PROSORT MRT 90

90° Roller Transfer Conveyor

The model ProSort MRT is a sorter for medium-sized items. Product is transported on multiple narrow belts. Rollers pop up between the belts to transfer items at right angles to the sorter.

- Right-Angle Transfer
- Two-Sided Transfer
- High Sort Rates
- Close Transfer Locations
- Flexible Sort Locations
- HyPower Distributed Cabling System

LEARN MORE | TECHNICAL MANUAL

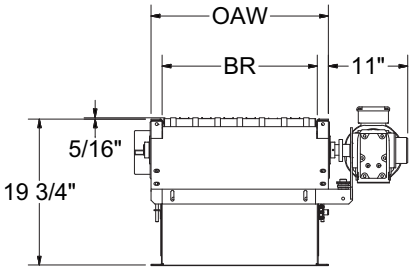
Conveyor shown with optional floor supports.

Tail and Intermediate Section Length
24"
27"
30"
33"
36"
39"
42"
45"
48"
51"
54"
57"
60"
66"
72"
78"
84"
90"
96"
102"
108"
114"
120"

Between Rail "BR"	Overall Width "OAW"	Number of Belts
15"	18"	4
18"	21"	5
21"	24"	6
24"	27"	7
27"	30"	8

Maximum Live Conveyor Load

Overall Width "OAW"	Number of Belts	Maximum Conveyor Load (lbs.)
18"	4	1200
21"	5	1500
24"	6	1800
27"	7	2100
30"	8	2400



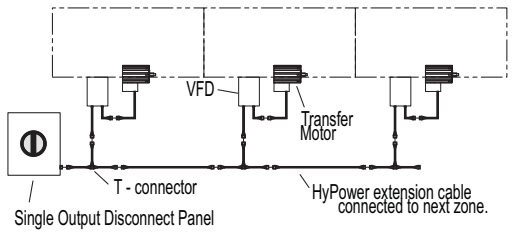
DISCHARGE END VIEW

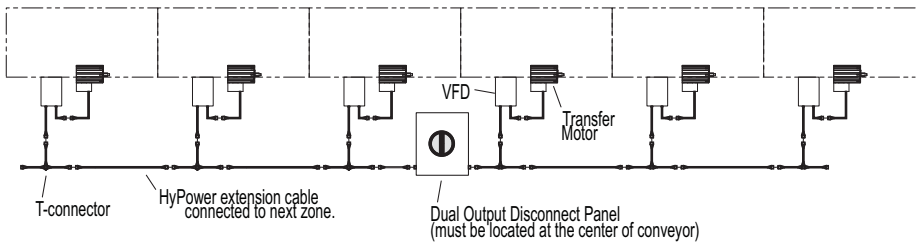
Conveyor Weights

Overall Width "OAW"	Drive Weight (lbs.)	Roller Transfer Weight (lbs.)	Conveyor Weight lbs. Per Foot
18"	185	102	13.6
21"	195	114	14.9
24"	205	126	16.1
27"	215	138	17.3
30"	225	150	18.5

Total Weight = Drive Weight + Roller Transfer Weight + (Conveyor Weight Per Foot x OAL)

Close-up of pop-up roller transfer





Disconnect Panel	230V 3 Ph. 60 Hz	460V 3 Ph. 60 Hz
Single Output	1-3 Transfers	1-6 Transfers
Dual Output	4-6 Transfers	7-12 Transfers

Note: Sorters over 50 ft. long require a dual output disconnect panel.

PROSORT MRT 90

Standard Specifications

BELT – Endless ARAMIDE Power Transmission Belt TF-102T

BED – UHMW wear strip spaced every 3 in., mounted in 6 1/2 in. x 1 1/2 in. x 12 ga. powder-painted formed steel channel frame, bolted together with butt coupling.

END DRIVE PULLEY – 8 in. dia. with 1 7/16 in. dia. shaft at bearings, fully lagged with driven pop-out roller.

SNUB PULLEY – 4 in. dia. pulley with 1 in. dia. shaft at bearings. Drilled and tapped both ends for encoder.

INFEED IDLER PULLEY – 4 in. dia. x 1 1/2 in. wide crowned sheave with precision bearings.

