

*...Only from Eriez*



**ERIEZ®**

# Chip and Parts Conveyors

Permanent magnets moving inside a liquid-tight, submersible housing attract, hold and convey ferrous chips, turnings, small parts and stampings.

Eriez' Chip and Parts Conveyors provide a virtually maintenance-free way to move and elevate ferrous materials such as chips, turnings, small parts and stampings. Except for an externally mounted drive motor, the unit is self-contained, and the conveyor mechanism is completely enclosed. There are no moving external parts to jam, break or endanger personnel.

Our most popular models feature a unique internal track system called Tuf-Trac™, designed for low maintenance, quiet operation and long service life.

## Features & Benefits:

- One piece steel housing
- Submersible
- Self-cleaning
- Easily installed
- Continuous lubrication
- Virtually maintenance-free





# Permanent Magnet Conveyors

## Principle of Operation

Eriez' permanent magnet conveyors use a continuous series of powerful ceramic magnets to pick up and glide material along the stainless steel slider plate. Material is then discharged over the head end. Because of their liquid-tight (submerged units) construction, lower conveyor sections can be completely submerged in coolant sumps or tanks. The working face is self-cleaning, and excess fluids drain easily back into the tank.

## Construction

All conveyor models are of heavy duty construction to provide years of virtually maintenance-free use. High quality steel and non-magnetic stainless steel are used for the structure, slider plate and magnet assemblies. Conveyor housing construction is entirely liquid-tight (submerged units), and access panels are equipped with gaskets and seals.

The Model 6, 9 and 12 conveyors feature Eriez' Tuf-Trac drive system. The drive chain rides in oil impregnated Ultra High Molecular Weight (UHMW) track, designed to operate quietly and maximize conveyor life. Tuf-Trac eliminates the need for oil inside the conveyor housing.

The Model 6 conveyors are supplied with magnets on 12-inch centers (standard), supported by twin roller chains powered by a shaft mounted motor reducer. The Model 9 and 12 conveyors are supplied with magnets mounted on 12-inch centers (standard), supported by double pitch chain with oversize rollers powered by a shaft mounted motor reducer.

Motor size ranges from 1/3 to 10 hp depending on size of conveyor and material to be moved. Conveyors are equipped with a spring loaded chain takeup. Positive lubrication is provided for all bearings and moving parts.

## Wide Variety of Sizes

Each of the four frame sizes are available with four to five standard slider bed widths. For restricted areas under smaller machines, or where a relatively small volume of material is to be moved, the Model 6 – only 6-1/4 inches (159 mm) deep – is ideal. For larger areas and greater volumes, the 9-1/4 inch (235 mm) deep Model 9 conveyor is recommended. The Model 12, 12-1/4 inches (311 mm) deep, provides the magnet power and large surface area to continuously remove large quantities of ferrous materials. Where exceptionally large quantities of chips are involved – up to 10 tons per hour (9100 kg/hr) – the 21-1/4 inch (540 mm) deep Model 21 is the answer.

## Wide Variety of Shapes

A wide variety of conveyor configurations, in all sizes and widths, can be assembled from standard sections. This makes it easy and economical to provide special units to service hard-to-reach areas under presses, mills, cutoff saws or other machines. Standard conveyors are available as straight horizontal units or with an angle incline up to 90°. An SS Model is available in the four standard sizes with large, sweeping radii to convey long, difficult-to-handle scrap or parts.

