

**Flaking
Mill**

ROSKAMP CHAMPION



The result of customer input, innovative engineering, and continuous product development. Roskamp Flaking Mills feature quality construction and materials throughout. The unique Roskamp square bearing housing design assures accurate, consistent flaking and ease of operation.

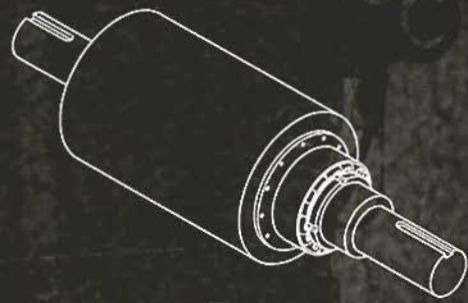
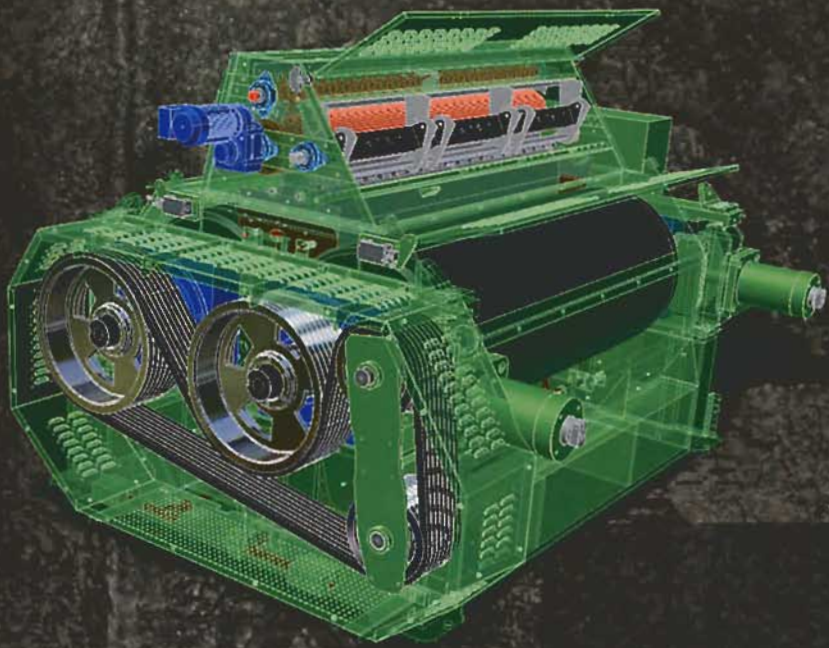
Flaking Mill

Specifications

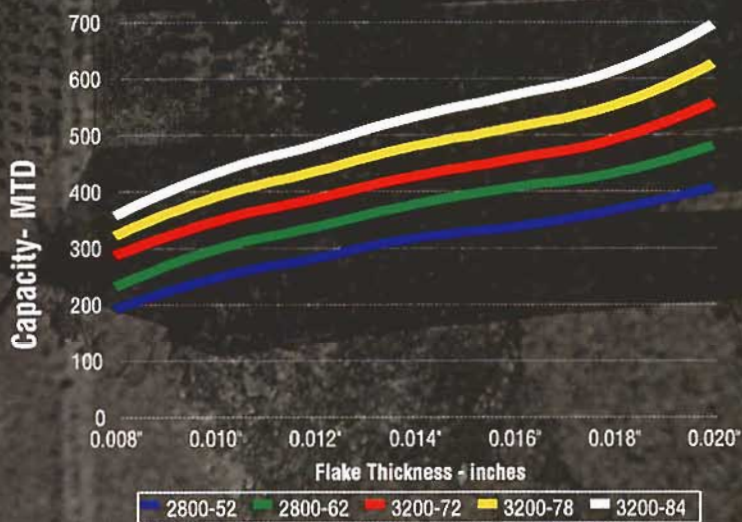
Features

Rolls

Flaking rolls are the heart of a flaking mill. Roskamp flaking mills utilize the finest rolls available in the world. Several roll material types are offered: "Indefinite Chill" ORT rolls with slightly lower hardness (450-510 HV) but vastly increased toughness, virtually eliminating any possibility of roll end spalling are recommended for all flaking applications. Other roll materials available on request. All rolls are cast, machined, and ground to the best technical specifications. All rolls are dynamically balanced at full operating speeds to minimize vibration and prolong bearing life.



