Automate chip removal and increase your productivity with conveyors that safely remove the waste from your processes. Our systems are built based on your requirements and can be custom engineered to manage any chip type and material, scrap, parts, coolant, and coolant filtration.

Our Chip Disc Filtration (CDF) technology achieves high levels of filtration without two separate belts. Our patented disc design provides a direct coolant flow path into the coolant reservoir and can filter a wide variety of materials, both in water and oil based coolant, down to 25 microns nominal.

Fully automate the waste removal in your facility with integrated coolant tanks and conveyor networks. For high-volume manufacturers, Hennig’s integrated systems can automate the removal of chips on one or all of the machine tools in the shop. This system allows the user to spend more time manufacturing and less time sweeping and moving chips.

Our chip conveyors and disc filtration systems set the standard for removing chips and debris from machine coolant, improving the life of precision machines and the accuracy of output. They are supported worldwide with Hennig’s global sales and support infrastructure, which includes manufacturing facilities and partnerships throughout the industrialized world, including:

- Sermeto EI (Europe)
- Cobsen (South America)
- Enomoto (Asia)

Together, Hennig, Sermeto, Cobsen, and Enomoto lead the industry in developing innovative new chip conveyor technologies, offering a complete range of chip conveyor solutions tailored to particular machine types, performance requirements, and work area considerations.

Our chip conveyors outperform expectations, even in the most demanding production environments, and they do it more efficiently and with less maintenance than other conveyor solutions.

See pages 23 – 25 for Quote Request forms.
CONVEYORS

FEATURES
- OVERLOAD/JAM PROTECTION
- VARIABLE SPEED DRIVE 1.1m/min - 3.3m/min
- PAINT COLORS blue, white, grey, black (standard) custom colors as required
- INCLINE ANGLE 60° / 45° (standard) custom angles as required
- LOW PROFILE DESIGN

OPTIONS
- REMOTE VFD OR CONTROL BOX 1.6m/min, 2.2m/min, 3.0m/min
- OVERHEAD TORQUE LIMITER
- CUSTOM COOLANT TANKS
- CUSTOM COOLANT FILTRATION
- CUSTOM PAINT COLORS
- CUSTOM INCLINE ANGLE
- CUSTOM CHUTES
- HEAVY-DUTY HARDENED RAILS AND CURVES
- WEARING PLATE / BOTTOM FRAME
- ON-SITE INSTALLATION
- CASTERS

TYPES
- HINGE BELT
- SCRAPER BELT
- MAGNETIC AUGER
- PUSH BAR
- BELT TYPE
- SPECIAL APPLICATIONS
HINGE (link, chain)

A proven conveyor solution for a variety of materials, chip types, and chip loads. Hinge belts, the most common conveyor type, can be modified to handle more troublesome waste like tough scrap and heavy parts.

**APPLICATIONS**
- CHIP MATERIAL: aluminum, brass, steel
- CHIP TYPE: bushy, stringy, broken
- CHIP LOAD: light, heavy, mixed
- OTHER: heavy duty scrap or remnants

**LIMITATIONS**
- swarf
- fines
- cast iron

**OPTIONS**
- BELT DESIGN: plain, perforated, dimpled, combo
- BELT PITCHES * (MM): 1.5 (38.1), 2.5 (63.0), 4.0 (101.6), 6.0 (152.4)
- CLEATS: serrated, flat, u-shape, custom
- INTEGRATED COOLANT TANK
- COOLANT FILTRATION
- HEAVY-DUTY IMPACT PLATES for heavy scrap or parts
- TOP HAT COVER for bundled chips
- HINGE KIT service / replacement parts (see pages 13-14)

SCRAPER (drag, flight)

An ideal solution for fine chips and swarf, the scraper belt moves in reverse, collecting and dragging chips up the incline to the discharge end. Standard scraper paddles can be customized with wipers to the application.

**APPLICATIONS**
- CHIP MATERIAL: aluminum, brass, steel, cast iron, plastic
- CHIP TYPE: fines, swarf, small, broken
- CHIP LOAD: light, heavy, mixed

**LIMITATIONS**
- bushy chips
- stringy chips
- mixed chips

**OPTIONS**
- PADDLES: standard or custom angle
- WIPERS
- INTEGRATED COOLANT TANK
- COOLANT FILTRATION
- SOLID DRUM MAGNET for floating, ferrous chips when using coolant
- WEARING PLATE with hardened rails and curves / bottom frame
**BELT TYPE**

The universal transport solution for applications without any liquids. The belt conveyor allows the transport of parts and scraps in metal, plastic, and cardboard up to 15 kg / linear meter. It is suitable to solve extraction problems (pressure forming parts, punching scraps and trimmings) or level change. The conveyor transport belt is oil and grease resistant.

