



WBM-T1

Desktop Intelligent
Twisted Wire Bending Machine

Chairside Wire Bending: Redefining the Digital Clinical Workflow



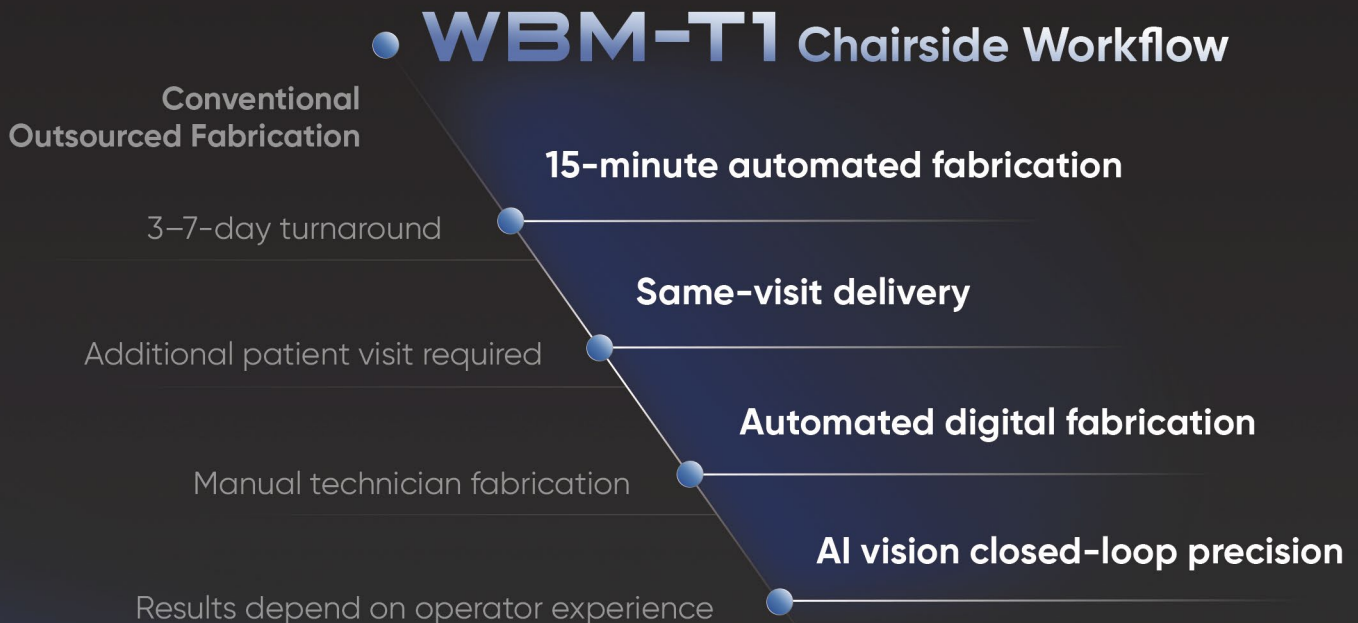
Clinical Paradigm Shift:

From Outsourced Production to Chairside Delivery

Traditional twist-wire retainers either involve external dental labs, resulting in 3–7-day turnaround times and the risk of patient drop-off due to additional appointments, or rely heavily on individual clinician expertise and valuable chairside time.

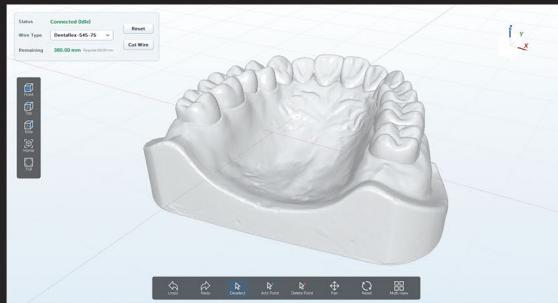
The WBM-T1 brings the fabrication process directly chairside. By seamlessly importing intraoral scan data and utilizing AI-powered path planning, it compresses the multi-day workflow into just 15 minutes. This enables same-day, single-visit delivery, significantly boosting clinical efficiency and patient satisfaction.

Clinical Workflow Comparison



01 Clinical Autonomy: User-Friendly, Intuitive Digital Design

Our intuitive software is tailored for clinicians, ensuring greater clinical control over the final fabrication quality:



1

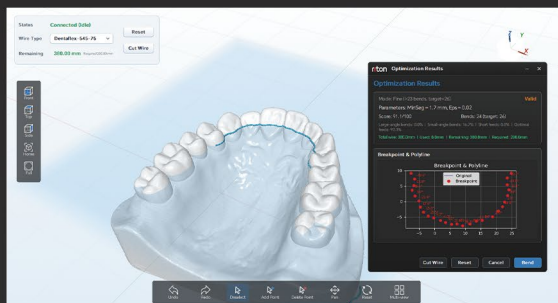
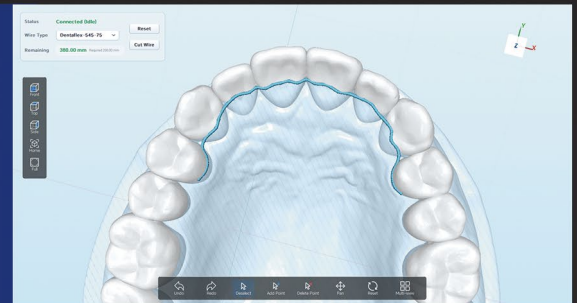
AI-Powered Automated Routing

- Automatically generates an optimal retainer wire path based on tooth alignment and arch form.

