



PCB

Process equipment solutions
integration manufacturer

SowoTech



SowoTech
Sowotech Co.,Ltd.

SWL(U)R -605

Six axis semi-vertical double station loader/unloader



Description

Automatic rack changing when the rack is full, no need to shut down machine

Use 10kg six axis robot, can be used with AGV and MES

Main Application

Process: Inner layer pre-treatment, Automatic laminator, Automatic exposure machine, Automatic mylar peeler, etc

Available in a variety of models
For your choice.

SWL(U)R -605		SWL(U)R -601	
长度 Length	1600mm	长度 Length	2710mm
宽度 Width	1800mm	宽度 Width	1850mm
高度 Height	2300mm	高度 Height	2020mm
工作高度 Working Height	900±30mm	工作高度 Working Height	900±30mm
最大板件尺寸 Max. Panel Size	660*660mm	最大板件尺寸 Max. Panel Size	660*740mm
最小板件尺寸 Min. Panel Size	300*300mm	最小板件尺寸 Min. Panel Size	300*300mm
板件厚度 Panel Thickness	0.075~3.2mm	板件厚度 Panel Thickness	0.075~3.2mm
叠板厚度 Stacking Thickness	150mm	叠板厚度 Stacking Thickness	150mm
电源 Power Supply	1Ph 220V 50Hz 3Kw	电源 Power Supply	1Ph 220V 50Hz 3Kw
气源 Air Supply	0.6 Mpa 300NL/min	气源 Air Supply	0.6 Mpa 300NL/min
产速 Capacity	8 pcs/min	产速 Capacity	8 pcs/min

SWL(U)R -601

6-axis 4-position sorting loader and unloader



Description

Automatic rack changing when the rack is full, no need to shut down machine

Use 10kg six axis robot, can be used with AGV and MES

Collocation of signals from target drilling machine, proceed automatic sorting OK and NG panels

Main Application

Process: Trimming and beveling sorting unloader, and other processes that need to be classified

SWL(U)R-201

Semi-vertical loader and unloader



Description

Use 10kg six axis robot, can be used with AGV and MES

The equipment is mainly used for LDI in-line panel loading and unloading and automatically adjust the size of the board

Main Application

Process: LDI in-line loader and unloader

SWL(U)R-202

Semi-vertical loader and unloader



Description

Use 10kg three axis robot, can be used with AGV and MES

Main Application

Process: Inner layer pre-treatment, Automatic laminator, Automatic exposure machine, Automatic mylar peeler, etc

Available in a variety of models
For your choice.

SWL(U)R-201		SWL(U)R-202	
长度 Length	1360mm	长度 Length	1360mm
宽度 Width	1200mm	宽度 Width	1200mm
高度 Height	2000mm	高度 Height	2000mm
工作高度 Working Height	900±30mm	工作高度 Working Height	900±30mm
最大板件尺寸 Max. Panel Size	660*660mm	最大板件尺寸 Max. Panel Size	660*660mm
最小板件尺寸 Min. Panel Size	300*300mm	最小板件尺寸 Min. Panel Size	300*300mm
板件厚度 Panel Thickness	0.075~3.2mm	板件厚度 Panel Thickness	0.075~3.2mm
叠板厚度 Stacking Thickness	150mm	叠板厚度 Stacking Thickness	150mm
电源 Power Supply	1Ph 220V 50Hz 2Kw	电源 Power Supply	1Ph 220V 50Hz 2Kw
气源 Air Supply	0.6 Mpa 200NL/min	气源 Air Supply	0.6 Mpa 200NL/min
产速 Capacity	8 pcs/min	产速 Capacity	8 pcs/min

SWL(U)-190

Horizontal loader and unloader



Description

Can be used with AGV and MES

The conveying is driven by the servo motor, stable operation

Process: Inner layer pre-treatment, Automatic laminator, Chemical clean, Auto line

有多种型号
供您挑选。

Available in a variety of models
For your choice.

