

KD5 KNOCKDOWN CONVEYOR SETUP AND OPERATION MANUAL



EQUIPMENT SALES | PARTS | MANUFACTURING

6895 MARTINDALE
SHAWNEE, KANSAS 66218
USA PHONE: 913-441-4788" FAX: 913-441-1711
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DESCRIPTION OF EQUIPMENT

THEORY

The purpose of this conveyor is to receive bags standing up, knock the bags down and turn the bags so that they are laying on either the front or back side and exit the conveyor bottom first.

This type of conveyor is used for feeding flattening conveyors, miscellaneous printing systems or whenever the position of the bag is critical prior to palletizing.

The height of this belt should match the height of the infeed conveyor and typically be taller than the exit conveyor. The bags should be standing straight up when entering this conveyor prior to the knock down occurring. This is critical for bags to be transferred properly.

If bags are not entering this conveyor uniformly, then possibly a front or back guide rail may be necessary to allow a smooth transition between infeed conveyor and bag knock down conveyor.

COMPONENTS

The system consists of a single belt 42" long x 24" wide (1.05 meter x 60 cm). This belt is smooth top design to allow bag to easily slide over belt surface. The belt operates at 60 ft. (18 meters) per minute speed. If this speed is not adequate for the speed of your operation, the belt speed can be increased by changing sprockets. The speed, however, should not be reduced below 60 ft. (18 meters) per minute.

Knockdown Arm

This arm is to push the bag onto the knock down plate. This is accomplished by holding the top one half of the bag stationary while the conveyor pulls the bottom of the bag.

Bags of different materials, such as paper, poly-woven and plastic react differently to this arm. Product in bag also reacts differently. Some bags are more top heavy than others. For these reasons, the adjustment of this arm is not factory set and will need to be adjusted via trial and error. The adjustment will need to be reset on different bags and materials.

Knockdown Plate

This plate is to receive bags from either the front or back side. The bags then have the conveyor pull the bottom of the bag thus turning the bag in the process. This plate is an angle from the belt. 15 degrees is normal, adjustment is set by pinholes on the back side of this plate. This setting is by trial and error.

Turning Wheel

This wheel is located at the discharge end of the knockdown plate. The purpose of the wheel is to allow the bag to pass by on the powered belt and the wheel will straighten the bag prior to exiting the conveyor. This wheel is adjustable in and out, up and down. Trial and error adjustments are needed again.

INSTALLING ELECTRICAL SUPPLY

- The units have been supplied for either 110 volt/single phase, 230 volt/single phase, 230 volt/3 phase, or 480 volt/3 phase power. The power for which the unit has been wired is marked on the motors. Be sure that the voltage supplied matches the voltage of the equipment.

OPERATION SET-UP

Pre-operation Checks

- Apply electrical power to unit.
- Turn the on/off switch located on the control box to the “on” position.
- The conveyor should now be running.
- Check the alignment of the conveyor belt closely when first installed, as belt mis-tracking can occur during transportation. Conveyor belt tracking adjustments are located at the tail pulley of the conveyor.
- Belt tension should be so the belting on the return side has approximately 3/8” to 1/4” drop between return rollers. Over tightness of the belt will reduce belt splice life.
- Drive chain tension located on head pulley is acquired by loosening bolts on gearbox mount. Remember to tighten the bolts up when set in place.
- Drive chain alignment can be achieved by moving sprocket on gearbox shaft, or by moving sprocket on head shaft from side to side to maintain proper alignment if needed. A straight edge between the two sprockets assures true alignment.

MAINTENANCE

- Check the drive chain for slack and signs of wear monthly. Adjust and replace as necessary. Check the conveyor belt and lacing for signs of wear monthly. Repair and/or replace if necessary.
- Apply general purpose bearing grease every 200 hours to the head pulley and tail pulley bearings while the conveyor is running. One or two pumps from a grease gun is plenty. **DO NOT OVER GREASE.**

NOTE: The motors and gear box have been lubricated at the factory prior to shipment. However, in transit occasionally lubrication has been lost. Check carefully for any signs of oil in packing or loss of oil in the first hours of operation. (Do not use equipment if low oil levels exist). If oil is required, add 80w-90w gear oil.

