TIPTON®

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株式会社チップトン

Newly launched !

Latest polishing machine beyond the limit !

Patent	WO2013125491
	JP5939709
	JP6860924
	JP7442796
	JP2022-145548
	JP2022-144898
Design	JP1589059
	JP1589060

2019	Awarded Minister of Economy, Trade and Industry of National Invention Award
2018	Awarded Japan Chamber of Commerce Chairman's Prize and Machinery Industrial Design Award
2015	Awarded Nagoya City Mayor Prize of Aichi Environmental Award

25/03/500

TIPTON®

Mighty-Mild®

Hi-Gravitational Barrel Finishing Machine

Tipton Corp.

Hi-Gravitational Barrel Finishing Machine

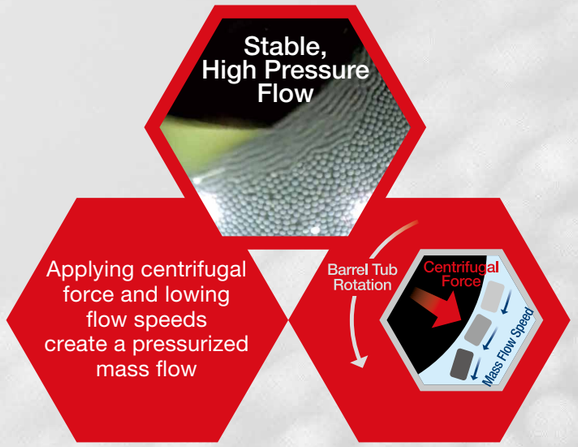
Max. 3 times higher **Max. 70% reduced**

increasing the grinding power but reducing wear of abrasive media.

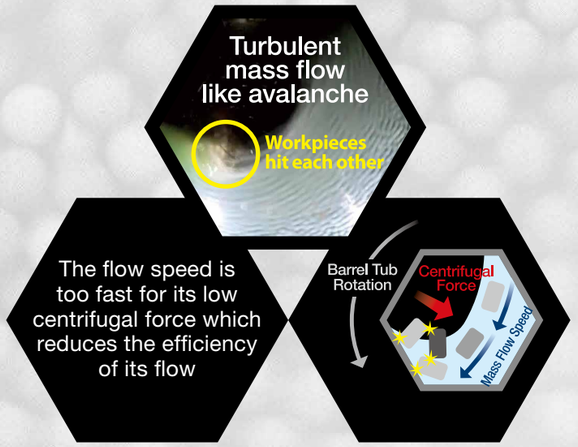
Mighty-Mild®

Its (Patented) Stable Flow Enhances the Performance of Abrasive Media to the Maximum

Mighty-Mild®



Older Tech



Hi-Gravitational Barrel Finishing Machine

Mighty·Mild®

These 3 Points Show the Massive Gap Between it and Older Tech

Running Costs Reduction

Reduction of Media Wear

Stable pressurized mass flow can decrease waste wear of abrasive media as well as consumption of abrasive media by 25% to 70% .

◆ **Comparison on wear amount of abrasive media with that by Centrifugal Barrel Finishing Machine being 100**

Shape		Centrifugal Barrel Finishing Machine	Mighty·Mild
	Triangle 3mm	100	30
	Sphere 3mm	100	46
	Random shape 2.5mm	100	74

Reduction by 25% to 70% as compared to conventional ratio

Cycle Time Reduction

Smooth pressurized mass flow can ensure polishing in a short time without negative effect on workpieces.

◆ **Comparison on duration of time to achieve the same grinding amount as compared with that by centrifugal barrel finishing machine being 100**

Shape		Centrifugal Barrel Finishing Machine	Mighty·Mild
	Bearing shield (SUS304)	100	32
	Lens material (Glass)	100	39
	Carbide chip (Carbide)	100	29

Reduction by 60% to 70% as compared to conventional ratio

Specialties

Automotive/ Transportation Equipment	CVT Elements, Valve sheets, Vane Sealing, Small Gears, etc
Precision/Medical Device Components	Chain, 3D CAM, Bearing, Bush, Lens, Probes, Watch Stems, Implants, etc
Electronics	Ceramic Capacitors, Magnets, Crystal Resonators, Ferrule, Seal Rings, etc
Accessories and Daily Necessities	Jewelry, Accessories, Wind Instrument Components, Fishing Rod Parts, Glass Beads, etc

Note) The above effects may not be always achieved at the same time.