SWL(U)-190	
长度 Length	1550mm
宽度 Width	1080mm
高度 Height	1600mm
工作高度 Working Height	900±30mm
最大板件尺寸 Max. Panel Size	660*660mm
最小板件尺寸 Min. Panel Size	300*300mm
板件厚度 Panel Thickness	0.075~3.2mm
叠板厚度 Stacking Thickness	300mm
电源 Power Supply	1Ph 220V 50Hz 1Kw
气源 Air Supply	0.6 Mpa 200NL/min
产速 Capacity	8 pcs/min

SWL(U)-208

Thin panel semi-vertical loader and unloader



Can be used with AGV and MES

Grasping arm adopts servo motor, stable operation

设备主要用途 Main Application

用于制程：内层前处理，涂布线，自动贴膜机，自动曝光机，自动撕膜机，显影蚀刻退膜线等
Process: Inner pre-treatment, Curtain Coating Machine, Auto Laminator, Auto exposure, Auto mylar peeler, DES line, etc

SWL(U)-208	
长度 Length	1400mm
宽度 Width	1300mm
高度 Height	1900mm
工作高度 Working Height	900±30mm
最大板件尺寸 Max. Panel Size	610*610mm
最小板件尺寸 Min. Panel Size	300*300mm
板件厚度 Panel Thickness	0.075~3.2mm
叠板厚度 Stacking Thickness	150mm
电源 Power Supply	1Ph 220V 50Hz 1.2Kw
气源 Air Supply	0.6 Mpa 200NL/min
产速 Capacity	8 pcs/min

SWL(U)-500

Horizontal box loader and unloader with interleaving /separating design



Description

Can be used with AGV and MES

Tray size available on request, automatic tray exchange function

Main Application

Process: Inner DES line, Brown Oxide line, etc

Available in a variety of models
For your choice.

SWL(U)-500	
长度 Length	2150mm
宽度 Width	1340mm
高度 Height	2010mm
工作高度 Working Height	950±30mm
最大板件尺寸 Max. Panel Size	610*610mm
最小板件尺寸 Min. Panel Size	300*300mm
板件厚度 Panel Thickness	0.075~2.4mm
叠板厚度 Stacking Thickness	120mm
电源 Power Supply	1Ph 220V 50Hz 2Kw
气源 Air Supply	0.6 Mpa 300NL/min
产速 Capacity	8 pcs/min

SWL(U)-601

Semi-vertical loader and unloader



Description

Can be used with AGV and MES

Unloader equipped with buffer, rack change without stopping the machine

Centering position can be set left, middle and right

Main Application

Process: Dry film pre-treatment, solder mask pre-treatment, PTH pre/post treatment, Hot air leveling pre-treatment

SWL(U)-601	
长度 Length	1700mm
宽度 Width	1260mm
高度 Height	1080mm
工作高度 Working Height	900±30mm
最大板件尺寸 Max. Panel Size	610*610mm
最小板件尺寸 Min. Panel Size	300*300mm
板件厚度 Panel Thickness	0.4~4.0mm
叠板厚度 Stacking Thickness	120mm
电源 Power Supply	1Ph 220V 50Hz 0.5Kw
气源 Air Supply	0.6 Mpa 100NL/min
产速 Capacity	8 pcs/min

SWU-620

Semi-vertical loader and unloader
with interleaving/separating design



Description

Can be used with AGV and MES

Unloader equipped with buffer, rack change without
stopping the machine

Centering position can be set left, center and right

Machine has paper separation function

Main Application

Process: SES outer layer pre-treatment line, hot air leveling post-treatment, etc

Available in a variety of models
For your choice.

SWL(U)-700

Rack type loader and unloader



Description

Can be used with AGV and MES

Automatically H-shaped rack exchange without the need of operator to shutdown machine

The main function of the equipment is to prevent the panel surface from contacting, which is matched with H shaped insertion frame rack