TROUBLE SHOOTING

<u>PROBLEM</u>	<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
Unit turned on, no power	Wall disconnect power switch not on.	Check fuses, replace if needed. Check to see if unit is plugged in. Check circuit breaker.

Conveyor suddenly shuts down	Overload of material Circuit overload	Check switches Unload conveyor Check circuit breaker

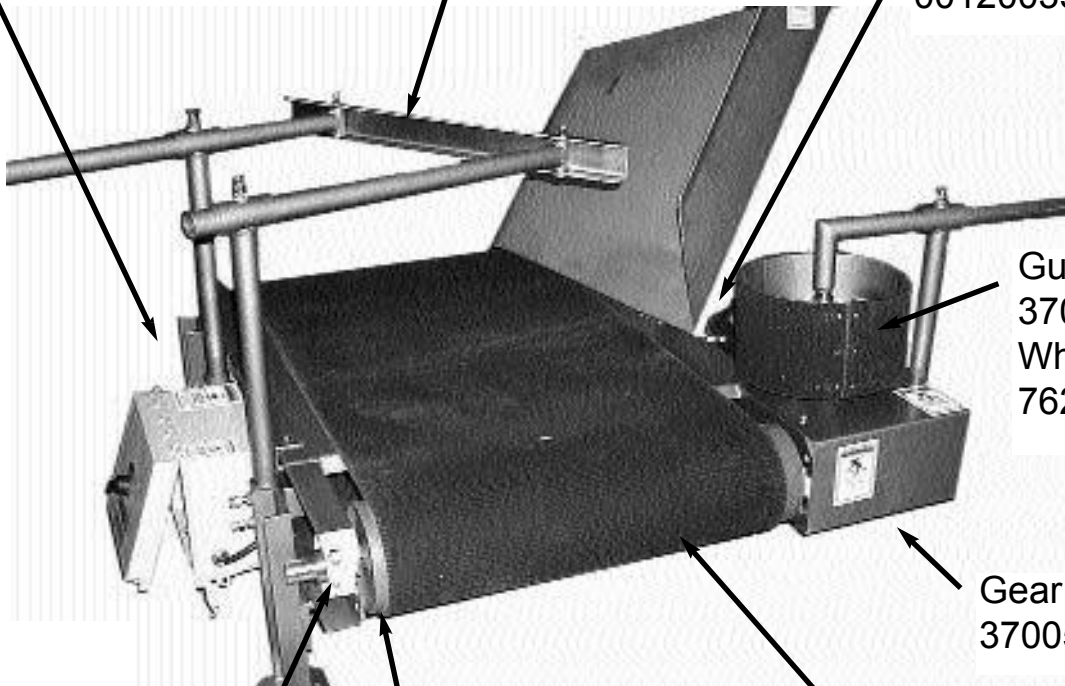
Conveyor belt is off center, or not tracking properly	Belt adjustment needed	The take-up frame is Adjusted by turning the nut on the threaded rod This is to be done "while belt is running, "and ONLY by "authorized personnel. ¼ to ½ turn at a time is suggested.

Bag Turner

(Not visible)
Tail Bearing Support
7623160020
Tail Pulley
1760262320
Tail Bearing
17125154

Knock down bar
3700190000

1HP motor
0012003546



Guide Wheel
3700220011
Wheel bearing
7623160000

Gear Box
3700581525

Drive Bearing
7623180000

Head Pulley
1760262311

Belt
3800110015

Idler roller (not shown)
0005000016

REV. A	<i>JEM INTERNATIONAL, INC.</i>	
REV. B	6873 MARTINDALE RD. SHAWNEE, KANSAS 66218 (913) 441-4788	
REV. C	NAME	
REV. D	5' KNOCKDOWN CONVEYOR	
REV. E	FOR	
REV. F	TOLERANCE	SCALE
REV. G	DRAWING NUMBER	DATE
	SCV1214	D.N.S.
	DRAWN BY	DATE
	COUGHLIN	09-04-14
	PART NUMBER	PART NUMBER

