

When Accurate Size Reduction of Materials with Moderate to High Compression Strength Matters!



Pennsylvania Crusher Type K 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.

Models To Fit Your Needs

Pennsylvania Crusher brand single roll crushers are available in a variety of models:

- **Type K** – suited for the size reduction of materials having a compressive strength of 8,000 p.s.i. or less. Materials crushed typically include coal, petroleum coke, lignite and other friable substances. This model is also employed as a lump breaker for potash, chemicals, salts and similar minerals.

Please note that the Pennsylvania Crusher brand includes numerous other types of crushers including hammermills, granulators, impactors, Bradford Breakers and even other single roll models.

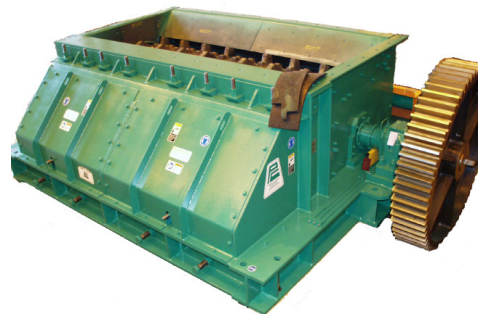
Multiple Crushing Action

These single roll crushers employ 3 distinct methods for reducing material: impact, shear and compression. As material enters the crusher through the feeder hopper, it is struck sharply by the teeth of the revolving roll. Initial breakage occurs from impact. The rotation of the roll guides then guides the material further into the crushing chamber, which is encompassed by the breaker plate and the roll itself.

The roll then pinches the material against the stationary breaker plate, and simultaneously,

the material is crushed by the shearing action of the roll teeth and by compression, providing final sizing.

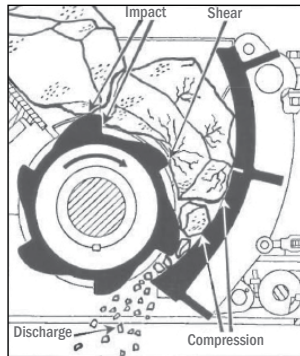
The bottom discharge portion of the crusher is completely open; sized material falls through as quickly as it is crushed. There are no screen bars, and consequently, there is no re-crushing of sized material. That minimizes the production of fines and is the major reason why the power demand of our single roll crushers is so low. Because the toothed rolls revolve at very low speeds, material is fractured along its natural cleavage lines, which further assists in minimizing the generation of fines.



Product Size Control

The clearance between the bottom lip of the breaker plate and the rotating roll determines product output size.

Adjusting the output size is done from behind the breaker plate by means of a shim arrangement that changes the size of the gap. In all three models, jacking screws are provided to make this task easier and faster.

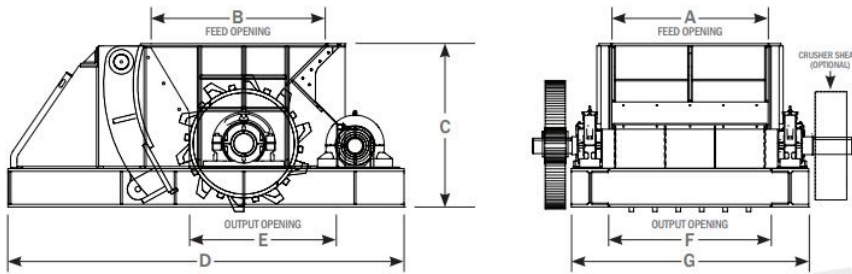


Feeding

Once they reach operating speed, all three crushers may be choke-fed from hoppers or fed at continuous, controlled rates from vibratory screens, apron feeders or belts.

Belt conveyors are normally used for removal of the material beneath the crusher.*

Dimensions and Weights



TYPE K SINGLE ROLL CRUSHERS

APPROXIMATE LAYOUT DIMENSIONS** AND SHIPPING WEIGHTS

DIAMETER X LENGTH	IN. (MM)		APPROXIMATE LAYOUT DIMENSIONS** AND SHIPPING WEIGHTS					LBS (KG)
	A	B	C	D	E	F	G	
24" X 30" (610 x 762)	31-1/4" (794)	36" (914)	35-3/8" (899)	88" (2235)	67-1/2" (1715)	33-1/4" (845)	49-1/4" (1251)	10,050 (4,559)
24" X 40" (610 x 1016)	41-1/4" (1048)	36" (914)	35-3/8" (889)	88" (2235)	67-1/2" (1715)	43-1/4" (1099)	59-1/4" (1505)	10,150 (4,604)
24" X 50" (610 x 1270)	51-1/4" (1302)	36" (914)	35-3/8" (889)	88" (2235)	67-1/2" (1715)	53-1/4" (1353)	69-1/4" (1759)	10,500 (4,763)
24" X 60" (610 x 1524)	61-1/4" (1556)	36" (914)	35-3/8" (889)	88" (2235)	67-1/2" (1715)	63-1/4" (1607)	79-1/4" (2013)	12,800 (5,806)
30" X 50" (762 x 1270)	51-1/4" (1302)	46-1/2" (1181)	43-1/2" (1105)	112" (2845)	86-3/8" (2194)	54" (1372)	74-3/4" (1899)	16,400 (7,439)
30" X 60" (762 x 1524)	61-1/4" (1556)	46-1/2" (1181)	43-1/2" (1105)	112" (2845)	86-3/8" (2194)	64" (1626)	84-3/4" (2153)	17,600 (7,983)
30" X 72" (762 x 1829)	72-1/2" (1842)	44-3/4" (1137)	43-1/2" (1105)	114" (2896)	86-3/8" (2194)	76" (1930)	108-3/4" (2762)	22,500 (10,206)
30" X 100" (762 x 2540)	101-1/4" (2572)	46-1/2" (1181)	44-1/8" (1121)	117" (2972)	74" (1880)	104" (2642)	124-11/16" (3167)	28,800 (13,063)

* 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.

Contact your local sales representative to learn more about the benefits of a long-term partnership with TerraSource Global!



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