

# Wedgewire Suction Indexing Drum (SID) Filter with Bottom Pan Conveyor

Also called Hinged Belt or Apron Conveyor



Automatic Operation

Less filter tank space providing more filter area

Conveyorizes stringy chips, ball and bundles easily

Permanent stainless steel filter screen (s)

Modular design for inspection on-the-fly

No disposable media required

Easy adjustment - minimal maintenance



# Wedgewire Suction Indexing Drum (SID) Filter Operation

## Basic Flow through a SID Filter during a Filter Cycle

1. Contaminated coolant enters the dirty tank and is pulled through the filter drum. It then enters the suction bulkhead and goes into the suction box.
2. The pump draws clean coolant from the suction box and sends it out to the machine tool.
3. Excess coolant drawn by the pump is returned to the clean tank reservoir to keep it full and overflowing.

## Sequence of Events during an Index Cycle

1. The filter senses that the vacuum or time on the element has reached the pre-set point and signals the filter to index.
2. Vacuum Release Valve opens, allowing coolant from the clean tank to enter the suction box and break the vacuum, releasing the cake for easy removal.
3. The coolant is now drawn from the clean tank reservoir to provide continuous flow to the machine tools.
4. After a dwell time, the filter drum rotates a pre-set number of strokes, removing chips with a positive wiper.
5. After the drum has rotated, the Vacuum Release Valve closes and flow through the screen resumes as the filter enters a new filter cycle.

This sequence maintains a porous cake allowing in-depth filtration and extended cycles.

