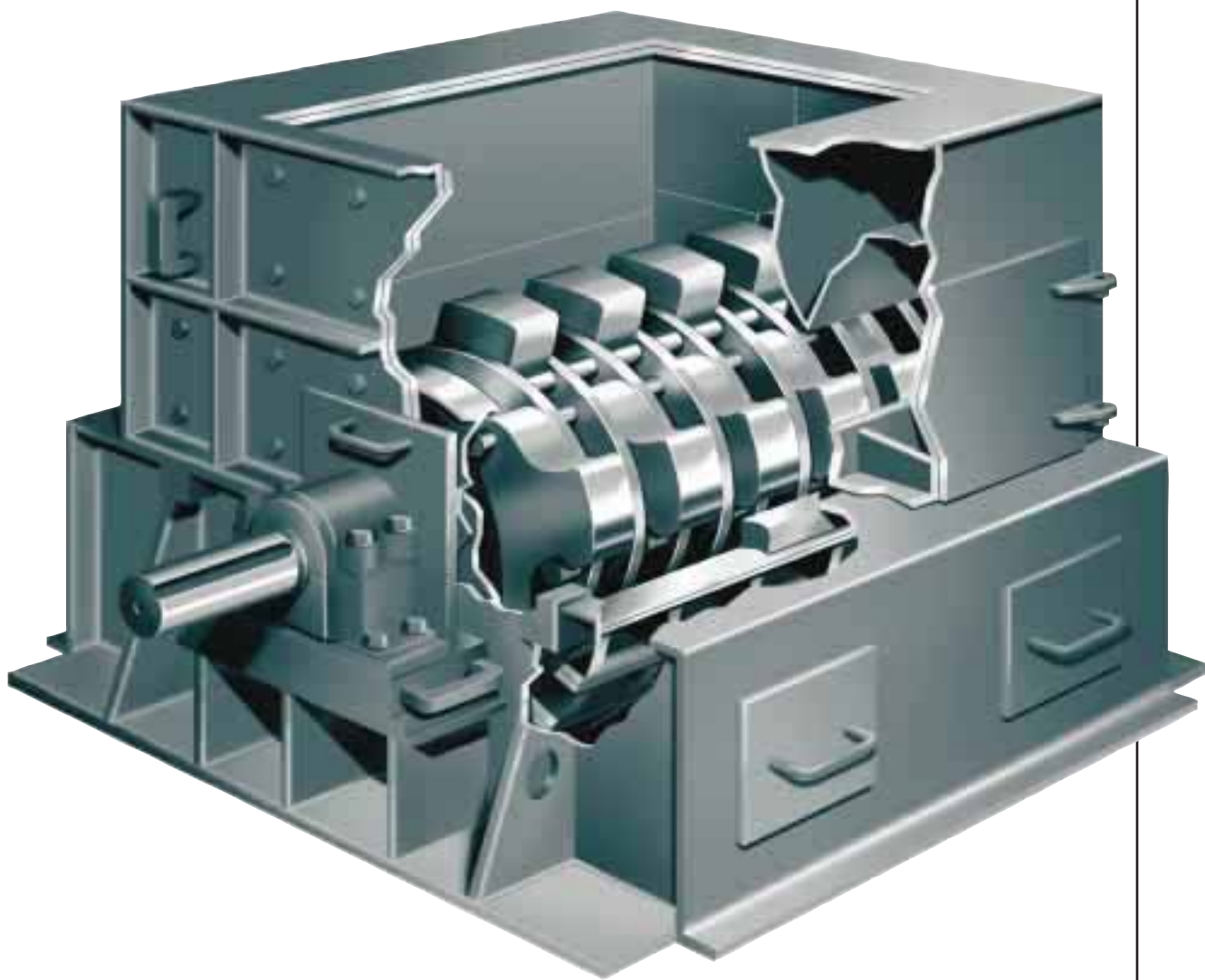




# Flextooth® Crushers



# JEFFREY FLEXTOOTH® CRUSHERS

## For Efficient Reduction of ROM Coal and Other Friable Materials

JEFFREY Flextooth crushers are designed for the reduction of ROM coal, for preparation plant feed, rail shipments, and feed for fine coal grinding equipment. The Flextooth is particularly suited where a maximum reduction ratio with minimum fines is required.

