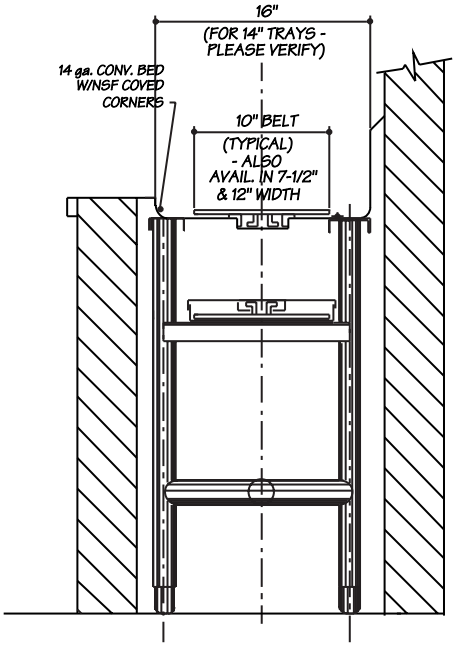
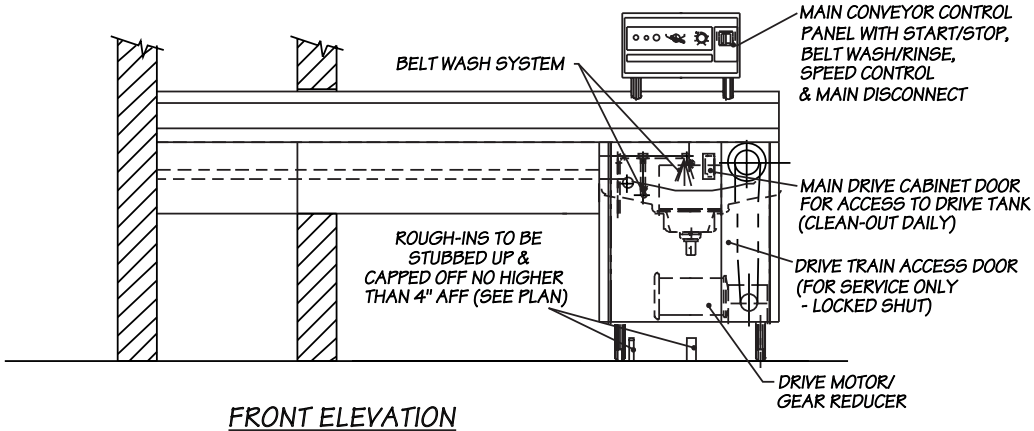
Bi-Line BULLETIN

Flex-belt Conveyor

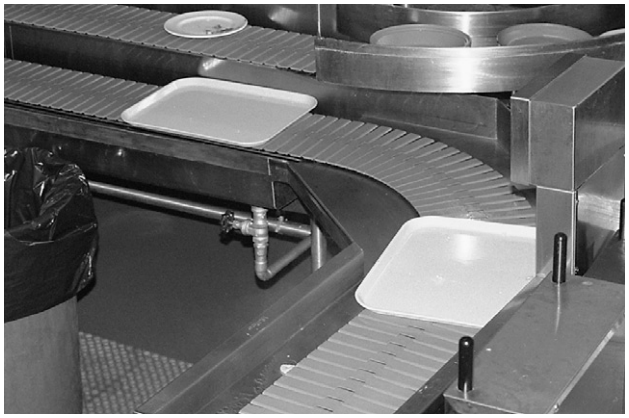
PLAN VIEW



TYPICAL SECTION @ TRAY DROP AREA



FRONT ELEVATION



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SPECIFICATIONS

A. BELTING

Belting shall be type "HDF" plastic slat chain belt, and shall side-flex to a minimum 24" centre-line radius. The plastic slats are 10" wide and are made of a wear-resistant, extra-low friction engineering plastic which also contains special self-lubricating additives. Individual slats are joined to form a continuous belt by wear-resistant s/s pins. The slats are tapered-wing design and on the underside are equipped with hold-down tabs to contain the belt at the corners, preventing the dangerous possibility of the belt "jumping the track". The tabs also support the belt on the return side monorail track.

