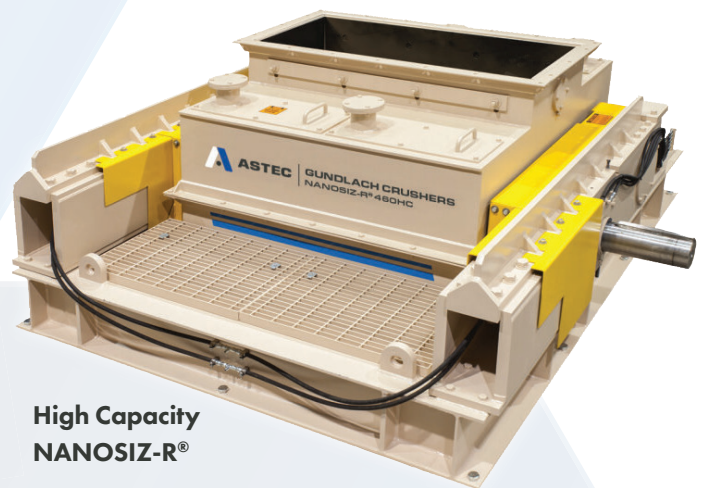


Gundlach Crushers NANOSIZ-R[®]



NANOSIZ-R[®]



**High Capacity
NANOSIZ-R[®]**

For high capacity, fine-grinding of limestone, fertilizers including nitrate, phosphate, potash, and other friable materials.

Precision Grinding. Powerful Performance. Compact Design.

Whatever your fine-grinding application, the NANOSIZ-R® and NANOSIZ-R® HC single-stage roll mills deliver unmatched crushing performance that provides a real edge in day-to-day operations. It's compact, it's affordable and they provide precise reduction of friable materials to finely controlled product sizes.

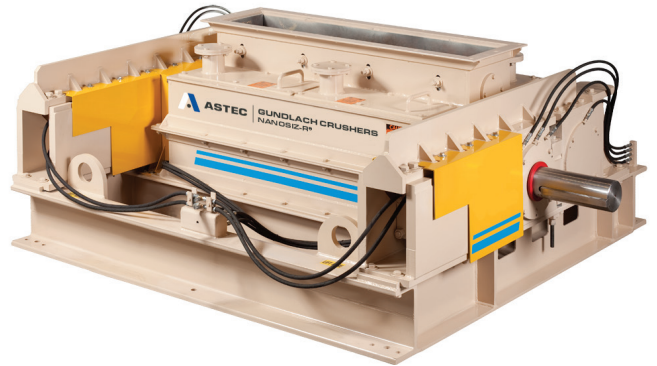
Fine-Grinding, Perfected:

- NANOSIZ-R® makes 1 to 2 mm (.04" to .08") product.
- NANOSIZ-R® HC makes 2 to 4 mm (.08" to .16") product.

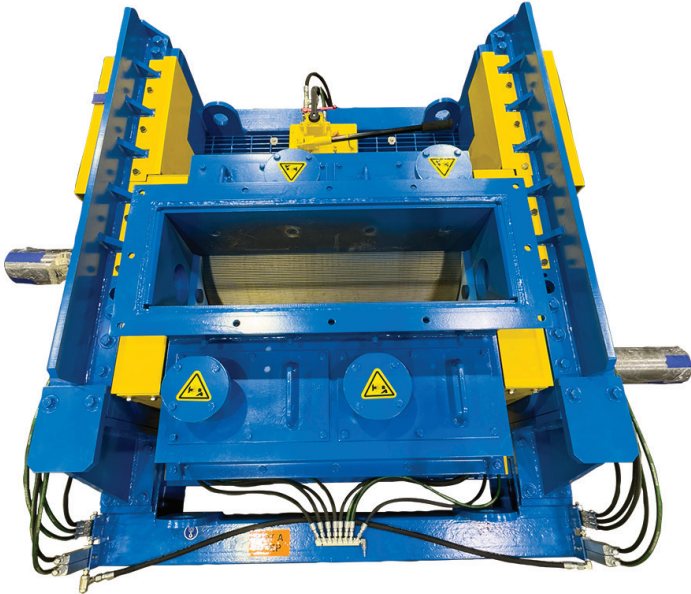
Dual-Action Crushing:

Bimodal (shear + compression) mechanism ensures superior reduction efficiency and uniform particle sizing.

- NANOSIZ-R® materials from 19 mm (.75") feeds to 1600-micron (.06") product.
- NANOSIZ-R® HC materials from 19 mm (.75") feeds to 3200-micron (.125") product.



NANOSIZ-R®



Fine Grinding at Full Scale:

High tonnage crushing capability—

- NANOSIZ-R® up to 36.3 metric tons (40 metric tons) per hour.
- NANOSIZ-R® HC up to 120 metric tons (132 short tons) per hour for material with a bulk density of 1,121 kg/m³ (70 lbs/ft³).

Sets a **new benchmark** for efficiency—lower capital costs, lower energy demand, superior performance.

Small footprint—occupies significantly less floor space than comparable equipment, maximizing layout flexibility.

