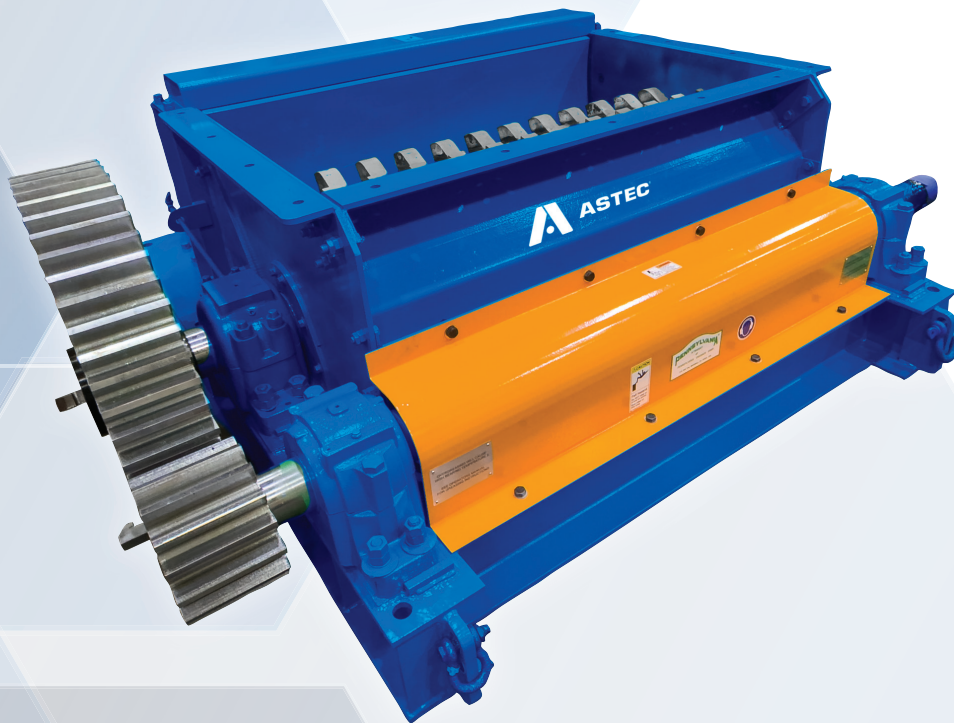




Pennsylvania Crusher[®] Single Roll Crushers



**Built for the Big Stuff—High Reduction Crushing
Without the Need for Perfect Feed!**

Reliable Size Reduction for High-Strength Materials

When processing materials with low to moderate compression strength, precision matters.

Pennsylvania Crusher® Type K Single Roll Crushers deliver efficient reduction in a compact, low-profile design. Their large feed openings accept sizable slabs with ease, while the curvature of the breaker plates ensures every piece is properly engaged—preventing oversized material from passing through uncrushed.

The result: consistent output size, dependable performance, and maximum productivity in tight spaces.



*Pennsylvania Crusher® Single Roll Crushers have a **low profile** (also referred to as low headroom) and are relatively compact, yet have very large mouths, enabling them to accept large slabs. The curvature of their **breaker plates** ensures that no large slabs of material can simply fall through the chamber without being crushed to the proper output size.*

Multiple Crushing Action

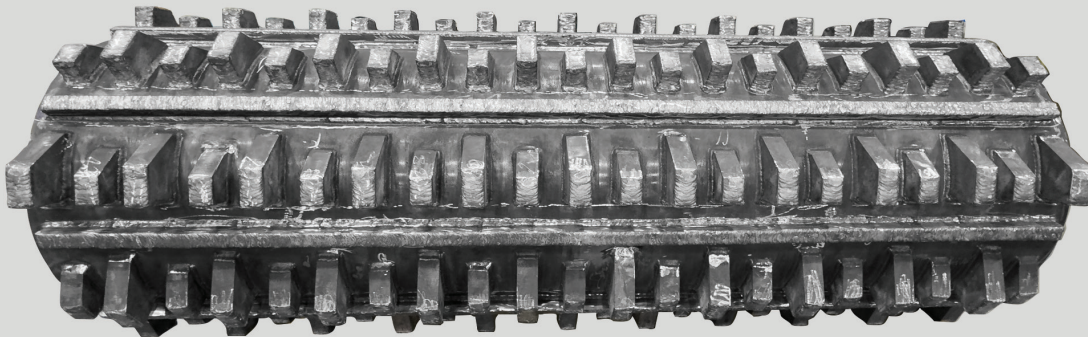
Single roll crushers reduce material using three distinct mechanisms: **impact, shear, and compression.**

Material enters through the hopper and is struck by rotating roll teeth for initial breakage. The roll pulls material into the chamber, where it's pinched and sheared against the breaker plate. Compression completes the sizing.