**APPLICATIONS**
- CHIP MATERIAL: any
- CHIP TYPE: punch scraps, trim pieces
- CHIP LOAD: light, medium
- OTHER: part removal

**LIMITATIONS**
- fines
- small, broken
- heavy parts and scrap

**OPTIONS**
- PVC OR PUR BELT: up to 80°C
- CUSTOM BELT FOR HIGH TEMPERATURES: over 80°C
- WITH OR WITHOUT CLEATS
- OIL/GREASE RESISTANT BELTS
- INTEGRATED DRIVE MECHANISM
- WIPPERS

---

**MAGNETIC**

The magnetic conveyor plays a very specific role in chip management - it's intended for ferrous material applications which produce small chips and fines.

**APPLICATIONS**
- CHIP MATERIAL: ferrous material (cast iron, steel)
- CHIP TYPE: fines, swarf, sludge, small and broken
- CHIP LOAD: light, medium
- OTHER: small parts (screws, bolts, stamping, scraps, etc.)

**LIMITATIONS**
- cannot be used with non-ferrous material
- heavy chips, scraps, or large parts can damage the sheet metal belt

**OPTIONS**
- COOLANT TANKS
- HIGH TEMPERATURE RESISTANCE
- SOLID DRUM MAGNET: to clean fine particles from the coolant
**AUGER (screw)**

Ideal for limited space applications, the auger system can be installed in the machine tool or directly into the floor. The addition of a mobile (transfer) conveyor can be used to roll around the shop and assist with chip removal from high production auger fed systems. The mobile (transfer) conveyor allows for larger chip bins/drums and features an adjustable receiving chute which can be positioned for front, side, or rear discharge.

**APPLICATIONS**
- CHIP MATERIAL: aluminum, brass, steel, cast iron
- CHIP TYPE: fines, swarf, small and broken
- CHIP LOAD: light, heavy, mixed
- OTHER: wet or dry applications

**LIMITATIONS**
- parts and large scraps
- bushy chips from turning

**OPTIONS**
- TORQUE LIMITER
- INSTALLATION: in auger or directly in machine frame
- SCREW: with or without shaft
- MOBILE (TRANSFER) CONVEYOR: assists high production chip removal. Available with adjustable chip chute for front, side, or rear discharge.

**PUSH-PULL BAR (ram, bar)**

Used to transport all types of swarf in big quantities, the push-bar system can be installed under or above the floor to suit your application.

**APPLICATIONS**
- CHIP MATERIAL: any
- CHIP TYPE: any
- CHIP LOAD: mixed, heavy

**LIMITATIONS**
- parts or scrap cannot be bigger than the shoe dimensions

**OPTIONS**
- PREFILTRATION GRID: for coolant discharge
- WEARING PLATE: with hardened bottom frame
SPECIAL APPLICATIONS

Unique work environments. Specialized machine configurations. Varying chip volumes. These are just a few of the special requirements that indicate the need for a custom chip conveyor solution.

Hennig engineers can create modified or special solutions to meet the needs of virtually any application including dust and gas removal during dry machining.

APPLICATIONS
- CHIP MATERIAL any
- CHIP TYPE any
- CHIP LOAD any
- OTHER dust, gas, laser machines

OPTIONS
- BUILT TO YOUR REQUIREMENTS any options your application requires
- SUCTION DEVICE for fumes, mist, and dust
- WEARING PLATE with hardened bottom frame

SERVICE & SPARE PARTS

When your conveyor needs service or repair, we have parts in stock to get your conveyor up and running, and also the skilled personnel to repair or replace the damaged or worn parts.

Conveyor belts, drive motors, and other parts can get damaged, worn, or just get old. Before investing in an entirely new system, check with us to see if your existing system can be repaired.

