



Automation of the Lapping Process Reduces Labor and Enhances Product Reliability

Automated Cutting Tool Surface Finishing Machine

 SURFEDGE AUTO24

Advantages

Achieving Labor Reduction and Increased Product Reliability through Full Automation

1. Reducing operator workload through automation of the lapping process
2. Surface finishing, droplet removal, and burr removal using Elastic Media
3. Flexible cassette system optimizing overall workflow



Advantages

1. Reducing operator workload through automation of the lapping process

Tools stored in cassettes are automatically picked up, loaded, polished, unloaded, and returned to the cassette. The system supports high-capacity cassettes that hold hundreds of tools, enabling long hours of continuous operation, reducing manpower requirements, and ensuring stable production.



Pick up



Loading



Polishing



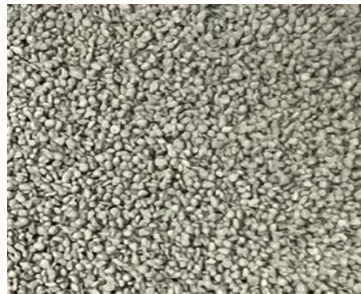
Unloading



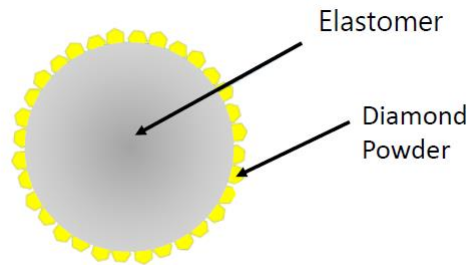
Advantages

2. Surface finishing, droplet removal, and burr removal using Elastic Media

A proprietary polishing media, consisting of a polymer elastic material with excellent cost-effectiveness coated with a layer of diamond powder, is employed. This media allows a wide range of applications, from honing of cutting edges to removing droplets on coated surfaces.



Elastic abrasives media

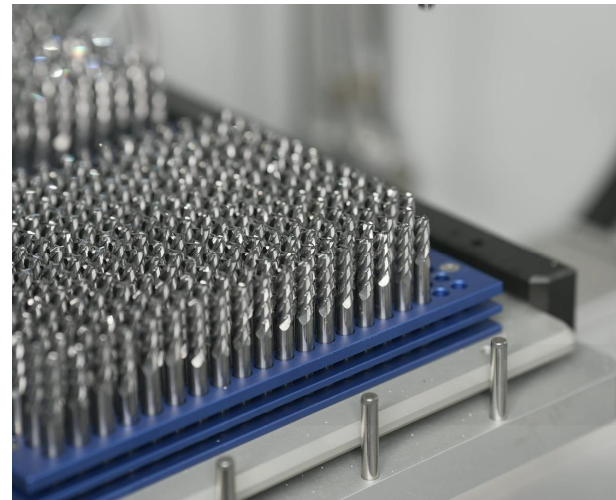
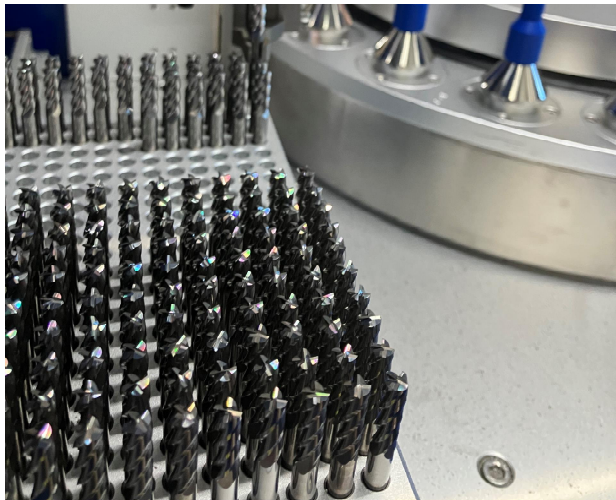


Left : Before removing droplets, Right : After polishing

Advantages

3. Flexible cassette system optimizing overall workflow

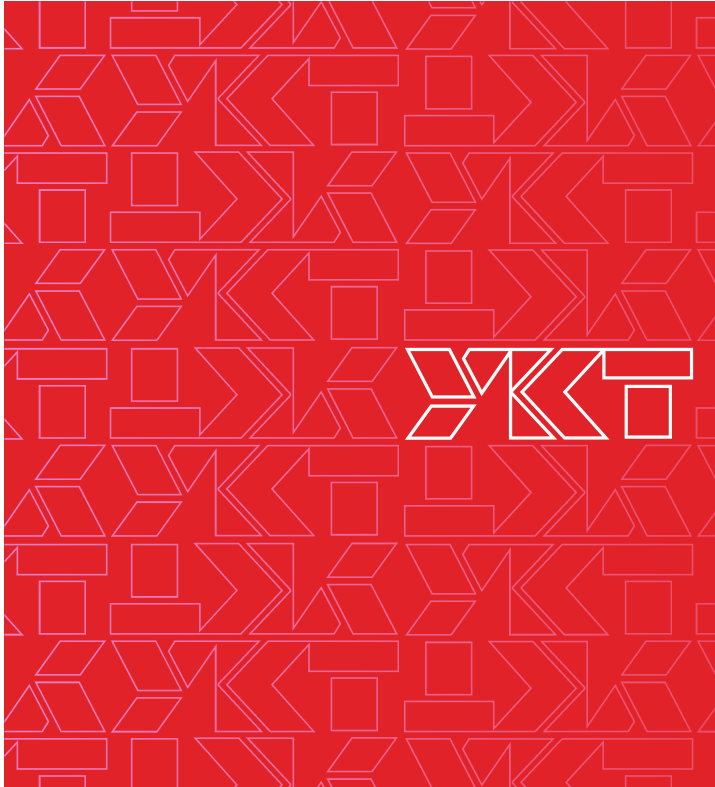
As a pre-shipment option, flexible adaptation to the customer's cassettes is available. By adjusting to cassettes standardized inside the company or cassettes from any equipment, tool changeover time between cassettes can be reduced, thereby improving operational efficiency.



Specification

Tool size	Max. diameter	Diameters 20mm (Manual loading: dia.40mm)
	Max. length	200mm (Manual loading: 420mm)
	Clamping range	dia.3 - 20mm
Blast gun	Nozzle	4 sets
	Traverse	420mm
Work station	Poision no.	24
	Rotational no.	2
Robot	Clamping range	dia.3 - 20mm
	Gripper	For diameters 3–10 mm, For diameters 10–20 mm
Controller		SIEMENS SIMATIC HMI
Cassettes	Max. size	Loading/Unloading: 2 cassettes each: Dimensions per cassette: L 144 × D 199 mm 1 cassette each: Dimensions per cassette: L 327 × D 199 mm
	Max. no.	Loading: 2/unloading: 2, total 4 cassette
Equipment Environment	Temperature	10~40°C
	Humidity	<55%
Dimensions and Utilities:	Size	L 1,800 × D 1,400 × H 2,400mm
	Mass	700kg
	Power Supply	Single-phase 220–240 V, 15 kVA
	Air	0.7 - 0.8 Mpa、 3.8m ³ /min*





Save Labor Together
with



YKT CORPORATION

7-5, Yoyogi 5-chome, Shibuya-ku

151-8567, Tokyo Japan

TEL: +81 3-3467-1270

E-mail: ykt100@ykt.co.jp

<https://youtu.be/zTulwGtgHF8?si=HrM-uLhouZmXNKT2>