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COMPONENT ASSEMBLY FOR CABLE STRAIN-RELIEF

This machine was manufactured for the French production facility of one of the world's leading pump manufacturers.

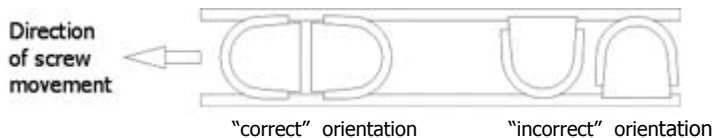
The objective of this assembly machine was to feed and assemble a cable strain-relief, using two different components in the form of a plastic screw and a plastic nut, as illustrated below.



Plastic Screw, 25mm long and 21.5mm wide

Plastic Nut, 22mm AF and 19.5mm long

The special challenge was to orient the parts, so that a simple transfer to the assembly machine was guaranteed. Especially, the screw had to be transported a certain way. Incorrectly oriented screws had to be returned to the feeder bowl. Once the screw was presented to the assembly machine in the correct orientation, the screw was pushed into the appropriate fixture on the indexing table.



Feeding Device for Plastic Screw

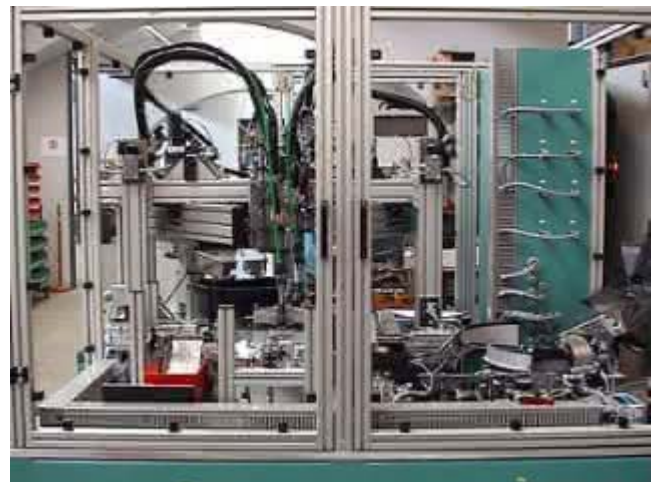
The nut transport presented a different problem. Due to the geometrical shape of the nut, it was necessary to transport the nut "downside-up" and then to turn the nut by 180 degree to allow an accurate vacuum pickup from underneath and the subsequent assembly.



Feeding Device for Plastic Nut

To keep both feeding devices supplied with a sufficient quantity of screws and nuts, both feeders were equipped with additional belt-driven supply hoppers.

Total delivery time from design to programming and including testing was 13 weeks.



Total Machine View