1 FRONT CHAIN GUARD
2 TORQUE LIMITER ASSEMBLY
3 LH INNER GUARD
4 TAKE UP BEARING
5 INSIDE CHAIN GUARD
6 BELT SPROCKET
7 ADJUSTABLE SUPPORTS
8 CASTER OPTION
9 FLIP LID
10 DRIVE CHAIN
11 GEAR MOTOR SPROCKET
12 GEAR MOTOR
13 TORQUE LIMITER KEY
14 BELT SPROCKET KEY
15 DRIVE SHAFT
16 RH INNER GUARD
17 BEARING COVER
18 HINGE PLATE KIT
19 WHOLE BELT REPLACEMENT
COOLANT MANAGEMENT. SIMPLIFIED.
The patented Chip Disc Filtration (CDF) technology achieves high levels of filtration without two separate belts. Our patented disc design provides a direct coolant flow path into the coolant reservoir and can filter a wide variety of materials, both in water and oil based coolant, down to 25 microns nominal.

This affordable, versatile approach to chip removal is Hennig designed and patent protected. It is the most simple approach to coolant filtration in the market today. The Hennig CDF system is simple by design, and can be used with a scraper type belt or a hinge belt.

CAST IRON FILTRATION. MADE EASY.
For the notoriously difficult cast iron applications, the addition of a solid rotating magnetic drum can be incorporated for efficient removal of floating chips, fines and sludge.
CHIP DISC FILTRATION (CDF)

**ONE BELT SYSTEM FOR ALL CHIP TYPES**
Unlike many nylon mesh drum systems, CDF technology does not need two belt systems to handle stringy chips, and can be used with hinge or scraper belts.

**CONTINUOUS SELF-CLEANING OPERATION**
Continuous spray filters coolant against the stainless steel media, removing fines & chips. No outside source such as air or steam is used.

**OPTIONS**
- **BELT TYPE**
  - hinge or scraper belt
- **STAINLESS STEEL FILTER DISC SIZE**
  - 12”, 16”
- **SINGLE OR MULTIPLE FILTER DISCS**
  - depending on coolant flow rate
- **SOLID ROTATING MAGNETIC DRUM**
  - for collecting cast iron sludge/swarf

**FEATURES**
1. MAIN FLOOD COOLANT PUMPS
2. HIGH PRESSURE PUMP 300 – 1000 PSI
3. BACKWASH CDF PUMP
4. DISC ACCESS COVER PANELS
5. COOLANT TANK
6. CONTROL BOX
7. LOW INLET HEIGHT
8. BAG FILTER

**PATENTED DISC FILTRATION DESIGN**
Hennig’s innovative design provides a direct coolant flow path into the coolant tank reservoir, and filters a wide variety of materials both in water and oil based coolants.

**STAINLESS STEEL MEDIA**
Handles momentary or continuous heavy chip loads from 25-120 microns nominal, which can be a problem with nylon mesh, drum filters.

**HOW IT WORKS**

1. **COARSE CHIP REMOVAL WITH HINGE OR SCRAPER BELT**
The belt (hinge or scraper) collects larger chips and particles for discharge into the chip hopper. Removing coarse chips before they reach disc filter keeps them from bundling and jamming the system, which fosters extremely efficient fine particle filtration.

2. **FINE PARTICLE FILTRATION**
**FILTERING COOLANT**
Small particles that escape the belt naturally migrate with the coolant flow to the rotating disc filter. There, particles down to 25 microns are collected and the cleaned coolant flows back into your tank.

**REMOVING PARTICLES**
The collected particles rotate with the disc filter and are lifted out of the coolant, towards the backwash spray. There, the particles are blasted onto the belt with a backwash spray and removed along with the coarse chips.

3. **CAST IRON MICRO-FILTRATION**
**COLLECTING & DISCARDING CAST IRON FINES**
The addition of a solid rotating magnetic drum allows for cast iron fines to be collected and removed from the coolant.

When enough particles have collected on the magnetic drum to form a heavy sludge, the sludge drops onto the dry conveyor incline and is discarded along with the coarse chips and particles that have been collected on the disc filter into the chip hopper.
Fully automate the waste removal and coolant recycling in your facility with fully integrated Hennig chip management and coolant systems. Leverage our experience to design your complete chip and coolant solution from start to finish.

For high-volume manufacturers, Hennig’s integrated systems can automate the removal of chips on one or all of the machine tools in the shop. This system allows the user to spend more time manufacturing and less time sweeping and moving chips.
COOLANT TANKS & TURNKEY SYSTEMS

COOLANT TANKS

CUSTOM ENGINEERED. MADE TO ORDER.

Using integrated or auxiliary tanks, coolant is quickly cleaned and recycled during the machining process, resulting in fewer interruptions and less downtime.

Our tanks are made from heavy gauge steel to provide leak-free service in harsh shop environments. Removable cover plates allow easy access to the tank’s interior for quick, easy maintenance. Liquid level sight gages are a standard feature, and baffles, chip baskets, and removable screens can also be added.

