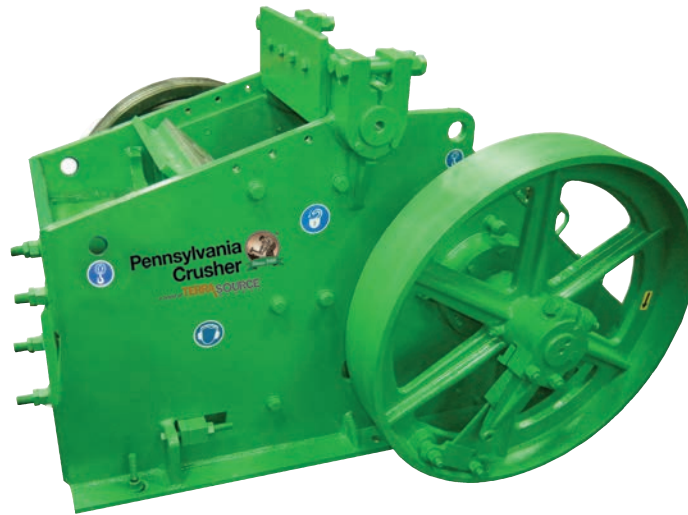
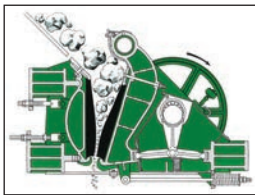


When Efficient Reduction by Compression of Unusually Hard, Tough and/or Abrasive Materials Matters!!



Operation



Many types of crushers use rotating hammers and other crushing elements to reduce materials by impact, shear or attrition. Jaw crushers, however, crush by compression of the material between two opposing surfaces – the jaws. The moving jaw (swing jaw) compresses the material against the stationary jaw.

Jaw crushers are designed to reduce unusually hard, tough and/or abrasive rock and other materials such as ferroalloys and glass – materials which cause excessive wear to other types of crushers.

Pennsylvania Crusher double toggle jaw crushers are superior to both the standard Blake and the single toggle jaw types because they crush strictly by compression without the inefficient rubbing action present in other jaw crushers.

With our double toggle jaw crushers, the moving jaw pivots about a hinge that is located precisely on the centerline of the crushing chamber. From

the center of the hinge pin to the top of the jaw plate, the distance is roughly one-third of the total length of the swing jaw. This arrangement provides a strong crushing stroke at the top of the jaw plates with a moderate stroke at the bottom.

The swing jaw meets the material squarely and compresses it directly against the stationary jaw plate. There are neither elliptical nor vertical motions involved, and as a result, abrasion or gouging of the jaw plates is reduced to a minimum, often less than 25% of other jaws.

This more efficient design also results in relatively low fines production, and because there is no lifting of the jaw, it permits virtually *all* of the power to be used for crushing.

Additionally, our double toggle jaw crushers do not require massive and costly foundations as do other jaw crusher designs. That's because our jaws are designed with balanced moving parts – a design advantage that eliminates the need for heavy, oversized flywheels and heavy castings in the frame. The relatively lighter weight of our jaw crushers makes them desirable for portable applications as well.

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Notable Applications

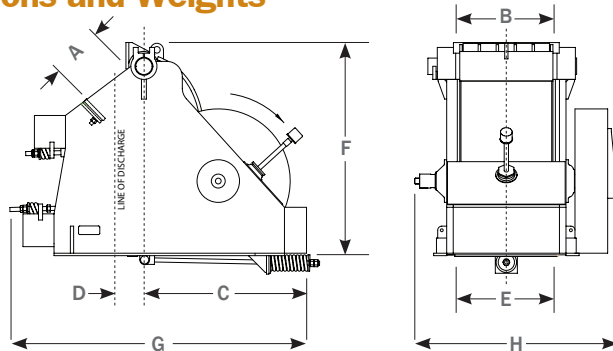
Pennsylvania Crusher double toggle jaw crushers have won worldwide acceptance from the glass industry where they are recognized as the standard due to these important features:

- Positive crushing of virtually all shapes and sizes of cullet to the desired particle size. Our cullet plates are specially designed for cullet crushing and configured to prevent any glass from falling through without being crushed.
- Strictly compression crushing which provides jaw service life several times longer than with other methods.
- Minimal dusting due to the absence of rubbing actions, minimizing the need for protective devices for employees as well as shielding for nearby equipment.