Modular design—multiple units can be used in series to achieve greater reduction ratios.

Rugged, Long-Lasting Roll Designs for Every Application:

Choose from a range of precision-engineered roll configurations—each built tough to deliver unmatched performance for your specific crushing requirements.

Application Versatility:

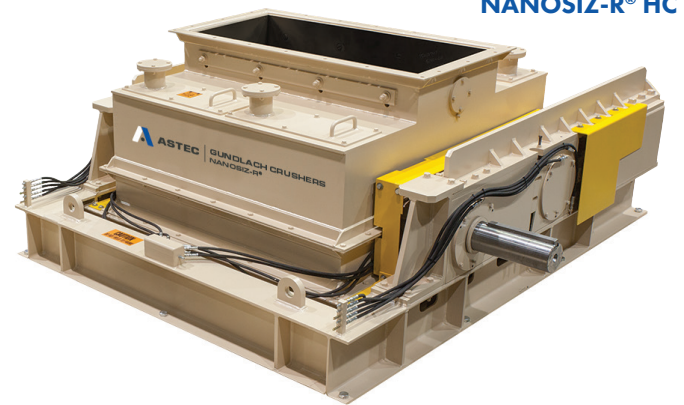
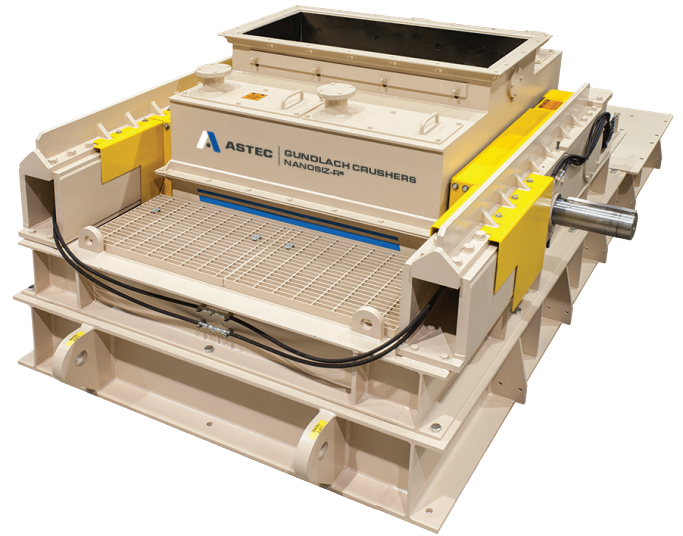
Built on Gundlach Crusher's proven roll mill technology, the NANOSIZ-R® and NANOSIZ-R® HC deliver unmatched reliability and precision in fine-grinding applications across the coal industry and fertilizer production.

In power plants, these systems produce the fine limestone essential for reducing sulfur emissions. In fertilizer production, they provide superior control of finished product size—whether processing nitrate, phosphate, or potash, and handling flake, agglomerated, hot, or dry materials. Whatever the challenge, there's a NANOSIZ-R engineered to deliver consistent, high-efficiency performance every time.

Why Gundlach?

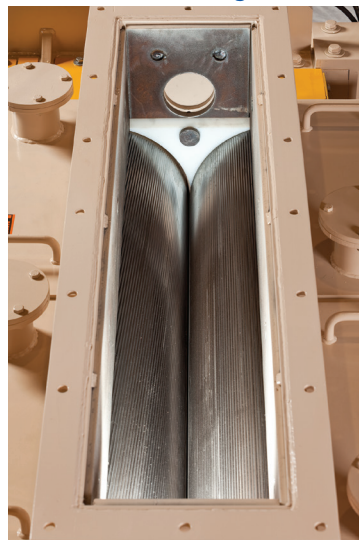
Because reliability matters. With 98% uptime in real-world operation, our crushers set the benchmark for performance and durability. That level of dependability is no accident—it's the result of superior engineering and rugged design in our NANOSIZ-R® and NANOSIZ-R® HC systems, built for high efficiency and long service life with features such as:

- Rolls constructed of alloyed iron for high surface hardness (813 mm / 32" for NANOSIZ-R® HC rolls).
- Heavy-duty steel construction in frame and housing.
- Close-clearance double-row spherical roller bearings with cartridge seals.
- Engineered for performance under pressure—literally. A precision-sealed housing with advanced airflow management and a unique shaft, seal, and port design ensures flawless operation even in negative-pressure systems.
- Roll gap precisely controlled by an integrated hydraulic-mechanical system, delivering adjustment accuracy down to thousandths of an inch.
- Precision-fit adjustable side/end liners deliver tight, uniform alignment with roll elements.
- Flanged input and discharge connections

