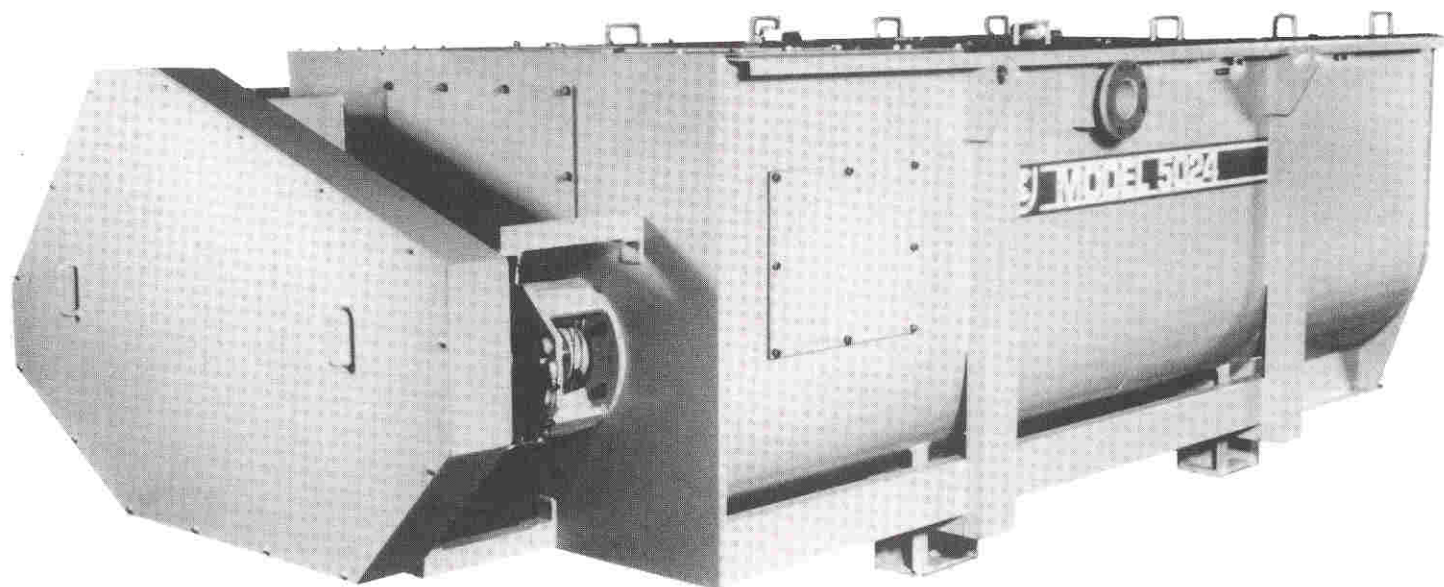


# Product DATA



## Heavy Duty, High Capacity Twin-Paddle Mixer/Unloaders Discharge Conditioned Materials



The Model 4024/19 and Model 5024 mixer/unloaders are utility-sized additions to UCC's unloader line. They treat ash or other dusty, abrasive material with water, and discharge up to 400 tons per hour of moist, conditioned material to trucks or rail cars. The principle of operation is simple and straightforward. An array of abrasion-resistant steel paddles on twin, contra-rotating shafts mixes water with the ash, and moves the conditioned material to the mixer/unloader discharge chute.

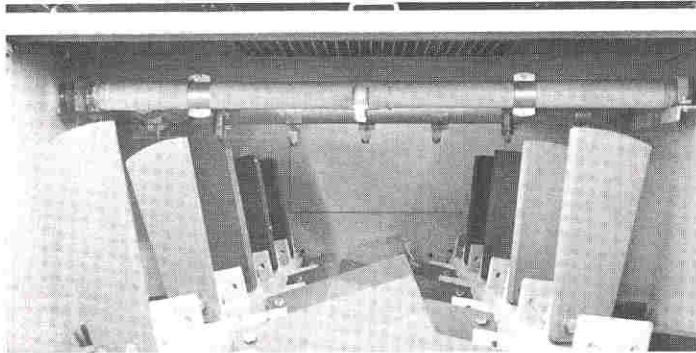
### Efficient, Low Maintenance Drive Train

Using a 40 or 50 horsepower motor, these UCC mixer/unloaders achieve a ton-per-hour and volumetric capacity as high as some competitive models equipped with more expensive 70-plus horsepower motors. With UCC's unit the motor drives two gear reducers through a double-sided timing belt. The belt needs no lubrication and provides uniform power distribution while maintaining a smooth, constant output speed. Start-up shocks and

jams are reduced, and power is distributed evenly between the two paddle shafts, minimizing stress and deflection. Because the shafts rotate slowly, wear on the paddles is minimized.