PNEUMATIC TAKE-UP – Take-up provides 14 in. of individual belt take-up. 25 PSI max on filter regulator. One pneumatic take-up for every 75 ft. of conveyor length needed.

AIR FILTER/REGULATOR – Supplied for main air line.

RETURN ROLLERS – 1.9 in. dia. galvanized tube with ABEC bearings. With cardboard tube inserts.

BEARINGS – Sealed, pre-lubricated, self-aligning ball bearings with eccentric lock collars. Pre-lubricated ball bearings in return rollers.

DRIVE – Shaft mounted gearmotor, 230/460/575V, 3 Ph. 60 Hz. energy efficient, with an AC variable frequency controller.

BELT SPEED – Determined by application requirements including rate required, package size, and weight.

TRACKING ENCODER – Provided on snub pulley in drive section. Contact factory for encoder specification.

CAPACITY – Maximum unit package weight 75 lbs. Maximum distributed load determined by number of belts under product (see chart). 150 ft. maximum length. NOT TO EXCEED capacity in chart.

FLOOR SUPPORTS – Supplied as optional equipment.

Standard Specifications - 90° Medium Roller Transfer

CAPACITY – Maximum unit package weight of 75 lbs.

PACKAGE SIZE – Minimum of 8 in. long x 6 in. wide. Maximum length of 28 in.

TRANSFER MECHANISM – Series of 1 1/2 in. dia. x 17 in. long drive rollers with 3/32 in. lagging. Driven by 1 in. wide flexproof endless polyester belt.

AIR CYLINDER – 100 mm bore x 20 mm stroke guided table cylinder.

AIR REQUIREMENTS – Working pressure 60 PSI. Free air consumption at 60 PSI, .0556 cu. ft. per cycle.

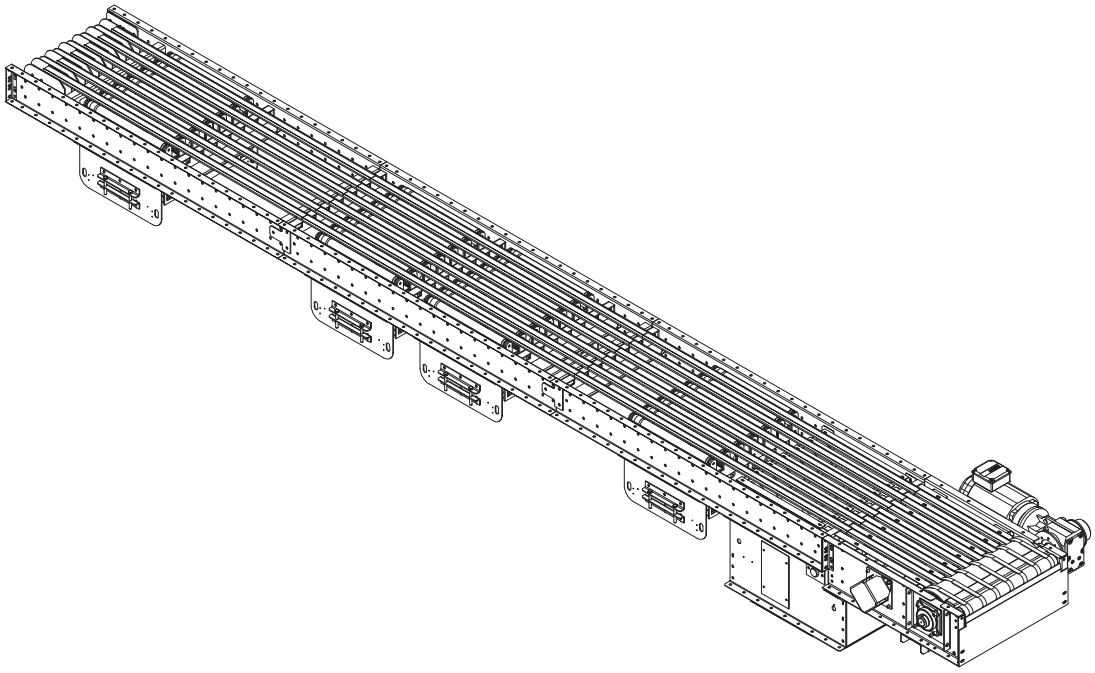
AIR VALVE – 24VDC single solenoid 4-way air valve.

