



High-Speed Preform-Molding

# ZenQ

## Gene-3

**KRONCE**  
科朗斯

# THE **ULTIMATE** PREFORMING SOLUTION

## ZenQ Gene-3 delivers more than just a machine it is a leading solution:

- **Clamping Force:** 2800 kN, 3600 kN
- **Cavity Configurations:** Available in 48 and 72 cavity series
- **Rapid Cycle Time:** Lock-to-lock time less than 3.5 seconds
- **Efficient Cooling & Removal:** Side removal unit with 3 post-mold cooling stations and quick-change design
- **Energy-Efficient Injection:** Energy-efficient injection unit
- **Advanced Control System:** Latest self-developed control software system with an innovative control concept
- **Smart Operation:** For simpler, faster, and safer start-up and production
- **Tooling Compatibility:** Compatible with legacy tooling generations without mold modification
- **High Injection Speed:** Optimized for rapid material delivery
- **Optimized Melt Processing:** New Kronce high-throughput screw design
- **Reduced Energy Consumption:** Engineered for lower overall power usage
- **Advanced Hot Runner:** Mold hot runner design for excellent flow balance and low pressure drop
- **Component Longevity:** Preform mold component surface treatment technology for superior mold life
- **Low Maintenance:** Extremely low maintenance costs and extended mold service life
- **Stable Operation:** Advanced system design ensuring minimal vibration

Our machine delivers **Higher Quality** along with **Lower Costs** and **Better Energy performance.**



**<0.18**  
Kwh/kg

energy consumption

**100%**  
rPET

pellets capabilities

**5556**  
g

Shot weight max

**8**  
million

cold half cycles guaranteed

**100%**  
compatibility

with legacy tooling

**72**  
cavities

preform mold



## OPTIMIZED FOR HIGH-VELOCITY OUTPUT



Designed for maximum production throughput. The synergy of a responsive control system and robust mechanics ensures higher hourly output, directly enhancing production efficiency.