B. TOP TRACK

The belt shall be supported on a standard 14 ga. 304 s/s #4 finish conveyor bed with all corners coved to NSF standards. No visible joints permitted. Belt rides on high-density polyethylene wear strips in the centre-line support groove running the full length of the conveyor.

C. RETURN TRACK

Provide a monorail type return track, suitably braced and supported from underside of the conveyor bed. The monorail shall consist of an extruded or machined cross-section of high-density poly, contained in an inverted s/s "C" channel, supporting the belt by suspending it from its tabs. Provide a full-width s/s pan under the belt, located approx. 1/8" below the surface of the suspended belt, so that water from the belt wash will be carried to the tail tank by the action of the belt.

D. DRIVE FRAME

Provide an all-welded s/s frame with s/s 1-5/8" dia., 6" lg. legs and adjustable s/s bullet feet.

E. DRIVE TANK – (WASH CHAMBER)

Provide an all welded s/s 14 ga. wash chamber equipped with one access door of drop-hinge design to prevent splashing & leaking when door is closed. Door to be equipped with positive cabinet latch.

Provide removable, lift-out scrap basket of perforated s/s, accessible through same door.

The drive tank shall support bearings, drive shaft, and sprockets for the transfer of motive power from the motor to the conveyor belt.

The driving chain shall be ASA #50 and shall be located on the front side of the conveyor for easy access.

F. DRIVE HOUSING

The conveyor drive tank (wash chamber) and drive frame shall be fitted with 20 ga. s/s enclosure panels and a 16 ga. s/s hinged, screwed shut door on the front to act as a chain guard for the drive sprockets & chain, accessible only by authorized personnel. A second, 18 ga s/s double wall insulated hinged door shall be provided to allow easy access to drop-hinge door on wash chamber.

G. DRIVE SHAFT

Provide 1" dia. s/s drive shaft mounted on double-sealed bearings with a grease-filled sealed cartridge inside chamber; standard precision ball-bearing flanged unit outside chamber.

H. BELT WASH

Provide wash system consisting of spray jets mounted to manifolds inside wash chamber. Manifolds to be located to effectively clean belt and shall be easily removable without tools.

I. PLUMBING CABINET

Provide a s/s cabinet mounted to end of drive cabinet to house required plumbing for the belt wash system.

Plumbing components shall be 1/2" brass or copper fittings consisting of: hot & cold water shut-off/mixing valve, line strainer, check valve and solenoid valve. (Ensures water is on when conveyor is operating – with selector switch in "Wash" or "Rinse" mode.)

Provide adjustable-flow liquid proportioning injector to supply detergent from a remote container and inject it directly into the water line before entering the spray manifolds.

All plumbing to conform to the latest CSA, UL & local codes and standards.

J. DRIVE MOTOR

Provide adjustable speed integral D.C. motor and gear reducer. Speed to be varied by turning knob on conveyor control panel. See sect. K.

K. CONTROL SYSTEM

Provide a watertight control centre containing start/stop detergent and belt spray switches, indicating lights and speed control knob. The D.C. motor shall be variable speed operated by an "SCR" solid-state controller with overload protection, electronic torque control. Provide a sealed disconnect circuit breaker and control transformer (24-volt secondary) sized to suit the system. All components to be neatly contained in a s/s waterproof enclosure. All wiring to conform to latest CSA, UL & local electrical codes & standards. Provide auxilliary start/stops and accumulation switches as required. to assure efficient operation of system.

L. TAIL TANK

Provide 14 ga. s/s tail tank 15" deep with drop-hinged access door, latch, & perforated s/s scrap basket similar to drive tank.

Tail shaft (s/s) and s/s sprocket assembly to be contained in tail tank and mounted directly to sides of tank by s/s bolts.

M. CONNECTIONS

Plumbing – At drive cabinet: 1-1/2" waste; 1/2" h. & c. water.

At tail tank: 1-1/2" waste.

Electrical – located according to conveyor layout drawing.

x 1/2 hp, 208-volt, 3 phase, 60 cycle.