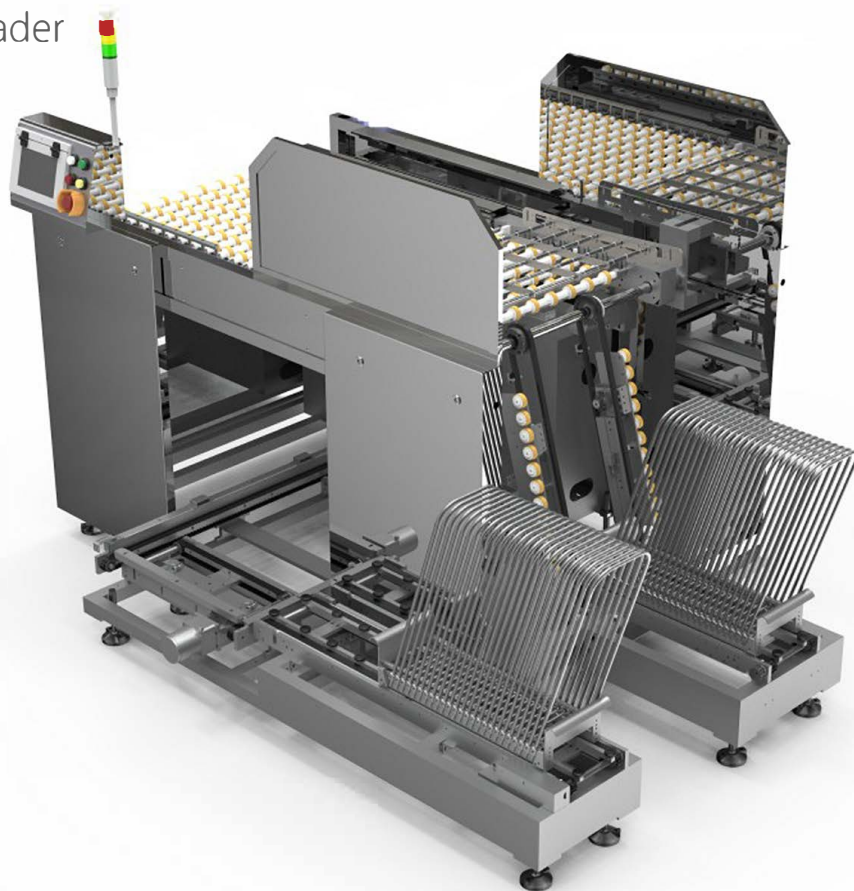
Main Application

Process: Solder mask exposure and developing, etc

SWU-620		SWL(U)-700	
长度 Length	1820mm	长度 Length	1500mm
宽度 Width	1840mm	宽度 Width	1535mm
高度 Height	1770mm	高度 Height	1670mm
工作高度 Working Height	900±30mm	工作高度 Working Height	900±30mm
最大板件尺寸 Max. Panel Size	610*610mm	最大板件尺寸 Max. Panel Size	610*610mm
最小板件尺寸 Min. Panel Size	300*300mm	最小板件尺寸 Min. Panel Size	300*300mm
板件厚度 Panel Thickness	0.4~4.0mm	板件厚度 Panel Thickness	0.7~3.2mm
叠板厚度 Stacking Thickness	120mm	板架存放片数 Panels in Rack	20mm
电源 Power Supply	1Ph 220V 50Hz 0.5Kw	电源 Power Supply	1Ph 220V 50Hz 0.6Kw
气源 Air Supply	0.6 Mpa 250NL/min	气源 Air Supply	0.6 Mpa 50NL/min
产速 Capacity	8 pcs/min	产速 Capacity	7 pcs/min

SWL(U)-713

Frame type loader and unloader



Description

Can be used with MES

Automatically N-shaped frame exchange without the need of operator to shutdown machine

✓ The main function of the equipment is to prevent the panel surface from contacting, which is matched with N-shaped insertion frame

Main Application

Process: Solder mask exposure and developing, etc

Available in a variety of models
For your choice.

