



CERAMIC THREE ROLL MILLS

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Precision mixing, dispersion, and particle size reduction are critical in pharmaceutical formulations—especially for ointments, pastes, gels, and suspensions. Three-roll mills are essential equipment in these processes, and for pharmaceutical-grade mixing, nothing outperforms the reliability and cleanliness of ceramic three-roll mill rollers.

CeramForge offers ceramic rollers for three-roll mills specifically engineered for the pharmaceutical and cosmetic industries. Designed to meet stringent GMP standards, these rollers ensure smooth processing, chemical inertness, and long service life.

MATERIAL DIVERSITY

Zirconia (Y-TZP / MgO-PSZ) | Alumina (Al_2O_3)

These ceramics are manufactured through isostatic pressing and precision grinding, followed by polishing to mirror finish for low-shear, high-precision rolling surfaces.

INDUSTRIES SERVED

- Pharmaceuticals and Life Sciences
- Cosmetics and Personal Care
- Medical Device Manufacturing
- Specialty Chemicals

APPLICATION

- Mixing active pharmaceutical ingredients (APIs)
- Dispersion of nano-particles in gels or pastes
- Final milling of suspensions, creams, and emulsions

KEY ADVANTAGES

- Non-Contaminating Surface: Ensures product purity in pharmaceutical-grade formulations.
- Superior Wear Resistance: Extended operational life with minimal surface degradation.
- Easy Cleaning and Sterilization: Smooth, non-porous surface resists residue buildup.
- Chemical Inertness: No reaction with active pharmaceutical ingredients or solvents.
- High Load Capacity: Maintains consistency even with highly viscous formulations.

CONCLUSION

In pharmaceutical manufacturing, cleanliness and precision are non-negotiable. CeramForge ceramic three-roll mill rollers offer a high-purity, wear-resistant, and reliable solution for achieving consistent dispersions without contamination. Designed for longevity and GMP compliance, our ceramic rollers set the benchmark for pharmaceutical-grade processing.