

MODEL "251CDE"

Chain Driven Photo Eye Controlled Pallet Accumulating Conveyor

- **Zero pressure accumulation**
- **Electrically operated**
- **Heavy duty construction**
- **Chain driven rollers**
- **Photo eye controlled**
- **Zone connections outside frame for easy installation**



STANDARD SPECIFICATIONS

Frame - Heavy duty 12½" deep x 7 gauge powder painted formed steel channel with heavy duty cross braces. Frames are bolted together with splice plates and floor supports.

Rollers - 2½" diameter x 11 gauge steel rollers, grease packed and labyrinth sealed bearings, 1½" hex shaft. Rollers are spaced on 4" or 6" centers, set 7⁄8" low.

Floor Supports - Adjustable 25⁄8" to 30¼" (HD-4) from floor to top of roller, for each end of conveyor and at each bed joint along with knee braces for each support. Supports on 5 foot centers, change with zone length. Minimum elevation with standard drive location 24".

Drive - Located near center of conveyor length, underneath conveyor frame.

Drive Chain - RC 40 chain used for roller-to-roller connections, RC 60 chain drives each zone. Chains are totally enclosed by metal guards.

Accumulation Zones - Standard zones are 60" long with maximum of 30 zones per single drive. Each zone is controlled by photo eye.

Sensing Device - NEMA 1 photoelectric sensor in each zone detects presence of product and activates accumulation feature in the trailing zone if upstream zone is occupied.

Motor - ¾ HP 230/460-3-60 TE motor.

Electrical Controls - 120 VAC Input to power supply. Power supply has an output of 24 VDC, 4 amp maximum

Power Supply - 120 VAC power supply controls accumulation feature with 24 VDC output. Power supply will control 50 accumulation zones.

Conveyor Speed - 30 FPM constant roller speed.

Capacity - Minimum unit load - 50 pounds. 4000 pounds maximum unit load. Total conveyor live load not to exceed Load Capacity Chart. For loads less than 50 lbs., consult factory.

Speed Reducer - Heavy duty, sealed worm gear, C-Face.

Bearings - Non-reversing, sealed prelubricated with cast iron housings.

Filter/Regulator - Mounted to conveyor side frame. 50 PSI recommended operating pressure with free air consumption of .001cu. ft. per sensor operation.

OPTIONAL EQUIPMENT

Accumulation Zones - 4" roller centers 36", 40", 44", 48", 52", 56" and 72" long. 6" roller centers 36", 42", 48", 54" and 72" long. Frame lengths change with zone lengths.

Tread Rollers - 2½" diameter x 7 gauge steel, 1½" hex shaft.

Floor Supports - Higher or lower supports available, adjustable or fixed type.

Side Mounted Drive - Drive unit mounted to side of conveyor in lieu of underneath conveyor frame. 14" minimum elevation to the top of roller.

Time Delay Restart - Allows for product to be unloaded from discharge zone of conveyor without immediate movement of next load into discharge zone.

Conveyor Speed - Constant and variable speeds between 10 and 70 FPM available.

Motor - Single phase, energy efficient, explosion proof, etc. Other HP available.

Electrical Controls - Magnetic starters and push button stations; manual motor starters with overload protection, others.

Optional Loads - Capacity available to 6000 lbs. unit loads.

Rollers Set High - Rollers set ¼" high above side rail. Frame is 11⅜" deep x 7 gauge formed steel channel.

