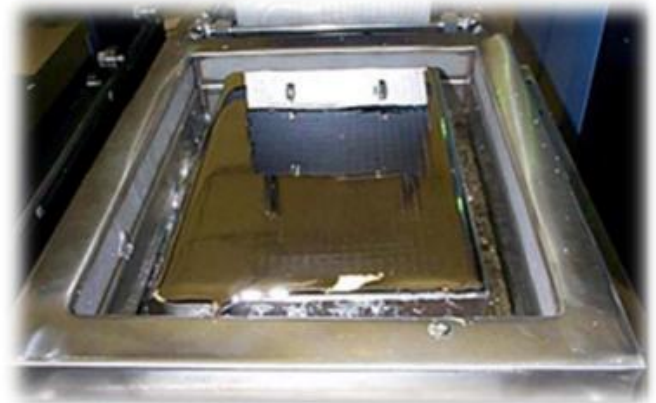


THE ODYSSEY LEAD TINNING SYSTEM

The Odyssey Lead Tinning System can strip, flux, condition, tin and re-tin virtually any component. Components are loaded via component tool holders inserted into a universal socket. The components then travel via precision direct drive ball screw X and Z axes. Options include auto load and unload stations, pre-heat, wash, dry and secondary flux stations, as well as single or multiple rotation tooling (for QFPs and other multi-sided devices) and standard and custom component gripper tooling.

STANDARD CONFIGURATION

The standard configuration includes manual load of component tooling to the universal socket, which resides on the system X and Z gantry. Three (3) stations are standard: a scavenge pot with static molten solder, a dynamic recirculating new alloy dip station (DSP), and a dynamic recirculating flux station. The DSP includes nitrogen inertion and an automatic dross wiper. An integrated computer, program and process management software, a one-year system warranty and a lifetime solder pot warranty are standard.



Odyssey Lead Tinning System | Dynamic Solder Pot & Dip Nozzle, N₂ Inerted

Process Area	Process Method	Robotic Motion	Solder Pot #1 Scavenge	Solder Pot #2 Tin	Max Stations
5 x 8" 125 x 200 mm	Component Motion	Direct Drive Ball Screw	Static	Dynamic	6

FLEXIBLE APPLICATIONS

The Odyssey can be configured with 3 additional stations, which can include auto load/unload, rinse, 2nd flux, preheat, or dry stations (the preheat and dry stations can be combined into one station). The extensive configuration capabilities of an Odyssey enable durable and lustrous solder coating of a wide array of common and exotic through-hole and SMT components including QFP, QFN, SOT, axial, discrete, BGA, PLCC, CLCC, DIP, SIP, capacitor, resistor, and inductor types. Rotation, tilt and custom dip nozzles can be deployed to handle multi-sided and fine pitch applications.



FEATURES & BENEFITS

- Precise Process Repeatability
- Tin Virtually Any Component Type
- High Precision ± .002"
- Unlimited Programs
- Automatic Dross Wiper
- Interpolated X, Z, Rotation Motion
- Nitrogen Inertion
- Control All Process Parameters: solder temp, emersion depth, travel speed, dwell time, simultaneous moves

SOLDER MANAGEMENT

The solder pots are constructed of a non-contaminating alloy that is extremely durable, stable and lead-free compatible. (RPS solder pots are backed by a lifetime warranty). The large solder capacity provides ample solder mass for large format applications with no thermal loss. The DSP station provides a flat and non-turbulent solder surface with minimal dross production. The DSP also uses nitrogen inertion to provide a superior laminar flow and to enable processing of QFP, LCC, fine pitch and short lead length components.

Made to precise customer specifications, the Odyssey Lead Tinning system is a high volume automated system for production volume conditioning and lead tinning of SMT, leaded and lead/tin components.

STANDARDS COMPLIANCE

- GEIA-STD-0006 For Solder Dip to Replace Finish
- ANSI-J-STD-002 Method A, B, C, & D (w/wave)
- IEC-68-2-20 Test TA, Para 4.9, & Test TB,
- IEC-68-2-58 Test TD
- JESD22-B102D Method 1
- JESD22A111 Method 5.6.2
- JISZ-3198-4 Method B
- Mil-STD-202 Method 208
- Mil-STD-883



Optional Air Drier &
Optional Pre Heat Station

EXTENSIVE CONTROL CAPABILITIES

The operator can program using a laptop computer.