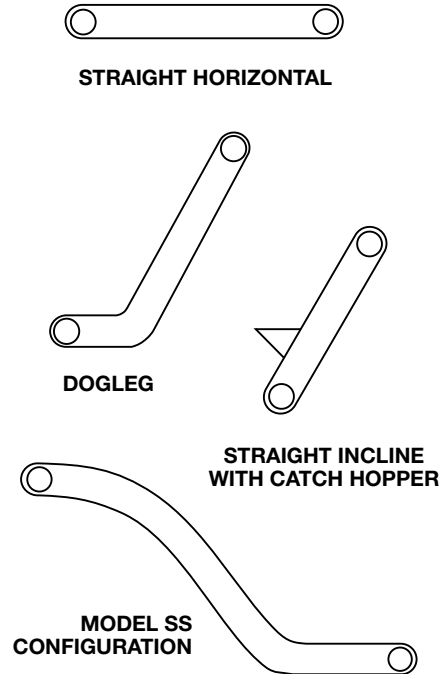


Figure 1. Typical Conveyor Shapes

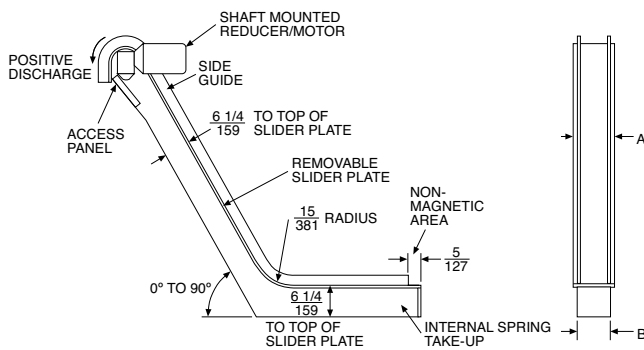
## Options

Available options include a variety of integral hoppers or tanks, a fine iron discharge arrangement, rigidized or manganese slider plates, support legs, demagnetizers, Vari-drive or SCR speed controls, on-off controls and side guides as required.



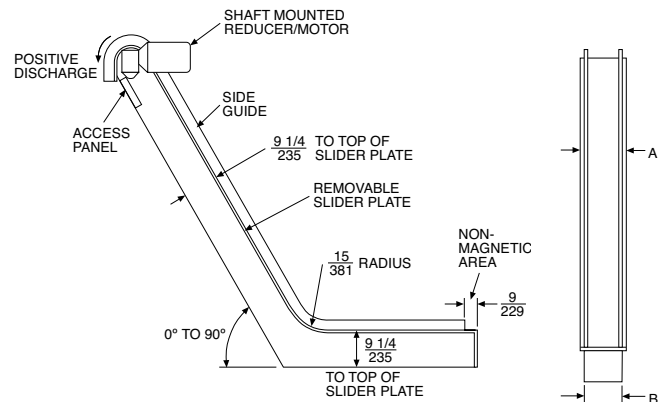
# Specifications

## Model 6



Model	A Slider Plate Width		B Frame Width (Max.)	
	in.	mm	in.	mm
68	10-1/2	267	8-3/8	213
610	12-1/2	318	10-3/8	263
612	14-1/2	368	12-3/8	314
616	18-1/2	470	16-3/8	416
620	22-1/2	572	20-3/8	518

## Model 9

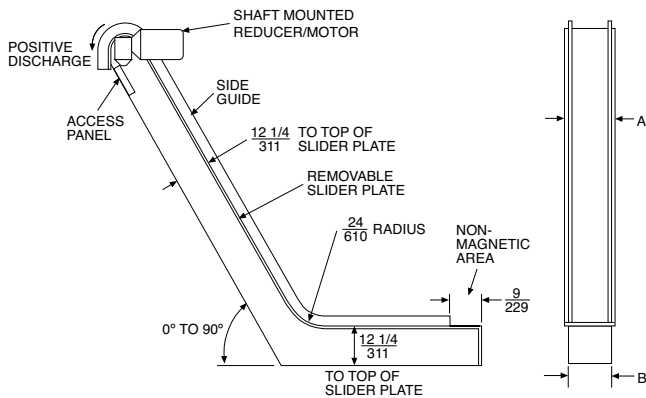


Model	A Slider Plate Width		B Frame Width (Max.)	
	in.	mm	in.	mm
910	12-3/4	324	10-3/4	273
913	15-3/4	400	13-3/4	349
916	18-3/4	476	16-3/4	425
922	24-3/4	629	22-3/4	578
928	30-3/4	781	28-3/4	730



