



BROWN INTERNATIONAL CORPORATION, LLC

MODEL 4000

PULPER FINISHER DE-WATERER SEPARATOR



APPLICATIONS: The Model 4000 is smaller-scale counterpart with about ½ the capacity of the famous Brown Model 202 and is readily adapted to either pulping or finishing by changing the screen hole size in the range from .375” to .010”. An inlet impeller for breaking or macerating is available as an optional accessory. Such diverse materials as apricots, tomatoes, pumpkin, pears, apples, plums, berries, prunes and figs can be satisfactorily reduced to pulp free of seeds, skins and fiber. Products such as citrus juices, jam, soup, peanut butter, jelly and fruit nectar can be finished to uniform consistency.

OPERATION: Separation of liquids and solids is accomplished in the Brown Model 4000 by means of paddles rotating concentrically within a cylindrical screen. The liquid and desired amounts of solids pass through the screen. The balance of the solids (pomace) is discharged through a large non-plugging port. Dryness of the pomace with a given screen can be controlled by the paddle speed, pitch, clearance, or feed rate. Production through-put is dependent on the type of product being processed, screen hole size and open area, paddle speed and pitch. Input rates of 3000 gph or 50 gpm have been achieved.

CONSTRUCTION: Types 304 and 17-4 stainless steel are used throughout including frame members. As a result, maintenance is reduced and product contamination due to paint specks and rust is eliminated. Other types of stainless for special applications are available at extra cost.

Paddle design. The paddles are fastened to high-strength stainless arms with heat-treated bolts. The paddle assembly is carried on a heat treated stainless steel shaft mounted on a pair of roller bearings. An adjusting screw is provided at each mounting bolt to facilitate accurate fitting of the paddle to the screen. The outside diameter of the paddles has been contour-machined to ensure a uniform fit over the length of the paddle. Interchangeable paddles are offered in four different pitches for proper balance of conveying action and solids dryness.

Screens. Replacement screens are easily installed without removal of the cage. The cage, which provides a sturdy back-up for the screens, is hinged at the top and opens for cleaning by releasing quick acting over center latches. The hinge members are located and doweled to the cage with a built in pre-load which together with the over center latches, provides a tight seal along the cage edges. Screens are made of a special alloy possessing the stain resistance of stainless steel but with greater resistance to fatigue and cracking. Brown Model 202 screens give four or five times the life of stainless steel screens. They come pre-formed with non-perforated flanges and counter-sunk mounting holes.

Screens are available in a wide range of hole sizes from .010” to .375” diameters. Standard thin inner screens are backed up for strength by thick screens with 5/8” diameter or 15/16” square holes. Thicker non-backed up screens are available as heavy duty punched or conically drilled configurations. Slotted screen and combinations of hole patterns or sizes can be supplied on special order.

Drive. A V-belt drive provides shock protection for the machine, as contrasted with direct-coupled gear motor, should tramp material enter the finisher. A wide range of speeds can be achieved by simply changing the belts and pulleys. Standard drives provide final speeds from 200 to 1000 rpm. Standard under machine drives provide for mounting of 5 through 30 hp motors. Optional sub-frame mounted drives provide for 20 to 40 hp motors.

PRINCIPAL ADVANTAGES:

HIGH CAPACITY: The improved design of the inlet and discharge housings, coupled with contour machining of the paddle assembly, gives the Model 4000 high capacity.

QUALITY CONTROL: Your quality control standards can be met with the wide range of screen hole sizes and the paddle variables of pitch, tip clearance and speed. Paddles operate concentrically with the screens, virtually eliminating breakage of seeds and screens, resulting in a cleaner juice.

SMOOTHER OPERATION: The Model 4000 operates smoothly and efficiently with a minimum of attention. Plugging is eliminated because of large discharge port.

VERSATILITY: By changing screens (hole size), paddle speed, pitch, clearance, rpm, and feed rate, it is possible to pulp, finish, or de-water a wide variety of fruits, vegetables, and other products, and to obtain maximum yield consistent with finished product specifications.

EASIER CLEANING: Designed for fast, thorough cleaning. Screen cages are hinged and open without tools. Lifting heavy cages from the machine is eliminated. With cages in the open position, the interior is readily accessible for cleaning. Screens can be cleaned in place, avoiding damage during removal. All stainless steel welded construction eliminates stagnant pockets and open joints. Strong cleaning solutions may be used.

MINIMUM MAINTENANCE: The Model 4000 has been designed to operate continuously with a minimum of down time.

Should a screen become damaged, it can quickly be replaced by unskilled helpers. All the screens are pre-fitted for 100% interchangeability. The special alloy thin inner screens have greater fatigue resistance than stainless steel. This is important on a paddle finisher since areas of the screen flex each time a paddle passes over. Substantial reductions in screen replacement have been reported by customers. The V-belt drive reduces maintenance by providing a safety factor which protects the machine from damage.

SPECIFICATIONS: With standard under machine drive.

Overall length	49"	Height of liquid outlet	
Overall width	20-3/8"	with bevel seat adapter	13-5/8"
Overall height	39-1/2"	with tri-clamp adapter	13"
Height of inlet	35-1/4"	Horse power available	
Size of inlet flange	4" X 8"	Std. under machine drive	5 - 15
Height of pomace discharge		Sub-frame mounted drive	5-15
Right hand	30"	Recommended RPM	200-1000
Bottom	21-1/8"	Weight with 10hp std. drive	approx. 1200 lb.
Height to center of drive shaft	30"	Weight without drive	630 lb.
Capacity - input	up to 50gpm	Volume crated for export	41 cu. ft.



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