

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 2 1/4" or 3" 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 - Photoelectric sensor in each zone detects presence of product and activates accumulation feature in the trailing zone if leading zone is occupied.

Power Supply - 120 VAC power supply controls accumulation feature with 24 VDC output. Power supply will control 40 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) rollers per zone.

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

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.

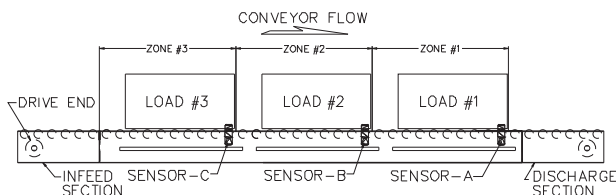
Air Control Zone Stop - Pneumatic brake to stop rollers in work station area.

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 "190ABE" 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.



MODEL "190ABE"



| 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 add the following: | | | | | | | | | | |
|---|---------------|------------|---------------|------------|---------------|------------|---------------|------------|---------------|------------|
| 2 1/4" Roller Centers | 15" BF | | 21" BF | | 27" BF | | 33" BF | | 39" BF | |
| | 5' | 10' | 5' | 10' | 5' | 10' | 5' | 10' | 5' | 10' |
| | +16 | +32 | +21 | +43 | +26 | +53 | +31 | +62 | +37 | +73 |

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 |

