

MODEL "190ABE"

Medium Duty Belt Driven Live Roller Photo Eye Controlled Accumulating Conveyor

- Zero pressure accumulation
- Air operated zones
- Easy installation
- Economical
- No mechanical sensor rollers
- Photo eye controlled

STANDARD SPECIFICATIONS

Driving Belt - Black PVC 120 belt.

Bed - Roller bed width between frames, 15", 21", 27", 33" and 39". 7" x 1 1/2" x 12 gauge powder painted formed steel channel frame, bolted together with butt couplings and floor supports. Frame sections are 10'0" and 5'0" long.

Tread Rollers - 1.9" diameter x 16 gauge galvanized steel rollers spaced on 3" or 6" centers. Safety pop-out design prevents damage to product or harm to personnel if caught between belt and tread rollers.

Pressure Rollers - 1.9" diameter x 16 gauge galvanized steel rollers with 7/16" Hex Shaft spaced on 6" and 12" centers. Raised by air to drive tread rollers, lowered when sensing device is activated.

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.

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

Air Requirements - Operating pressure is 20-35 psi on main trunk line.

Accumulation Zones - 24", 30", or 36" long, air operated. Conveyor frame lengths change with zone lengths. NOTE: Zone length must be evenly divisible by roller centers.

Filter/Regulator - Supplied loose for mounting to conveyor side frame, with 3/8" NPT ports. 35 to 40 psi recommended operating pressure with free air consumption of .0062 cu. ft. per sensor operation.

Guard Rails - 1 1/2" x 1 1/2" x 12 gauge galvanized angle guard rails, both sides. NOTE: Product contact with guard rails will affect product flow.

Tail Pulley - 4" diameter crowned with 1 3/16" diameter shaft.

Drive Pulley - 8" diameter crowned and fully lagged with 1 7/16" diameter shaft. Located at infeed end of conveyor.

Snub Roller - 2 1/2" diameter adjustable mounted directly behind drive pulley, 2" diameter adjustable mounted directly behind tail pulley.

Floor Supports - Adjustable 31 1/2" to 45 1/2" from floor to top of roller. One support supplied at each end of conveyor and at each bed joint.

Take-Up - Screw type take-up located at end of conveyor to maintain belt tension. 12" of belt take-up provided.

Bearings - Sealed prelubricated with cast iron housings.

Speed Reducer - C-Face mounted heavy duty worm gear reducer.

Motor - 1/2 HP 230/460-3-60 TE motor.

Conveyor Speed - 60 FPM constant. Some higher and lower speeds available. However, most efficient accumulation occurs at 60 FPM.

Capacity - See Load Capacity Chart. 150 pounds max. unit load.



NOTE: Shown with Optional Center-mounted Drive.

OPTIONAL EQUIPMENT

Center Drive - Mounted below conveyor bed section. Can be placed most anywhere in conveyor length.

Floor Supports - Higher or lower supports available. Minimum elevation with standard end drive, 25".

Accumulation Zones - 18" long, air operated. Note: Zone length must be evenly divisible by roller centers.

Roller Brakes - (4) per zone.

Slug Release - Allows for conveyor to be unloaded quickly when accumulation feature not required.

Ceiling Hangers - 1/2" diameter threaded rods 8'0" long with locking nuts and mounting hardware. Other lengths are available.

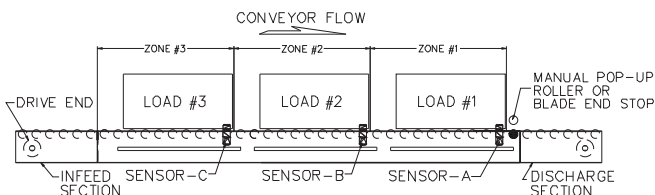
Air Control Zone Stop - Pneumatic brake to stop rollers in work station area.

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.

OPERATIONAL SEQUENCE

- 1) Model "190LSE" 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.



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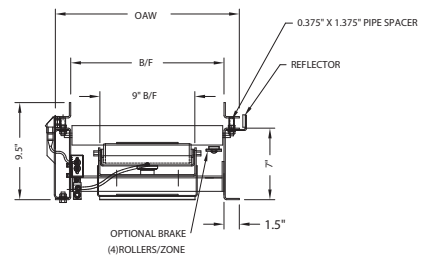
Bed Length	Overall Length	Belt Width	6"	6"	6"	6"	6"
		Width Between Frames	15"	21"	27"	33"	39"
		Overall Width	18"	24"	30"	36"	42"
Rollers on 3" Centers							
10'	13'	Weight (lbs.)	560	630	700	770	840
15'	18'		780	890	1000	1200	1310
20'	23'		960	1070	1180	1290	1400
25'	28'		1150	1270	1390	1510	1630
30'	33'		1320	1450	1580	1710	1840
35'	38'		1550	1690	1830	1970	2110
40'	43'		1720	1870	2020	2170	2320
45'	48'		1950	2100	2250	2400	2550
50'	53'		2120	2280	2440	2600	2760
55'	58'		2310	2480	2650	2820	2990
60'	63'		2480	2650	2820	2990	3160
65'	68'		2690	2870	3050	3230	3410
70'	73'		2890	3070	3250	3430	3610
75'	78'		3080	3280	3480	3680	3880
80'	83'		3250	3460	3670	3880	4090
85'	88'		3460	3680	3900	4120	4340
90'	93'		3630	3850	4070	4290	4510
95'	98'		3850	4090	4330	4570	4810

For Weights other than 3" centers deduct the following:										
6" Roller Centers	15" BF		21" BF		27" BF		33" BF		39" BF	
	5'	10'	5'	10'	5'	10'	5'	10'	5'	10'
		-37	-74	-45	-90	-61	-122	-70	-140	-82

Load Capacity Chart

60 FPM

HP	Overall Frame Width 18" to 24" Total Load (lbs.)		Overall Frame Width 25" to 30" Total Load (lbs.)		Overall Frame Width 36" to 42" Total Load (lbs.)	
	Up to 50'	Up to 100'	Up to 50'	Up to 100'	Up to 50'	Up to 100'
1/2	1100	200	600	-	-	-
3/4	2200	1300	1700	500	1100	-
1	3300	2400	2800	1600	2200	-
1 1/2	5600	4600	5000	3800	4400	1900
2	7000	6000	6400	5200	5800	3300



SECTION VIEW "A-A"

