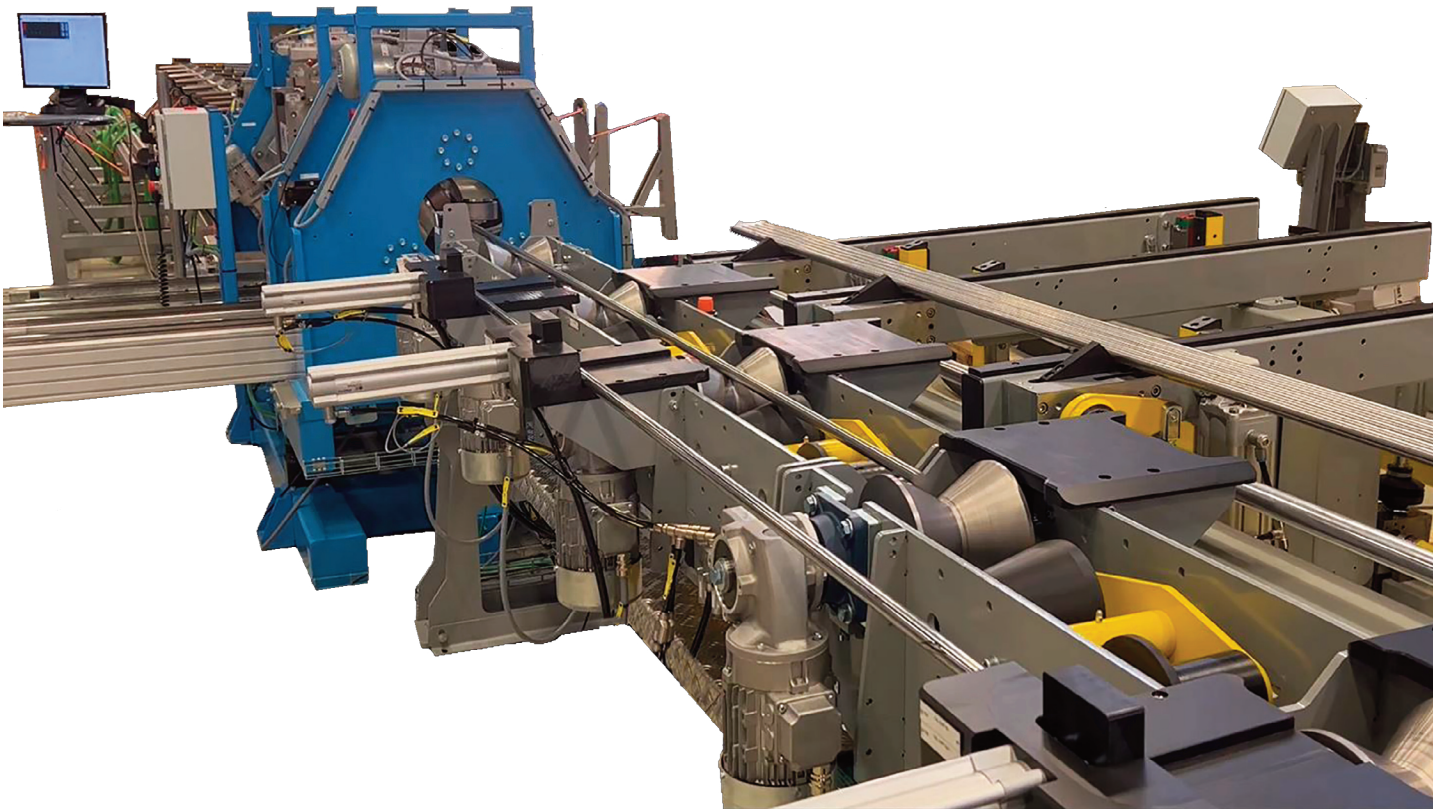


# MAC Conveyor Systems

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**For Automated Feeding and Handling of Tube and Bar During Processing and NDT Testing**



# MAC Feed Systems Position and Convey Bars and Tubes Throughout the Testing Process

## A Superior System for NDT Testing

Precision manufactured MAC® Conveyor Systems accurately control the positioning and feeding of tubes or bars to meet the highest standards during quality testing.

Starting with their placement on the feed table, they are held by adjustable stops, then smoothly released and transferred to the channel roll conveyors, and through the test station. After testing, they are automatically sorted and placed on the output table and exit to the correct accept or reject receiving pockets.

The modular design permits quick assembly into many configurations to handle various lengths and material diameters and sorting to one or two sides.

Designed to withstand the hard use of production environments, while still being economical, they can be customized to meet the customer's specific application needs.



*A bundle of bars spread out on a feed table, awaiting transfer to the channel roll conveyor sections, shown at left.*

## Feed Tables



*Adjustable Stop Arms are in the "full-up position when a bundle of material is placed on the feed rack, they are then lowered gradually, controlled by an electrically operated air valve, to allow a limited number of bars to spread out on the feed racks.*

- 2.5m (8.2 ft) long modules
- Accommodate tubes, pipes, & bars, round and hexagonal material
- Can handle 3.175 - 482.6mm (1/8" - 19") diameter product
- No adjustment for changes in diameter size is needed
- Adjustable slope on the feed
- Rack is topped with protective material to provide long life & prevent marking
- Adjustable stop arms hold product for gradual release
- Welded steel sections are braced to accept a standard bundle of material



# Enhanced Features for Test Accuracy and Protection from Surface Scratches or Damage



*Pneumatic release mechanisms retain the material on the rack and release the bars individually to the Easy Drop release units which raise and lower the bars onto the Channel Roll Sections that feed the material into the tester.*

## Channel Roll Conveyors Transport Material Through the Test

- Easy Drop release units gently move the product from the feed rack onto the “V” rolls in the Channel Roll Sections.
- 2.5m (8.2 ft) long Channel Roll Sections, each with a series of 120 degree “V” rolls between the channels smoothly transport the product to and through the testers.
- Each roll is individually adjustable vertically and horizontally to allow exact alignment with respect to each other.
- Customers can select urethane, steel, or hardened steel rolls.

## Optional Calibration Station



*A sample bar rests on the custom calibration station which transfers the bar to the Channel Rolls to be run through the tester, then automatically reverses the bar and returns it to the station.*

A custom calibration stand to hold and feed bars used as reference standards can be integrated with the feed table. Calibrations verify that the quality tests are operating within specifications. This system feeds the product to the conveyors, through the test and then automatically reverses and returns them to the station after testing.

By storing the bars adjacent to the inlet conveyor and automatically feeding them to the channel roll conveyors for testing, the station ensures efficiency and convenience in handling. The calibration station avoids the wasted effort found in mills where reference standards must be brought by crane from another part of the building every time a calibration is specified.



# System Automatically Controls Sorting & Exiting to Accept/Reject Pockets for Bundling



*The aligner disk is seen above pushing the bar to the correct position to be fed to the accumulation table.*

## Exit Channels & Receiving Pockets

- The output side of the test system automatically sorts defective or different grades of material from acceptable ones.
- An aligner disk, shown at left, ensures that accepted bars or tubes are aligned with respect to each other, before release onto the accumulation table, a step that makes bundling easier.
- The bottom of the receiving pockets automatically lower gradually as the quantity of material increases.
- When the accept or reject pockets are full, stops can be activated to allow the material to accumulate without stopping the test



*Accepted bars or tubes are released from the output table by stop arms into the receiving pockets which lower gradually as the quantity increases.*



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