

## Support Services



### Design Support

You can call on our expertise and experience to help you achieve your dishware handling goals. The Aerowerks specialists can contribute to providing the right solution, for the best possible results.

### Technical Specialists

With our exclusive service agent, you can also depend on our full support, from preventive maintenance, routine service, emergency response, service contracts, genuine Aerowerks parts, technical assistance - whatever it takes to help keep your equipment up and running right - Aerowerks is the one to call



6625 Millcreek Drive, Mississauga, Ontario, Canada L5N 5M4  
Tel: (905) 363-6999 o 1-888-774-16161  
Fax: (905) 363-6998 [www.aero-werks.com](http://www.aero-werks.com)

Bringing new solutions to the table

# Soiled Tray Handling System



# EXCEPTIONAL FLEXIBILITY

From simple to complex, from manual to highly automated - no two systems are alike. Aerowerks understands that the needs of every operation are unique. So every Aerowerks conveyor system is custom configured using a variety of equipment options. You're assured of the exact solution, designed for your individual operation's volume and space requirements.

- It will combine the system components that are best suited for each part of the conveyor operation - from drop-off and breakdown, to delivery, and loading of the warewasher.
- It will offer the advantages of an Aerowerks unique multi-dimensional design. Unlike a one-level system, the multi-dimensional design allows operators to use vertical space for increased efficiency, and smoother movement of the ware through the system.
- Aerowerks will integrate with the best warewasher for your operation to give you the best total solution: a high-volume, flight-type or medium-volume, rack-type C-line warewasher.



**An Aerowerks up-racking system** handles the highest volume with ease. Cup/glass racks are up-loaded onto a power roller conveyor for hands-free delivery to the warewasher. Plates and bowls are stacked on a Slat Belt Conveyor for accumulation and delivery to the load end of the warewasher.

# OPERATING EFFICIENCY & LABOUR SAVINGS

Thanks to the multi-dimensional design and other operational features of an Aerowerks conveyor, you will achieve major savings in manpower needs and costs.

- Ware will move to the breakdown area in the most efficient way possible. It may be conveyed, carted or bussed in...coming from a banquet room, cafeteria or individual hospital patient rooms...from the same or different floor. The exact solution will depend on your type of foodservice operation; the volume, space and distance factors; and the need for automation.

- With an Aerowerk's multi-dimensional design, operators will sort, scrape, collect and rack ware on multiple levels. Smooth delivery of the ware to the warewasher is then accomplished by power and gravity rollers for stacked ware. The system is more efficient and saves labor because there's little lateral movement by the operators, and ware is accumulated rather than being randomly loaded into the warewasher.

