

Superfinishing Machine 超精机

Main features 主要特点

本系列超精研机以无心贯穿方式对轴承套圈、圆柱滚子、圆锥滚子、滚针、油针、柱塞、阀芯等外表面进行超精加工。

可在磨削的基础上显著改善表面质量，提高几何精度，具有高效率、高精度、高可靠等特点，广泛应用于轴承、汽车、摩托车、油泵油嘴、液压件等行业，尤其适用于圆柱和圆锥滚子的凸度超精。

通过导辊的特别设计与加工，可获得对数型、圆弧全凸型等多种滚子凸度型式。

This series of superfinishing machine processes the surfaces of the bearing rings, the cylindrical rollers, the tapered rollers, the needle rollers, the oil pins, the pistons, and the valve element in the way of centerless through-grinding.

It can significantly improve the surface quality and geometric accuracy on the basis of grinding. With characteristics of high efficiency, high precision and high reliability, it is widely used in bearings, automobiles, motorcycles, oil pump, hydraulic parts and other industries, especially for the convexity superfinishing of the cylindrical and tapered rollers.

Through the special design and processing of the guide roller, a variety of convexity types such as logarithmic type and arc full convex type can be obtained.

Parameter 参数	3MZ6130	3MZ6205	3MZ6230	3MZ6280	3MZ6310	3MZ6320	3MZ6340
Processing object and scope (mm) 加工对象和范围 (mm)	Φ6-35	Φ2.5-5	Φ6-30	Φ30-80	Φ6-120	Φ100-220	Φ200-400
Roundness improvement rate (%) 圆度改善率 (%)	≥30	≥30	≥30	≥30	≥30	≥30	≥30
Roughness (μm) (before superfinishing 0.2-0.1) 粗糙度 (um) (超精前 0.2-0.1)	0.08-0.04	0.08-0.04	0.08-0.04	0.08-0.04	0.08-0.04	0.08-0.04	0.08-0.04
Convex metric (μm) 凸度量 (um)	≤15	≤0	≤20	≤50	Straight edge line 直母线	Straight edge line 直母线	Straight edge line 直母线
Oscillation frequency (rpm) stepless 震荡频率 (rpm) (无极调速)	≤2000	≤2000	≤2000	≤2000	≤2000	≤2000	≤2000
Oscillation amplitude (mm) stepless 震荡幅度 (mm) (无极调速)	0-4	0-4	0-4	0-4	0-4	0-4	0-4
Guide roller speed (rpm) 导辊转速 (rpm)	≤250	≤250	≤250	≤250	≤250	≤250	≤250
Pneumatic system pressure (Mpa) 气动系统压力 (Mpa)	0.6	0.6	0.6	0.6	0.6	0.6	0.6

Dimension (mm) including the cooling box 外形尺寸 (包括冷却箱) (mm)	1860*1800*1760	1860*1800*1760	1860*1800*1760	2360*2000*1860	1860*1800*1760	1860*1800*1760	2360*2000*1860
Net weight (kg) 净重 (kg)	3200	3200	2600	4000	3200	3200	4000