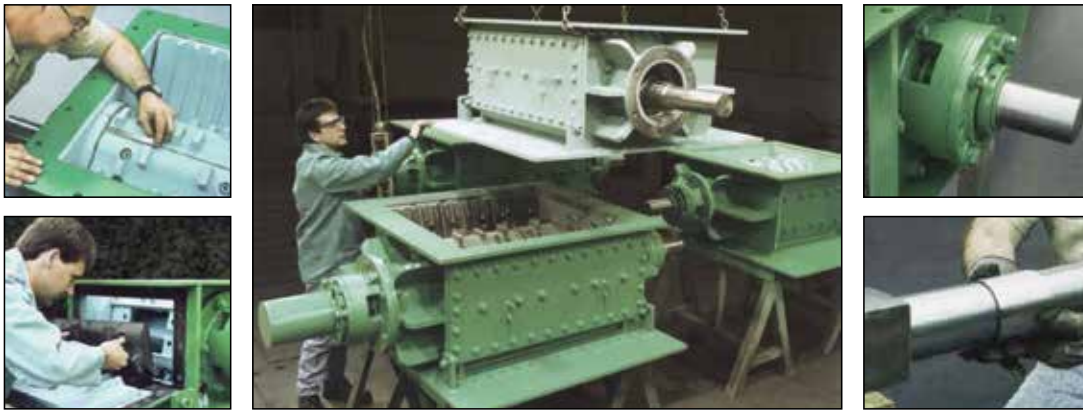


## When Saving Energy, Reducing Wear and Fast, Easy Access in Clinker Crushing Applications Matter!



Upper Left: Improved tooth pattern for stronger crushing action. Lower Left: Hinged door for servicing or removing jams. Upper Right: Patented seal overcomes leaking. Lower Right: Replaceable wear sleeve prolongs shaft life.

### Applications/Advantages:

#### Unique Design

The Pennsylvania Crusher Clinker Crusher reduces bottom ash or clinker produced by the types of boilers most commonly found in utility and industrial power plants. Its unique design represents a major improvement in technology and offers the following unique advantages over ordinary clinker grinders:

- Crushes without grinding – saving money and reducing wear.
- Faster, easier access for servicing – jams can be cleared while the unit remains in place.
- Much greater reliability.
- More powerful crushing action.
- Far less prone to leakage.
- Stronger shaft design.

#### Direct Replacement for Your Current Equipment

Pennsylvania Crusher clinker crushers are available as direct replacements for nearly every make and model of crusher, including single- and double-roll models. They can be interchanged with absolutely no fit-up problems or delays.

In most cases, replacement of your existing equipment merely involves the unbolting and removal of your old unit and then bolting in the new Pennsylvania Crusher Clinker Crusher model.

#### Saves Energy and Reduces Wear

Because our clinker crusher does not grind the ash, it requires less energy, and it reduces the amount of wear on the crushing elements.

#### Protection from Leaks

Our patented method of sealing minimizes the chance of leakage while increasing the crusher's availability.

#### Shorter Downtime

Our hinged access door enables faster, easier inspection and service, plus reduces the amount of manpower required to inspect roll segments and to clear out jams. All of these tasks can be done through the door opening while the crusher remains in its normal operating position – a major savings in time and effort as other makes require the removal of the entire unit for these procedures.

#### More Powerful Crushing Action

We've equipped the roll segments with a special tooth pattern with a greater number of crushing points – up to 18 tooth presentations per revolution! This delivers greater peak-crushing forces and provides the ideal clearance spaces needed to handle even the hardest clinker.

#### Successfully Installed Throughout the World

With their long-established reputation for performance and reliability, our clinker crushers are the preferred choice for installations worldwide.

### OUR FLAGSHIP BRANDS



**Construction**

Our *Series CGU*, the replacement for single-roll crusher models, is manufactured in 27 x 20, 33 x 30, and 54 x 43 sizes.

Our *Series CGA*, designed as the replacement for double-roll crusher models, is offered in 2'-0", 2'-10", and 3'-0" sizes.

Both series will reduce clinker to the required top size, which normally is 1-1/4" to 1-1/2" x 0". With both series you have the option of specifying carbon steel or stainless steel construction.

