

TRAY RETURN CONVEYORS POLYCORD BELT



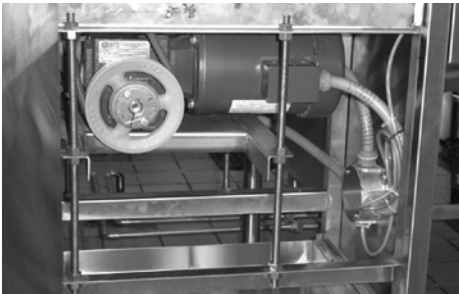
DESIGN

The tray return conveyor is the main component of a system of soiled ware handling equipment. This conveyor uses special twin polycord belts supported by polyethylene wear guides spaced on a stainless steel conveyor bed.

The Polycord Tray Return Conveyor can replace other tray return conveyors. It meets the highest sanitary and safety requirements of every operation, there is no need for belting washing systems or expensive cleansers, simply use a damp cloth on the beds and cords.

STANDARD EQUIPMENT

- 14 gauge type 304 stainless steel conveyor bed
- Stainless steel drive frame
- Slide out scrap removal door
- 1-5/8" diameter stainless steel tube legs with adjustable bullet feet
- Can operate in either direction
- 18 gauge stainless steel water tight electrical control panel and conduits
- Start/stop switch
- Variable Frequency Drive (VFD)



OPTIONAL EQUIPMENT

- Roller conveyors
- Plastic slat belt conveyors
- Powered roller conveyors
- Waste troughs
- Stainless steel fabricated tabling
- Magnetic cutlery remover



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DESCRIPTION

Soiled tray return conveyor consists of twin polycord conveyor belts supported on polyethylene wear guides which are suitably spaced on 14 gauge stainless steel conveyor bed to reduce or eliminate drag and wear on the conveyor bed. A sufficient number of machined Delrin® idler pulleys support the belt when the conveyor turns a corner effecting a smooth transfer of cafeteria trays around curves. The belts return under the stainless steel conveyor bed supported on PVC rollers and Delrin® pulleys with a special groove to accept the belts.

BELTING

A double strand of ½" diameter polyurethane belting which is endless by thermal welding. On conveyors longer than 25 feet or with a large number of curves, belting is "con-cable" of a durometer suitable for the length of the system involved. A woven nylon core inside the center of "con-cable" will eliminate excessive stretching. Belting is extremely long lasting and durable and can be maintained easily on-site without the need for service technician assistance. More detailed belting specifications available on request.

DRIVE FRAME

Provided is an all-welded stainless steel angle frame with 1⁵/₈" stainless steel legs, 6" long with adjustable stainless steel bullet feet. The frame supports the bearings, drive shaft, secondary shafts, belt drive pulleys and motor/reducer. The entire drive motor assembly is mounted on a movable stainless steel angle frame, vertically adjustable to effect tensioning in the polycord belts. Tensioning adjustments are accomplished by loosening nuts on threaded rods and moving the motor down to tighten belts. Nuts are re-tightened to fix motor in place.

ENCLOSURE

18 gauge stainless steel enclosure panels on ends and rear, where exposed, are provided. A horizontally split double door is provided for access to the enclosure. The top door is screwed shut for access to moving parts by service personnel only. The bottom door is equipped with a simple spring catch for access to a slide-out scrap drawer by operating personnel.

DRIVE COMPONENTS

The conveyor is driven by a conveyor chain which is driven by a totally enclosed fan cooled (TEFC) stainless steel gear motor, controlled by a variable speed AC inverter. Speed is controlled by turning knob on main panel. The drive assembly is to be supported by a stainless steel bracing as required, and access to it is provided through stainless steel panels.

DRIVE MOTOR

An integral AC motor/reducer, sized to suit project is provided. The reducer is equipped with a double output shaft for mounting of main drive pulleys. Speed to be controlled by turning knob on main control panel.

CONTROL SYSTEM

Providing a watertight control center containing start/stop switches, belt speed control, indicating lights, sealed disconnect and control transformer (24-volt secondary) sized to suit the system. All components are neatly contained in a stainless steel waterproof enclosure. All wiring will conform to latest CSA, UL and local electrical codes and standards. Auxiliary start/stops and accumulation efficient switches may be provided as required to ensure efficient operation of the system.

The electrical contractor is 15 amp 120v or 208v 1phase or 208 Volt/ 3-phase power to the main of the panel. Wiring from the equipment panel, and all wiring is carried in liquid tight conduits, including conveyor motor and controls. All electrical controls are approved for wet conditions and will comply with all electrical codes. All enclosures for electrical components are watertight.

TAIL ASSEMBLY

A stainless steel tail frame structure suitably reinforced to support tail shaft and pulleys; this frame is mounted from underside of conveyor bed.

IDLER PULLEYS

PVC return rollers on straight sections, and combination "enter/exit" spool and pulley system on curves to ensure accurate belt tracking.

SAFETY BLOCKS

UHMW-Polyethylene guide blocks where belts enter and exit the top conveyor bed – four locations – are provided. The blocks keep water and debris out of return side, and ensure safety around openings.

APPROVALS

The tray return conveyor is manufactured to conform to the highest applicable CSA and NSF standards.