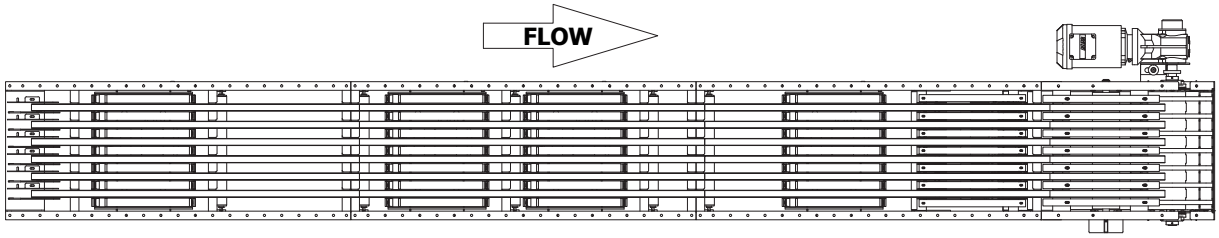
MOTOR – 1/2 HP, 230/460 V, 3 Ph. 60 Hz. flange mount gearmotor.

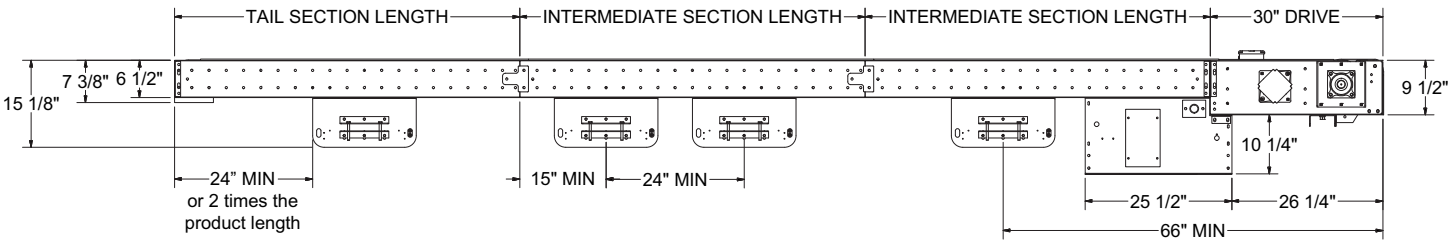
AC DRIVE – 1/2 HP, AC variable frequency controller.

HYPOWER DISTRIBUTED CABLING SYSTEM – Supplies distributed power to transfer motors. See diagram on pg. 240. Electrical Code: All motor controls and wiring shall conform to the National Electrical Code (Article 670 or other applicable articles) as published by the National Fire Protection Association and as approved by the American Standards Institute, Inc. Subject to local code and local customer acceptance.

PROSORT MRT 90







PROSORT MRT 90

Optional Equipment

FLOOR SUPPORTS – MS Type floor supports are available with a wide range of adjustment. Specify top of belt elevation. One support required at every bed joint and ends of conveyor. Holes are in feet for lagging to floor. Knee braces supplied with MS-7 supports and above.

GUARD RAILS – Continuous adjustable channel, fixed channel or type A and B angle. Note: If product comes in contact with guard rails, products may not transfer.

POLY-TIER SUPPORTS – 36 in. to 120 in. support heights in 6 in. increments. Knee braces supplied.

MOTOR – Single phase and other characteristics are available. For conveyor unit only.

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

PLUG-N-GO WIRING – Available with ProLogix® Control Package.

PROSORT MRT 30

30° Roller Transfer Conveyor

The model ProSort MRT is a sorter for medium-sized items. Product is transported on multiple narrow belts. Diverter wheels pop up between the belts to transfer items at 30-degree angles to the sorter.