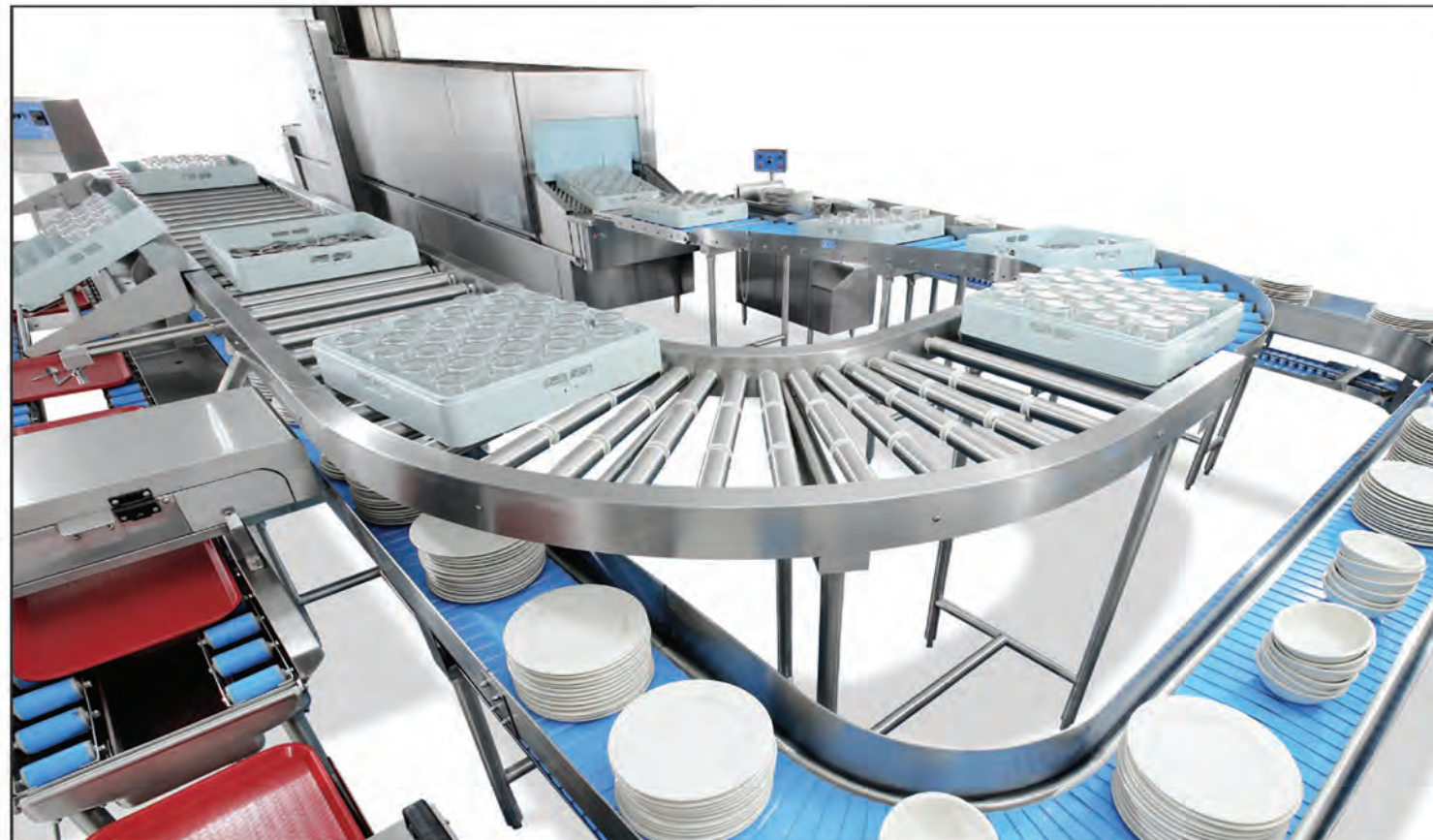
- Because the system allows ware to be accumulated, then held until it's time to activate the warewasher, your warewasher will operate only when needed, maximizing its capacity. You'll save water, chemicals and energy, and reduce machine wear and tear. It will also allow you to match your labor force to volume needs.



The system's operating ease can be extended with options like a self-leveling tray cart and a magnetic cutlery picker with soak sink. Plus, you can add time and work-saving options like a tray cart and magnetic cutlery remover that will speed the operation and simplify the job even more.



A knee activated accumulation switch located at the scrapping table allows operators to maximize accumulation before bussing the wares to the load end.



The breakdown areas of an Aerowerks up-racking system allow operators to work on several levels. They accomplish more in a concentrated area, saving time and labour.



A lift gate on an up-racking system gives the operator maximum control. Lowered, glass/cup racks automatically load into the warewasher. Raised, glass/cup racks accumulate for later loading; or stacked ware arriving on the slat belt conveyor can be manually loaded.

# EASY OPERATION

Aerowerks has designed their conveyor systems to be simple for the operator to control and monitor. All main controls are together on a single panel, with some functions automated for hands-free operation. Belt speeds are adjustable, so that management has the ability to match the workload with the available manpower. There are controls for belt wash systems, with an indicator light to signal low detergent. On an upracking system, there is a hip activated accumulator switch which allows the operator to advance the slat belt as needed for maximum accumulation. This provides control and eases loading of ware into the warewasher.



The scrapping table incorporates a magnet to help prevent cutlery from going into the pulper or disposer.



The conveyor detergent reservoir is conveniently out of the way, yet easy to access for refilling.



The optional plate wash speeds scrapping. The spray can run continuously or in a "sensor" mode with adjustable run time for each activation.



