

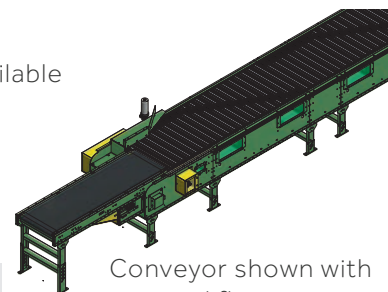
PROSORT 1421 & 1431

High-Speed Sortation Conveyor

The ProSort 1421 is designed to sort products at a 22-degree angle where higher speeds are required and close divert centers are not so critical. The ProSort 1431 is designed to sort products at a 30-degree angle where close divert centers are required. Products are transported on anodized aluminum slats where at a predetermined location, divert shoes move diagonally across the conveyor to push the product onto a take-away line. The ProSort 1400 family of sorters are designed for high-speed applications where product diverting needs to be both positive and gentle.

- 5 Widths Available
- Right- or Left-Hand Diverts Available
- High Sort Rates
- Anodized Aluminum Slats
- Adjustable MHS-Type Floor Supports Available

*Note: Spur location is measured beyond the end of the section on both the 22 degree and the 30 degree diverts.



Conveyor shown with optional floor supports.

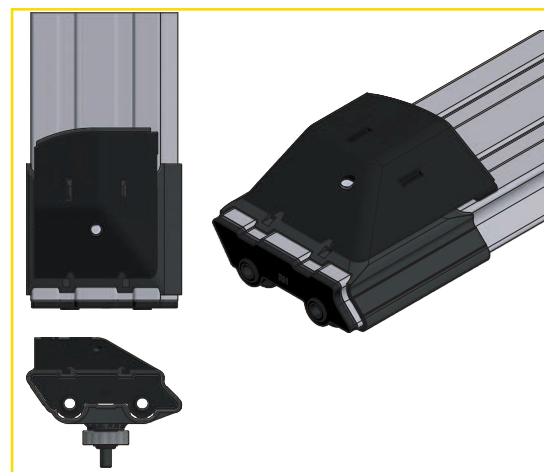


Sorter Conveying Surface Width	Sorter Between Rail Width "BR"	Sorter Overall Width "OAW"	Induction Bed Width "OAW"	Spur Width "OAW"	Conveyor Sections										
					Drive (not including gear-motor)		Tail (not including induction belt)		Induction Takeup	Divert section with 22 degree diverter (ProSort 1421)		Divert section with 30 degree divert (ProSort 1431)		Inter-mediate with no diverter	
					LGTH	Wt (lbs.)	LGTH	Wt (lbs.)	Wt (lbs.)	LGTH	Wt (lbs.)	LGTH	Wt (lbs.)	LGTH	Wt (lbs./ft.)
15"	30"	33"	18"	22"	60"	1590	36"	971	75	66	547	54	562	6" to 120"	97
21"	36"	39"	24"	28"		1626		1024	95	82	712	64	663		106
27"	42"	45"	30"	34"		1729		1077	114	98	874	74	773		115
33"	48"	51"	36"	40"		1798		1130	133	114	1077	86	933		123
39"	54"	57"	42"	46"		1864		1184	153	130	1270	98	1079		132

All weights in catalog are conveyor weights only. Accessories, crating, etc., are not included. Weights listed in conveyor sections include chain, slats and shoes used in the section.

Gap Requirements Based on Package Width			
ProSort 1421		ProSort 1431	
Package Width	Minimum Product Gap	Package Width	Minimum Product Gap
Up to 13"	10"	Up to 10"	10"
>13" to 26"	16"	>10" to 20"	16"
>26" to 40"	20"	>20" to 30"	20"
		>30" to 40"	26"

Gearmotor Weight	
HP	LBS
5	198
7.5	243
10	283
15	454
20	489
25	676
30	711
40	950



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Standard Specifications

INTERMEDIATE BED – 20 1/16 in. deep x 1 1/2 in flange 10 ga. formed steel channel frame; powder-painted with a bolted on aluminum chain support extrusion for a total height of 21 in.

TAIL BED – 21 in. deep x 1 1/2 in channel 7 ga. formed steel channel flange; powder-painted.

DRIVE – 38 in. deep x 4 ga. formed steel channel frame; powder-painted.