LEARN MORE | TECHNICAL MANUAL

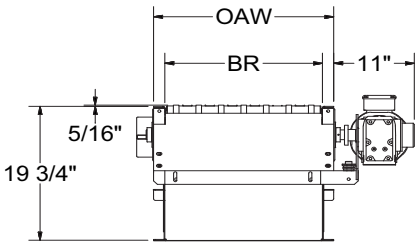
- 30-Degree Angle Transfer
- Left- or Right-Handed Transfer
- High Sort Rates
- Close Transfer Locations
- Flexible Sort Locations
- HyPower Distributed Cabling System

Conveyor shown with optional floor supports.

Tail and Intermediate Section Length
24"
27"
30"
33"
36"
39"
42"
45"
48"
51"
54"
57"
60"
66"
72"
78"
84"
90"
96"
102"
108"
114"
120"

Conveyor Weights			
Overall Width "OAW"	Drive Weight (lbs.)	Roller Transfer Weight (lbs.)	Conveyor Weight lbs. Per Foot
18"	185	112	13.6
21"	195	129	14.9
24"	205	146	16.1
27"	215	163	17.3
30"	225	180	18.5

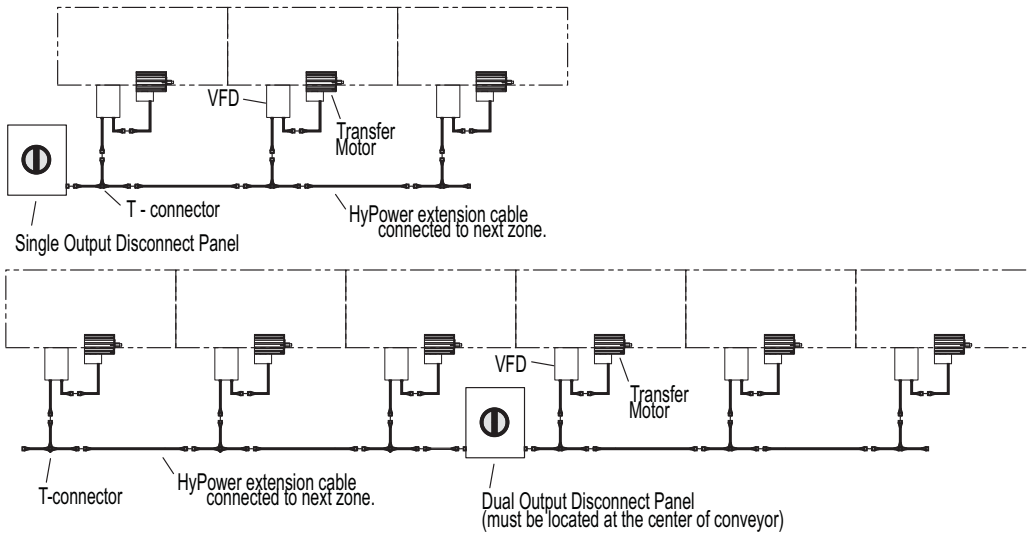
Total Weight = Drive Weight + Roller Transfer Weight + (Conveyor Weight Per Foot x OAL)



DISCHARGE END VIEW

Between Rail "BR"	Overall Width "OAW"	Number of Belts
15"	18"	4
18"	21"	5
21"	24"	6
24"	27"	7
27"	30"	8

Maximum Live Conveyor Load		
Overall Width "OAW"	Number of Belts	Maximum Conveyor Load (lbs.)
18"	4	1200
21"	5	1500
24"	6	1800
27"	7	2100
30"	8	2400



PROSORT MRT 30

Standard Specifications

BELT – APH 150 HTS x 15/16 in. wide with alligator 125 staple lacing.

BED – UHMW wear strip spaced every 3 in., Mounted in 6 1/2 in. x 1 1/2 in. x 12 ga. powder-painted formed steel channel frame, bolted together with butt coupling.

END DRIVE PULLEY – 8 in. dia. with 1 7/16 in. dia. shaft at bearings, fully lagged.

SNUB PULLEY – 4 in. dia. pulley with 1 in. dia. shaft at bearings. Drilled and tapped both ends for encoder.

INFEED IDLER PULLEY – 4 in. dia. x 1 1/2 in. wide crowned sheave with precision bearings.

PNEUMATIC TAKE-UP – Take-up provides 14 in. of individual belt take-up. 25 PSI max on filter regulator. Need one pneumatic take-up for every 75 ft. of conveyor length.

