



# Stainless Steel Separation Technology Recovery and Purification

**Inventor of Magnetic Stainless Steel Separation** 



800-835-2526 / buntingmagnetics.com

## Stainless Steel Solutions

HISC® High Intensity Separation Conveyor®





**Chopped Copper Wire** 



**ICW Insulated Copper Wire** 



Shredded Small-Fraction Stainless Steel



Shredded Small-Fraction Stainless Steel



Shredded Mid-Fraction Stainless Steel



Shredded Large-Fraction
Stainless Steel

# 2 Machines to Hold, Attract and

#### HISC® High Intensity Separation Conveyor®

#### Magnetic Separation of Small and Mid-Sized Stainless Steel 1/2" to 2"

The first of its kind in the industry, the HISC High Intensity Separation Conveyor incorporates extremely high gauss fields, neodymium rare earth magnets and a field-tested design to achieve maximum stainless steel separation of smaller stainless steel fractions. Through Bunting® Magnetics Engineering and Magnetic Finite Element Design software technology we've developed technology to attract, hold and extract paramagnetic work-hardened 300 stainless steel metal and chips from your product stream. Recycled chopped wire, plastic flake, e-scrap and more can now be stainless-free.

Pulley Diameter 6" extreme high intensity field Pulley Construction Neodymium Exposed Pole circuit

Belt 2-ply urethane with 30mm flexwall and ½" v-guide cleats on 12" centers

Belt Speeds 60-120 fpm variable speed with VFD depending on application Sideguards Formed 3/16" with flexwalled belt to seal off and contain flow

Frames Formed 3/16" with stainless steel frame at disc and forklift slots for installation

**Motor** 34 to 1 ½ hp 3ph 60 hz

Capacity 500-1,000 lbs per foot/per hour depending on application





"With the HISC, we are able to successfully separate 300 pounds of stainless steel from our scrap per day with an estimated ROI in less than a year! Bunting has built something no one else in the industry has."

- Pat Dooley / Pacific Steel & Recycling / Boise, Idaho

"In the business of metal recycling, our profitability depends on the volume of recovered product and the purity of that product. Bunting Magnetics' High Intensity Separation Conveyor, and its unmatched ability to get stainless steel out of our mid-sized fraction, ensures we get the purity needed to sell to our domestic smelters."

- Kevin Gershow / Gershow Recycling / Medford, New York

"The HISC has done everything that Bunting Magnetics said it woud do! It has been very helpful in purifying my chopped copper wire material. I am extremely pleased with the performace of the HISC."

- Chris Reeves / Copper State Metals / Phoenix, Arizona

### Extract Stainless Steel Metals

#### SSSC® Stainless Steel Separation Conveyor®

#### Magnetic Separation of Small to Large Sized Stainless Steel 1" to 5"

Discover the latest invention in stainless steel separation from Bunting® Magnetics Co. Now, you can separate up to 94.1% irregular shaped paramagnetic work-hardened stainless steel - 4" to 5" in size - from your recycled materials or in copper wire application. Thanks to a patented magnetic circuit design of high-intensity neodymium rare earth magnets, maximum separation of big pieces of work-hardened stainless steel - materials once thought impossible to separate – are now easily attracted and extracted for the purest product possible.

**Pulley Diameter** 

Belt

**Belt Speeds** 

Sidequards

Frames

Motor

8" and 12"- larger circuit to hold larger stainless steel fractions Pulley Construction Patented Magnetic Circuit design encased in stainless steel

2-ply urethane with 30mm flexwall and ½" v-guide cleats on 12" centers

60-120 fpm variable speed with VFD depending on application Formed 3/16" flexwalled belt to seal off and contain flow

Formed 3/16" with stainless steel frame at disc and forklift slots for installation

34 to 2 hp 3ph 60 hz

General Capacities are between 500 to 1,000 lbs/hr per foot width of conveyor on Capacity

smaller stainless and wire fractions. Capacities between 1,000 lbs#/hr to 2,000 lbs/hr

on larger fractions.





Optional Vibratory Tray with AR400 impact plates for heavy material



Optional Air Knife

\*Field test and lab results



Scan for more product information and to see a 360 ° 3D Video

#### **Applications**

#### · ASR Stainless Steel Separation / Zurik Purification

Magnetically pulls out stainless steel recovering from the Finder or Zurik streams and purifying stainless steel fraction streams.

#### · Appliance Recycling Stainless Separation

Magnetically recovering lost stainless steel to improve profitability.

#### · ICW Wire Separation / Wire Chopping Purification

Magnetically pulls out stainless steel to clean wire so it can be chopped and final purification of copper streams by ferrous and stainless steam removal.

#### **Specifications**

#### **HISC® High Intensity Separation Conveyor ®**

Model Number Selection Guide

Pulley Diameter	Belt Width	Conv Length	Model Number
6"	18"	36"	HISC 6-18-36
6"	24"	48"	HISC 6-24-48
6"	36"	72"	HISC 6-36-72
6"	48"	96"	HISC 6-48-96
6"	66"	120"	HISC 6-66-120

General Capacities are between 600 to 1,200#/hr per foot width of conveyor.

#### SSSC® Stainless Steel Separation Conveyor®

Model Number Selection Guide

Pulley Diameter	Belt Width	Conv Length	Model Number
8"	24	48	SSSC 8-24-48
8"	36	72	SSSC 8-36-72
8"	48	96	SSSC 8-48-96
8"	60	120	SSSC 8-60-120
8"	78	144	SSSC 8-78-144
12"	36	72	SSSC 12-36-72
12"	42	84	SSSC 12-42-84
12"	48	96	SSSC 12-48-96
12"	60	120	SSSC 12-60-120
12"	78	144	SSSC 12-78-144

General Capacities are between 500 to 1,000#/hr per foot width of conveyor on smaller stainless and wire fractions. Capacities between 1,000#/hr to 2,000#/hr on larger fractions.



Electro Drum Magnet



Eddy Current Separation Conveyor



Permanent CrossBelt Separator



Electro Crossbelt Separator



Permanent Magnetic Separation Pulleys



Conveyors