### Precise, Economical Ash Feed and Water Spray

Eighteen specially configured nozzles located above the mixing paddles spray the ash with a precisely regulated curtain of water. UCC's system begins moistening the incoming ash while it's still airborne, and the wide intersection of the ash and water paths allows for complete and uniform wetting. This ensures properly conditioned ash and prevents air pollution during unloading and transport. Compared with another manufacturer's unit, UCC's mixer/unloader uses 20% less water, making it significantly less expensive to operate.



## Adjustable Volumetric Capacity; Multiple Paddle Positions

The best mix is achieved when ash covers the paddle tips (100% trough loading). UCC models 4024/19 and 5024 have three adjustable paddle arrangements, providing sweep diameters of 37", 33", or 29", and, therefore, three volumetric capacity ranges as shown in the product specifications, below. For Model 4024/19 a choice of either 24 or 19 rpm paddle shaft speeds provides for better correlation of capacity, mixing performance and start-up torque.

## Long-Lasting Packing Requires Minimum Maintenance

Self-adjusting, packing-type shaft seals\* eliminate the need to tighten packing glands manually. Since the packing gland is mounted on a flexible diaphragm, packings stay in perfect contact with the shaft, resulting in a dust-tight seal and longer packing life.

\*U.S. Patent No. 5,014,998

## Corrosion-Resistant Mixing Chamber Ensures Long Wear Life

The completely enclosed, durable mixing chamber is coated to resist corrosive substances. To help keep mixing chamber wear to a minimum, ash moves through the mixer/unloader on the stationary bed of ash that builds up between the paddle tips and the chamber wall.

## Compact Body Design Offers Accessibility, Easy Retrofits

Most competitive mixer/unloaders are one to six feet longer than the Models 4024/19 and 5024, and some are more than a ton heavier. In addition to their lower material costs, UCC's compact models cost less to ship, occupy less floor space and put less stress on the plant floor.

Easy access for inspection and repair is a key feature of these unloaders. Mixing paddles, spray nozzles, shaft seals and other components can be easily inspected, removed and replaced.

If replacing an older unloader, note that the Models 4024/19 and 5024 will fit where 38" rotary unloaders or similar units have previously been installed.

*UCC offers a complete range of ash conditioning and unloading equipment. For additional information on UCC twin paddle mixer/unloaders or for information on any product in UCC's unloading line, please contact United Conveyor Corporation or your UCC Sales Representative.*

## Product Specifications

Model No.	4024/19	5024
Drive Unit	40 hp, 460 V, 3-phase, 60 Hz*	50 hp, 460 V, 3-phase, 60 Hz*
Discharge Capacity	Up to 300 tph	Up to 400 tph
Volumetric Capacity	Adjustable: 11,000 cfh, 13,000 cfh, or 16,000 cfh	
Paddle Rotation Speed	Adjustable: 24 or 19 rpm	24 rpm
Weight	5.3 tons	5.5 tons
Headroom Required	58 <sup>5</sup> / <sub>8</sub> "	
Length Overall	184"	
Center-to-Center: Inlet to Discharge	116 <sup>9</sup> / <sub>16</sub> "	
Water Requirements	190 gpm @ 13 psi—Design 300 gpm @ 30 psi—Max.	255 gpm @ 23 psi—Design 400 gpm @ 55 psi—Max.
Mixing Chamber Body	3/8" Mild Steel	
Mixing Paddles	Abrasion-resistant (AR 500) Steel (Ceramic Optional)	

\*Other voltages and frequencies available.

Descriptions of UCC equipment and services herein do not constitute a warranty or a guarantee of performance, nor is any warranty implied.