The unique crushing element (hammer) uses a cantilevered moment arm design with the movement controlled by a retainer pin. This hammer design permits the crusher to operate at relatively low speeds which minimizes fines, yet sufficient holdout force is maintained to keep the hammer properly extended. By allowing the hammer to flex back away from the crushing circle (zone), protection against damage from tramp metal and other uncrushables is improved.

Combining the compression crushing concept of roll crushers with the high capacity of impact crushers, the Flextooth gives you the benefits of both.

The Flextooth also is adaptable (with standard internal modifications) for reducing a variety of medium hard friable materials.

The Flextooth features a large feed opening and an extended lower housing. Working together, these features allow the Flextooth to accept large lumps of ROM or frozen coal and, in effect, increase capacity. The need for secondary crushers is often eliminated.

The 40 FT through the 715 FT rotor discs have welded hubs which maximize key contact. Retained with lock nuts, the assembly results in an extremely rigid rotor assembly, reducing the likelihood of damage from uncrushables.

Flextooth hammer and retainer pins are interchangeable. They are made with high grade steel and heat treated for high strength and extended life.

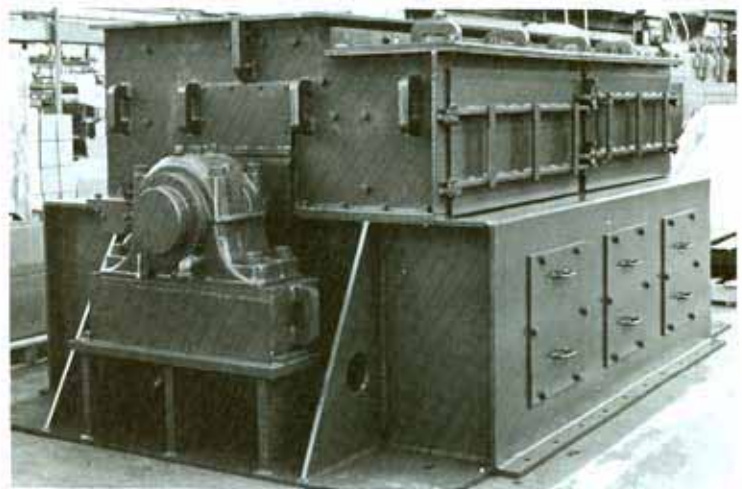
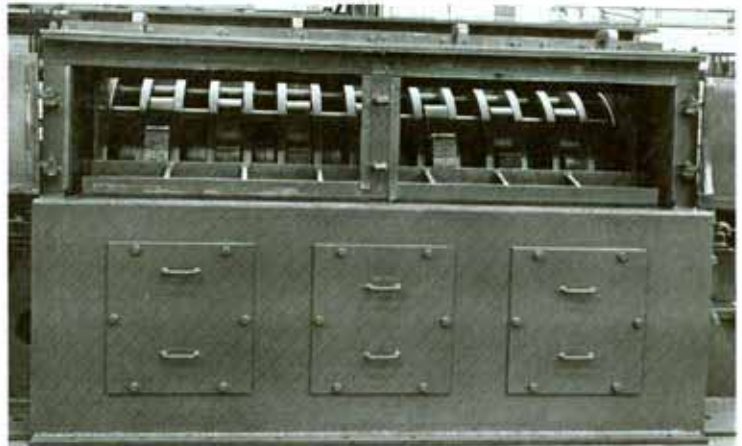
Static and dynamic balancing of all rotors at operating RPM assures precision and repeatability. Rotor mass is concentrated between bearings. The design eliminates external flywheels and prevents damage resulting from uneven loads caused by uncrushables.

Screen bar sections are made of heat treated alloy, wear-resistant steel using welded construction. Wear rate is reduced which helps maintain product size control. Individual screen sections can be replaced, helping reduce maintenance costs.

