



WBM-V2

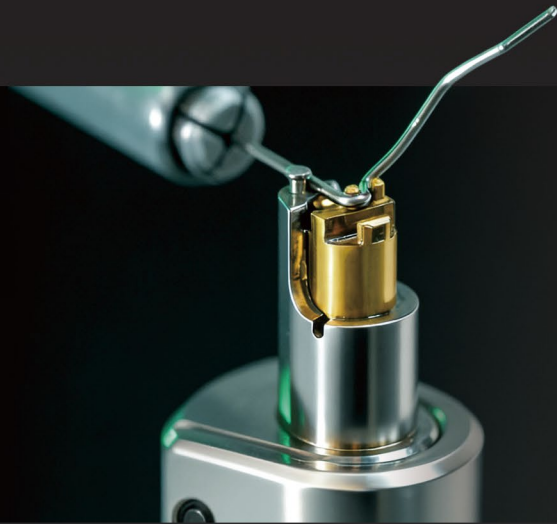
Riton Automatic Orthodontic Steel Wire Bending Machine

Precision Bending · Advanced Intelligence



WBM-V2 Riton Automatic Orthodontic Steel Wire Bending Machine

The WBM-V2 serves as the central bending unit in digital orthodontic manufacturing, capable of high-precision bending of various wire clasps. It ensures accurate, stable, and repeatable structural forms.



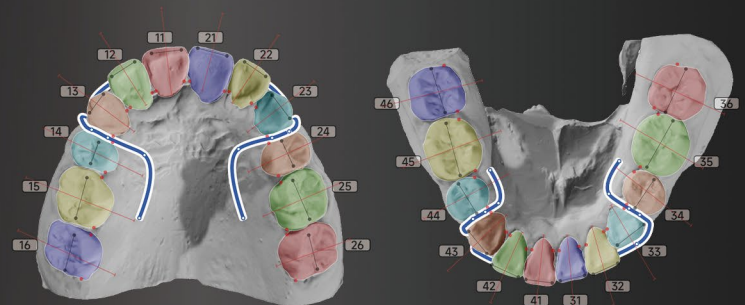
Extreme Bending Capability

Achieves an extreme convergence angle of 10°, with an arrowhead tip radius of only 0.9 mm and an inner minimum forming clearance of 1.3 mm. Produces naturally smooth arcs and stable small arrowhead clasps for premolars, redefining industry benchmarks for precision bending.



Intelligent Design

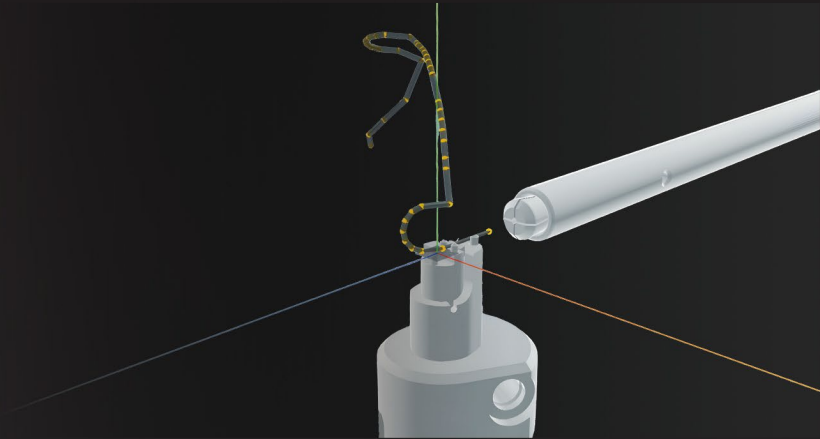
AI recognizes model feature points and quickly generates common appliance structures. The smooth-design function naturally rounds sharp bends, creating smoother, better fitting products with high shape fidelity.





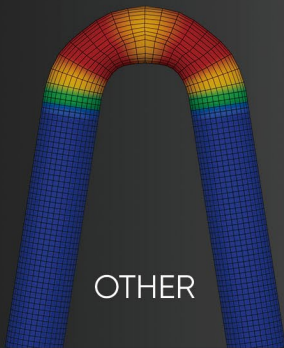
Path Algorithm

3D dynamic calculation automatically optimizes path planning, ensuring continuous, interference-free forming of the structure.