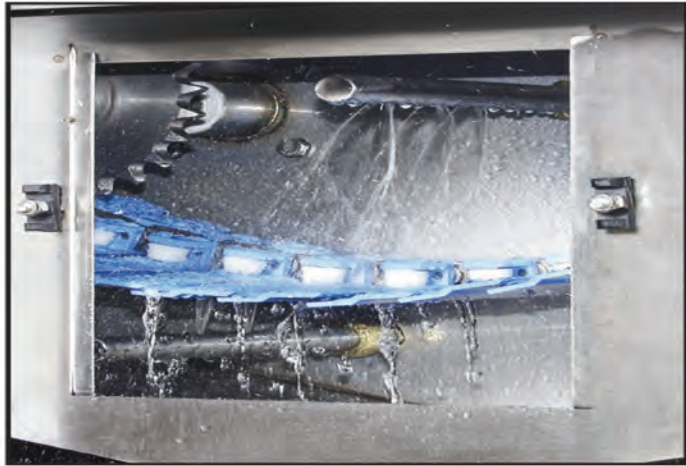
Controls are located within easy reach of the operator



A remote panel allows the operator to activate the power rollers and accumulating conveyor for increased control flexibility.

# EASY CLEANING

It takes minimal effort and time to keep an Aerowerks conveyor clean, which is a key to its cost savings. All of the components are designed to make the cleanup job simple. The conveyors and roller assemblies easily lift up or out to allow quick wipe down, and all other parts of the system simply hose down. Part of the cleanup job is accomplished automatically. Slat belt conveyors virtually clean themselves with a belt wash system.



On its return track, the slat belt conveyor passes under water sprays which wash scraps into a scrap basket. It also rides on a thin layer of water and detergent, virtually cleaning itself.



Aerowerks unique slat belt conveyor lifts out easily at any point, even in curves, for simple clean up. The slats are designed with a tapered plane to minimize trapping of food.



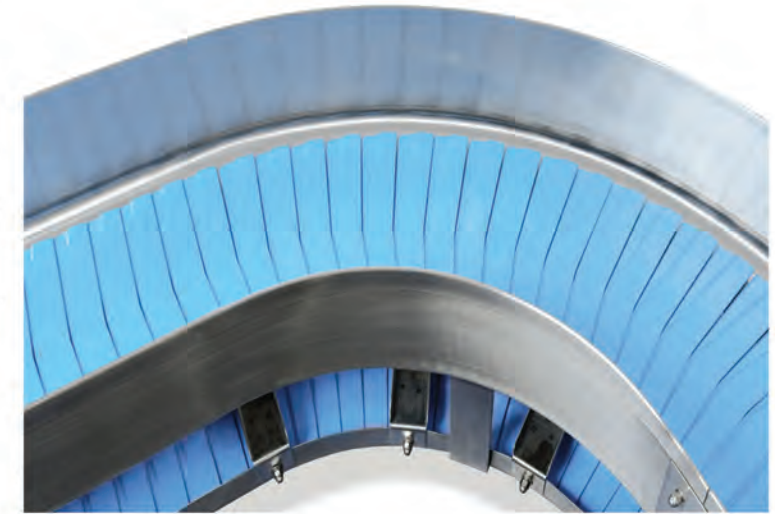
Breakdown area is sloped for better draining of water and debris into the trough. Trough roller assemblies and plate ledges remove easily for cleaning and wipe-down.



A conveniently located washdown station with heavy duty hose and spray nozzle makes cleanup easy.

# RELIABILITY

Aerowerks conveyors are designed with the most advanced components to assure reliable performance. They include the latest features to make sure your system delivers dependable, cost-efficient results. Included are tough, smooth operating slat belt, power roller sections with the drive chain covered for safety and reliability; gravity roller sections with PVC and stainless steel rollers and water supply hoses with stainless steel overbraid and threaded couplings rather than soldered copper tubing for added reliability. All drive motors are water-proof TEFC (Totally Enclosed Fan Cooled) for maximum reliability in the wet environment. All electrical components are UL listed or recognized and all components are constructed to NSF standards.



The unique slat belt conveyor rolls flat around corners with little friction and no gaps, resisting wear and reducing strain on motors and parts.



# SPECIFICATIONS

## SLAT BELT CONVEYOR

Provide conveyor as shown on plan. Unit shall be Aerowerks model SBC Conveyor.

### A. SBC Belting

SBC Belting shall be Aerowerks K10SF-AD. Belting shall have a tensile strength of 6100lbs. and shall "side-flex" to a minimum of 18" centerline radius at corners on consultant's drawings. There shall be no sliding friction at corners between belt and groove or guide rail. Both slide bed groove and return track shall be self-cleaning by the action of the belt, and no drip pans or drain connections shall be allowed except at the ends of the conveyor. Belt take-up shall be accomplished by compression of slack in the return strand using belt guides integrally mounted in the drive unit.

