metal (Premilled Blank/Disk)	MB-09	3.0	D3.0*L12*50	PMMA(Long)	PB-88	3.0	D3.0*L20*55
	MB-10	2.0	D2.0*L12*50		PB-89	2.0	D2.0*L20*55
	MB-11	1.5	D1.5*L10*50		PB-90	1.5	D1.5*L18*58
	MB-12	1.0	D1.0*L10*50		PB-91	1.0	D1.0*L13*55
Metal(Disk)	MB-14	0.6	D0.6*L03*50	PB-92	0.6	D0.6*L10*55	
Metal (Reamer)	MR-01	3.5	D3.5*L18*55*180°	PMMA(Denture)	PB-93	4.5	D4.5*L25*60
	MR-02	2.6	D2.6*L18*55*180°	PMMA(Lollipop)	PB-94	3.0	D3.0*L15*60
	MR-05	2.3	D2.3*L18*55*120°	T-cutter	TC-82	2.0	D2.0*L08*50
	MR-06	2.3	D2.3*L18*55*90°		TC-83	1.8	D1.8*L08*50
	MR-07	2.3	D2.3*L18*55*30°		TC-84	1.5	D1.5*L08*50
	MR-09	2.4	D2.4*L18*55*70°		TC-97	2.3	D2.3*L07*50
	MR-10	2.6	D2.6*L18*55*30°	Flat endmill	MF-15	2.0	D2.0*L18*55
	MR-11	2.4	D2.4*L18*55*140°		MF-45	1.5	D1.5*L07*50
	MR-12	2.6	D2.6*L18*55*90°		MF-71	0.6	D0.6*L05*50
	MR-13	2.7	D2.7*L18*55*70°	Bullnose mill	MFR-44	1.5	D1.5*L05*R0.1*50
	MR-14	2.3	D2.3*L18*55*70°		MFR-66	1.5	D1.5*L14*R0.2*50
	MR-15	2.3	D2.3*L18*55*180°		MFR-43	2.0	D2.0*L18*R0.2*55
MR-16	2.4	D2.4*L18*55*90°	Thread	TH-69	M2.0*P0.4	M2.0*P0.4	
MD-18	1.5	D1.5*L14*50		TH-70	M1.4*P0.3	M1.4*P0.3	
MD-19	2.0	D2.0*L18*55		TH-95	M1.8*P0.35	M1.8*P0.35	
MD-73	1.1	D1.1*L05*50		TH-99	M1.6*P0.35	M1.6*P0.35	
Zirconia (Long)	ZB-85	2.0	D2.0*L25*60				
	ZB-86	1.0	D1.0*L20*60				
	ZB-87	0.6	D0.6*L10*60				

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