CARRYING CHAIN – Dual strands of No. 100 pre-lubricated o-ring roller chain with precision bearings and extended pins.

CHAIN LUBRICATOR – Installed at infeed end to lubricate carrying chains. Gravity feed with 24VDC on/off switch. Flow control valves to control the amount of oil allowed to flow to each of the brush applicators.

FLIGHTS – Anodized aluminum slat supported at each end by bushings and extended chain pins on 5 in. centers.

DIVERT SHOES – Low-friction molded breakaway shoe with high friction pusher face. Steel guide pin for switching and ball bearing cam follower for diverting. Located on 5 in. centers.

SWITCH ASSEMBLY – Pneumatic or Electric operated high-speed switch assembly mounted with rubber isolators for quietness. Easily removable for maintenance.

AIR REQUIREMENTS – Free air consumption at 60 PSI equals .0033 cu. ft. per divert only for pneumatic.

AIR VALVE – High speed 24VDC single solenoid 4-way air valve at each divert station only for pneumatic.

AIR FILTER/REGULATOR – Supplied for main air supply line with 1/2 in. NPT ports. Required working pressure of 60 PSI only for pneumatic.

AIR PRESSURE SWITCH – Install in main air line near the last divert switch. Used to detect low air pressure and turn off drive only for pneumatic.

SMART PROXIMITY SWITCHES – 24VDC inductive proximity switch. One at each divert. Requires maintained electrical signal for duration of each divert.

SAFETY SWITCHES – Switches located at infeed and discharge ends to detect stray divert shoes or internal jams. Additional switch supplied at 30 ft. intervals. Interrupts power to drive motor when these conditions are detected.

DRIVE – Shaft mounted gearmotor. Mounted at discharge end on the opposite side from the diverts. 230/460V, 3 Ph. 60 Hz.

VARIABLE SPEED CONTROLLER – Provides smooth acceleration of drive motor and speed variations if necessary.

CONVEYING SPEED – Determined by application requirements. Up to 600 FPM on ProSort 1421. Up to 350 FPM on ProSort 1431.

