



MOTION
INDEX DRIVES

LATC Precision Link Conveyor



White Paper

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Motion Index Drives, Inc. line of precision link conveyors are built to be the heart of a linear manufacturing machine requiring high accuracy, speed, and quality. The precision link conveyor is a conveyor designed to have an automation process done on it, from start to finish. The conveyor indexes a precise stroke (from a few millimeters to a meter).

MID Precision link conveyors were designed to be used in high volume manufacturing environments to provide millions of cycles without any maintenance or issues. The only maintenance on the conveyor is to adjust the tension of the chain annually and if the conveyor is used in a dirty environment, clean the conveyor as required.

Typical applications of the conveyor are in the manufacturing or consumer goods, assembly machines of intricate products (i.e. dental floss, razor blades), printing applications (pad printings, marking), medical devices and components, and the automobile industry in powertrain and component manufacturing.

One problem with traditional precision indexing conveyors is the inability to guarantee the same accuracy on the radiuses as is achieved on the overall length on each side. When an absolute accuracy is required, these areas are sometimes not utilized to perform a process.

With our newly developed LATC series of precision indexing conveyors, we can achieve and guarantee a +/- 0.04 mm accuracy across the entire system. The new LATC high precision indexing conveyor incorporates the design features of the LFA precision indexing line of conveyors. Similar to the LFA, the LATC is manufactured with an inner structure manufactured from aluminum extrusion. The aluminum extrusions allow for extremely long lengths that are straight and rigid while also being extremely friendly to mount accessories and customized options. Mounted to the central framework is the link track. The MID conveyor makes the track out of steel, where it is machined, hardened, and ground. The links in the conveyor are made of a very high-grade aluminum. Aluminum links have many benefits including having a third a third the mass of steel, thus a third the internal inertia of steel links.



The most noticeable difference is the LATC has a rectangular configuration that provides useable precision stations on all four sides of the conveyor. This offers the customer more stations to work with where highly accurate processes must be performed.

Another design feature of the LATC precision indexing conveyor is its large open space in the center. With this feature customers can mount robots, feeder systems or other auxiliary apparatuses internally. These systems can be manufactured in variable lengths and widths, optimizing space and tailoring it to the customer's very specific needs.

The LATC can also be equipped with two gear motors to increase speed of index or increase capabilities to move higher loads.

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