SWL(U)-713	
长度 Length	2315mm
宽度 Width	1750mm
高度 Height	1780mm
工作高度 Working Height	100±30mm
最大板件尺寸 Max. Panel Size	610*610mm
最小板件尺寸 Min. Panel Size	300*300mm
板件厚度 Panel Thickness	0.2~3.2mm
板架存放片数 Panels in Rack	20mm
电源 Power Supply	1Ph 220V 50Hz 1.0Kw
气源 Air Supply	0.6 Mpa 50NL/min
产速 Capacity	6 pcs/min

SWL-810

Small board loader



Description

Can be used with MES

The conveying is driven by the servo motor, stable operation

Board can be placed in rows according to board size, up to 5 rows. The board needs to be placed on the cart manually

Main Application

Process: Finished product cleaning line, OSP, etc

SWL-810	
长度 Length	1250mm
宽度 Width	1360mm
高度 Height	1600mm
工作高度 Working Height	900±30mm
最大板件尺寸 Max. Panel Size	350*350mm
最小板件尺寸 Min. Panel Size	76*76mm
板件厚度 Panel Thickness	0.1~2.4mm
叠板厚度 Stacking Thickness	200mm
电源 Power Supply	1Ph 220V 50Hz 1Kw
气源 Air Supply	0.6 Mpa 200NL/min
产速 Capacity	20 cycle/min

SWU-900

Small board unloader



Description

Can be used with MES

Main Application

Process: Finished product cleaning line, OSP, etc

Available in a variety of models
For your choice.

SWU-900		SWU-903	
长度 Length	1000mm	长度 Length	1500mm
宽度 Width	1000mm	宽度 Width	1100mm
高度 Height	1300mm	高度 Height	1000mm
工作高度 Working Height	900±30mm	工作高度 Working Height	900±30mm
最大板件尺寸 Max. Panel Size	350*350mm	最大板件尺寸 Max. Panel Size	450*450mm
最小板件尺寸 Min. Panel Size	100*100mm	最小板件尺寸 Min. Panel Size	100*100mm
板件厚度 Panel Thickness	0.2~2.4mm	板件厚度 Panel Thickness	0.2~3.2mm
叠板厚度 Stacking Thickness	300mm	叠板厚度 Stacking Thickness	200mm
电源 Power Supply	1Ph 220V 50Hz 1Kw	电源 Power Supply	1Ph 220V 50Hz 0.8Kw
气源 Air Supply	0.6 Mpa 200NL/min	气源 Air Supply	-
产速 Capacity	10 pcs/min	产速 Capacity	20 cycl/min

SWU-903

Small board loader



Description

Can be used with MES

Automatic transmission when panel full, does not need to stop

The equipment can unloading panel in multiple columns at the same time

设备主要用途 Main Application

Process: Finished product cleaning line, OSP, etc

SWG-201

Crawler-type panel turnover machine



Description

Can be used with MES

No friction between panels, cause scratches

With the function of panel jam detection, prevent panel from crushing

Main Application

Proces: Solder resist developing, solder mask developing

Available in a variety of models
For your choice.

SWG-100

30 Panel flipper



Description

With flip cooling function

With function of unloading, loading, inter-connection of machines

Process: Solder resist pre-treatment, Post lamination

SWG-201		SWG-100	
长度 Length	2660mm	长度 Length	1900mm
宽度 Width	900mm	宽度 Width	1500mm
高度 Height	1100mm	高度 Height	1100mm
工作高度 Working Height	900±30mm	工作高度 Working Height	900±30mm
最大板件尺寸 Max. Panel Size	660*660mm	最大板件尺寸 Max. Panel Size	660*660mm
最小板件尺寸 Min. Panel Size	300*300mm	最小板件尺寸 Min. Panel Size	300*300mm
板件厚度 Panel Thickness	0.7~4.0mm	板件厚度 Panel Thickness	0.075~3.2mm
暂存片数	45~100片(可定制)/ Can be custom made	电源 Power Supply	1Ph 220V 50Hz 0.5Kw
电源 Power Supply	1Ph 220V 50Hz 0.5Kw	气源 Air Supply	-
气源 Air Supply	-	产速 Capacity	8 pcs/min
产速 Capacity	8 pcs/min		

SWG-301

Single panel turnover machine



Description

Use for inline LDI system

Main Application

Available in a variety of models
For your choice.

