

# **MODEL** "DCE"

Drag Chain Photo Eye Controlled Accumulating Conveyor



#### STANDARD SPECIFICATIONS

**Frame** - 9" x 7 gauge powder painted formed steel channel frames. Sections are bolted together with splice plates and floor supports.

**Chain** - (2) 60F single pitch conveyor chains, straight side bar, on 36" centers.

Chain Guide - Keystock.

**Floor Supports** - 24" to top of chain. One support supplied at each end of conveyor and at each bed joint.

**Motor** - 1 HP 230/460-3-60 TE motor, C-Face. Motor and speed reducer are located underneath conveyor frame.

**Speed Reducer** - Heavy duty worm gear for C-Faced mounted motor.

**Sprockets** - Hardened sprockets with 115/16" diameter CRS drive shaft

**Bearings** - Sealed, pre-lubricated with cast iron housing.

**Accumulation Zones** - Standard zones are 60" long with a maximum of 20 zones per single drive. Each zone is driven by an air clutch and controlled by a photo eye.

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

**Sensing Device** - Photo electric sensor in each zone. Detects product presence and activates accumulation feature if downstream zone is occupied.

Speed - 30 FPM constant speed.

**Capacity** - 15,000 lbs. maximum distributed live load at 30 FPM. Unit (pallet / product) load maximum is 3,000 lbs. for 5' lg. zone. Maximum motor size 3 HP.

#### **OPTIONAL EQUIPMENT**

**Elevation** - 12" minimum (with adjustment to 13") to top of chain, made available by modification. Contact factory.

**Accumulation Zones** - 48", 54", and 72" long. Frame lengths change with zone lengths. For other zone lengths, contact factory.

**Diffused Photo Eyes** - To be used when retro-reflective photo eyes can't be used due to product interference.

Motors - Single phase, energy efficient.

**Chain Centers** - Other chain centers and multiple chains available, 18" minimum chain centers. Contact factory.

**Speeds** - For speeds greater than 30 FPM, contact factory.

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

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Overall Length	Frame Width	20"	26"	32"	38"	44"	50"
	Chain Center	18"	24"	30"	36"	42"	48"
10'		540	585	630	678	723	768
15'		726	790	855	918	983	1048
20'		911	995	1080	1158	1243	1328
25'		1096	1200	1305	1398	1503	1608
30'		1281	1405	1530	1638	1763	1888
35'	Weights (in lbs.)	1466	1610	1755	1878	2023	2168
40'		1651	1815	1980	2118	2283	2446
45'		1836	2020	2205	2358	2543	2728
50'		2021	2225	2430	2598	2803	3008
55'		2206	2430	2655	2838	3063	3288
65'		2576	2840	3105	3318	3583	3848
75'		2946	3250	3555	3798	4103	4408
85'		3316	3660	4005	4248	4623	4968
95'		3686	4070	4455	4698	5143	5528
105'		4056	4480	4905	5148	5663	6088

### **OPERATIONAL SEQUENCE**

- Model "DCE" 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 Chart

30 FPM WITH 2 STRANDS							
НР	TOTAL LIVE LOAD (lbs.)						
111	Up to 50'	Up to 100'					
1	6,000	4,000					
2	10,000	8,000					
3	14,000	12,000					