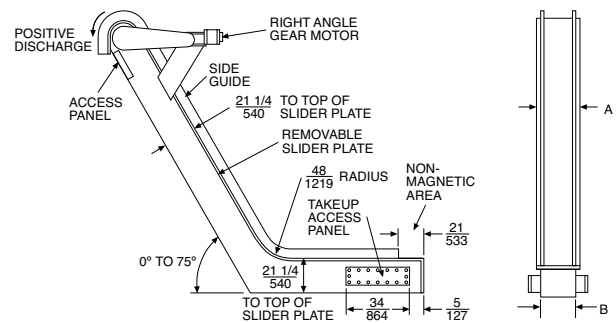
# Specifications

## Model 12



Model	A Slider Plate Width		B Frame Width (Max.)	
	in.	mm	in.	mm
1210	12-3/4	324	10-3/4	273
1213	15-3/4	400	13-3/4	349
1216	18-3/4	476	16-3/4	425
1222	24-3/4	629	22-3/4	578
1228	30-3/4	781	28-3/4	730

## Model 21



Model	A Slider Plate Width		B Frame Width (Max.)	
	in.	mm	in.	mm
2120	24	610	20	508
2128	32	813	28	711
2136	40	1016	36	914
2144	48	1219	44	1118



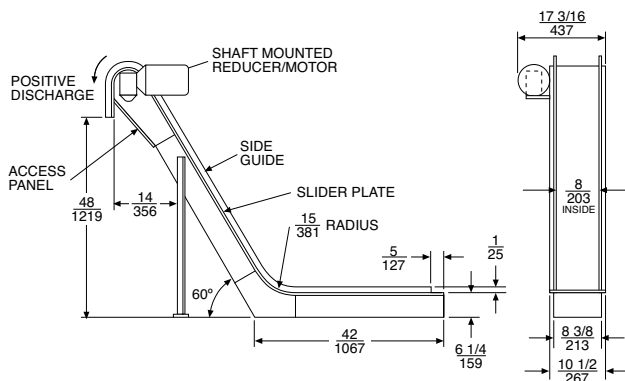
# Model 68— Standard Utility Chip and Parts Conveyor

The Eriez Model 68 Utility Chip and Parts Conveyor provides a low cost, easy, virtually maintenance-free way to move and elevate chips, turnings, stampings, small parts and almost any type of relatively lightweight ferrous material.

Because it is a standard unit and because it is assembled from standard components, the cost is remarkably low.

The Model 68 Utility Conveyor offers the time-proven benefits that have made Eriez the leader in magnetic conveying.

## Specifications



Horizontal Length	42" (1067 mm)
Vertical Discharge Height	48" (1219 mm)
Incline	60°
Side Guide Height	1" (25 mm)
Gear Motor	1/4 hp
Power Input	208 or 230/460V, 3ph, 60cy
Speed	45 fpm (13.7 mpm)
Magnet Centers	24" (610 mm) or 12" (305 mm) (other centers available)

### Typical Capacities\*

Material	Size Range	Capacity	
	inches (mm)	lb/hr	kg/hr
Dry cast iron chips	1/32 - 1/8 (0.8 - 3.2)	240	109
	1/32 - 1/8 (0.8 - 3.2)	180	82
	1/8 - 1/4 (3.2 - 6.4)	270	122
	1/4 - 1/2 (6.4 - 12.8)	270	122
Punch press scrap	240	109	
Lamination scrap	120	54	
Lock-washers	1/4 - 1/2 (6.4 - 12.8)	450	204
Hex nuts	1/4 - 1/2 (6.4 - 12.8)	360	163

\*Under ideal conditions with magnets on 24" (610 mm) centers.