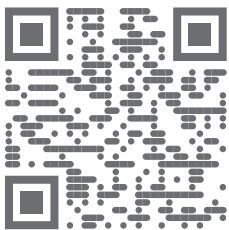


NANOSIZ-R® HC

Inlet View of Corrugated Rolls



Close-Up of Corrugated Rolls



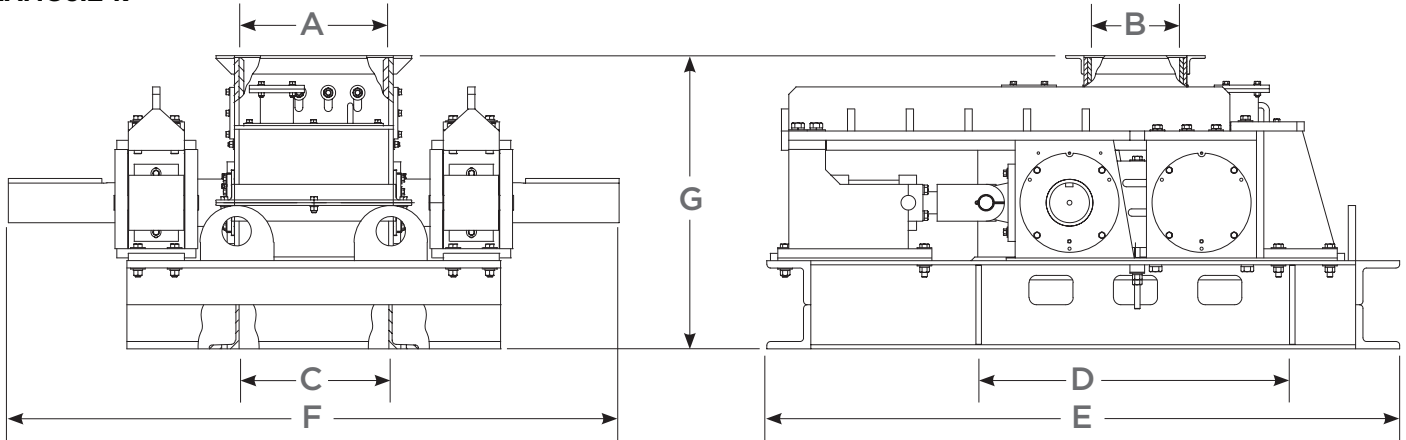
WATCH ON  YouTube

Check out the cool animation showing how our Gundlach roll crushers are expanding the possibilities of what roll crushers can do.

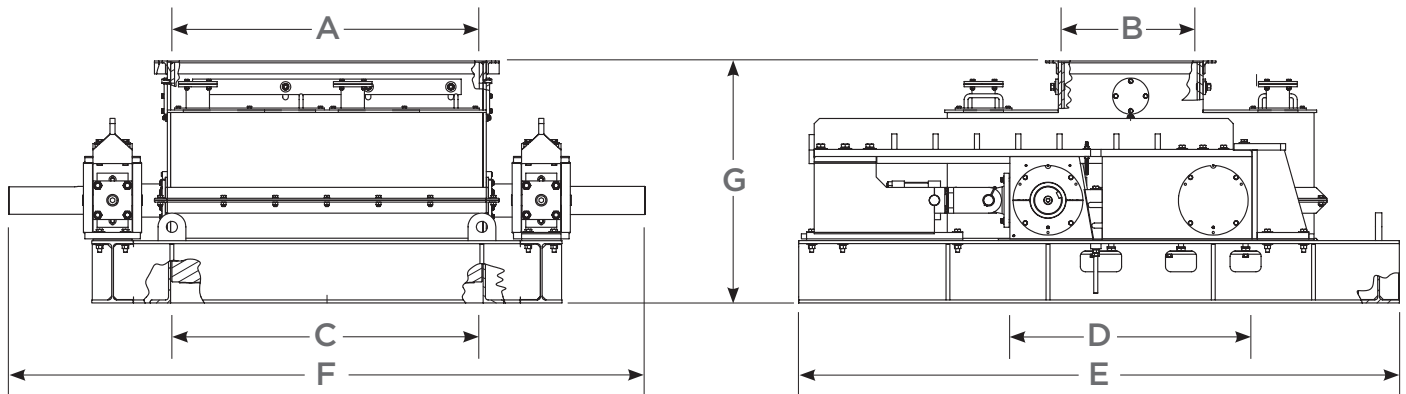


Dimensions and Weights

NANOSIZ-R



NANOSIZ-R HC



NANOSIZ-R®/HC Approximate Layout Dimensions* and Shipping Weights in Inches (mm)

MODEL	INLET OPENING		DISCHARGE OPENING		LENGTH	WIDTH	HEIGHT	WEIGHT
	A	B	C	D				
440S	39" (991)	12" (305)	40 1/2" (1029)	42" (1067)	86 1/4" (2191)	103 1/4" (2623)	40" (1016)	13,000 (8,897)
460S	59" (1499)	12" (305)	60 1/2" (1537)	42" (1067)	86 1/4" (2191)	123 1/4" (3131)	40" (1016)	15,700 (7,121)
460HC	59" (1499)	25 3/4" (654)	60 1/2" (1537)	70" (1778)	116 1/4" (2953)	123 1/4" (3131)	46 7/8" (1191)	32,610 (14,792)

* Certified drawings will be furnished for installation. Installation supervision is available.

Call +1 855-483-7721 or email customer.service@astecindustries.com to find the sales representative nearest you.



ASTEC®

GUNDLACH CRUSHERS® • gundlachcrushers.com