

# Belt Vacuum System

## Technical Bulletin



## Belt Vacuum System

### Standard Features on the Belt Vacuum System

- Chemical cost reduction
- Reduced tank heating costs
- Reduced water usage
- Reduced maintenance costs due to cross-contamination
- Reduced fuel usage due to less water introduced into the Dry-Off Oven

The patented Belt Vacuum System is designed to remove excess liquid from the washer conveyor belt and the cut edge of the cans as they are conveyed from stage to stage. This enhancement is used in addition to the air knife blow-offs and belt brushes to recycle washer solutions and prevent cross-contamination of the washer stages.

In a recent field application, the Belt Vacuum System removed 2 to 3 gallons per minute (depending on conveyor speed) from the 1st and 2nd stage drain areas and recycled back to their respective stages.

The Belt Vacuum System is a vacuum tube constructed of 316 stain-

less steel with a UHMW (Ultra High Molecular Weight Polyethylene) wear pad with a machined slot, which is placed directly under the Washer Conveyor Belt in the drain area. A vacuum is drawn through a 316 Stainless Steel Pressure Blower that removes the solution from the conveyor belt and the cut edge of the cans as they pass over the machined slot. The solution is recovered in the sump area of the vacuum piping system and is piped back to the respective tank.

A complete Belt Vacuum System Kit for both new and existing washers is also available.

# Belt Vacuum System



## Recommended Stripper Locations

**Stage 2 should be isolated by providing two (2) strippers, one (1) stripper after stage 1 and one (1) stripper after stage 2**

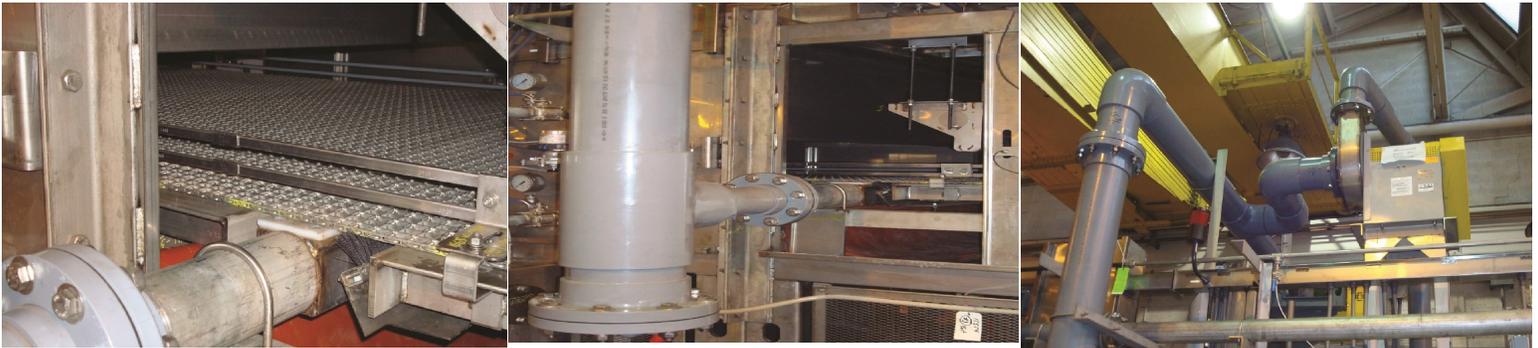
Strippers are recommended at these locations to reduce chemical costs by reducing the amount of carry-over of chemicals to the drag-out stage and reclaiming the chemistry for stage 2. They will reduce heating for stage 2. They will also reduce maintenance costs due to reduction of hydrofluoric acid contaminating downstream stage components.

**One (1) stripper should be provided after the treatment stage**

This stripper is recommended so as to reduce maintenance and down time by assisting in a sharp reduction in chemical carryover, reducing contamination of the rinse stages.

**One (1) stripper should be provided after the Mobility Enhancer (ME) stage**

This stripper is recommended so as to reduce costs due to the reduction of carryover of ME water into the oven. This will also result in a significant reduction in the amount of ME water required from the columns.



## Belt Vacuum Stripper

ITS provides one (1) vacuum stripper tube assembly at each recommended location. The stripper tube is constructed of 316 stainless steel with UHMW vacuum stripper pad. This stripper tube will be installed directly underneath the washer conveyor belt so as to withdraw solution from the conveyor belt and cut edge of the aluminum beverage cans. This solution will be drawn into a SCH 80 (CPVC in heated stages, PVC in ambient stages) drainpipe system

## Vacuum Stripper Fan

ITS provides one (1) stripper fan, V-belt driven by a motor to create the required vacuum for removal of the solution from the conveyor mat. All air stream fan components are constructed of 316 stainless steel fan support steel and required guarding.

### HEADQUARTERS USA

International Thermal Systems LLC  
4697 West Greenfield Avenue  
Milwaukee, WI 53214  
USA

Fax: 414-672-8800  
Main: 414-672-7700

### EUROPE

International Thermal Systems GmbH  
Steuerberater  
Königstraße 28  
D-70173 Stuttgart  
Germany

### ASIA

International Thermal Systems  
(Shanghai) Co LTD  
NO 725 Peng Feng Road, Bldg #2  
Da Gang, Town of Xiao Kunshun  
Songjiang District  
Shanghai, China 201614

Fax: +86 21 6774 2860  
Main: +86 21 6774 1033

