

# Automatic Grinding Ball Production Line

The automatic grinding ball production line is engineered for producing cast grinding balls used in mining, cement plants, and power stations. It integrates mold preheating, sand shooting, pouring, and demolding processes for efficient production.



## Overview

### High-Efficiency Automatic Grinding Ball Production Line

This advanced production line is engineered for the high-volume manufacturing of cast steel grinding balls used in mining, cement, and power industries. It features a fully automated technological process from iron mold preheating to sand shooting and final molding, ensuring consistent product quality and minimal manual intervention. With the capability to run four different ball sizes simultaneously, it offers exceptional operational flexibility and industrial-grade reliability.

## Technical Specifications



Robust steel construction ensures durability and stability during high-volume industrial operation.

### Casting Process

Metal Mold Casting

|                          |               |
|--------------------------|---------------|
| Model Number             | ZQJX40-130-F4 |
| Grinding Ball Size Range | 40-130mm      |
| Primary Material         | Steel         |

## Performance Metrics



Advanced control systems allow for precise adjustment of moulding pressure and cycle times.

### Performance Highlights

**3 Persons**

Minimum Operators

**25 sec**

Pouring Line Speed

**4 Types**

Simultaneous Mold Sizes

## Process Workflow



The automated system integrates material feeding, moulding, and cooling stages for maximum efficiency.

### Production Stages

- Preheat iron mould
- Shoot sand to iron mould via core shooting machine
- Check iron mould and adjust sand levels
- Pouring melting water
- Open mold and extract grinding balls
- Clean out residual sand
- Moulding again

## System Components



The line features a hydraulic pressing system and automated roller conveyors for seamless material handling.

### Integrated Machinery

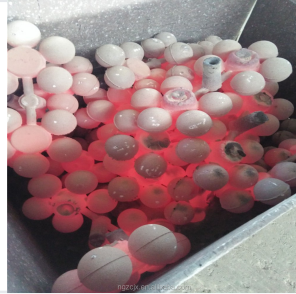
Open Mold Machine, Close Mold Machine, Turnover Machine, Core Shooting Machine, Pusher Mold Machine, Pouring Machine, Roll Gang, Blow Sand Machine

## Applications

Target Industries

Mining, Cement Plants, Power Stations, Chemical Industry

## Operational Advantages



Automated pouring and cooling mechanisms maximize throughput while maintaining strict metallurgical properties.

### System Benefits

- Alternating live and non-live rollers for smooth operation
- Continuous operation capability even if a mould is missing
- Non-interfering moulding and pouring lines for stabilized throughput
- Reduced labor requirements (only 3-4 operators needed)
- High-speed pouring cycle of 25 seconds