An open discharge lets properly sized material exit immediately—no screen bars needed. This reduces fines, lowers power use, and avoids re-crushing. Low-speed roll action fractures material naturally for better efficiency.



Spring-loaded toggles secure the breaker in position to maintain proper sizing while simultaneously protecting the crusher from tramp iron and overload conditions.



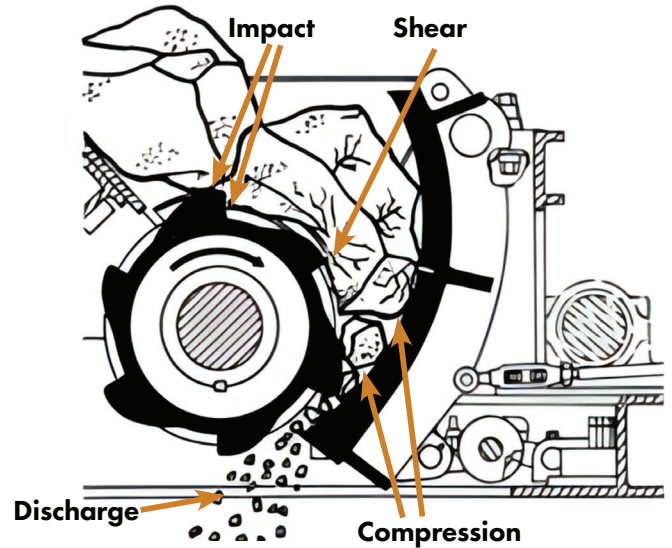
Roll shell configurations can be custom designed to satisfy a vast array of application requirements.

Product Size Control

The product output size is determined by the clearance between the breaker plate's bottom lip and the rotating roll. Adjustment is made from behind the breaker plate using a shim system that alters the gap dimension. All three models are equipped with jacking screws, which simplify and speed up the adjustment process.

Feeding

Once operating speed is reached, all three crushers can be choke-fed directly from hoppers or supplied with a steady, regulated flow via vibratory screens, apron feeders, or conveyor belts. Maximum feed size is matched to the roll diameter (e.g., 24", 30", 36"), ensuring efficient reduction and consistent throughput. Material discharged from the crushers is typically removed by belt conveyors positioned beneath the units.



Built with Heavy-Duty Construction

The Single Roll Crusher also features:

- Heavy-Duty V-belt Drive Systems powered by standard electric motor.
- Precision-Machined Pinion and Main Gear set designed for long service life and reliable operations.
- Drive Sheave that can be installed on either side of crusher to accommodate plant layouts.

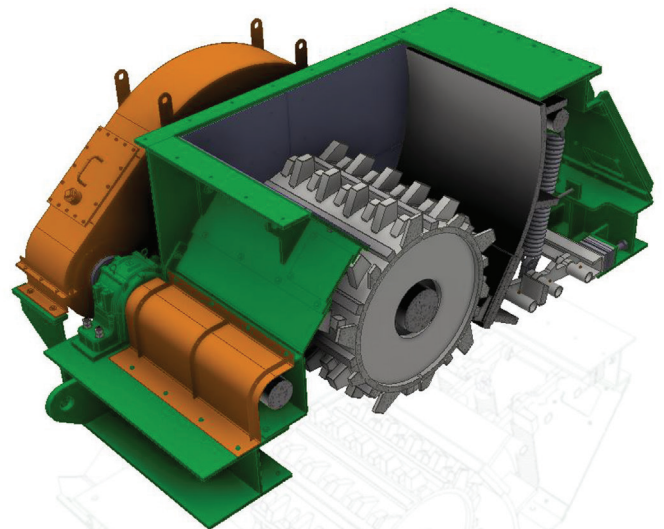
These design components ensure quiet, smooth operation with minimal gear play—enhanced by the flywheel effect of the drive sheave.