## SUSTAINABLE ENERGY CONSUMPTION

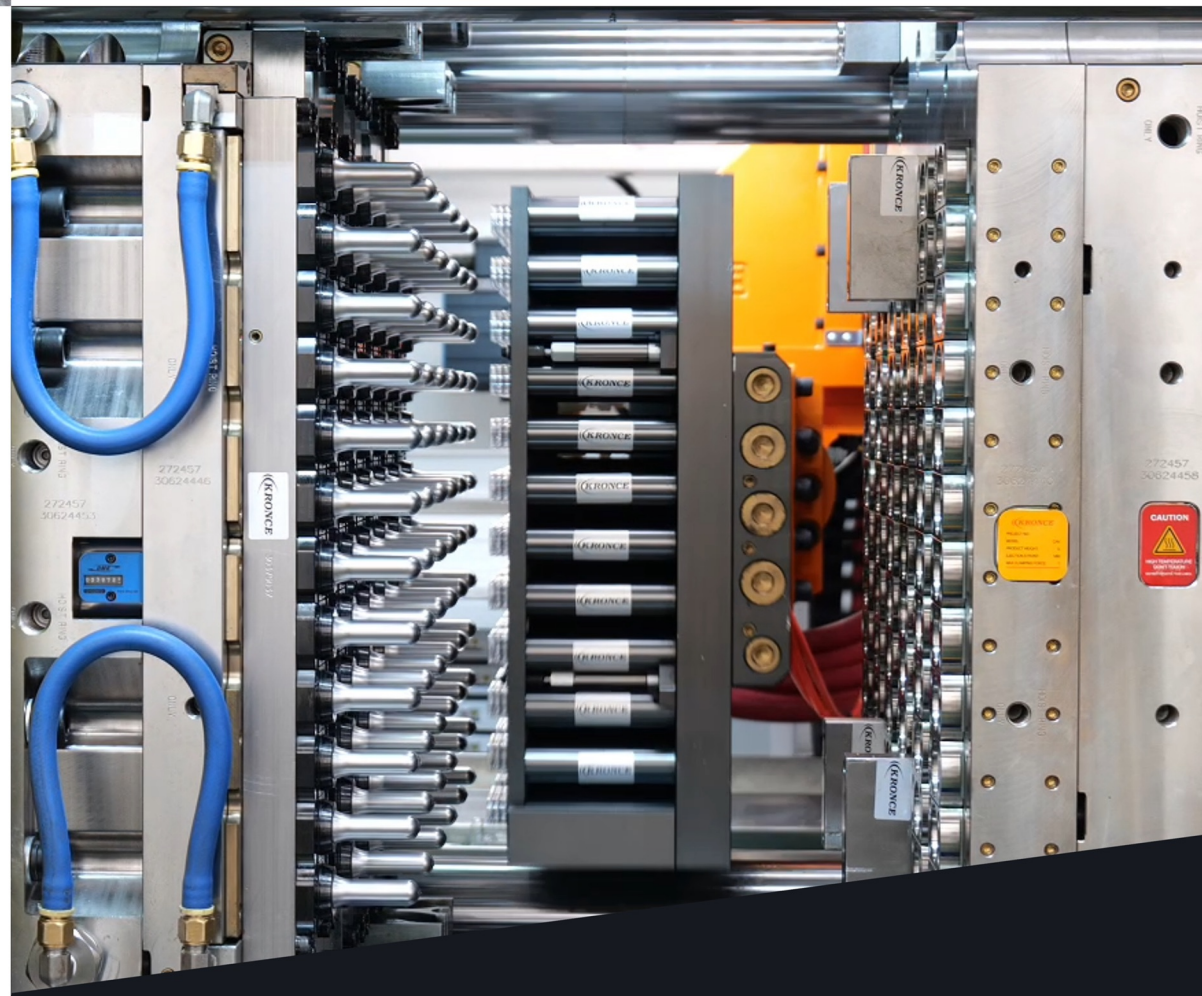


- An efficient design reduces overall power consumption without compromising output.
- Intelligent power management minimizes energy waste, resulting in direct and measurable reductions in operational costs.

## UNWAVERING OPERATIONAL STABILITY



Built upon a heavy-duty, vibration-dampening machine frame for exceptional reliability. This solid foundation guarantees consistent part quality and maximum machine uptime, even during **continuous 24/7** operation.

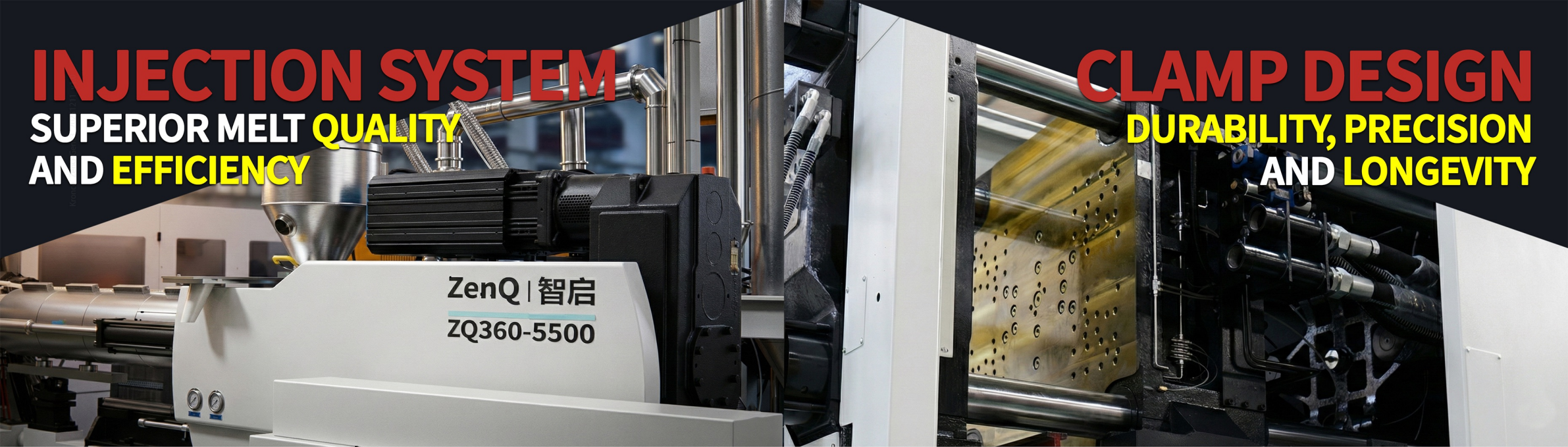


# INJECTION SYSTEM

**SUPERIOR MELT QUALITY  
AND EFFICIENCY**

# CLAMP DESIGN

**DURABILITY, PRECISION  
AND LONGEVITY**



ZenQ | 智启  
ZQ360-5500

## Servo-Driven Precision:

Ensures highly precise and repeatable injection movements.