Customer Name: \_\_\_\_\_

Customer P.O. Number: \_\_\_\_\_

Date: \_\_\_\_\_

Eriez Order Number: \_\_\_\_\_

# Eriez Magnetics Chip & Parts Conveyor Specification Sheets

Conveyor Model Number: \_\_\_\_\_

Is conveyor submerged? Yes / No \_\_\_\_\_

If yes, at what depth: \_\_\_\_\_

Description of Material: \_\_\_\_\_

Maximum Size: \_\_\_\_\_

Shape: \_\_\_\_\_

Average Size: \_\_\_\_\_

Minimum Size: \_\_\_\_\_

Temperature Ranges –Product: \_\_\_\_\_

Ambient: \_\_\_\_\_

Demagnetize? Yes / No \_\_\_\_\_

Capacity: Pounds per hour: \_\_\_\_\_

OR Parts per minute: \_\_\_\_\_

Condition of Material: \_\_\_\_\_ Dry

\_\_\_\_\_ Cutting Oil

\_\_\_\_\_ Water-soluble coolant

\_\_\_\_\_ Water

Other: \_\_\_\_\_

Providing Sample? Yes / No \_\_\_\_\_

If yes, sample number: \_\_\_\_\_

## Drive Information

Position: 3 O'clock / 6 O'clock / 9 O'clock / 12 O'clock / Other: \_\_\_\_\_

Type: Direct Drive / Chain Drive \_\_\_\_\_

Motor Mount: Left Side / Right Side \_\_\_\_\_

Drive Voltage: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

\*Motor Position and Mount locations are based on where the motor is when you are standing directly behind the conveyor, with material leading away from you.

Hopper: Yes / No \_\_\_\_\_

If yes, Dimensions (Depth, Length, Width): \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Magnet Spacing: \_\_\_\_\_

Conveyor Speed: \_\_\_\_\_

Slider Plate Material: \_\_\_\_\_ Smooth Stainless Steel

\_\_\_\_\_ Nitronic Stainless Steel

\_\_\_\_\_ Rigid-Tex Stainless Steel

\_\_\_\_\_ Manganese

Fine Iron Discharge: Yes / No \_\_\_\_\_

Legs: Yes / No \_\_\_\_\_

Angled Discharge: Yes / No \_\_\_\_\_

If yes, what angle? \_\_\_\_\_

Paint: Standard Grey / Other: \_\_\_\_\_

Special Requirements: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Headquarters of Field Office Signature

Customer's Signature



Horizontal Side-Guide Height: \_\_\_\_\_

Width Between Side-Guides: \_\_\_\_\_

Horizontal Length: \_\_\_\_\_

For SS and Dogleg Conveyors only

Vertical Discharge Height: \_\_\_\_\_

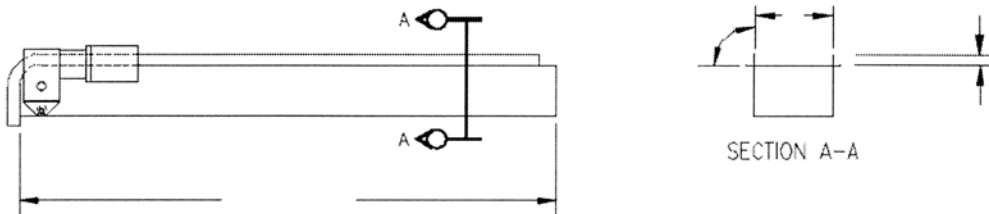
Incline Angle: \_\_\_\_\_

Incline Side-Guide Height: \_\_\_\_\_

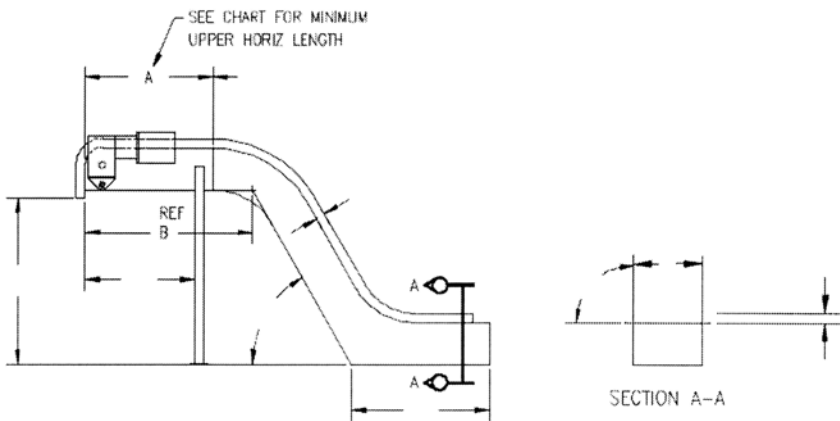
Discharge to Leg Distance (optional): \_\_\_\_\_