Visual Wire Path Editing

2

- Drag control points for intuitive wire path adjustment.
- Make real-time visual adjustments with greater flexibility for complex clinical cases (e.g., tooth misalignment, multi-tooth stabilization).



3

One-Click Fabrication

- Initiate bending with a single click after design approval.
- The software seamlessly connects with the hardware.
- A seamless workflow from design to production.
- Produce a customized retainer wire within 15 minutes.

02 Micron-Level Precision: AI Vision Closed-Loop Control System

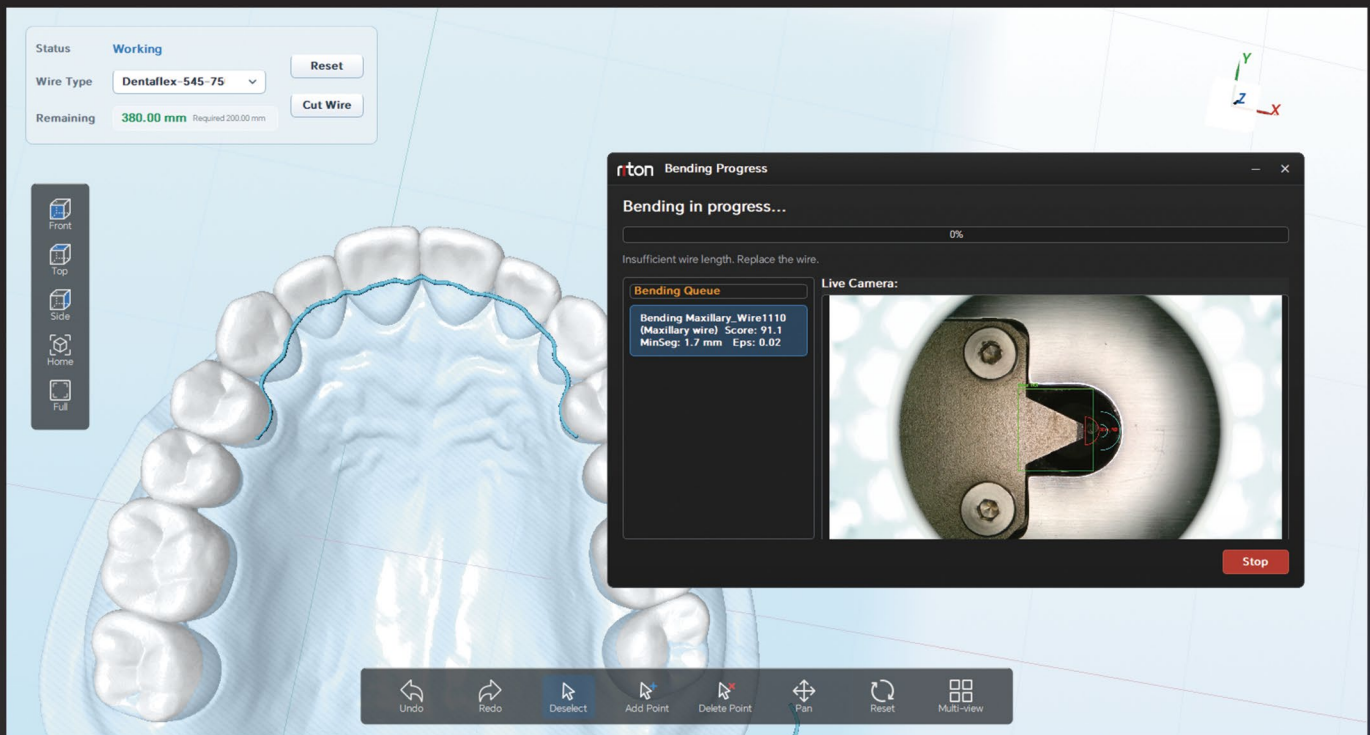
Overcomes the consistency challenges of manual bending and the anisotropic springback of twist wires, ensuring highly consistent, high-quality results:

1 Real-Time Capture per Bend

A high-resolution industrial camera captures every bend in real time, enabling immediate feedback and automatic error correction.