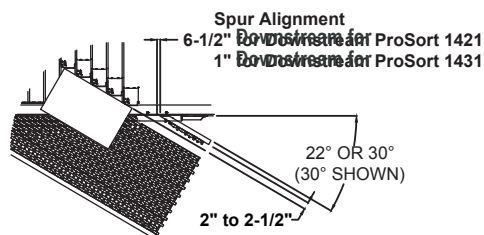
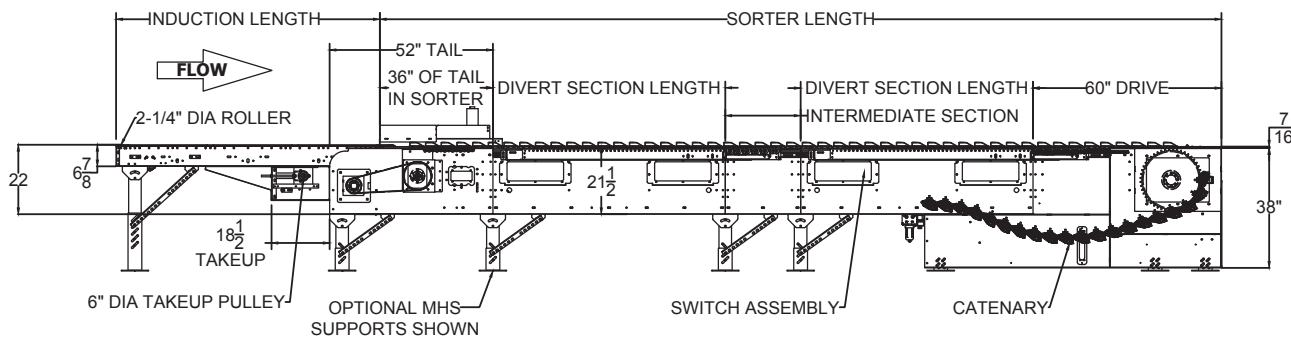
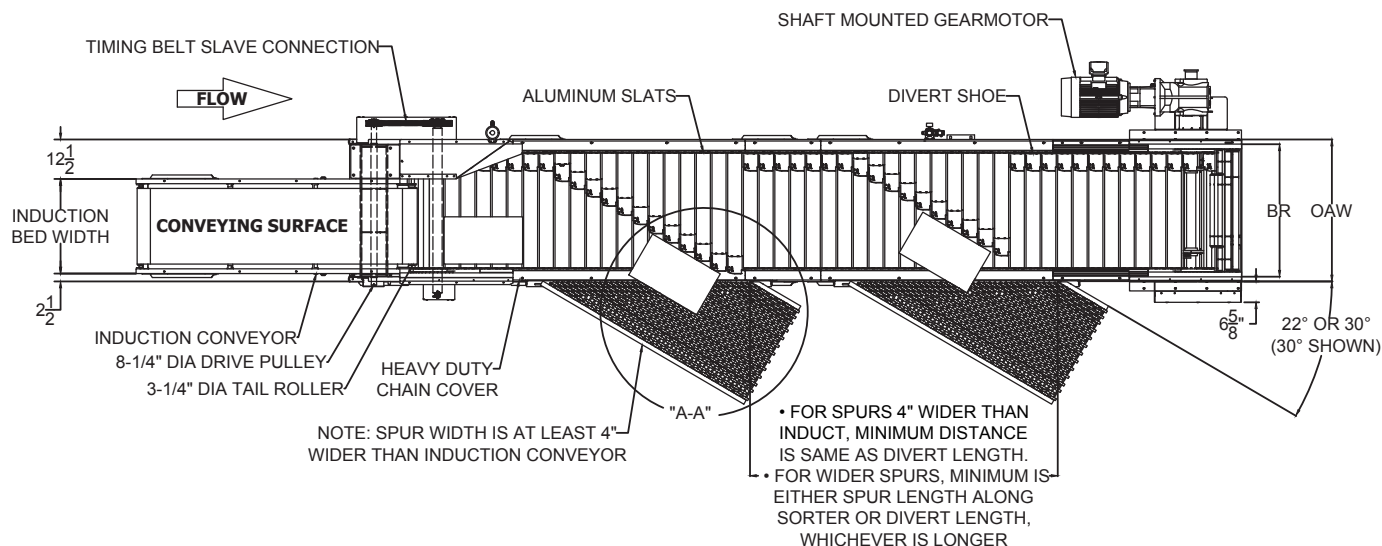
PACKAGE SIZE – Minimum 9 in. long x 4 in. wide.

CAPACITY – Maximum load: 50 lbs. per ft. Maximum product weight is 100 lbs.

INDUCTION CONVEYOR – Belt conveyor slave-driven from sorter at same speed as sorter.

FLOOR SUPPORTS – Not supplied as standard. See optional equipment.

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VIEW A-A
(SOME DETAILS REMOVED FOR CLARITY)

PROSORT 1421 & 1431

Standard Specifications - Induction Conveyor

BELT – Black, high-grip, longitudinal groove with high speed lacing. Belt width is 6 in. less than overall width.

BED – 12 ga. Galvanized slider pan mounted in 6 1/2 in x 12 ga. Painted formed steel channel frame.

INDUCT DRIVE – Slave-driven at same speed as sorter via timing belt and is incorporated in the sorter tail assembly. Access holes designed into side plate for ease of pulley removal.

DRIVE PULLEY – 8 1/4 in. dia. with 1 11/16 in. dia. shaft at bearings.

TAKE-UP PULLEY – 6 in. dia. with 1 3/16 in. dia. shaft at bearings; machine crowned.

TAIL PULLEY – 2 1/4 in. dia. at start of induct and 3 1/4 in. dia. at transition onto slats; machine crowned and easily removeable.

TAKE-UP – Take-ups in drive provide 16 in. of belt take-up.

BEARINGS – Sealed, pre-lubricated, self-aligning ball bearings on drive.

FLOOR SUPPORTS – Not supplied as standard. See optional equipment.

Optional Equipment

FLOOR SUPPORTS – Adjustable MHS type w/ knee braces. Holes in feet for lagging to floor. Specify elevation. Vibration pads between channel and supports.

GUARD RAIL – Solid side guards on switch side only.

FLIGHT TUBES – 1 1/2 in. dia. plated tubing supported at each end by bushings and extended chain pins on 2 1/2 in. centers.

PROLOGIX® CONTROL PACKAGE – Provides complete controls for proper sorter operation. Consult factory for details.