SWG-503

20 Panels buffer



Description

With flip cooling function

- 具卡板检知功能，防止板件压伤
- With function of unloading, loading, inter-connection of machines

Main Application

Process: Suitable for storage or buffering for any kind of processes

SWG-301		SWG-503	
长度Length	800mm	长度 Length	840mm
宽度 Width	1635mm	宽度 Width	1305mm
高度 Height	1700mm	高度 Height	1770mm
工作高度 Working Height	900±30mm	工作高度 Working Height	950±30mm
最大板件尺寸 Max. Panel Size	660*660mm	最大板件尺寸 Max. Panel Size	610*610mm
最小板件尺寸 Min. Panel Size	300*300mm	最小板件尺寸 Min. Panel Size	300*300mm
板件厚度 Panel Thickness	0.075~3.2mm	板件厚度 Panel Thickness	0.075~3.2mm
电源 Power Supply	1Ph 220V 50Hz 0.8Kw	电源 Power Supply	1Ph 220V 50Hz 0.5Kw
气源 Air Supply	-	气源 Air Supply	0.6 Mpa 10NL/min
产速 Capacity	8 pcs/min	产速 Capacity	8 pcs/min

SWT-103

Single panel turnover machine



Description

- ✓ Suitable for storage or buffering for any kind of processes
- ✓ Board feeding direction can be selected

Main Application

Proces: Linline LDI, etc

Available in a variety of models
For your choice.

SWT-103		SWT-201	
长度 Length	950mm	长度 Length	1050mm
宽度 Width	950mm	宽度 Width	110mm
高度 Height	1100mm	高度 Height	1100mm
工作高度 Working Height	900±30mm	工作高度 Working Height	900±30mm
最大板件尺寸 Max. Panel Size	610*610mm	最大板件尺寸 Max. Panel Size	610*610mm
最小板件尺寸 Min. Panel Size	300*300mm	最小板件尺寸 Min. Panel Size	300*300mm
板件厚度 Panel Thickness	0.075~3.2mm	板件厚度 Panel Thickness	0.075~3.2mm
电源 Power Supply	1Ph 220V 50Hz 0.5Kw	电源 Power Supply:	1Ph 220V 50Hz 0.5Kw
气源 Air Supply	0.6 Mpa 10NL/min	气源 Air Supply	0.6 Mpa 10NL/min
产速 Capacity	8 pcs/min	产速 Capacity	6pcs/min

SWT-201

Panel rotator



Description

- ✓ Suitable for rotating panels between processes
- ✓ 90° or 180° can be selected

Main Application

Process: Suitable for rotating panels between processes

SWL(U)-180

Horizontal FPC loader and unloader



Description

Can be used with MES

The conveying is driven by servo motor, stable operation

Single or double row production

Main Application

Process: For sheet type FPC

Available in a variety of models
For your choice.

SWL(U)-180		SWL(U)-501	
长度 Length	1400mm	长度Length	2500mm
宽度 Width	1050mm	宽度 Width	1900mm
高度 Height	1800mm	高度 Height	2100mm
工作高度 Working Height	900±30mm	工作高度 Working Height:	950±30mm
最大板件尺寸 Max. Panel Size	500*500mm	最大板件尺寸 Max. Panel Size	610*510mm
最小板件尺寸 Min. Panel Size	250*250mm	最小板件尺寸 Min. Panel Size	510*415mm
板件厚度 Panel Thickness	0.036~1.0mm	板件厚度 Panel Thickness	0.04~1.2mm
叠板厚度 Stacking Thickness	120mm	电源 Power Supply	1Ph 220V 50Hz 5.0Kw
电源 Power Supply	1Ph 220V 50Hz 1.8Kw	气源 Air Supply	0.6 Mpa 200NL/min
气源 Air Supply	0.6 Mpa 200NL/min	产速 Capacity	5 pcs/min
产速 Capacity	8 pcs/min		

SWL(U)-501

Horizontal tray loader/unloader with interleaf function



Description

Can be used with AGV and MES

The conveying is driven by servo motor, stable operation

Two sizes of big board and small board can be switched
automatically without manual adjustment

The equipment can meet the requirements of 4 loading tools: big box / small box /
big tray / small tray. when using one loading tool for production, no need to stop
machine for changing loading tool and the material is replenished automatically

Main Application

Process: For BGA substrate loading and unloading