AIR FILTER/REGULATOR – Supplied for main air line.

RETURN ROLLERS – 1.9 in. dia. galvanized tube with ABEC bearings and cardboard tube inserts.

BEARINGS – Sealed, pre-lubricated, self-aligning ball bearings with eccentric lock collars. Pre-lubricated ball bearings in return rollers.

DRIVE – Shaft mounted gearmotor, 230/460/575V, 3 Ph. 60 Hz. energy efficient, with an AC variable frequency controller.

BELT SPEED – Determined by application requirements including rate required, package size, and weight.

TRACKING ENCODER – Provided on snub pulley in drive section. Contact factory for encoder specification.

CAPACITY – Maximum unit package weight is 75 lbs. Maximum distributed load determined by number of belts under product (see chart). 150 ft. maximum length. NOT TO EXCEED capacity in chart.

FLOOR SUPPORTS – Supplied as optional equipment.

GAP REQUIREMENT – 12" when controlled properly.

Standard Specifications - 30° Diverter Wheel Transfer

CAPACITY – Maximum unit package weight of 75 lbs.

PACKAGE SIZE – Minimum of 8 in. long x 6 in. wide

TRANSFER MECHANISM – Series of 1 3/4 in. dia. precision bearing diverter wheels with. Driven by 1 in. wide flexproof endless polyester belt.

AIR CYLINDER – Two 40mm bore x 2 in. stroke cylinders.

AIR REQUIREMENTS – Working pressure 60 PSI. Free air consumption at 60 PSI, .053 cu. ft. per cycle.

HYPOWER DISTRIBUTED CABLING SYSTEM – Supplies distributed power to transfer motors (see diagram). Electrical Code: All motor controls and wiring shall conform to the National Electrical Code (Article 670 or other applicable articles) as published by the National Fire Protection Association and as approved by the American Standards Institute, Inc. Subject to local code and local customer acceptance.

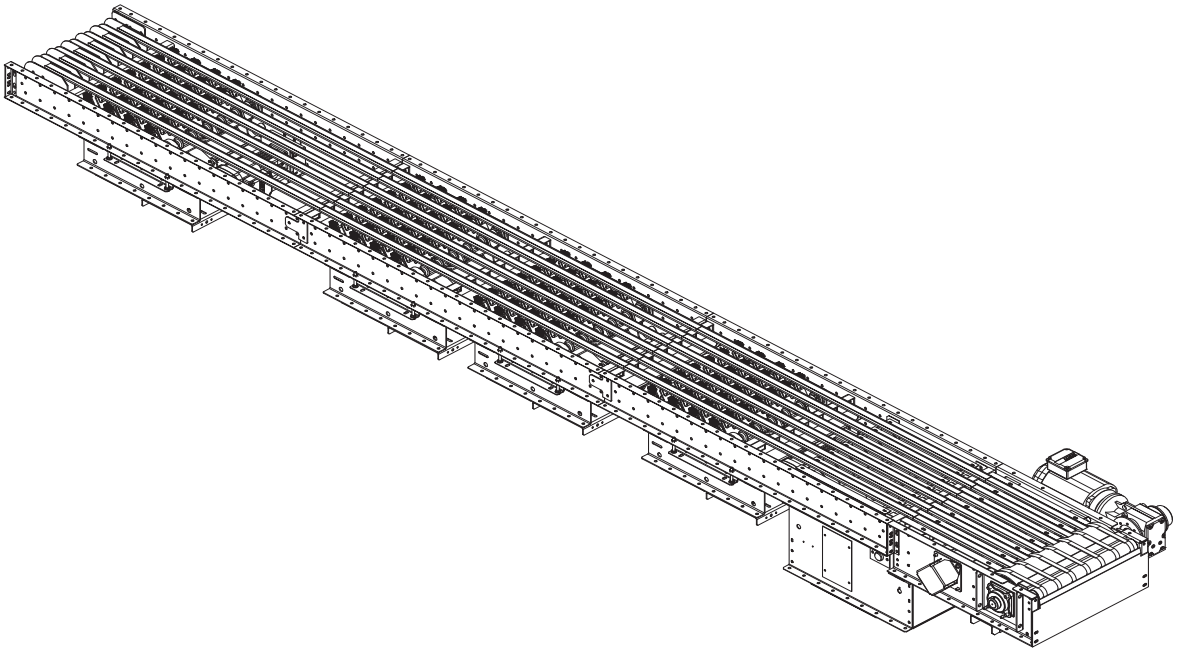
AIR VALVE – 24VDC single solenoid 4-way air valve.