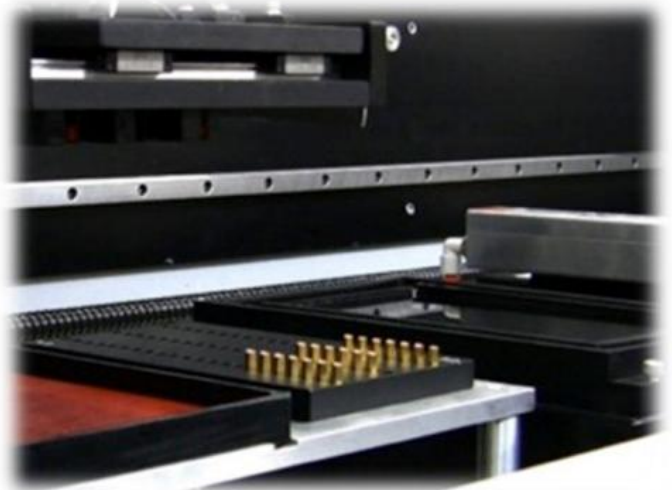
This allows for network access, unlimited program storage, concurrent axis control (e.g., interpolated multi-axis simultaneous moves), and a simple user interface. The operator has total control to set all process parameters, including immersion depths, dwell times, insertion and extraction speed and acceleration. A trained operator can program a solution in less than 15 minutes. I/O and new move commands can be issued while in motion. Dynamic flux is standard for flux types prone to separation.

OPTIONS

Options include scavenge solder pot, pre-heat, rinse, dry and secondary flux stations, as well as single or multiple rotation tooling (handle up to four (4) QFP's at the same time with 360 degrees of simultaneous controlled rotation).

Optional automatic load and unload of components and/or component tooling can be incorporated into the system.

Wave nozzles are available (on the DSP) for applications such as SMT components and other components better suited for drag processing instead of the traditional dip processing.



Components Ready for Optional Auto Pick Up

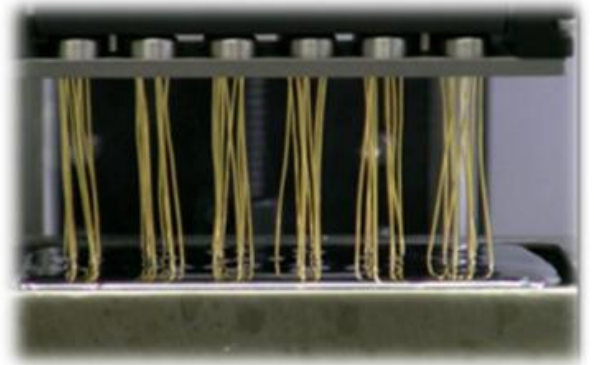
SPECIFICATIONS | ODYSSEY LEAD TINNING SYSTEM

CONTROL

A PLC & servo motor drive system manage the Odyssey. Easy to write G-code programs are readily input or modified at the laptop display or off-line on a PC. The abundant I/O controls auxiliary functions such as the optional rotary effector, dynamic flux vessel, auto loading and more. Unlimited programs can be stored. Component handling tools must be acquired to handle customer-specific components. RPS offers standard and custom component tooling.

OPERATION

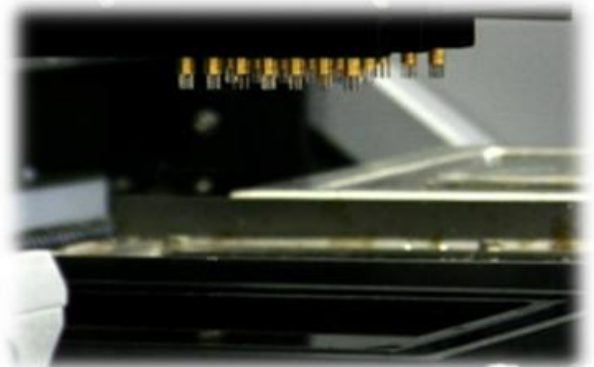
Standard Stations	1 Static Solder Station Scavenge 1 Dynamic Solder Station New Tin 1 Recirculating Flux Station 3 Open Stations
Operation	Windows 7 PC (included)
Accuracy X Z Axes	± .002" 0.05mm
Programmability	Unlimited program storage capacity
Immersion Depth	Programmable ± .002" 0.05mm
Speed X Axis	Programmable 1-88 mm/sec 3.5"/sec
Speed Z Axis	Programmable 1-25 mm/sec 1"/sec
Immersion Time	Programmable in milliseconds
Interpolated Motion	Simultaneous X, Z and Rotation*