## High-Throughput Screw Design:

Featuring our new **Kronce high-throughput screw design**, capable of supporting various productivity ranges and high injection speeds.



## Optimized Screw Rotation for Material Integrity:

**Designed for consistent, low-stress material processing, resulting in:**

- Reduced energy consumption through optimized drive control.
- Lower material degradation (e.g., minimized IV drop).
- Reduced acetaldehyde (AA) generation.

## Excellent Processing for Recycled Materials:

Engineered for optimal processing of PCR (Post-Consumer Resin) and other recycled PET applications, contributing to sustainable manufacturing.

## Smooth & Stable Closing Profile:

Provides an exceptionally smooth closing action, leading to:

- Reduced stress on mold components, significantly extending mold life.
- Minimized vibrations, ensuring overall system reliability and stability.

## Active Mold Protection System

Continuously monitors the clamp closing profile at every cycle, safeguarding your valuable tooling.

## Enhanced Cleanliness:

Incorporates optimized lubrication systems for a cleaner operating environment.

## Low Maintenance & Extended Service Life:

- Designed for **extremely low maintenance costs**, eliminating the need for periodic rebuilding associated with high-pressure hydraulic cylinders (for our electric clamping unit, where applicable).
- Features a robust design with **high platen thickness and excellent platen parallelism**, virtually eliminating deflection for superior mold life and long using life **component performance**.

# POST-MOLD COOLING

## MAXIMUM EFFICIENCY AND PRODUCTIVITY



### Independent Transfer System:

The preform transfer system operates independently from clamp movement, allowing for **maximum flexibility** and optimized cooling cycles.

### Accelerated Cooling for Faster Cycles:

Features a **side removal unit with 3 post-mold cooling stations**, significantly reducing cycle time and boosting productivity. repeatable injection movements.

### Enhanced Accessibility:

Provides **excellent accessibility** for faster and more efficient mold changeovers, contributing to higher uptime.

### Scalable Cooling Stages:

Designed with vertical movement capability to accommodate additional cooling stages for diverse preform requirements.

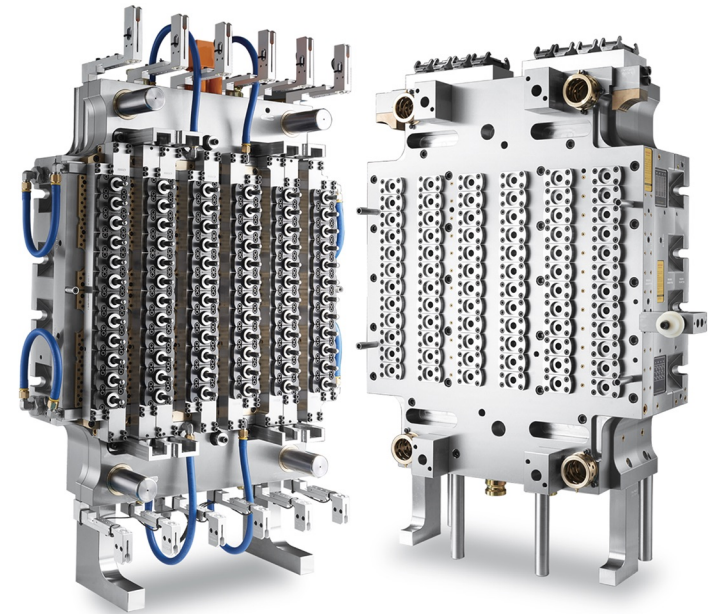
### Stable Operation:

Advanced system design ensures minimal vibration during preform extraction and cooling.

# INJECTION MOLD

## (Integration & Machine Support)

The Kronce machine is designed to maximize the performance and longevity of your injection molds, supporting advanced mold technologies.



- **Extended Component Life:** Compatible with mold solutions featuring proprietary **technology**, extending component and overall mold life.
- **Reduced Mold Maintenance:** Contributes to **extremely low maintenance costs** for your molds.
- **Optimized Cooling Support:** Machine design supports optimized mold cooling layouts for **fast cycle times** and **energy cost savings**.
- **Advanced Hot Runner Integration:** Seamlessly integrates with our **hot runner design**, ensuring excellent flow balance, low pressure drop, and minimal AA levels for superior preform.
- **Superior Preform Quality:** Ensures highest preform quality through precise process control and machine-mold synergy.



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