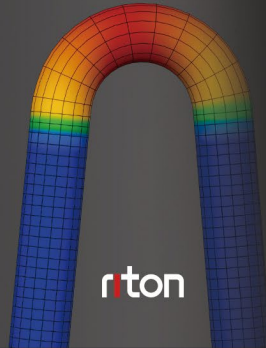


Control System

PLC + multi-axis servo control system delivers high positioning accuracy and repeatability. Six-axis coordinated motion ensures smooth operation, significantly reducing localized stretching and metal fatigue.



OTHER

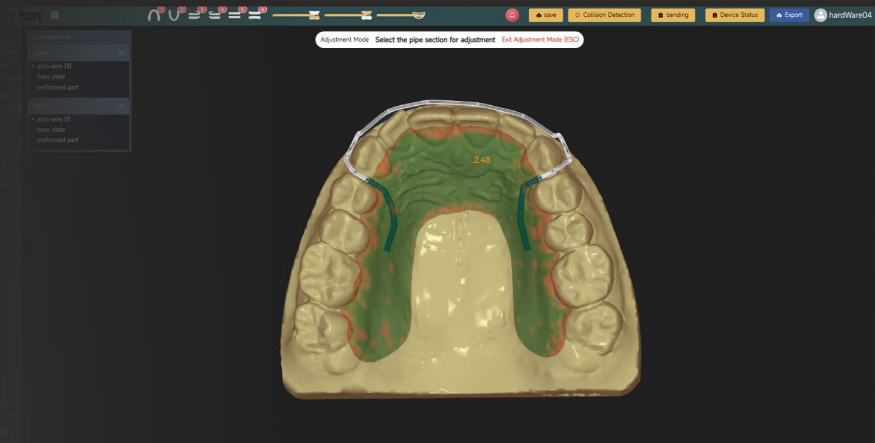


riton



Digital Workflow

Enables coordinated design of wires and base plates, covering the full digital manufacturing chain from design → wire bending + base printing → assembly.

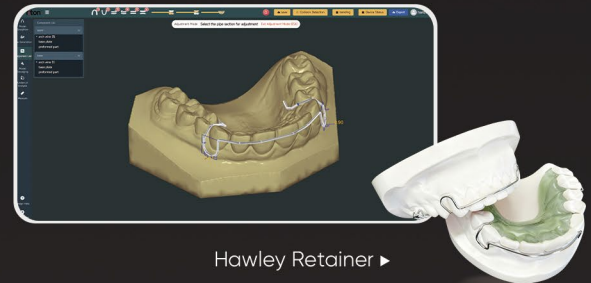


Versatile Applications

Works with Arrowhead Clasp, Double-Curve Labial Bow, TPA, Nance Appliance, Single Arm Clasp, etc. Capable of complex 3D bending and high-volume order production.

Double-Curve Labial Bow

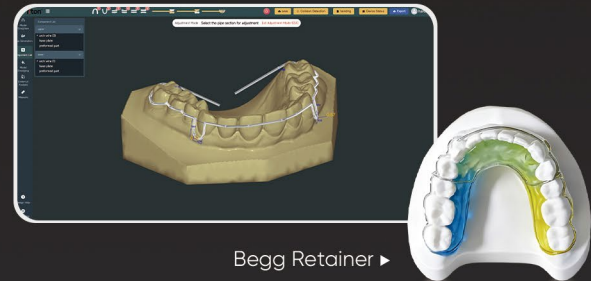
Design Time	2 min
Bending Time	Approx. 40 s
Applicable Appliances	Hawley Retainer, Frankel Appliance, Myofunctional Appliance, Lip Bumper



Hawley Retainer ►

Circumferential Bow

Design Time	4 min
Bending Time	Approx. 90 s
Applicable Appliances	Begg Retainer



Begg Retainer ►

Single Arm Clasp

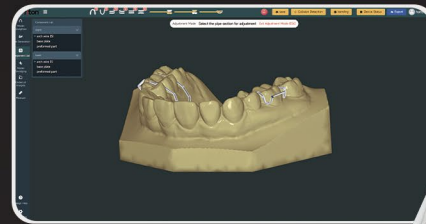
Design Time	2 min
Bending Time	Approx. 30 s
Applicable Appliances	Inclined Plane Appliance, Flat Plane Appliance, Hawley Retainer



Inclined Plane Appliance ►

Arrowhead Clasp

Design Time	2 min
Bending Time	Approx. 40 s
Applicable Appliances	Hawley Retainer, Face Mask Appliance, Tongue Spring Bite Plane Appliance, Tongue Crib