OPTIONS

- AUXILIARY OR INTEGRATED TANKS
- REMOVABLE COVER PLATES
- LIQUID LEVEL GAGES
- BAFFLES / CHIP BASKETS / SCREENS
- CARTRIDGE AND/OR CYCLONIC FILTERS
- FLOAT SWITCHES
- OIL SKIMMERS
- COOLANT PUMPS
- CUSTOM G / MIN OR PSI REQUIREMENTS
- INTEGRATED CONTROLS FOR PUMP / FILTER AUTOMATION

CDF CONVEYOR WITH INTEGRATED COOLANT TANK

T-SHAPED, AUXILIARY COOLANT TANK

SQUARE-SHAPED, AUXILIARY COOLANT TANK

L-SHAPED, AUXILIARY COOLANT TANK
If your conveyor system requires integration in the machine controls or automation beyond our standard control system, we can build a tailor-made solution that does the job. If you’re looking to further process your chips for shredding or recycling, we can integrate any of the technology required.

We have a long history serving the machine tool industry but we’ve made plenty of specialized conveyors that move finished parts, machined remnants, scrap materials, and other items beyond metal chips. We’ll help you integrate all of the technology and controls you need to take chips and coolant management to a higher standard.

**APPLICATIONS**
- CHIP MATERIAL any
- CHIP TYPE any
- CHIP LOAD light, heavy, mixed
- OTHER high volume chip makers

**OPTIONS**
- CHIPS SHreddER
- SWARF CENTRIFUGE
- SWIVELING CHUTES manual or automated
- CHIPS COMPACTOR
- VIBRATING TABLE
- FILTRATION

**TURNKEY, INTEGRATED CONVEYOR NETWORKS**

*Right:* An integrated conveyor network designed and manufactured by Serenno. Smaller conveyors from the machining centers discharge onto the main exit conveyor for efficient chip removal from multiple machines.

*Bottom Left:* Adjustable chip chutes can be positioned at multiple discharge angles.

*Bottom Right:* Conveyors move chips from multiple machining centers onto one integrated conveyor for easy and efficient chip removal.
### MACHINE INFORMATION

- **Cast Iron**  
- **Aluminum**  
- **Cast Aluminum**  
- **Other**
- **Lg Bushy**  
- **Tight Bushy**

- Chip Material:  
  - **Soft Steel**  
  - **Hard Steel**  
  - **Stainless Steel**  
  - **Brass/Copper**  
  - **Other**

- **Kind of Chips**:  
  - **Fine**  
  - **Broken**  
  - **Large Broken**

- **Spindle Horse Power**: ____________ hp
- **Available Power**:  
  - **440**  
  - **220**  
  - **110**  
  - **24 VDC**  
  - **Other**

- **Type**:  
  - **Lathe**  
  - **Milling**  
  - **Drilling**  
  - **Tapping**  
  - **Other**

- **Chip Volume**: _______________ in³/min

- **Make**: __________________________
- **Model**: __________________________
- **Available References**:  
  - **Photos**
  - **Drawings**

- **Belt Type**:  
  - **Hinge**  
  - **Plain**  
  - **Perf**  
  - **Dimple**  
  - **Scraper**  
  - **Magnetic**

- **Brand**:  
  - **Hennig**  
  - **Enomoto**  
  - **Sermeto**  
  - **Cobsen**

- **Part #**: ________________________
- **Serial #**: ________________________

### CONVEYOR TECHNICAL DATA

- **Intake Length**: _______________ mm
- **Max Length**: _______________ mm
- **Discharge Height**: _______________ mm
- **Max Width**: _______________ mm
- **Angle (45°, 60°)**: _______________ deg
- **Width of Chip Chute**: _______________ mm
- **Height of Chip Chute**: _______________ mm
- **Belt Width**: _______________ mm
- **Foot Location (choose one)**:  
  - **B**  
  - **C**

- **Coolant Slots**:  
  - **Left Side**  
  - **Right Side**  
  - **Stand Alone**

- **Coolant Flow Rate**: _______________ gal/min (total machine)

- **Filtration Level**:  
  - **25-30 micron**
  - **35-40 micron**

- **Coolant Type**:  
  - **Water Soluble**  
  - **Synthetic**

- **Oil**: _______________ ssu

- **Overload Protection**:  
  - **Current Sensor**  
  - **Mech. Torque Limiter**

