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## DEPRAG Gantry-Style Screwdriving Robot

This Gantry Style Screwdriving Robot was designed for the assembly of automotive front- and rear doors. This machine attaches the armrest and the door mechanism to the interior doorframe.



Total Machine View

### Cycle Description:

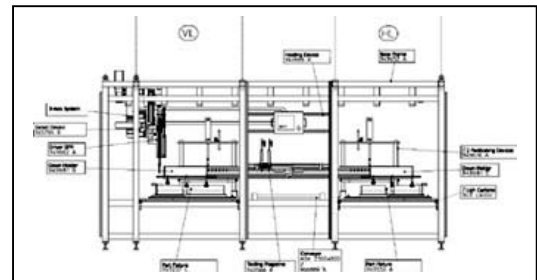
1. The operator loads the parts into the part fixture.
2. The parts are located by a hold-down device [down-holder].
3. The axis-system moves to each screw location and drives the required amount of screws. The Screwdriver of choice is a DEPRAG EC-Electric Screwdriver Spindle with integrated torque- and angle transducer.
4. A vacuum system, integrated into the hold-down device, places the correctly assembled part onto the conveyor.

### Error Detection and Rework:

5. Assemblies which are NOT O.K., are shown on the display and Operator can take the following corrective measures:
  - a. Use a handheld DEPRAG Power Screwdriver – located in the Tool Magazine – and rework the indicated screw location(s).
  - b. Make a final determination whether or not the part is assembled correctly.

### Unloading:

6. If assembly is O.K. (activate green button); Part is being transferred to the conveyor using the vacuum system integrated in the hold-down device.
7. If assembly is NOT O.K. (activate red button); Hold-down device opens –part must be removed manually.



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