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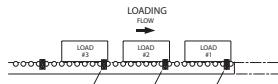


| Bed Length | Conveying Surface | 34" | 40" | 46" | 52" | 59" |
|------------|---------------------------|------------------------------|-------|-------|-------|-------|
| | Between Frame Width | 37" | 43" | 49" | 55" | 61" |
| | Overall Frame Width | 41" | 47" | 53" | 59" | 65" |
| | Weights (lbs.) | Rollers on 4" Centers | | | | |
| 10' | | 1378 | 1483 | 1588 | 1693 | 1799 |
| 15' | | 1964 | 2117 | 2270 | 2423 | 2577 |
| 20' | | 2549 | 2570 | 2951 | 3152 | 3354 |
| 25' | | 3135 | 3384 | 3633 | 3882 | 4132 |
| 30' | | 3720 | 4017 | 4314 | 4611 | 4909 |
| 40' | | 4891 | 5284 | 5677 | 6070 | 6464 |
| 50' | | 6062 | 6551 | 7040 | 7529 | 8019 |
| 60' | | 7233 | 7818 | 8403 | 8988 | 9574 |
| 70' | | 8404 | 9085 | 9766 | 10447 | 11129 |
| 80' | | 9575 | 10352 | 11129 | 11906 | 12684 |
| 90' | | 10746 | 11619 | 12492 | 13365 | 14239 |
| 100' | | 11917 | 12886 | 13855 | 14824 | 15794 |

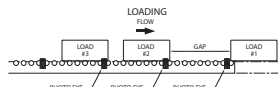
Note: Overall lengths in chart are for 60" zones. Other zone lengths will affect overall length.

OPERATIONAL SEQUENCE

1) Model "251CDE" is loaded at the infeed end of conveyor. The first load travels the entire length of the conveyor to Zone #1. If the photoelectric sensor in Zone #1 has been activated by an external signal (normally open contact, not supplied) the product will stop in Zone #1.



2) The second load travels the length of the conveyor until it reaches Zone #2. If Zone #1 is occupied, the second load will stop in Zone #2. Load #3 will stop in Zone #3 and continue to accumulate at "zero pressure" until fully loaded.



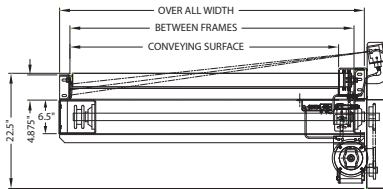
3) To unload, an external signal (normally open contact, not supplied) to the photoelectric sensor in Zone #1 will release the accumulation feature and allow the product in Zone #1 to leave the conveyor. The load in Zone #2 will not advance into Zone #1 until the load in Zone #1 has completely cleared Zone #1's photoelectric sensor; the third load will not advance into Zone #2 until the second load clears the photoelectric sensor in Zone #2. Once the first load clears the photoelectric sensor in Zone #1, the external signal must be restored to Zone #1's photoelectric sensor for the accumulation process to continue.

Load Capacity Charts

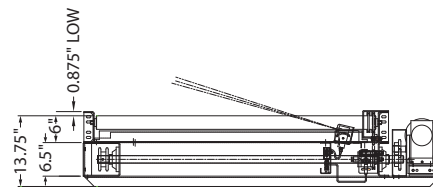
| Accumulated | | | Moving | | |
|-------------|-------------------------|------------|--------|-------------------------|------------|
| HP | Conveyor Speed @ 30 FPM | | HP | Conveyor Speed @ 30 FPM | |
| | Total Load (lbs.) | | | Total Load (lbs.) | |
| | Up to 50' | Up to 100' | | Up to 50' | Up to 100' |
| 3/4 | 12000 | 7500 | 3/4 | 6000 | 3750 |
| 1 | 18000 | 13000 | 1 | 9000 | 6500 |
| 1 1/2 | 30000 | 25000 | 1 1/2 | 15000 | 12500 |
| 2 | 42000 | 37000 | 2 | 21000 | 18500 |

NOTE- Minimum elevation with 3/4 H.P. motor drive mounted underneath conveyor is 24".

Capacities based on 50% of load moving at same time.



STANDARD: ROLLERS SET HIGH, RETRO-REFLECTIVE PHOTO EYE, & UNDER MOUNT DRIVE.



OPTIONAL: ROLLERS SET LOW, DIFFUSED PHOTO EYE, SIDE MOUNT DRIVE.