### B. Drive Frame

All Stainless steel angle frame with 1-5/8" diameter 6" high stainless steel legs and adjustable stainless steel bullet feet

### C. Drive Housing

Drive frame shall be fitted with a 18 ga. stainless steel housing to enclose drive frame on all sides. For access provide stainless steel double wall hinged insulated doors. Where side or end panels are fitted to frame, they shall be sealed with silicone. Drive cabinet to house all necessary plumbing and detergent injection pump for the belt wash system.

### D. Drive Tank

Provide all welded 14 ga stainless steel wash chamber equipped with lift-off access panels and removable scrap tray.

### E. Drive Shaft

Provide 1" stainless steel drive shaft mounted within wash chamber on dual-type sealed

bearings (Aerowerks grease-filled sealed cartridge inside chamber; precision ball bearing flange cartridge outside chamber).

### F. Belt Wash

Provide wash system consisting of stainless steel manifolds inside wash chamber. Spray manifolds to be strategically located to effectively clean the belt, and shall be easily removable without tools.

### G. Drive Motor

Provide variable speed 3/4 hp DC Motor and gear reducer. Speed to be changed by turning a knob located on the control panel.

### H. Plumbing Connections

- At Drive Cabinet:

1 1/2" waste  
1/2" hot and cold water  
- At Tail Tank  
1 1/2" waste

### I. Slide Bed

Provide 14 ga. 304 stainless steel bed formed with vertical and horizontal corners covered to a 1" radius. Unit shall be reinforced with channel mounted on stainless steel legs with adjustable bullet feet and rails.

## POWERED ROLLER CONVEYOR

Provide Powered Roller Conveyor as shown on plan. Unit shall be Aerowerks Model PRC-200, speed 35 feet per minute. Conveyor to form an integral part of Soiled Dish Table and shall carry standard 20" x 20" racks to gravity roller conveyor section.

### A. Construction

Unit shall be constructed of 14 ga. stainless steel side rails complete with cover plates. Drive unit housing shall be welded integrally with side rail, and gearmotor shall bolt

directly on to housing without any framing or additional housings.

### B. Rollers

Rollers to be 1.9" high quality stainless steel tubing fitted with self-lubricating acetal bearings. Rollers to be mounted between side channels and no part of the bearing or tube shall extend into the side channels. Sealing rings or grommets shall not be permitted.

### C. Driving System

Rollers shall be mounted on 1/2" diameter stainless steel shafts extending into side channels on both sides through Derlin bearing. One end of shaft shall be fitted with replaceable nylon sprockets.

### D. Drive Chain

Drive chain shall be constructed of corrosion resistant material and shall run on high-density polyethylene guides on top and return strand.

### E. Gear Motors

1/3 hp Gear motor shall be a totally enclosed fan cooled unit with corrosion resistant finish.

### F. Controls

Provide remotely located start/stop station with magnetic system that allows rollers to stop, but chain to continue moving when racks are accumulated on conveyor.

## GRAVITY ROLLER CONVEYOR

Provide Gravity Roller Conveyor as shown on plan. Unit shall be Aerowerks model GRC

### A. Rollers

Rollers shall be 1.9" stainless steel or blue PVC, fitted with polypropylene bearings with

stainless steel balls. Rollers to be spaced at approximately 5" centers. Rollers to be properly pitched to allow baskets to roll freely from powered sections to dishwasher.

### B. Shafts

Shafts shall be 7/16" hexagon aluminum securely bolted to side rails. "Floating" axles not permitted.

### C. Guide Rails

Guide rails shall be 1/8" x 2" stainless steel supported on the conveyor bed.

### D. Rack Size

System shall be designed to carry racks to size 20" x 20" unless otherwise stated.

## POLYCORD CONVEYOR

Provide conveyor of size and shape as shown on plan. Unit shall be Aerowerks model PC Conveyor.

### A. Belting

Belting shall consist of 2 strands of 1/2" diameter polyurethane conveyor cord equally spaced 8" apart as shown on consultant's drawing.

### B. Drive Frame

All welded stainless steel angle frame with 1-5/8" diameter 6" high stainless steel legs and adjustable stainless steel bullet feet.

### C. Drive Housing

Drive frame shall be fitted with a 18 ga. stainless steel housing to enclose drive frame on all sides. For access provide stainless steel double wall hinged doors. Where side or end panels are fitted to frame, they shall be sealed with silicone.