2 Multiple Proprietary AI Fine-Tuning Algorithms

Integrates advanced algorithms—including dual-ROI cross-validation, self-learning springback compensation, and large-angle segmented tuning—to ensure high repeatability and shape stability.



Positioning Accuracy

0.01 MM

Angular Accuracy

0.1°

Bi-directional Bending

-85° ~ +85°

03 Clinical Space Integration: Compact & Quiet

Built for modern dental clinics, the WBM-T1 features a compact design that integrates seamlessly into chairside workflow.

1 A4-Sized Footprint

Compact dimensions (**383 x 243 x 263 mm**) require only about the space of an A4 sheet of paper.

2 Lightweight and Portable

Weighing **less than 5 kg**, the machine can be easily carried with one hand and shared between treatment rooms.

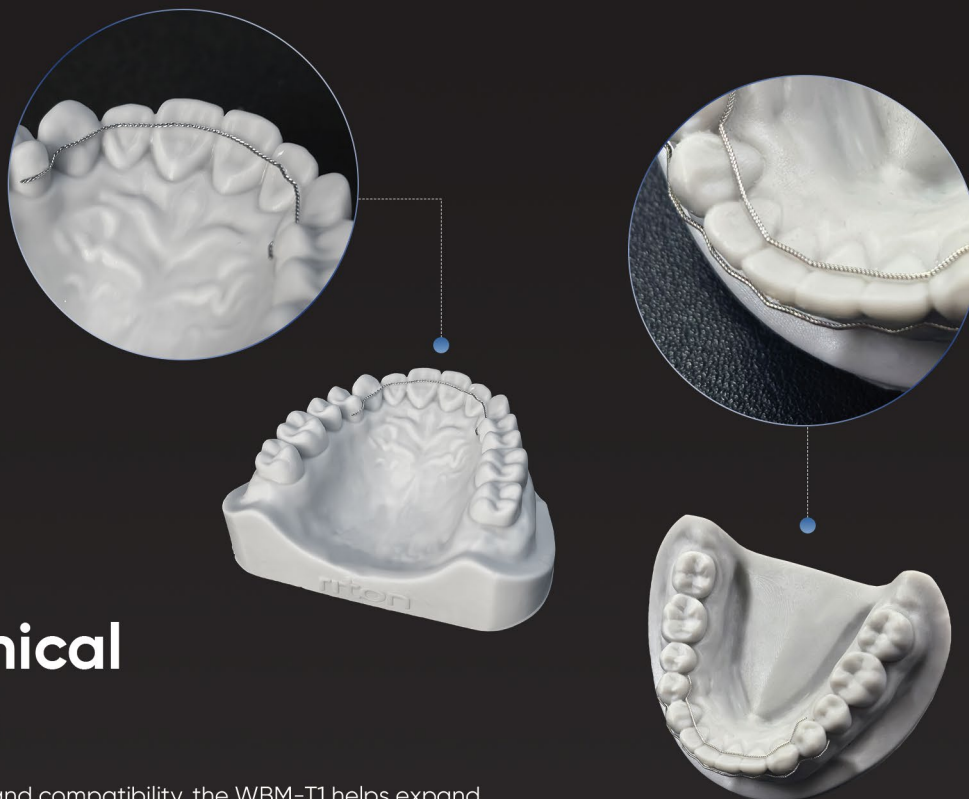
3 Fully Electric, Quiet Operation

No noisy air compressors, no oily odors. Just plug and play in between patient appointments for instant fabrication.

4 Low Power Consumption & Simple Connectivity

Operating at **only 15 W**, it supports USB and LAN connectivity, allowing effortless control from a standard laptop.





Versatile Clinical Applications

Designed for maximum flexibility and compatibility, the WBM-T1 helps expand your practice with a wide range of clinical applications.

1 Multiple Clinical Applications

Lingual bonded retainers, Periodontal splints for mobile-tooth stabilization, Trauma splints.

2 Multi-Specification Wire Compatibility

Supports common 3-strand and 6-strand twist wires (0.45–0.55 mm). Switching feeding modules enables multiple clinical applications.

Clinical Application	Wire Type	WBM-T1
Lingual Bonded Retainer	Twisted Wire	Automatic Fabrication
Periodontal Splints for Mobile-tooth Stabilization	Twisted Wire	Automatic Fabrication
Trauma Splint	Twisted Wire	Automatic Fabrication



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Technical Specifications

Dimensions	383 x 243 x 263 mm	Bending Speed	Up to 20 bends/min
Weight	5 kg	Bending Angle	-85° to +85° (Bi-directional)
Power Input	100~240 V AC, 50/60 Hz	Angular Accuracy	0.1°
Rated Power	15 W	Positioning Accuracy	0.01 mm
Supported Wire Types	Twisted Wire	Control Mode	PC Software with AI Real-Time Closed-Loop Control
Wire Diameter	0.45~0.55 mm	Interface	USB + LAN

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