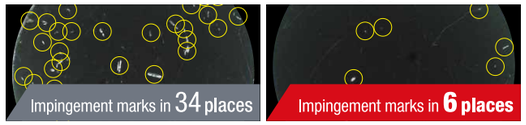
Better Quality

Reduction of Damage

Impingement marks decreased by half as decrease of part-on-part collision times in smooth pressurized mass flow.

◆ **Count the number of impingement marks on brass workpieces after polishing brass workpieces mixed with iron workpieces.**

Centrifugal Barrel Finishing Machine — Mighty·Mild



Smoother Surface

Scratches occurred in the previous process or handling can be removed in a short time and any new scratches will not be generated by decrease of part-on-part collision times in smooth pressurized mass flow. Best suited for hard and fragile workpieces in particular.

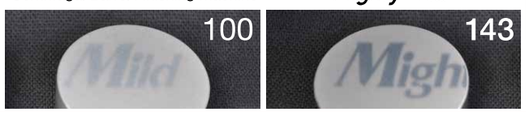
Shape	Centrifugal Barrel Finishing Machine	Mighty·Mild
 Bearing roller	Ra = 0.063 μm	Ra = 0.043 μm

Improvement of Gloss/Shine

Compound performance will be sustained by a stable pressurized mass flow.

◆ **Gloss level after polishing for 60 min. Please compare the clearness of reflection of characters.**

Centrifugal Barrel Finishing Machine — Mighty·Mild

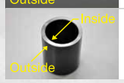


1.2 to 2 times in gloss value

Improvement of Inner Diameter Chamfering and Deburring

Abrasive media hit and grind easily the inner edges in stable pressurized mass flow.

◆ **Comparison of radiusing amount (comparison with amount of outer radiusing being 100)**

Shape		Centrifugal Barrel Finishing Machine	Mighty·Mild
	Work A	Inside／Outside 75／100	Inside／Outside 88／100
	Work B	Inside／Outside 58／100	Inside／Outside 71／100

Labor Saving, Less Human Error

Better Usability

Improvement of visibility of barrel tub mounting/ removal and machine operation

Color contrast for easy recognition to confirm mounting of barrels without fail	Large touch panel hard to make operation mistakes

Reliable Set up, without any tools

Required duration of time for mounting/ removing barrel tub and barrel lid is reduced by 75% compared to conventional ratio.
*Compared to our conventional product

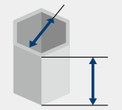
Patented Removable Inner Lining	Reliable fixing without tools
Easy clamping with one hand *Patent applied	Excellent operability with one hand
Easy, Ergonomic Work Flow	Reliable lock with automatic clamp stopper

Specifications

Model	MMC5-4
No. of barrels	4 Barrels
Motor capacity	Turret 7.5 kW
	Barrel 3.7 kW
Machine size	W1565 × D1200 × H1770 mm
Machine weight	Approx. 1400 kg (Weight included control panel)

Barrel tub size table

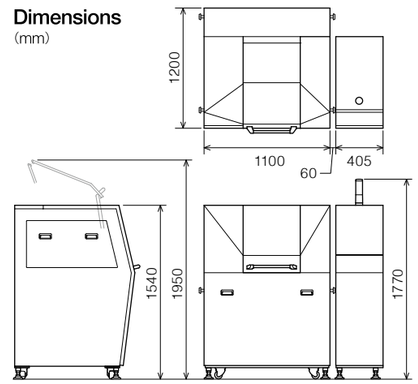
Capacity	Inner diameter	Inner length
4.7 L	170 mm (Hexagon)	200 mm
3.8 L		160 mm
2.9 L		120 mm
2 L		80 mm



- Function of automatic correction of revolution during polishing operation
- Function of multistep speed operation
- Function of fixed-position stop upon barrel mounting / removing work
- Detective sensor for barrel blown-off
- Caster

Dimensions

(mm)



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