Dimensions To Fit Your Operations

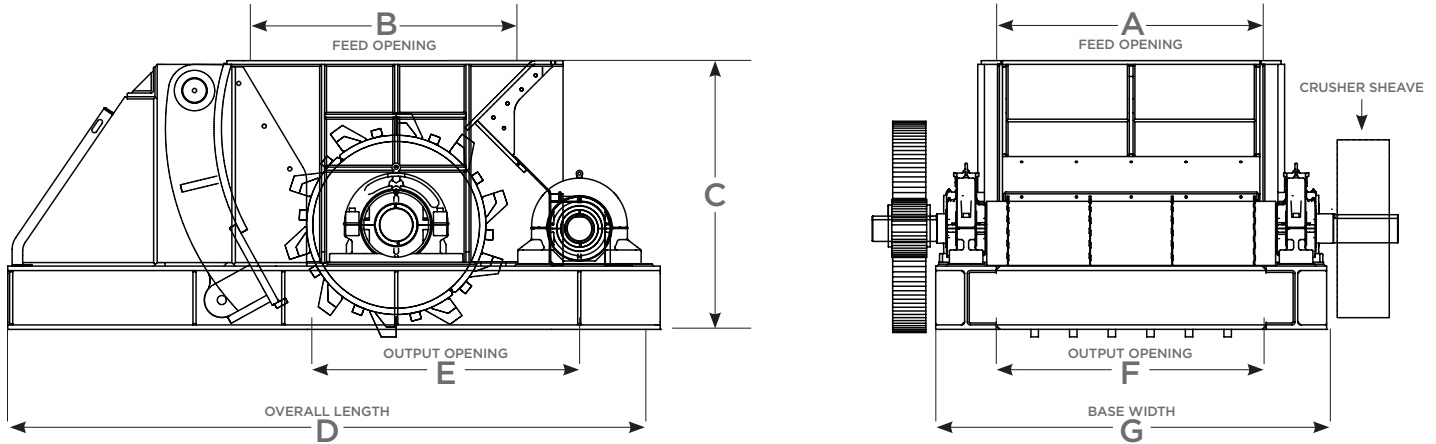
The Pennsylvania Crusher® Single Roll Crusher is available in a range of customizable dimensions to meet specific capacity and sizing needs.

This rugged Type K design is built for materials with compressive strength up to 8,000 p.s.i., including coal, petroleum coke, lignite, and other friable materials. It's also effective as a lump breaker in potash, salt, chemicals, and similar applications.

Pennsylvania Crusher® expands Astec's full crushing portfolio of compression, impact, and sizing technologies—combining granulators, impactors, and Bradford Breakers with jaw and cone crushers for primary and secondary reduction—each engineered for unique processing requirements.



Dimensions and Weights



Single Roll Crushers (SRC) Specifications

Model (Diameter x Length)	A Feed Opening Width	B Feed Opening Depth	C Overall Height	D Overall Length	E Output Opening Depth	F Output Opening Width	G Base Width	LBS (KG)
Type K 24 x 30A (inches) (610 mm x 762 mm)	31.25" (794)	36" (914)	35.38" (899)	88" (2235)	67.50" (1715)	33.25" (845)	49.25" (1251)	10,050 (4,559)
Type K 24 x 40A (inches) (610 mm x 1016 mm)	41.25" (1048)	36" (914)	35.38" (899)	88" (2235)	67.50" (1715)	43.25" (1099)	59.25" (1505)	10,150 (4,604)
Type K 24 x 50A (inches) (610 mm x 1270 mm)	51.25" (1302)	36" (914)	35.38" (899)	88" (2235)	67.50" (1715)	53.25" (1353)	69.25" (1759)	10,500 (4,763)
Type K 24 x 60A (inches) (610 mm x 1524 mm)	61.25" (1556)	36" (914)	35.38" (899)	88" (2235)	67.50" (1715)	63.25" (1607)	79.25" (2013)	12,800 (5,806)
Type K 30 x 72A (inches) (762 mm x 1829 mm)	72.50" (1842)	44.75" (1137)	44.13" (1121)	114" (2896)	86.38" (2194)	76" (1930)	108.75" (2762)	22,500 (10,206)
Type K 30 x 100A (inches) (762 mm x 2540 mm)	100" (2540)	46.50" (1181)	45.43" (1154)	117" (2972)	74" (1880)	104" (2642)	124.75" (3169)	28,800 (13,063)
Type K (ATEX Rated) 36 x 72A (inches) (914 mm x 1829 mm)	73.50" (1867)	60.63" (1540)	56" (1422)	133" (3378)	94" (2388)	74.75" (1899)	100" (2540)	30,000 (13,636)

* When selecting the belt, the size of the belt and its speed must be matched to the capacity of the crusher. In addition, the belt must be sized to handle occasions where an exceptionally large volume of sized input material may simply flow through the crusher at a high rate.

** All dimensions are approximate. 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.



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