Flaking Mill Capacity -MTD



MODEL	HEIGHT <i>Roll/Pin Feeder</i>	LENGTH <i>inches (mm)</i>	DEPTH <i>inches (mm)</i>	WEIGHT <i>lbs. (kg.)</i>	DRIVE MAX <i>HP (kw)</i>
2800-52	73.00" (1854)	107.00" (2718)	128.00" (3251)	34,000 (15,465)	125 (90)
2800-62	73.00" (1854)	118.00" (2997)	128.00" (3251)	39,000 (17,727)	150 (110)
3200-72	77.88" (1978)	125.94" (3199)	140.25" (3562)	40,000 (18,600)	150 (110)
3200-78	77.88" (1978)	131.94" (3351)	140.25" (3562)	42,000 (19,000)	200 (132)
3200-84	77.88" (1978)	137.94" (3504)	140.25" (3562)	44,000 (20,000)	200 (132)

Bearings

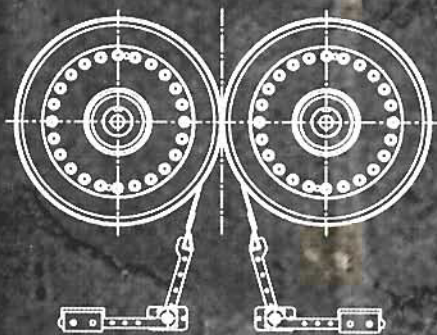
Bearings for all Roskamp Flaking Mills are double row, spherical roller, self aligning bearings and are designed to last the life of the roll. Flaking roll bearings are grease lubricated, and all machines are designed so lubrication can take place with the machine in operation.

Shafts

Roll shafts are high tensile, high yield alloy steel. Roskamp flaking mill designs keep shaft lengths to a minimum reducing overhung loads and keeping bending moments to a minimum.

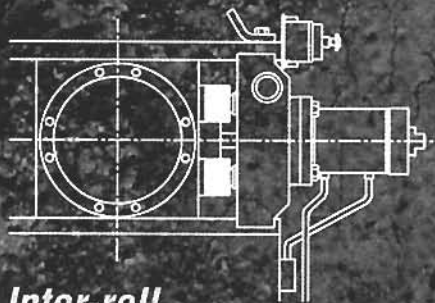
Scrapers

Free-floating scrapers are mounted in a cradle under the rolls. Tracks guide the scraper assembly in and out of the machine for ease of service. Scraper pressure is applied through counterweights and is adjustable for a wide range of situations and applications. Scrapers are fully adjustable to ensure parallel contact with the flaking roll surface. Due to their simple design, the scraper blades are easy to replace.



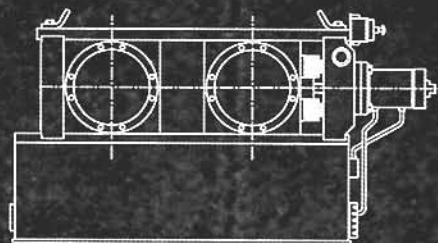
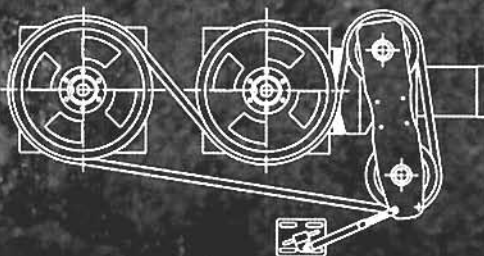
Roll Closure Mechanism

Large diameter hydraulic cylinders apply the flaking force directly through the center line of the rolls and bearings. An 8" (200 mm) diameter cylinder ensures low operating pressure will be required even in the most demanding flaking applications. The double acting hollow bore cylinder can also be used to fully open the rolls if desired to bypass material through the nip of the rolls. An engineered stack of Bellville type disk springs protect the rolls from foreign material, yet are preloaded to maintain the desired flaking pressure in operation. Nitrogen charged hydraulic accumulators dampen any high frequency vibration in the system.



Inter-roll (Differential) Drive

Inter-roll (differential) drive is accomplished through double sided CC section V-belts. Differential ratios of 0%, 4%, 8%, and 12% are available for the 2800 and 3200 machines. Ratios can be changed at any time using standard available hardware. A hydraulic tensioning system maintains proper belt tension at all times.

