

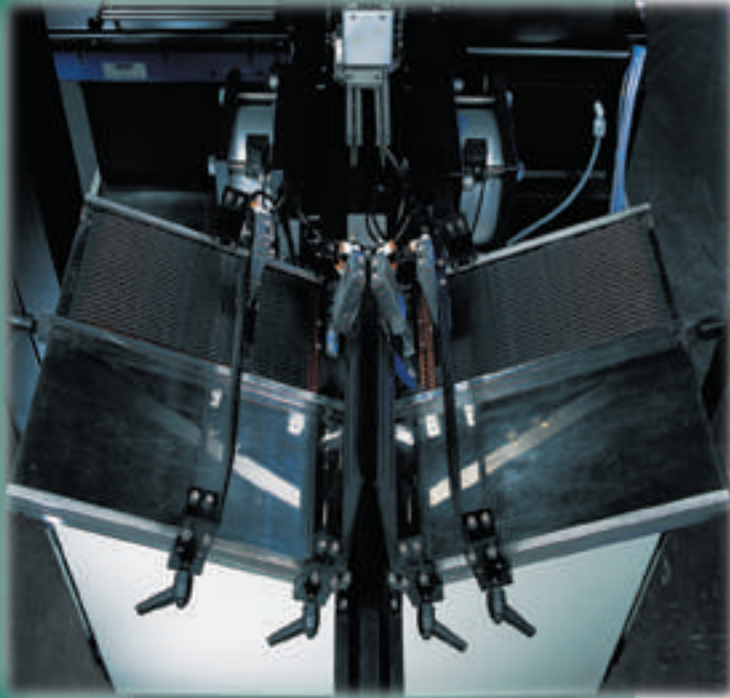
AUTOMATIC  
ROTARY  
LEAD FINISH  
SYSTEM

**RTS-1000™**



**CORFIN** AUTOMATION

## Automatic Strip Feeder



### OVERVIEW

The RTS-1000™ is a compact, automated system designed to provide a high quality solder finish on component leads. The system is suited for processing a wide range of components such as LED, TO, SIP and power devices. The components may be handled in strip form or singulated. An optional tie bar shear can also be incorporated to cut off the tie bar before fluxing and soldering.

Hands-free operation is achieved through the use of a precision rotary indexing conveyor with four arms, each of which is equipped with a custom gripper. The precise vertical motions of the indexing conveyor and programmable dwell times insure uniform solder coating of all devices.

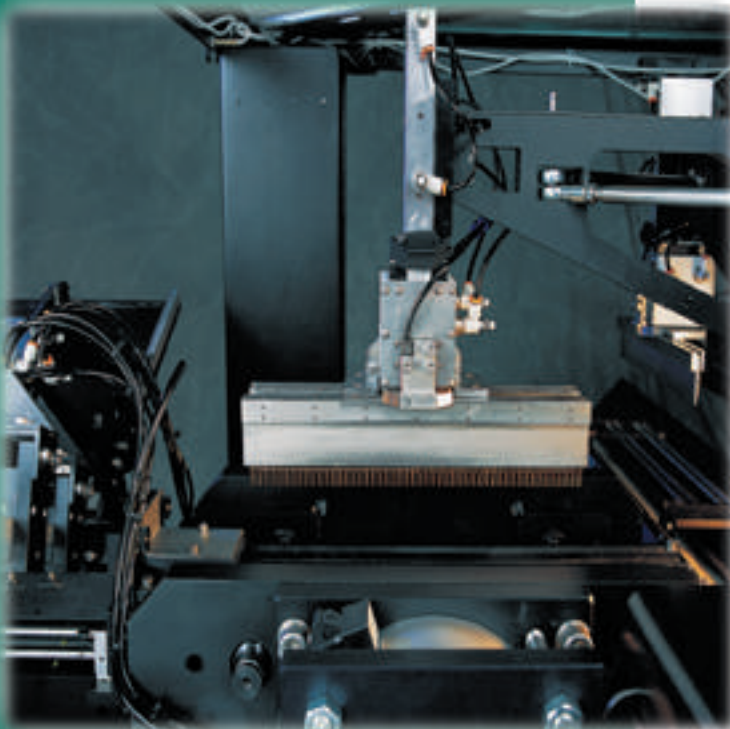
Devices are fed into the load stations via an input slide, which can be equipped with semi- or fully automated handling equipment or interfaced directly with upstream operations.

