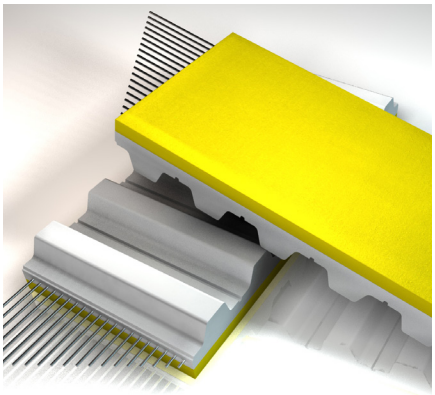
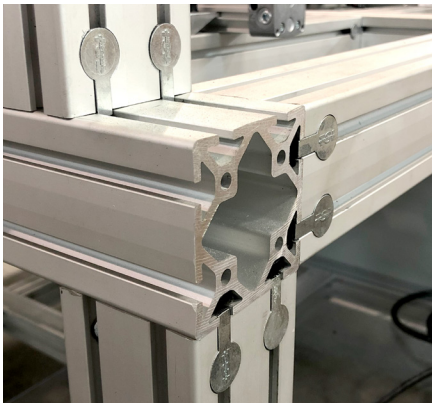
INDUSTRY
ALUMINUM EXTRUSION

APPLICATION
ALUMINUM HANDLING

PRODUCT
MEGALINEAR WITH
ARAMID FELT COVER





SITUATION/APPLICATION

Aluminum extrusion is used for a wide range of products from automotive applications to household items. These diverse applications are possible due to the advantageous attributes of aluminum, from its strength and ductility to its conductivity, non-magnetic properties and ability to be recycled repeatedly.

In the extrusion process an aluminum billet is heated and transferred to a loader where pressure is applied, forcing it through a die. The extruded part passes onto a pickup table as an elongated piece that is now the same shape as the die opening. It is then pulled to cooling tables where fans cool the newly created aluminum extrusion. When the cooling is completed, the extruded aluminum undergoes straightening and work hardening and then on to sizing tables where it is cut to length. The final step is to treat the extrusions with heat in ovens, which hardens the aluminum.

THE PROBLEM

The extremely high product temperature reached in the aluminum extrusion process is the deciding factor for the selection of the correct transfer belts to use in the process. From the pickup table at 450°C (842°F), through the 1st and 2nd stage cooling tables and on to the sizing tables at 150°C (302°F) the transfer belts are subjected to very high heat. Megadyne offers materials to handle these high temperatures effectively and recently worked with an aluminum extrusion facility to provide them with specially fabricated transfer belts capable of surviving in this extreme environment.

THE SOLUTION

Megalinear synchronous polyurethane belts with a highly temperature-resistant aramid felt backing cover provided the solution in this extremely high temperature application. The heated extruded aluminum rests on the aramid felt during transfer, creating a durable thermal barrier which allows the belt to withstand the high temperature atmosphere. Megadyne's Research & Development department worked extensively to perfect a proprietary one-step co-extrusion process where the aramid felt backing is applied simultaneously during the manufacture of Megalinear, assuring maximum bonding and adhesion between the polyurethane and aramid felt materials. This advanced manufacturing process guarantees the cohesive integrity of the belt construction, ensuring long life and reliability.

THE RESULT

While the application is very demanding, Megadyne was able to provide specially fabricated belts to meet the demanding environment. The customer also benefits from the supply of Megalinear in rolls, as belts can be cut and joined to any length required.