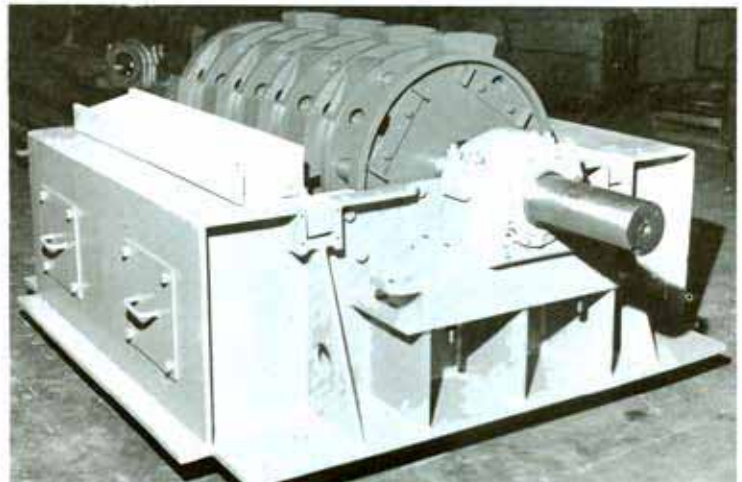
Units can be supplied with either screen bar sections or perforated plates.

### Optional Features:

- Circulating oil lubrication systems
- Bearing temperature monitoring systems
- Structural steel base
- External bypass chutes
- Motors, V-Belt drive and guards
- Start-up service available

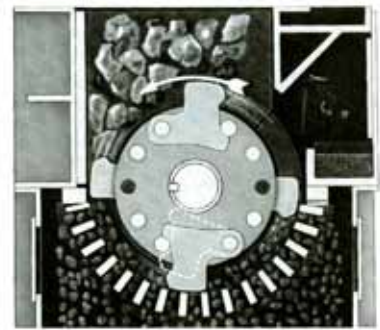
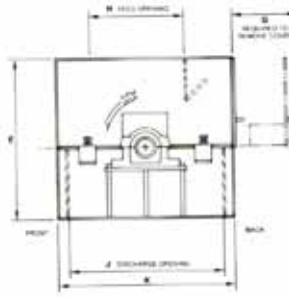
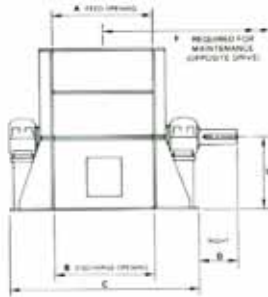


611 Flextooth



Rotor in Lower Housing

# DIMENSIONS and SPECIFICATIONS

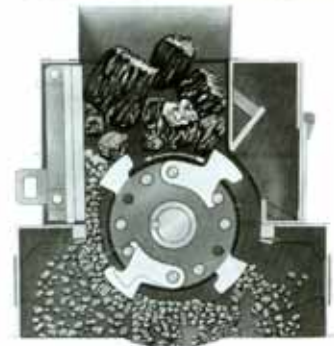
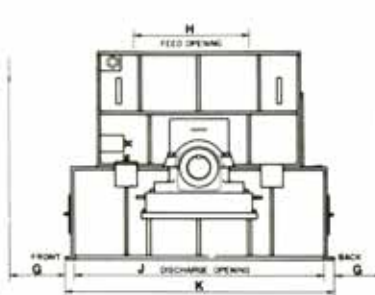
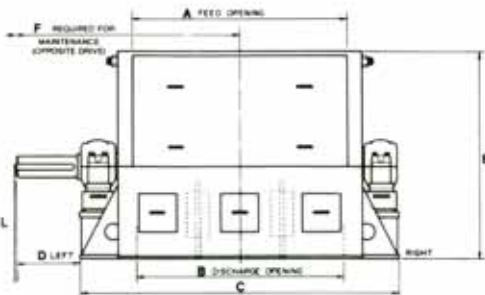


30 FT and 34 FT Flextooth

## DIMENSIONS

Model Number	Shaft		Inches										
	Dia.	K.W.	A	B	C	D	E	F	G (1)	H	J	K	L
30FT	3 <sup>3</sup> / <sub>8</sub>	7/8 x 3/8 x 7 1/4	21	22 1/2	42 1/4	8 7/8	36	43	12	21 1/4	35	40	16
34FT	3 <sup>3</sup> / <sub>8</sub>	7/8 x 1/2 x 8	33 1/2	33	53	11 1/2	37	54	12	21 1/4	46	51	17

NOTE: Dimensions suitable for layout purposes.  
Dimensions subject to change without notice.  
Certified prints supplied on receipt of order.  
(1) Normal maintenance clearance required.