### FEATURES

The RTS-1000 is simple to set up and operate and incorporates Corfin's proven solder coating technology in an affordable package. Key features include:

- User-friendly operating controls with industrial plc
- Precision rotary indexing conveyor system
- Independently programmable, variable dwell times for each station
- Dual-track handling and tooling available for increased throughput
- Custom tooling to handle components in strips or singulated format
- Constant level, dynamic flux and solder waves
- Nitrogen inerted solder wave and pump shroud available

## Tie Bar Shear



## ROTARY CONVEYOR

The rotary conveyor system uses a heavy-duty pneumatic indexing table to index through 90° for each cycle. At each index, the conveyor goes through a pneumatically actuated vertical motion with a 3" stroke, taking components through the process cycle at each of the four stations. The overall cycle time for each index is approximately 5 seconds, depending on process dwell times required. The timing, duration and speed of the vertical stroke can be programmed independently for each station.

## LOAD/UNLOAD STATIONS

The components are fed into the load station via a single line input slide or optional dual-track for increased throughput. Parts are held in correct orientation for pick up by the gripper tool. The load station can include an optional tie bar shear to remove the tie bar from parts fed in strip format. The standard unload station off-loads the processed parts to a stainless steel basket.

## FLUXING MODULE

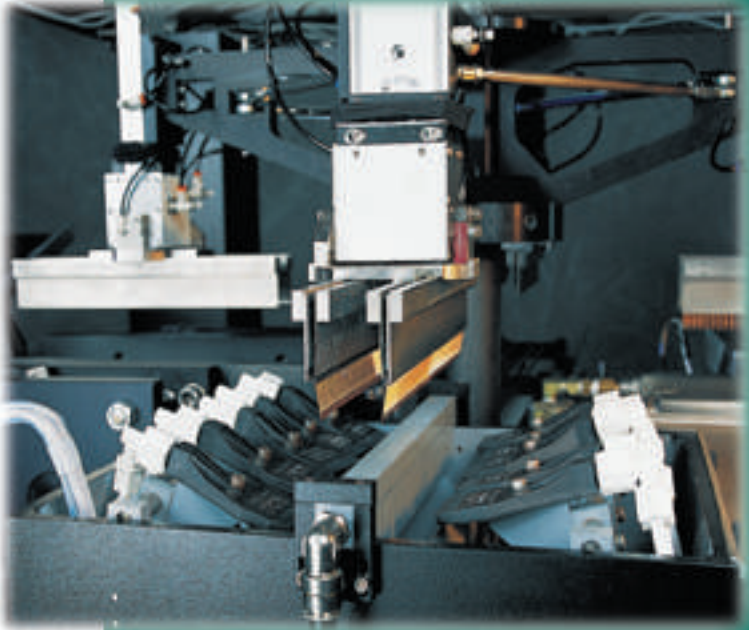
The fluxing module uses a recirculating pump to create a smooth wave into which the component leads are dipped. The recirculated wave maintains complete mixing of the flux. Air jets remove excess flux from the components as they exit the fluxer. An optional flux density control system with fresh flux and thinner feed reservoirs is available.

