

RTS® 2000 ROTARY TRANSFER SYSTEM

Assembly system for ignition capsule plugs



Ignition capsule plugs

- + 15 parts / minute
- + > 20 versions
- + 30 stations
- + Various camera-equipped visual inspection stations
- + Resistance welding

Enhanced flexibility thanks to linear axis technology

The automatic assembly system's structure consists of an electropneumatic rotary transfer system incorporating 30 stations and simple press tools. An upstream recirculating transfer system features 3 manual work stations.

The rotary transfer system is a steel structure designed to accommodate all of the stations located inside and outside the rotary table.

The rotary table is powered by a drive actuator. The control console can be swiveled around the entire RTS® machine assembly.

Ignition capsule plug

Comprising the following individual components

- Contact terminals with cut strands
- Lower housing section: orange, green, violet
- Coil
- Upper cover section: orange, green, violet
- Secondary detent

Sample processing stations



Station 1 Deliver and deposit housing

A spiral conveyor with a linear guide rail separates the individual housings and delivers them to the machine assembly. A check runs to ensure that housings are present and that they are correctly coded prior to separation. A pick-&-place handling system then removes the individual parts and places them in workpiece carriers. "Reject" parts are discharged at an intermediate position.



Station 9 Hot-stake tab

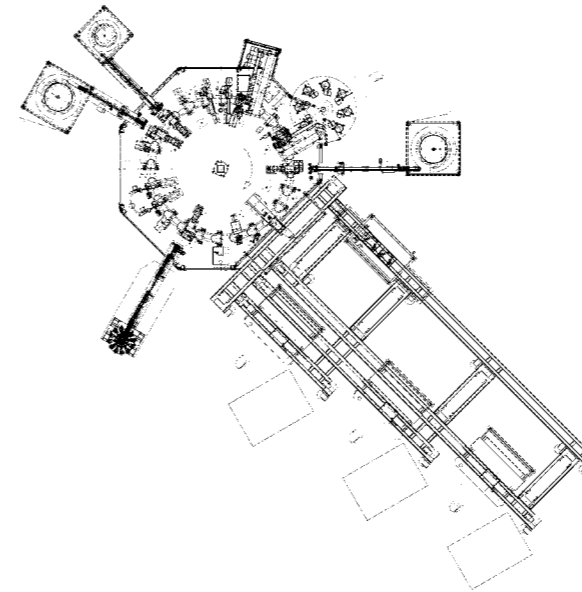
A temperature-controlled soldering gun hot-stakes the tab on the housing to secure the contact terminal that will be punched out.



Station 15+16 Weld contact terminals

The contact terminals are welded to the end of the coil. The welding unit is provided by the customer. Welding is performed at 2 stations, including a monitoring system and a welder. The welding head's motion is governed by a vertical guide unit located on the welding unit.

Assembly layout



Station sequence

Station 1	Deliver and deposit housing
Station 2	Confirm that part is present
Station 3	Unassigned station
Station 4	Unassigned station
Station 5	Workpiece carrier removal for manual assembly and final joining
Station 6	Confirm that part is present
Station 7	Unassigned station
Station 8	Unassigned station
Station 9	Hot-stake tab
Station 10	Unassigned station
Station 11	Punch contact terminal
Station 12	Unassigned station
Station 13	Deliver and insert coil
Station 14	Confirm that part is present
Station 15	Weld contact terminal 1
Station 16	Weld contact terminal 2
Station 17	Unassigned station
Station 18	Camera inspection
Station 19	Deliver and mount cover
Station 20	Confirm that part is present
Station 21	Deliver and insert secondary detent
Station 22	Confirm that part is present
Station 23	High-voltage test
Station 24	High-voltage test
Station 25	Resistance test
Station 26	Resistance test
Station 27	Reject part removal with separation of cable
Station 28	Unassigned station
Station 29	OK part removal on rotary table
Station 30	Inspection for empty mount

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