45 FT thru 715 FT Flextooth

## DIMENSIONS

Model Number	Shaft		Inches										
	Dia.	K.W.	A	B	C	D (1)	E	F	G (2)	H	J	K	L
40 FT	3 1/2	7/8 x 7/16	38 3/4	41 3/4	57 3/4	10	46	64	19 1/4	18	53	57	22
45 FT	4 7/16	1 x 1/2 x 11 1/2	41 1/2	43 1/2	64	13 3/4	51	75	18	27 1/2	57	63	21
56 FT	5 3/4	1 1/2 x 3/4 x 15 1/4	53 1/2	56	82 1/4	16 7/8	63	96	24	34 7/8	77	83	28
59 FT	6 3/4	1 1/2 x 3/4 x 18	74 1/2	74	108 1/2	19 1/4	63 1/4	130	34	34 7/8	77	83 1/2	28
611 FT	6 15/16	1 1/2 x 3/4 x 17	89 1/2	88 1/2	138 1/2	18 3/4	65	155	53	36 1/2	88	96	35
715 FT	8 1/4	2 x 3/4 x 24	125	125	178	31	71	194	63	41 1/2	94	104	38

NOTE: Dimensions suitable for layout purposes.  
Dimensions subject to change without notice.  
Certified prints supplied on receipt of order.  
(1) Available RH or LH — double extension optional.  
(2) Normal maintenance clearance required.

## SPECIFICATIONS

Model Number	Capacity TPH (1)	Max. Feed In. (2)	Approx. HP (3)	Rotor WK <sup>2</sup>	Weight Lbs.
30 FT	180	14	40-75	250	3,000
34 FT	290	14	60-125	390	4,600
40 FT	430	16	100-200	875	6,990
45 FT	500	20	100-200	1,800	10,000
56 FT	810	24	150-300	6,000	18,000
59 FT	1065	24	200-400	7,900	31,000
611 FT	1500	28	350-600	27,100	45,000
715 FT	2500	30	500-1000	58,200	74,200

(1) Capacity based on producing 2" minus product of medium hard bituminous coal.  
(2) Based on high percentage in ROM feed. Will accept occasional larger lumps or frozen lumps of crushed coal.  
(3) (4) Horsepower and speed will vary with structure and moisture content of coal and product size consist desired.

# JEFFREY Flextooth® Crushers

<b>FEATURE</b>	<b>FUNCTION</b>	<b>BENEFIT</b>
Flextooth Hammer	Flexes to permit passage of uncrushables Reduces fines because crusher operates at lower speeds	Increased productivity Assured performance
Extended Lower Housing	Increased capacity because material build-up is reduced	Increased productivity
180° Screen Bar Area	Provides more space for final product sizing	Increased capacity
Drilled and Tapped Liners	Reduces possibility of liners falling into crusher and causing serious damage	Less downtime and repair costs
Rigid, Welded Steel Construction	Reduction of possible harmful vibration to surrounding structure and machinery	Lower operating costs
Large Inspection and Maintenance Covers	Easy accessibility	Reduced maintenance time and easier repairs
Metal Trap	Catches and holds tramp iron and other uncrushables	Less maintenance; more production time
Bearing Fill Blocks	Easy bearing removal; rotor removal not required	Reduced maintenance time and costs
Hydraulic Bearing Removal/Replacement	Bearings can be changed without the use of special tools	Reduced downtime
Bypass Chutes	Routes flow around crusher	Reduced downtime
Over 100 Years of Experience	Design, manufacturing and application expertise combine to produce a widely accepted and proven crusher	Reliability and dependability
Start-up Service	Machine checked for proper installation and adjusted to meet specific requirements	Assured performance
Operator Training	Personnel instructed in correct and efficient operating and maintenance techniques	Maximum productivity