## SOLDER MODULE

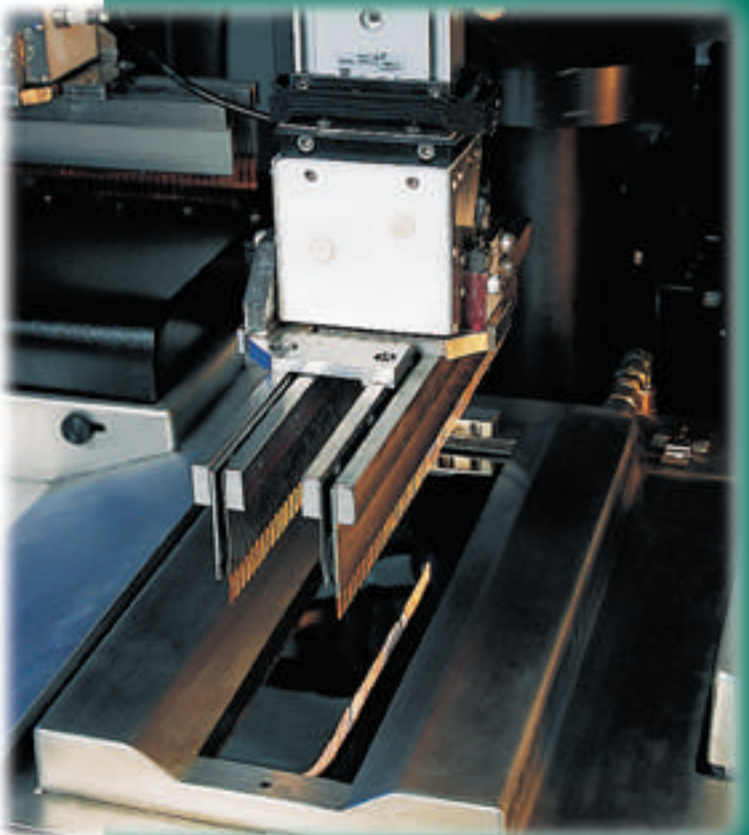
The RTS-1000 includes a full-size Corfin solder module with precision pump system and custom designed nozzle. The full size solder pot prevents rapid contamination of the solder which would compromise process results.

Corfin pioneered the use of nitrogen-inerted solder waves. This optional system provides optimal lead tinning with shiny, icicle-free solder finish. It inhibits dross formation, greatly reducing consumption of solder and maintenance.

## Fluxing Module



## Solder Module



## CONFIGURATION

### Standard Items:

- Plc Control
- Flux Module
- Solder Module
- Rotating Index Conveyor
- Vertical Stroke Modules (4)
- Load & Unload Stations

### Optional Items:

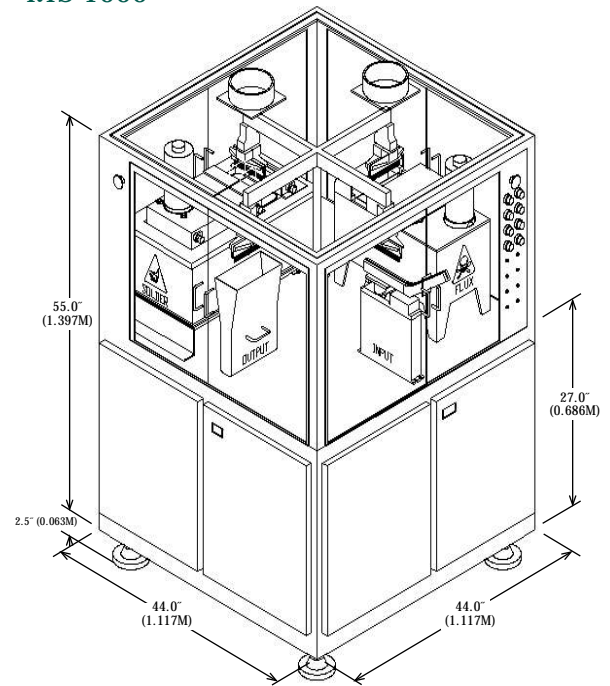
- Custom Designed Grippers (4)
- Flux Density Controller
- Nitrogen Inerted Solder Module
- Automatic Solder Wire Feeder
- Vibratory Input/Output Track
- Conveyorized Output Track
- Tie Bar Shear
- Automatic Strip Feeder
- Dual-Track Operation

RTS-1000™ SPECIFICATIONS	
Electrical Power	208 Vac, 3 phase, 50/60 Hz, 20 A. Other supplies available on request.
Compressed Air	3 - 5 cfm (0.75 - 1.25 L/s) at 100 psi (690 kPa)
Nitrogen (optional)	500 SCFH (14 m <sup>3</sup> /hour)
Exhaust	Two 6" (152 mm) exhaust stacks @ 200 cfm (100 L/s) each. (Exhaust fan and ducting is supplied by user.)
Fluxer Capacity	3 US gallons (11.4 L)
Solder Capacity	300 lb (140 kg)
Overall Dimensions	Length: 41.0" (1041mm) Width: 41.0" (1041 mm) Height: 53.5" (1359mm)

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