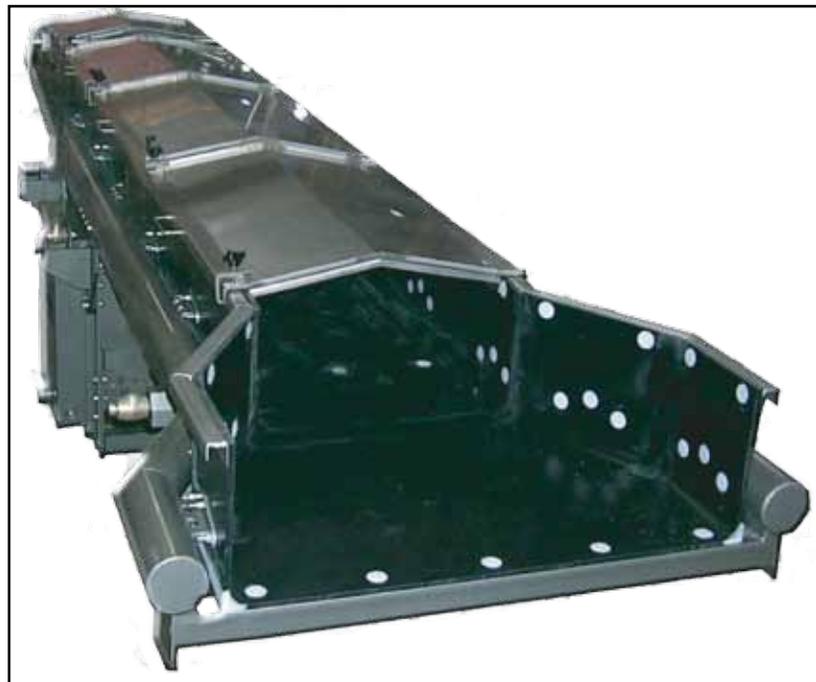




UHMW POLYETHYLENE CONVEYORS



TRIPLE/S DYNAMICS, INC.
ADVANCING.

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INTERMEDIATE DISCHARGE GATES

Gates can be installed in any of the UHMW troughs, although sealing the interface between a liner and a supporting steel trough at a gate is difficult to achieve. Gates may be provided as simple slide gates or as pivot gates as shown to the right, installed in a free-standing UHMW trough. For any gate application, temperature variations expected in the trough are an important consideration in specifying the gate type and the clearances required.



FREE-STANDING UHMW TROUGH

A true, free-standing UHMW can be provided with a UHMW/stainless steel laminate. UHMW completely encapsulates a stainless steel core which provides the laminate with strength and stiffness.

SANITATION AND MAINTENANCE

The sanitation and maintenance benefits of mechanical conveyors like the Slipstick® or X-Force horizontal motion conveyors may be compromised by accumulations of sticky food material. UHMW has proven its resistance to build up from many food products that carry high-fat agglomerated powders, oils and sugars.



UHMW is FDA and USDA approved for food contact, and can also be sourced with a static dissipative compound that is FDA approved.



UHMW LINERS

The lowest cost means of installing UHMW surfaces in a conveyor is to line a steel conveyor trough with a relatively thin sheet. This sheet is retained by continuous clamps, and can be welded to a continuous length to cover the conveyor trough bottom and sides from end to end. Silicone may be used to seal the edges of the liner out of the product contact areas.





Provision for thermal expansion may be made in the length of the liner and in the continuous clamps. UHMW grows 1/8 of an inch per foot of length over a 30 degree temperature rise. Theoretically, a 100' long conveyor may see liner growth of over 12 feet in length if it is handling a product that could elevate the pan temperature over 100 degrees F.

UHMW FABRICATED TROUGHS

To reduce sanitation concerns about areas trapped under a liner, UHMW may be fabricated into troughs. These troughs are formed and welded from thicker UHMW sheet and do not require the continuous support that accompanies a liner. However, additional supports are required to provide adequate stiffness to the trough. Depending upon the size of the trough, this may be provided as a simple frame as shown.



CHARACTERISTICS

There are several material characteristics that make UHMW a difficult material to fabricate into useful components. Although it is quite free-machining, it has a very high spring-back rate, which makes forming difficult, and it has a very high rate of thermal expansion and no melting point, which complicate welding.

Out of the conviction that there is a beneficial partnership between this material and horizontal motion conveyors, Triple/S Dynamics has been developing the skills necessary for this fabrication for several years. Out of this work has evolved several design plans that best fit the individual requirements of most conveyor applications.



Each conveyor specification is assembled, or reviewed by Triple/S Dynamics engineering to be sure that each conveyor best fits the needs of the application. Complete assembly and run-in testing is performed in the company's factory so you can be sure of a smooth start-up. Where size or complexity prohibit shipment of complete assemblies, careful attention to component identification and packing simplify site installation with or without the assistance of the Triple/S Dynamics Field Service Group.

Triple/S Dynamics has earned a worldwide reputation as a leading manufacturer of conveying equipment for the food, chemical, and pharmaceutical industries. Our state-of-the-art facilities offer the latest in engineering, fabrication tools and equipment.

Triple/S Dynamics also designs and manufacturers special purpose equipment, screening conveyors, aligning conveyors, and belt feeders.



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