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DEPRAG Handling and Testing Station for automotive Door Handles

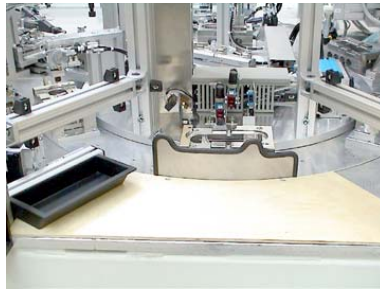
This months' machine was manufactured by DEPRAG for an automotive sub-supplier. The machine was designed to assemble automotive door handles, using one assembly machine with a total of six available stations, five being active stations.



Total Machine View

Station 1:

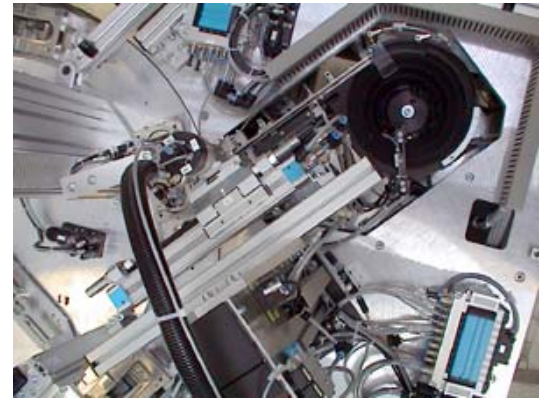
The Operator loads the door handle into the part fixture, together with a control part, which may not be required for every product. Thereafter, the plastic shell is loaded into the part fixture, as well as a spring that is placed in a special receptacle. A green light verifies that all parts have been placed correctly. Once the light curtain is cleared, the rotary index table is activated.



Station 1

Station 2:

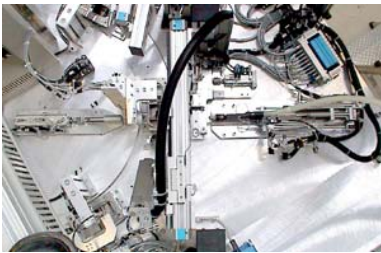
An integrated hold-down device locates the door handle to allow accurate assembly. A feeder presents the required buffers to a handling module, which uses vacuum suction to pickup the buffer from a pick-nest and inserts it into the product.



Station 2

Station 3:

This station consists of an interior and exterior positioning device for the handle. Once the two positioning devices and a hold-down device have located the handle, the previously loaded spring is picked from the receptacle and indexed to a correct position. Thereafter the spring is press-inserted and simultaneously fixed by the interior positioning device. A pivot pin is automatically fed to a Construction Unit and inserted into the part.



Station 3

Station 4:

Station 4 is a testing station, which verifies the correct positioning and functionality of the buffer, control part and handle tension.

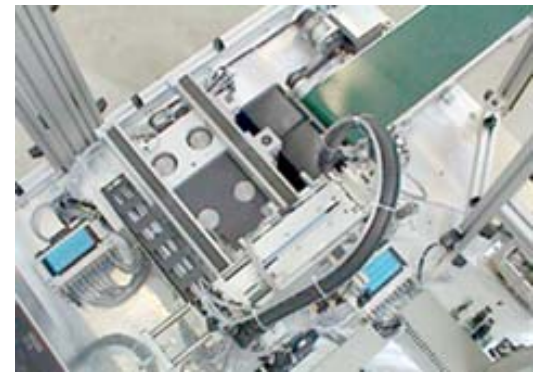


Station 4

Station 5 + 6:

Station 5 is empty

Station 6 is the automatic unload station. A handling module removes the completed product from the part fixture and places it on the unload conveyor. Parts which have been identified as NOT O.K. are placed in a reject chute.



Station 6