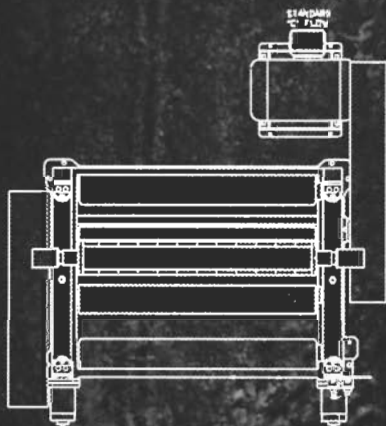


Bearing Housings, Base & Frame

The base frame is fabricated from heavy plate steel, double wall box-type construction for superior strength. Flaking mill frame will not distort under full flaking pressures of up to 150,000 lbs. The base is filled with a high density aggregate to dampen the effects of machine and floor vibration. After welding, the flaking mill base frame is machined to ensure the rolls remain in tram for maximum flake quality and control. Roll separating forces are contained in interlocking front and rear pressure members and top tension members. All interlocking members are machined to maintain precise tolerances. Bearings are mounted in massive cast steel square bearing housings, and rest on machined bearing ways. Replaceable 1/4" cold rolled steel wear plates assure exacting roll positioning will be maintained through years of service.

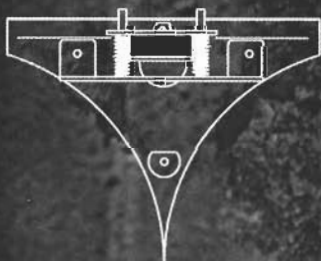
Main Drive & Motor Base

The main drive (motor to rolls) is provided through a synchronous (toothed) belt for maximum efficiency. The main drive can be configured as right hand or left hand drive in either C-flow or optional Z-flow configuration.



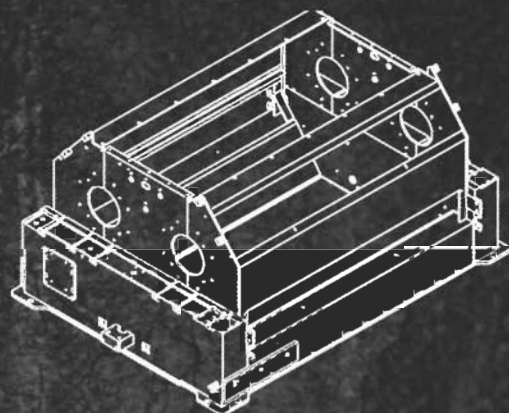
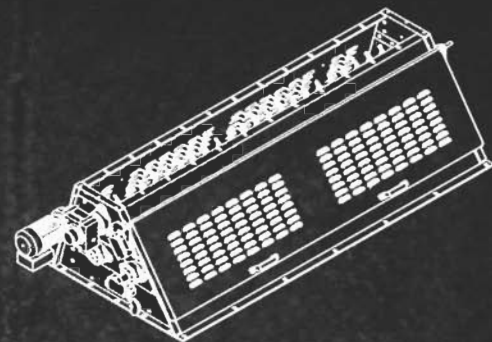
Roll End Sealing Device

Roskamp Flaking mills feature an adjustable "check plate" to prevent material from passing the ends of the rolls unprocessed. A support mechanism allows precise adjustment in three axis and accurately holds the check plate in position.



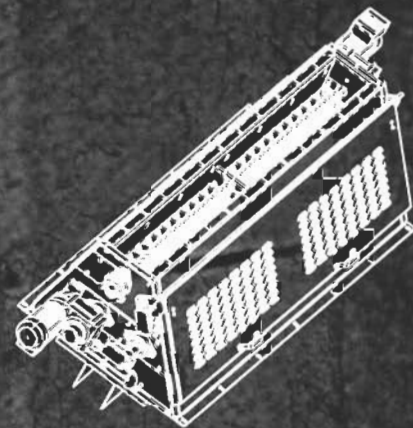
Feeders

The roll feeder is standard for oilseed flaking applications. Feeder roll design includes an aggressive deep corrugation for efficient feeding and long life. An adjustable feed gate regulates the flow of material into the flaking rolls, and ensures even feeding from end to end. The feed gate position is controlled by a manually adjustable stop (standard) or full feature remote position control (optional). The feeder roll is driven by an independent motor and reducer, and all feeder functions are integrated through the optional control console. Applying the roll pressure opens the feed gate and activates a pressure switch, starting the feeder motor. Switching roll pressure off closes the feed gate and stops the feeder roll motor to positively stop the flow of material into the flaking rolls.



Hopper Agitator

A hopper agitator is standard on the 3200 models to break up any agglomerations in the incoming material and to insure uniform distribution of the feed from end to end.



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