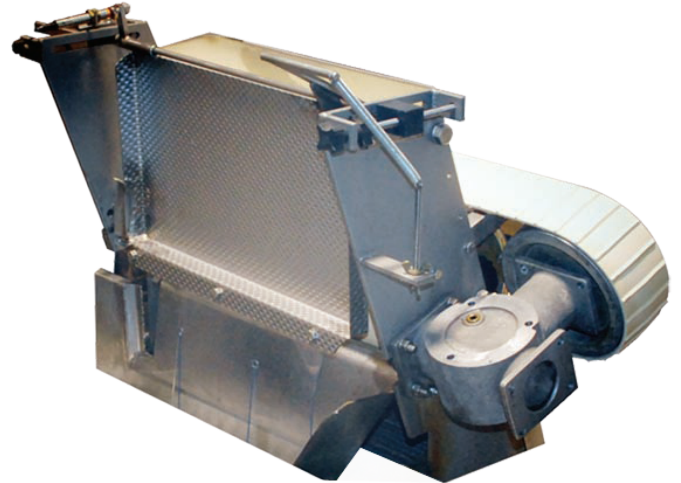


Sweet Corn Orienter & Cutter



Application:

Hughes Sweet Corn Orienter & Cutter is a fast and efficient way of cutting sweet corn kernels from the cob.

Operation:

The system can either be manually fed, therefore eliminating the Orienter, or fed through the use of a distribution conveyor. Ears of sweet corn are conveyed to the Orienter which uses tension to correctly orient the ear for cutting. This is achieved through the use of a tilted conveyor bringing the ears to an angled tension gate. If the ear is already oriented correctly it will drop onto the Cutter feed conveyor as is, if oriented backwards the pinch point of the gate flips the ear around while dropping it onto the conveyor.

The Cutter feed conveyor brings the ear to the infeed where it is firmly gripped by rubber rolls with pins that feed the ear into the cutter knives while gaging and adjusting the knife opening to the correct diameter for each ear. The cutting head rotates at a constant speed and as the ear moves through it removes the kernels which drop through a port for further processing. The cob is then ejected out the discharge end of the cutter for disposal.

Performance:

Hughes Corn Cutter is designed to cut up to 2 tph of husked corn. The system is available with either #2 or #3 cutting heads per the customers specification. The system self clears any jams via an automatic reverse system that senses the jam and reverses the infeed belt to clear it. An optional cob pusher is available to clear broken pieces of cob which may remain lodged in the knives when the system reverses. Lift off covers easily expose inner mechanisms for efficient maintenance, inspection and cleanup.

Standard Unit Construction:

1. Orienter:

- All type 304 S/S construction except drive components.
- 20° Cob Feed Tilt-Belt conveyor 3" wide x 32 1/2" (center-to-center of head and tail pulley) with white food grade belting, crowned pulleys with take-up on tail pulley and low side product guide.
- Rotary Orienting Drum Assembly approximately 7" diameter x 16" long with a food grade friction surface and a spring loaded gripper plate made of a friction material on the drum side.
- "V" Design cutter feed chain with chute, UHMW anti-twist chain guide, chain drive sprocket, nose and tail idler.
- Air-operated chute diverter which is activated when the cutter reverses (to by-pass ears in orienter / feeder assembly).
- Proximity Switch used to sense absence of corn cob.
- Drive system from corn cutter, with shaft and bearing to power the cutter feed conveyor.
- Mounting bracket for mounting to customer's frame or Hughes optional universal mounting system.
- Customer to specify left or right hand discharge when looking in the direction of the product flow.
- Orienter is driven by a .37 kW motor with a reducer.

2. Cutter:

- All type 304 S/S construction except cutter head and drive components.
- Cutter head consists of bronze and S/S construction (Customer to specify #2 or #3 head).
- Set of 6 cutter head knives
- Two pairs of cutter feed rolls for positive cob feed and pre opening of the cutter knives prior to cob entry.
- Water spray nozzle for flushing water into and around the cutter head. (30 PSI water supply required through 1/8" NPT pipe fitting with 1/4" PVC tubing.)
- Gravity feed bottle oiler with sight glass for cutter head assembly.
- Actuating Cam adjustment located on spent cob discharge side for depth of cut adjustment. (#3 system)
- Special cover hold down to securely position and clamp cutter head into head housing.
- Trabon centralized lubrication system with one master feed.
- Timing belt drive on cutter roll and infeed conveyor drives.
- Mounting brackets for mounting to customers frame or Hughes universal mounting system.
- Discharge chute for spent cobs.
- Guards for all rotating parts.
- .75 kW motor on cutter head and .55 kW Demag brake motor on feed rolls.

Options:

- Cob Pusher
- Whole System or Single Unit Control Panel