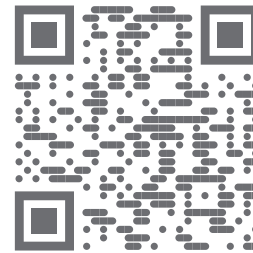
- Enclosed lubrication for complete protection from damage by contamination.
- Tramp protection via a safety release mechanism which protects both the crusher and the motor from damage if uncrushable material should enter the crushing chamber.

Primary metal industries also make extensive use of our crushers for the reduction of ferroalloy additives – materials which have high compressive strengths and are very abrasive. As previously noted, because our double toggle jaw crushers crush strictly by compression, with no rubbing action, the jaw plates are not significantly affected by abrasion and the jaw strength of our crushers is more than adequate to crush even the toughest ferroalloys, including low carbon ferrochromium.

Dimensions and Weights



WATCH ON  YouTube



Check out the cool animation showing how Jaw Crushers reduce unusually hard, tough and/or abrasive rock, ferroalloys, and glass

MODEL NO.	IN (MM) INPUT OPENING		DISCHARGE OPENING		HEIGHT		LENGTH	WIDTH	WEIGHT
	A	B	C	D	E	F	G (MAX.)	H	LBS (KG)
DT 9 X 16	9" (229)	16" (406)	38-1/2" (978)	7-1/2" (191)	17-1/2" (445)	44-3/16" (1123)	80-5/16" (2040)	44-5/8" (1133)	5,600 (2,540)
DT 8 X 24	8" (203)	24" (610)	37-3/8" (949)	10" (254)	24" (610)	51-1/8" (1298)	82-3/8" (2092)	50-5/8" (1286)	7,530 (3,416)
DT 12 X 24	12" (305)	24" (610)	40" (1016)	10" (254)	25-1/2" (648)	49-5/16" (1252)	82-5/8" (2099)	53" (1346)	7,700 (3,493)
DT 9 X 30	9" (229)	30" (762)	49-3/4" (1264)	9" (229)	28" (711)	65" (1651)	94-3/4" (2407)	59-1/2" (1511)	15,250 (6,917)
DT 12 X 30	12" (305)	30" (762)	49-3/4" (1264)	9" (229)	28" (711)	65" (1651)	94-3/4" (2407)	59-1/2" (1511)	15,000 (6,804)
DT 15 X 30	15" (381)	30" (762)	49-3/4" (1264)	9" (229)	28" (711)	65" (1651)	94-3/4" (2407)	62-9/32" (1582)	15,000 (6,804)
DT 16 X 30	16" (406)	30" (762)	49-3/4" (1264)	9" (229)	28" (711)	65" (1651)	94-3/4" (2407)	62-9/32" (1582)	16,100 (7,303)
DT 8 X 36	8" (203)	36" (914)	49" (1245)	12" (305)	38-1/2" (978)	59-1/4" (1505)	98" (2489)	68-5/16" (1735)	17,200 (7,802)
DT 12 X 36	12" (305)	36" (914)	49" (1245)	12" (305)	38-1/2" (978)	59-1/4" (1505)	98" (2489)	68-5/16" (1735)	16,800 (7,620)
DT 20 X 36	20" (508)	36" (914)	51" (1295)	16" (406)	36-1/2" (927)	74-1/2" (1892)	106-5/16" (2700)	68-5/16" (1735)	22,000 (9,979)
DT 24 X 36	24" (610)	36" (914)	51-3/4" (1314)	20" (508)	34-1/2" (876)	88-1/4" (2242)	113-1/2" (2883)	68-5/16" (1735)	27,000 (12,247)
DT 25 X 42	25" (635)	42" (1067)	55" (1397)	21" (533)	42" (1067)	88-3/4" (2254)	121-7/8" (3096)	74-1/2" (1892)	36,100 (16,375)

CRUSHER SIZE	SPEED (RPM)	HP**	HEAVIEST*** PIECE LBS. (KG)
9 X 16	390	20	1,040 (472)
8 X 24	390	25	1,530 (694)
12 X 24	390	30	1,450 (658)
9 X 30	370	30	3,100 (1,406)
12 X 30	370	30	3,100 (1,406)
15 X 30	370	30	3,100 (1,406)
16 X 30	400	150	9,600 (4,355)
8 X 36	370	40	3,670 (1,665)
12 X 36	370	40	3,270 (1,483)
20 X 36	370	50	6,000 (2,722)
24 X 36	370	50	6,600 (2,994)
25 X 42	362	60	7,530 (3,416)

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

** Indicates horsepower size of electric motors for ordinary conditions. Gasoline or diesel engines should be approximately 15 to 25% larger than electric motors.

*** Approximate average weight of heaviest piece for maintenance – includes the Swing, Jaw, Jaw Plate, and Keeper Plate Assembly.

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