Overall Floor Length (optional): \_\_\_\_\_

### Straight Magnetic C&P Conveyor/Straight Hinged Steel Belt Conveyor



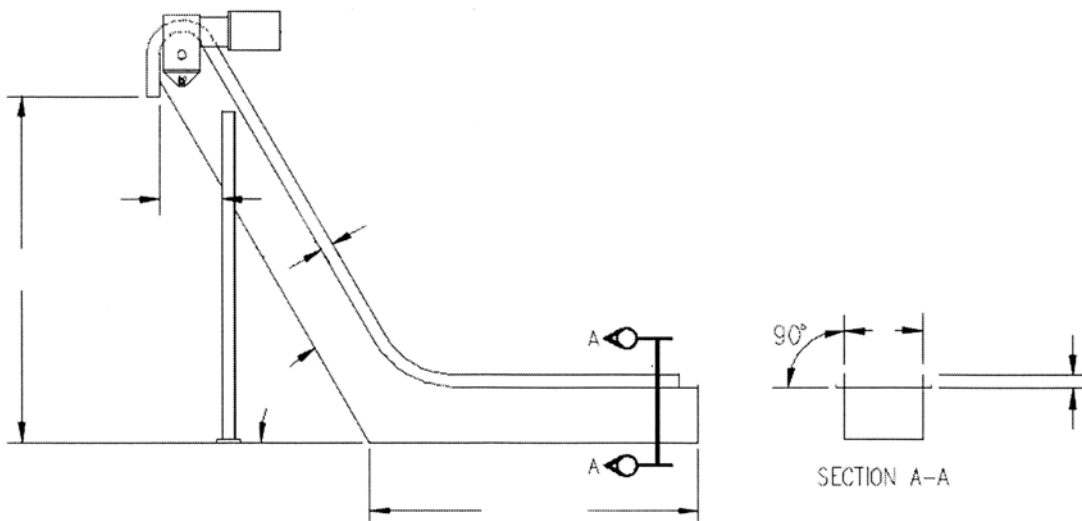
### SS Magnetic C&P Conveyor/SS Hinged Steel Belt Conveyor



**Reference**

Model	Min. Length Dim "B"	Model	Min. Length Dim "B"
6 @ 30°	22-11/16	6	9-3/4
6 @ 45°	25-3/8	9	13-7/8
6 @ 60°	28-3/8	12	15-3/8
6 @ 75°	32		
9 @ 30°	17-7/8		
9 @ 45°	20		
9 @ 60°	22-7/16		
9 @ 75°	25-5/16		
12 @ 30°	18-9/16		
12 @ 45°	20-5/16		
12 @ 60°	22-1/4		
12 @ 75°	24-1/2		

### Dogleg Magnetic C&P Conveyor/Dogleg Hinged Steel Belt Conveyor





# Eriez Technical Center

## Analyzes Separation and Product Movement Requirements

Industry's most complete magnetic and vibratory test facility is the Eriez Magnetics Technical Center. It utilizes equipment ranging from conventional plates, grates and traps to superconducting high gradient magnetic separators in determining the most effective ways to remove ferrous and nonferrous contaminants, or to concentrate valuable minerals.

You are encouraged to participate in the testing of your materials as Eriez engineers and technicians seek the most effective solutions to your processing problems.

Call us to discuss your application challenges.



### World Authority in Separation Technologies

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