# **DYYRENT High-Speed Mirror Polishing Machine Product Introduction**

Innovation · Precision · Reliability



High-Speed Mirror Polishing Machine Series Redefining Surface Finishing

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#### 1. Overview

DYYRENT High-Speed Mirror Polishing Machines are advanced precision equipment designed to deliver flawless surface finishes through cutting-edge grinding technology.

Utilizing a unique combination of horizontal rotation and planetary tumbling principles, these machines ensure 360° uniform polishing, eliminating dead spots and achieving a mirror-like shine on various materials.

Ideal for industries demanding superior surface quality—such as hardware, electronics, aerospace, military components, and high-end jewelry—our machines redefine efficiency and performance in mass finishing.



# 2. Key Models & Specifications

Compare our top models below:

Model	HYT-4-48	HYT-192-LGJ	HYT-0-768-LGJ
Control System	PLC, Inverter, Touchscreen (Optional)	PLC, Inverter, Touchscreen (Optional)	PLC, Inverter, Touchscreen (Optional)
Power (KW)	Main: 1.5 + Small: 0.37	Main: 5.5 + Small: 0.75	Main: 37 + Small: 3.7
<b>Grinding Troughs</b>	4-48 grids	4-192 grids	16-768 grids
Max. Bowl Speed	180 r/min	140 r/min	120 r/min
Dimensions (mm)	1350×1080×1380	2700×1450×1800	3320×2700×2400
Weight (Kg)	520	1700	6500
Voltage	AC 380V, 3-Phase 5-Wire	AC 380V, 3-Phase 5-Wire	AC 380V, 3-Phase 5-Wire





#### 3. Core Features

#### 1)Unmatched Polishing Performance

- Achieves mirror-like finishes on stainless steel, copper, aluminum, zinc alloy, and hard plastics.
- Ideal for complex geometries (e.g., aerospace turbine blades, intricate jewelry settings) where traditional methods fail.

#### 2)Intelligent Control & Efficiency

- PLC-based digital control with intuitive touchscreen interface (optional).
- Adjustable speeds:
  - Low-speed rough grinding (30-35Hz) for rapid material removal.
  - High-speed finishing (40-50Hz) for precision polishing without surface damage.
- Reduces processing time by up to 50% compared to conventional machines.

#### 3)Robust & Safe Design

- Heavy-duty steel frame with anti-vibration padding for industrial-grade stability.
- Safety features:
  - Emergency stop button
  - Interlocked protective covers (automatically power off when opened)
  - Sealed, waterproof bearings for 24/7 operation

#### 4) Versatile Applications



## 4. Technical Advantages

- **Dual-Drive System**: Synchronous belt + chain transmission for precise speed synchronization between main bowl and grinding troughs.
- **Modular Grinding Troughs**: Adjustable grid sizes (85×50×200mm to 1320×270×250mm) accommodate parts from tiny electronics to large automotive components.
- Energy-Efficient Motors: Low power consumption (1.5-37KW) with high torque output for cost-effective operation.
- **Easy Maintenance**: Quick-release abrasive chambers and accessible lubrication points reduce downtime.



# **5. Polishing Examples**

Material	Before Polishing	After Polishing
Stainless Steel		
Copper Alloy		
Aluminum Part		

## 6. Safety & Compliance

- Meets ISO 14001 (Environmental) and ISO 45001 (Safety) standards.
- Requires grounded 3-phase power supply (380V, 5-wire).
- Mandatory PPE: Safety goggles, anti-cut gloves, and closed-toe shoes must be worn during operation.



## 7. Why Choose DYYRENT?

- **Quality Assurance**: 100% tested for vibration, noise (<86dB), and performance before shipment.
- **♥ Custom Solutions**: Tailor-made trough configurations for unique part sizes/shapes.
- **⊘ Global Support**: 24/7 technical service + 5-year warranty on core components.







"DYYRENT machines reduced our polishing time by 40% while improving yield by 35%. Highly recommended!"— John Smith, Production Manager, ABC Electronics

### 8. Contact Information

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