

**When Precision, Rugged Design and Dependability Matter!  
Control Over Product Size Matter!**



**Rugged, Reliable Operation**

Bradford Breakers, widely used at mines and coal prep plants, perform simultaneous sizing and cleaning of ROM coal.

Introduced by Pennsylvania Crusher in the early 1900s, their design has undergone important improvements while providing decades of reliable service, making them the most widely accepted breakers in use. In fact, units over 60-years-old are in regular service today.

Maintenance costs are surprisingly low with few servicing requirements, other than periodic lubrication and inspection. Because of their rugged design, downtime is rare, eliminating any need for back-up machines.

**Comprehensive Support Services**

We offer installation supervision and training. Plus, every Bradford Breaker is supported by our highly responsive parts and service team. When ordering parts, the most current design will be provided. We can also tailor a service or resupply program to your exact needs.

**Simultaneous Sizing and Cleaning**

As coal is fed into one end of a large rotating cylinder, powered by an electric motor through a reducer drive and chain, it falls to the low side of the cylinder. Sized coal exits quickly through the sizing holes of the screen plate.

Unsized coal is lifted by a series of shelves affixed to the screen plates. As these shelves are lifted upwards and pass through a given angle near the top of the arc, the coal slides off and impacts against the bottom screen plates.

Repeated lifting and dropping continues until the coal is sized and exits through the screen plate. Since this is gravity impact, breakage occurs along natural cleavage fractures, so there is very little production of fines.

Cleaning occurs simultaneously because any material that resists breakage, such as rock, slate, tramp iron or timber, is retained within the cylinder. Internal deflectors, together with lifting shelves, are angled so as to induce such material to flow to the far end of the cylinder, at which point an integral plow directs it out of the cylinder onto a refuse belt or pile.

**OUR FLAGSHIP BRANDS**





This Bradford Breaker has performed for over sixty years at this Appalachian coal mine.

**Design Advantages**

In a breaker, cylinder strength is most important. We obtain maximum cylinder strength and rigidity by overlapping the screen plates, by drilling close-tolerance bolt holes with numerically-controlled equipment, and by using high-strength bolts. This provides a significant improvement over older designs made of cast plates which cannot be precisely machined and must be ground by hand.

Additionally, our T-beams provide maximum rigidity while being less prone to build up and corrosion. For maintenance, they afford far easier access to the screen plate bolts than the H-beams used by others.

The drive assembly is uncomplicated and trouble-free, allowing the use of a single, normal starting-

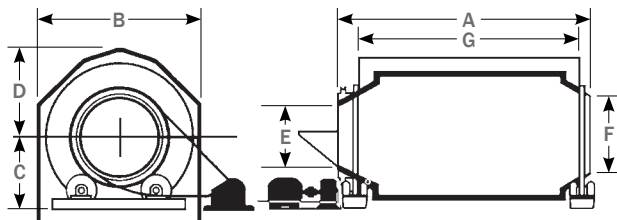
torque motor. Because of the great strength of our cylinder, it is driven from only one end. This eliminates the need for an additional jack shaft to balance torque and to drive both ends of the cylinder.

Most important is the method by which our screen plates are fabricated and mounted. These are lap-mounted and double-bolted, giving them great strength and rigidity. The plates are produced on numerically-controlled equipment with such precision as to be fully interchangeable throughout the cylinder. This also enables them to be retrofitted more easily in the field with no troublesome fit problems.

We offer several shapes of sizing holes including a self-cleaning design that minimizes plugging.

**Dimensions and Weights**

DIAMETER X LENGTH FT. (M)	TYPE RMD* ROLLER-MOUNTED BRADFORD BREAKERS							LBS (KG)
	APPROXIMATE LAYOUT DIMENSIONS** AND SHIPPING WEIGHTS WITH CASING							
	A	B	C	D	E	F	G	
9' X 12' (2.74 x 3.66)	18' 2" (5.54)	13' 1" (3.99)	5' 3" (1.60)	6' 6" (1.98)	4' 0" (1.22)	4' 10" (1.47)	15' 3" (4.65)	50,000 (22,680)
9' X 16' (2.74 x 4.88)	22' 5" (6.83)	13' 1" (3.99)	5' 3" (1.60)	6' 6" (1.98)	4' 0" (1.22)	4' 10" (1.47)	19' 4" (5.89)	59,000 (26,762)
9' X 20' (2.74 x 6.10)	26' 5" (8.08)	13' 1" (3.99)	5' 3" (1.60)	6' 6" (1.98)	4' 0" (1.22)	4' 10" (1.47)	23' 5" (7.14)	69,000 (31,298)
9' X 24' (2.74 x 7.32)	30' 2" (9.19)	13' 1" (3.99)	5' 3" (1.60)	6' 6" (1.98)	4' 0" (1.22)	4' 10" (1.47)	27' 5" (8.36)	78,000 (35,380)
12' X 16' (3.66 x 4.88)	23' 1" (7.04)	15' 5" (4.70)	6' 4" (1.93)	7' 8" (2.34)	5' 4" (1.63)	6' 2" (1.88)	19' 6" (5.94)	86,000 (39,009)
12' X 20' (3.66 x 6.10)	27' 1" (8.26)	15' 5" (4.70)	6' 4" (1.93)	7' 8" (2.34)	5' 4" (1.63)	6' 2" (1.88)	23' 7" (7.19)	98,000 (44,452)
12' X 24' (3.66 x 7.32)	31' 6" (9.60)	15' 5" (4.70)	6' 4" (1.93)	7' 8" (2.34)	5' 4" (1.63)	6' 2" (1.88)	27' 7" (8.41)	111,000 (50,349)
12' X 28' (3.66 x 8.53)	35' 6" (10.82)	15' 5" (4.70)	6' 4" (1.93)	7' 8" (2.34)	5' 4" (1.63)	6' 2" (1.88)	31' 7" (9.63)	122,000 (55,338)
14' X 20' (4.27 x 6.10)	27' 9" (8.46)	17' 9" (5.41)	7' 8" (2.34)	8' 10" (2.69)	7' 11" (2.41)	8' 8" (2.64)	23' 8" (7.21)	141,000 (63,957)
14' X 24' (4.27 x 7.32)	31' 10" (9.70)	17' 9" (5.41)	7' 8" (2.34)	8' 10" (2.69)	7' 11" (2.41)	8' 8" (2.64)	27' 7" (8.41)	163,000 (73,936)
14' X 28' (4.27 x 8.53)	35' 10" (10.92)	17' 9" (5.41)	7' 8" (2.34)	8' 10" (2.69)	7' 11" (2.41)	8' 8" (2.64)	31' 8" (9.65)	182,000 (82,554)
14' X 32' (4.27 x 9.75)	39' 10" (12.14)	17' 9" (5.41)	7' 8" (2.34)	8' 10" (2.69)	7' 11" (2.41)	8' 8" (2.64)	35' 8" (10.87)	198,000 (89,811)



\* Type RMD is a roller-mounted breaker which accepts run-of-mine coal from slope belts – or in the case of strip mines, truck dumper hoppers – via a feed chute protruding directly into the open end of the breaker.

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

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