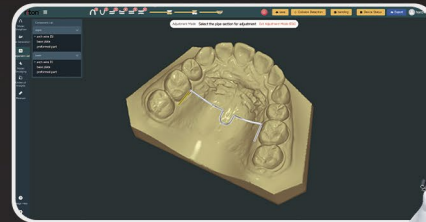


Tongue Crib ►



TPA

Design Time	2 min
Bending Time	Approx. 30 s
Applicable Appliances	TPA Expander, Banded Wilson System, BWS

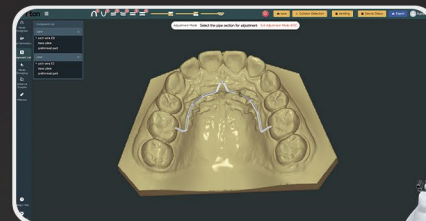


TPA Expander ►



Nance Appliance

Design Time	3 min
Bending Time	Approx. 30 s
Applicable Appliances	Nance Appliance, Lingual Arch Retainer



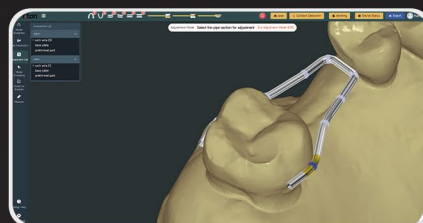
Nance Appliance ►



Versatile Applications

Space Maintainer

Design Time	3 min
Bending Time	Approx. 30 s
Applicable Appliances	Pediatric Space Maintainer

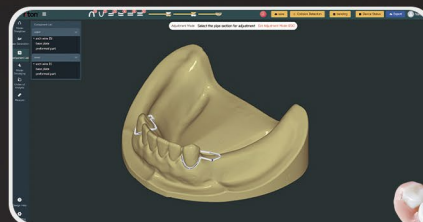


Pediatric Space Maintainer ▶



Removable Partial Denture Clasp

Design Time	3 min
Bending Time	Approx. 30 s
Applicable Appliances	Removable Partial Denture, Retainer

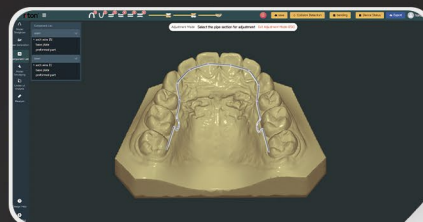


Removable Partial Denture ▶



Lingual Arch

Design Time	4 min
Bending Time	Approx. 40 s
Applicable Appliances	Lingual Arch Retainer, Tongue Crib, Tongue Spring Bite Plane Appliance