**Roll Shaft**

The roll shaft has a square cross section. This distributes torque better and enables the shaft to withstand deflection far better than ordinary shafts. It also prevents oval distortion of the packing area, a frequent occurrence with conventional designs.

**Bearings**

The bearings are protected from water seepage, eliminating another shortcoming common to other makes.

By separating the shaft bearings from the packing gland, water now has a harmless pathway out of the unit.

Either grease or pressurized flush water can be used to prevent back-flow through the packing gland.

**Bearing Mounts**

Bearings are flange-mounted within cast bearing housings and are situated as closely as possible to the frame.

This minimizes shaft deflection, which in turn, greatly reduces the chance that this shaft would distort the packing area.

**Roll Shell**

The roll shell, composed of six radial segments instead of the usual four, produces a much lighter segment, making it far easier to handle and install when replacement is required.

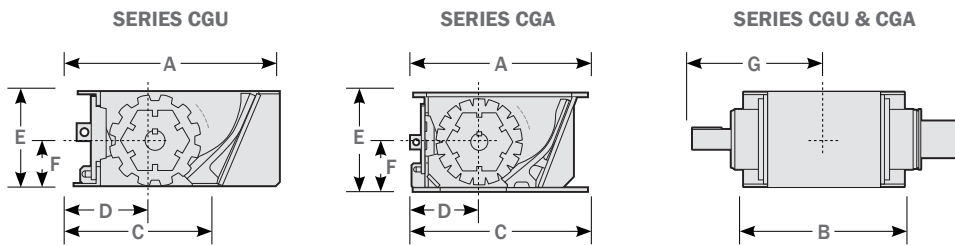
**Roll Segments**

Cast of high-chrome, white iron (650-BHN), the roll segments are fully symmetrical, enabling them to be reversed at their half-life to ensure full use of their wear mass with no unnecessary waste of material.

**Frame-Wear Protection**

The frame is equipped with hard alloy liners, mounted on the stationary end-plates and at each end of the roll. Additional side liners, also cast in high-chrome, white iron (650-BHN), are bolted on for easy replacement.

**Dimensions and Weights**



IN (MM)		APPROXIMATE LAYOUT DIMENSIONS* AND SHIPPING WEIGHTS							
SERIES	SIZE	A	B	C	D	E	F	G	LBS (KG)
CGU	27 X 20	34-3/4" (883)	27-3/4" (705)	25" (635)	14" (356)	16-1/4" (420)	8" (204)	22-7/8" (582)	1,700 (771)
CGU	33 X 30	40" (1016)	37" (940)	29" (737)	15-1/4" (388)	21-1/4" (547)	10-3/4" (274)	29" (737)	3,950 (1,792)
CGU	54 X 43	50-1/2" (1283)	62-1/4" (1581)	34" (864)	18-3/4" (477)	32" (813)	16" (407)	46-1/4" (1175)	7,500 (3,402)
CGA	2'-0"	40" (1016)	34" (864)	40" (1016)	15-1/4" (388)	22-1/2" (572)	11-1/4" (286)	34" (864)	3,400 (1,542)
CGA	2'-10"	40" (1016)	46" (1169)	40" (1016)	15-1/4" (388)	22-1/2" (572)	11-1/4" (286)	42" (1067)	4,700 (2,132)
CGA	3'-0"	40" (1016)	46" (1169)	40" (1016)	15-1/4" (388)	22-1/2" (572)	11-1/4" (286)	40" (1016)	4,600 (2,087)

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

**GENERAL DATA**

SERIES	SIZE	REPLACEMENT FOR	TYPICAL MOTOR	NOMINAL RPM
CGU	27 X 20	SINGLE ROLL	5 HP	18
CGU	33 X 30	SINGLE ROLL	10 HP	16
CGU	54 X 43	SINGLE ROLL	15 HP	16
CGA	2'-0"	DOUBLE ROLL	10 HP	16
CGA	2'-10"	DOUBLE ROLL	15 HP	25
CGA	3'-0"	DOUBLE ROLL	15 HP	25

**OUR FLAGSHIP BRANDS**