RPS Lead Tinning | Dynamic Dip Process

SOLDER MANAGEMENT

Temp Control	PID proportioning (0-325°C) ± 2°C
Solder Pot	Electro Polished Stainless Steel
Process Range (W x L x D)	5 x 8 x 4" 125 x 200 x 100" mm
Capacity	Static 40 Lbs 18 kgs Dynamic 300 Lbs 140 kgs
Solder Height Alert	Standard
Static Dross Wiper	Standard
Lead Free Ready	Standard
HMP Capable	Option



Components in Process | Flux Station

FLUX STATION

Range	5 x 8 x 4" 125 x 200 x 100 mm
Flux Dip Station	Standard Recirculating Pump

ADDITIONAL STATIONS

Rinse Station	Option Recirculating Optional
PreHeat Station	Option IR 0 - 500 C (± 2 C) + 20 amp

MAJOR OPTIONS (also denoted by * above)

- Controlled Rotary Motion
- Wave Solder Nozzle
- 2nd Flux Station
- Wash/Rinse Bath Station

- 2nd Flux Station Option
- Air Dry Station Option

- Dry Station
- Auto Load/Unload



PHYSICAL

Electrical	220VAC 1Ø 5 Wire 50-60hz 40amp	Weight	900 lbs 410 kgs
Ground	< 2 Ω Resistance < 2 mV RMS	Air	80 PSI
Compliance	UL and CE	Exhaust	20 SCFH (ft ³) 0.56 CMH (m ³)
Dimensions	74 x 44 x 55"	Nitrogen	<50 PPM @ 150 CFH
(W x L x D)	1880 x 1118 x 1397 mm	Freight	84 x 36 x 48" 1,100 lbs 550 kgs

PROVEN IN THE FIELD

RPS Automation has 20+ years of soldering automation expertise with hundreds of customers and installations worldwide. There is no greater testament to the success of RPS than the words of our customers. We are honored to have served these customers, many of who are listed below.

3M	Circle Prime	International Rectifier	RSCC Aerospace
ABX Engineering	Creation Technologies	Kuchera	Radiall
ACI Naval Facility	Cobham Defense	Lectronix	Rochester Electronics
AEES	DRS	Lockheed Martin	Saline Lectronics
Aclara RF Systems	EI Microcircuits	Micro Consulting	Sensata
Aerotech	Edge Circuits	Mirac	Siemens
Aeroflex	Electrosem	Molex	Silicon Forest
Alcon Laboratories	Emerson	NASA	Smith & Associates
AppliCAD	Epic Technologies	Northrup Grumman	Synapse Electronique
August Electronics	GE Aviation	Novatemp	Sypris
Ayrshire	Garmin	Odyssey	Tesla Motors
BAE Systems	Griffin Instruments	Omnicon	TRW
Banner Engineering	Guardian Electronics	P3C	Tyco Automotive
Boeing	Hanson Electronics	Pemstar	US Navy NSWC
Burton Industries	Honeywell	Pinnacle	Vishay
CIL	II Stanley	Point Six Wireless	Visteon
Cardone	Inservco	Premier Semiconductor	Worthington Electronics

COMPANY PROFILE

RPS Automation LLC is a privately held company that designs and manufactures a complete line of innovative and advanced automated selective soldering, lead tinning and solderability test equipment for aerospace, military, communications and medical device manufacturers to industrial OEM's, auto manufacturers and contract manufacturers big and small. The company has over 500 installations and 300 global customers. All systems are made in the USA and feature precision robotics and thermal control, and top of the line components. All systems feature easy to use controls, extensive warranty coverage, and exceptional service.

THE RPS CUSTOMER COMMITMENT

RPS will design and manufacture reliable, high quality, soldering automation and solderability test systems. RPS systems will help customers reduce manufacturing costs and improve the speed, quality, and productivity of their electronics manufacturing. RPS will provide a customer experience based on honesty, integrity and a dedication to customer satisfaction; one customer at a time.

RPS

One Customer at a Time™

www.rpsautomation.com

www.epakelectronics.com

Contact information: Telephone +44 (0)1460 61791 Fax +44 (0)1460 67833
Epak Electronics Ltd, Millfield Estate, Chard, Somerset. TA20 2BB. United Kingdom.