Lingual Arch Retainer ▶



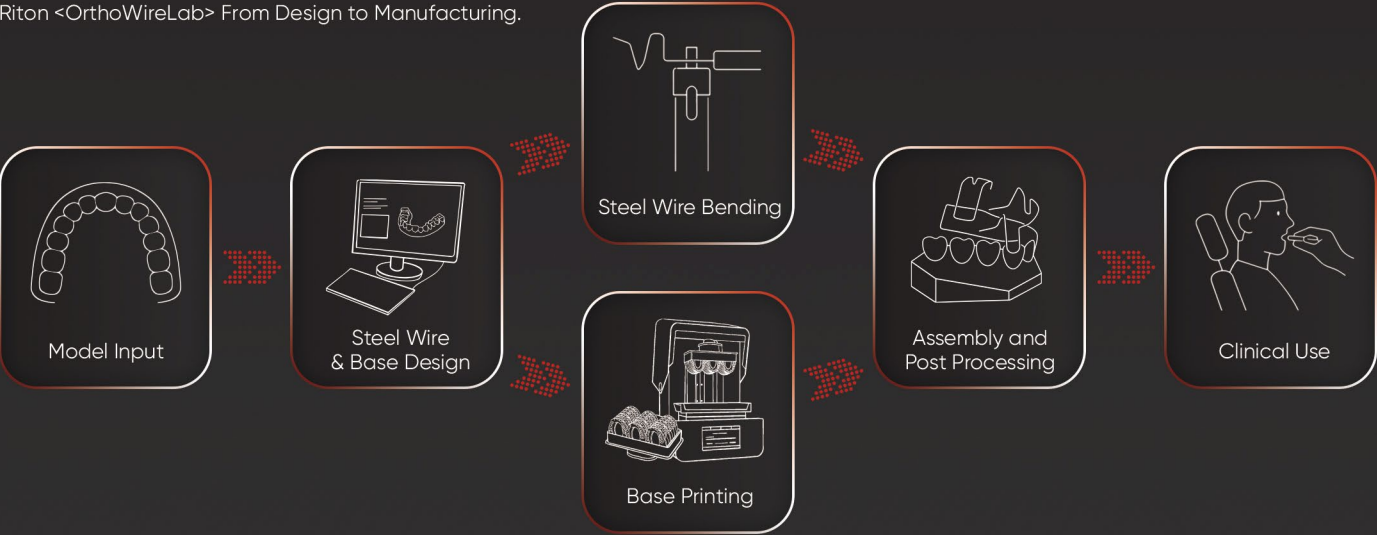
Clinical & Operational Value

- **For Clinicians**
More intuitive and efficient case discussions between doctor, technician, and patient.
- **For Laboratories**
Greater productivity and consistent, reliable output.
- **For Patients**
Enhanced comfort with durable, secure appliance fit.

riton Digital Solution		Manual Bending	
✔ < 15 minutes per device, supports batch processing, efficiency increased by 50%+.		Time Cost	20–30 minutes per device, low efficiency.
✔ User friendly, easy to master within 3 days, reduces labor input by 70%.		Labor Cost	Heavily reliant on skilled technicians, long training cycle, high labor costs.
✔ Repetition error ≤ ±5%, ensuring highly consistent quality.		Product Consistency	Significant manual errors, inability to guarantee precision in repeated bending.
✔ CAD/CAM integration with AI optimization and 3D simulation delivers true "What You See Is What You Get" results.		Design Method	Relies on experience, impossible to verify designs, high rework rate.
✔ 3D visual treatment plan, intuitive outcome presentation, enhances trust and communication efficiency.		Doctor-Patient Communication	Relies on verbal descriptions or 2D sketches, limited patient understanding.

Workflow

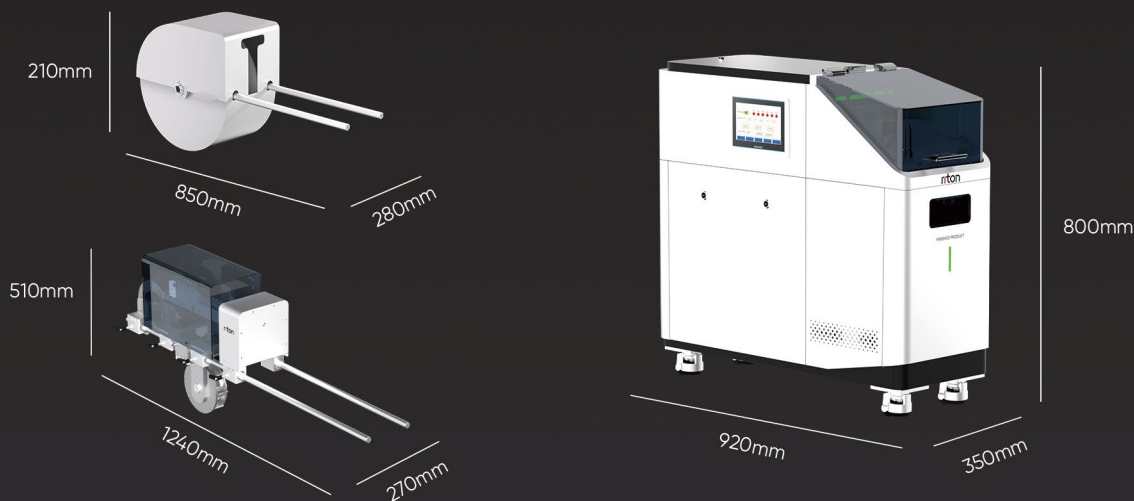
Riton <OrthoWireLab> From Design to Manufacturing.



WBM-V2 Riton Automatic Orthodontic Steel Wire Bending Machine

Technical Specifications

Power Supply	AC 220V, 50Hz	Feeding Speed	120mm/s
Power Consumption	≤1200W	Feeding Accuracy	±0.05mm
Air Source	0.6MPa Dry and Clean Air	Bending Speed	≤200°/s
Weight	Approx. 100kg	Bending Repeatability	±0.5°
Maximum Feed Length	220mm	Compatible Wire Diameter	0.5–1.0mm
Each machine is optimized for a specific wire diameter to ensure consistent bending accuracy and long-term stability.			



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