- **Installed Location**:  
  - **On Floor**  
  - **Inside Machine**

- **Control Box Location**:  
  - **Top Front**  
  - **Top Left**  
  - **Top Right**

- **Control Box**:  
  - **Yes**  
  - **No**

- **Electrical Plug**: 
  - **Standard (fwd, rev, e-stop)**  
  - **Variable Speed**

- **Power Requirements**:  
  - **V_______**  
  - **Ph_______**  
  - **Hz_______**

- **Paint (texture powder coated)**: 

- **Casters**:  
  - **Yes**  
  - **No**

- **Control Location**:  
  - **Top Front**  
  - **Top Left**  
  - **Top Right**

- **Control Box Location**:  
  - **Top Front**  
  - **Top Left**  
  - **Top Right**

- **Control Box**:  
  - **Yes**  
  - **No**

- **Electrical Plug**: (if yes, please specify below)

- **Installed Location**:  
  - **On Floor**  
  - **Inside Machine**

- **Control Box Location**:  
  - **Top Front**  
  - **Top Left**  
  - **Top Right**

- **Control Box**:  
  - **Yes**  
  - **No**

- **Electrical Plug**: (if yes, please specify below)

- **Installed Location**:  
  - **On Floor**  
  - **Inside Machine**

- **Control Box Location**:  
  - **Top Front**  
  - **Top Left**  
  - **Top Right**

- **Control Box**:  
  - **Yes**  
  - **No**

- **Electrical Plug**: (if yes, please specify below)
### MACHINE INFORMATION

**Make** ☐ Lathe ☐ Milling ☐ Drilling ☐ Tapping ☐ Other ☐

**Type** ☐ Lathe ☐ Milling ☐ Drilling ☐ Tapping ☐ Other ☐

<table>
<thead>
<tr>
<th>Chip Volume</th>
<th>___________ in³/min</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Available References</th>
<th>☐ Photos ☐ Drawings</th>
</tr>
</thead>
</table>

### COOLANT TANK TECHNICAL DATA

**Tank Shape** ☐ Square/Rectangular ☐ L Shape ☐ T Shape ☐ Other ☐

| L1 | ___________ mm |
| L2 | ___________ mm |
| W1 | ___________ mm |
| H  | ___________ mm |

**Tank Size**

<table>
<thead>
<tr>
<th>Tank Mounting</th>
<th>☐ On Floor ☐ In Pit ☐ Other ☐</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Tank Options</th>
<th>☐ Casters ☐ Leveling Bolts ☐ Inspection Cover ☐ Removable Screen(s) ☐ Other ☐</th>
</tr>
</thead>
</table>

**Paint (texture powder coated)**

**Pump 1** ☐ None ☐ Model ☐

<table>
<thead>
<tr>
<th>Flow Rate</th>
<th>___________ gal/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure</td>
<td>___________</td>
</tr>
<tr>
<td>Voltage</td>
<td>___________</td>
</tr>
</tbody>
</table>

**Pump 2** ☐ None ☐ Model ☐

<table>
<thead>
<tr>
<th>Flow Rate</th>
<th>___________ gal/min</th>
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</thead>
<tbody>
<tr>
<td>Pressure</td>
<td>___________</td>
</tr>
<tr>
<td>Voltage</td>
<td>___________</td>
</tr>
</tbody>
</table>

**Pump 3** ☐ None ☐ Model ☐

<table>
<thead>
<tr>
<th>Flow Rate</th>
<th>___________ gal/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure</td>
<td>___________</td>
</tr>
<tr>
<td>Voltage</td>
<td>___________</td>
</tr>
</tbody>
</table>

**Filter** ☐ Single Canister Bag ☐ Dual Canister Bag ☐ Cyclonic

<table>
<thead>
<tr>
<th>Required Filtration Level</th>
<th>___________ microns</th>
</tr>
</thead>
</table>

**Float Switch** ☐ High Level ☐ Low Level ☐ None

**Oil Skimmer** ☐ Yes ☐ No

**Coolant Capacity** ___________ gallons

**Coolant Flow Rate** ___________ gal/min (total machine)

**Coolant Options**

**Additional Options** ☐

<table>
<thead>
<tr>
<th>Additional Information</th>
<th>______________________</th>
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</tbody>
</table>

**Additional Information**

For over 50 years, Hennig Worldwide has been defining Excellence in Machine Protection, creating regional jobs, serving their local communities, and supporting the global needs of machine tool customers.

Specializing in chip management, machine protection, and facility safety, Hennig products optimize production and keep your shop floor clean and safe.