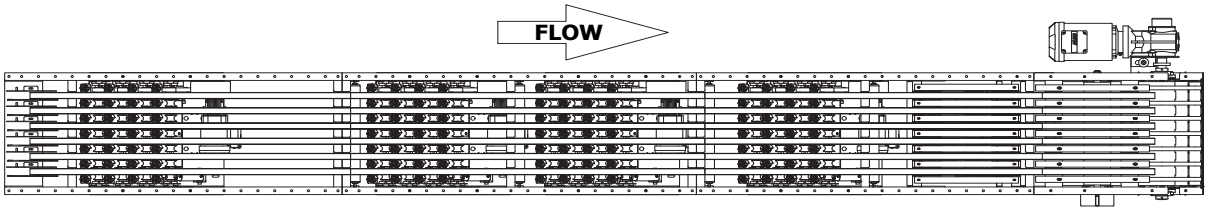
MOTOR – 1/2 HP, 230/460 V, 3 Ph. 60 Hz. Flange Mount Gearmotor.

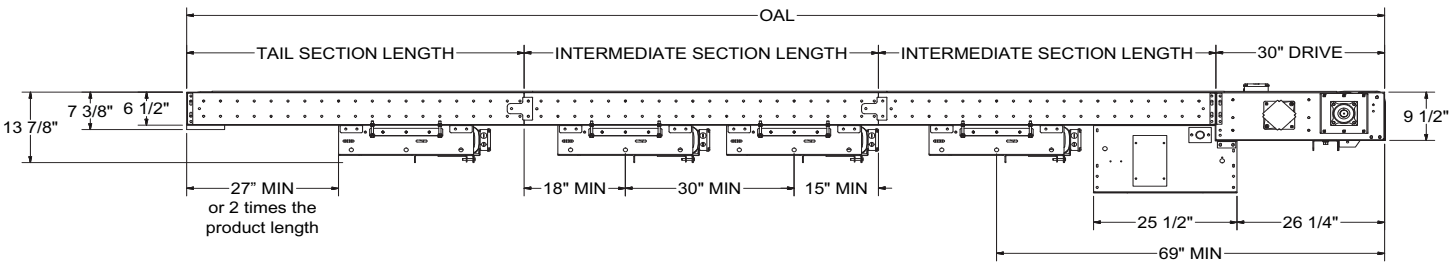
AC DRIVE – 1/2 HP, AC variable frequency controller.

TRANSFER SPEED – 275 FPM @ 60 Hz.; 367 FPM @ 80 Hz.

PROSORT MRT 30







PROSORT MRT 30

Optional Equipment

FLOOR SUPPORTS – MS Type floor supports are available with a wide range of adjustment. Specify top of belt elevation. One support required at every bed joint and ends of conveyor. Holes are in feet for lagging to floor. Knee braces supplied with MS-7 supports and above.

GUARD RAILS – Continuous adjustable channel, fixed channel or type A and B angle. Note: If product comes in contact with guard rails, products may not transfer.

POLY-TIER SUPPORTS – 36 in. to 120 in. support heights in 6 in. increments. Knee braces supplied.

MOTOR – Single phase and other characteristics are available. For conveyor unit only.

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

PLUG-N-GO WIRING – Available with ProLogix® Control Package.

Spur Centers Chart	
OAW	Min Ctrs
18"	42"
21"	48"
24"	54"
27"	60"
30"	66"

Disconnect Panel	230V 3 Ph. 60 Hz.	460V 3 Ph. 60 Hz.
Single Output	1-3 Transfers	1-6 Transfers
Dual Output	4-6 Transfers	7-12 Transfers

Note: Sorters over 50 ft. long require a dual output disconnect panel.

Products must be justified to divert side.