### D. Conveyor Drive

All pulleys shall be constructed of nylon material with fiberglass reinforcement. Drive and idler shafts shall be

stainless steel. Pulleys shall be fitted with self-aligning ball bearings and greased for life. No further lubrication shall be required on any bearings within the system. Provide adjustable take-up on conveyor cords and drive cord from motor.

### E. Drive Motor

Electronic variable speed, 3/4 H.P. D.C. motor with gearbox reducer and securely mounted in the drive housing. Speed to be changed by turning speed control knob at discharge end of conveyor.

### F. Return Pulleys

Return pulleys shall be 3" dia. constructed of nylon material with fiberglass reinforcement. Pulleys shall be fitted with self-aligning ball bearings set on 1/2" stainless steel shafts and mounted between intermediate channel framework.

### G. Belt Wash

Provide wash system consisting of spray manifolds inside wash chamber. Spray manifolds to be strategically located to effectively clean the belt, and shall be easily removable without tools.

### H. Drive Motor

Provide variable speed 1/2 hp DC Motor and gear reducer. Speed to be changed by turning a knob located on the control panel.

### I. Plumbing Connections

- At Drive Cabinet:  
1 1/2" waste  
1/2" hot and cold water  
- At Tail Tank  
1 1/2" waste

### J. Slide Bed

Provide 14 ga. 304 stainless steel bed formed with vertical and horizontal corners covered to a 1/2" radius. Unit shall be reinforced with channel mounted on stainless steel legs with adjustable bullet feet and rails.

## MAGNETIC CUTLERY REMOVER

Provide Magnetic Cutlery Remover as shown on plan. Unit shall be Aerowerks MCR-1300.

### A. Description

Provide conveyor structure of all 16 ga. stainless steel, 4-ft. long x 14" wide. Provide 18-ga. stainless steel hinged cover for servicing. Mount conveyor at the end of, and right-angles to, a soiled tray conveyor, 6" above surface. Cutlery is left on the trays, and as they pass underneath, the cutlery is picked up by the magnets.

### B. Conveyor Belting

Provide a 10" wide heavy-gauge food grade vinyl-fabric belt fitted with integral cleats spaced at 12" centers.

### C. Drive System

Provide a stainless steel watertight motorized pulley and a PVC tail end idler pulley with adjustment for alignment & take-up.

### D. Magnets

Provide a system of permanent magnets mounted within the conveyor body, sealed from moisture. Magnets are designed to positively remove cutlery from trays passing underneath and release it over a soak sink.

### E. Controls

Conveyor shall be controlled by a start/stop switch mounted on the side of the conveyor.

### F. Services

3/4 hp, 208-volt, 3-phase, approx. 42" A.F.F.

## TRAY STAC

Provide 50-tray self-leveling Tray Stacs, Aerowerks model Tray Stac 1418-50, to accept empty trays from Soiled Tray Return Conveyor. Provide 4" heavy-duty swivel casters, bumpers and handle.

## SILVER SOAK SINK

Unit shall measure 23" x 23" x 8" deep and shall be mounted on 1-5/8" stainless steel legs and 5" heavy-duty casters. Sink shall be formed of 14 ga stainless steel with all corners covered to 5/8" radius. Provide anti-splash rolled rims on all top edges. Provide lever-operated 1 1/2" waste with drain line to floor.

## CONTROL SYSTEM

Provide Main Control Center containing start-stop stations, belt wash, belt speed control, plate rinse, indicating lights and disconnect circuit breaker. All components shall be neatly contained in a stainless steel watertight enclosure. All wiring shall conform to the latest UL standards. The electrical contractor shall bring 15A/208V/3phase power to the main of the panel, but wiring from the equipment to this panel shall be done by Aerowerks, and all wiring shall be carried in liquid-tight

conduits, including conveyor motor and controls. All electrical controls shall be approved for wet conditions and shall comply with all applicable codes. All enclosures for electrical components must be watertight.

## INSTALLATION & WARRANTY

Conveyor Contractor shall be responsible for all interconnections of plumbing and electrical work required for conveyor system. Final connection to building service by others. Conveyor contractor shall install and adjust system to owner's satisfaction and shall provide adequate instructions to operating personnel. System shall be guaranteed for a period of one year for parts and labor under normal operating conditions, from date system is turned over to owner.