



Solder Ball Attach System BPS-7200HD

- System Performance
- System Layout
- System Functions

SYSTEM PERFORMANCE

**CYCLE
TIME**

12 – 14 sec
Normal Package(1 Shot)

30 – 35 sec
Fine Pitch Package(2 or 3 Shot)

**YIELD
PERFORMANCE**

99.99%

**Placement
Accuracy**

± 0.03mm

**Fine Pitch
Capability**

0.150mm Ball size
0.300mm Ball pitch

SYSTEM PERFORMANCE

Strip Handling Capacity

50 ~ 95mm Width x 200~260mm Length

Product Flexibility

All kinds of BGA Package series can be applied

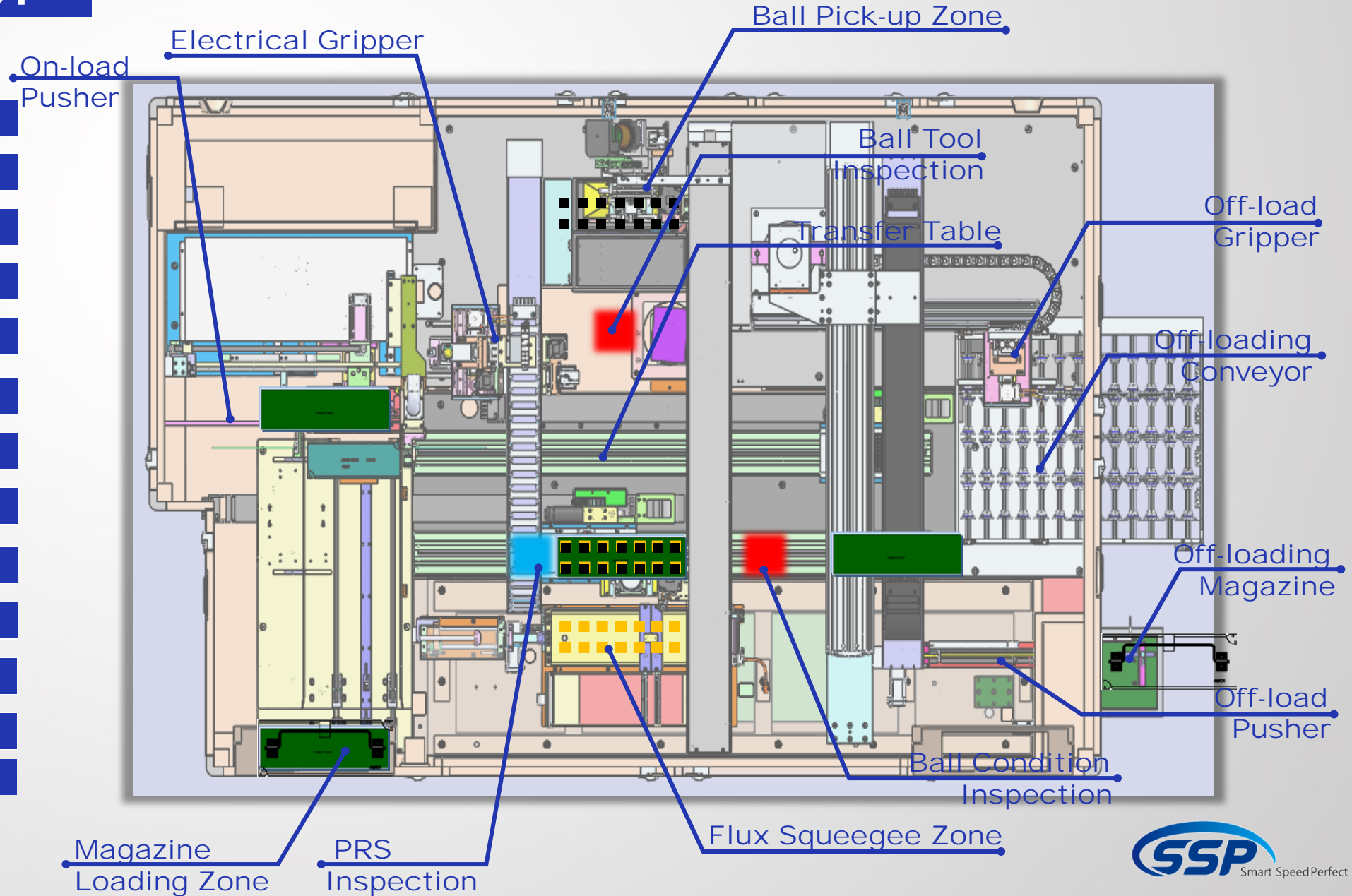
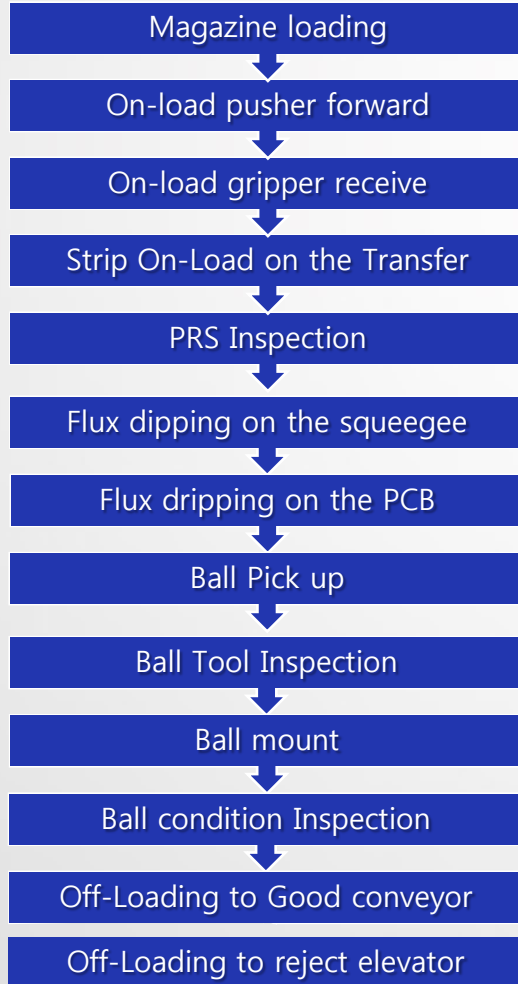
Quick Conversion Time
: Less than 10 min

Ball tool, Flux tool, Lift Block (for different Body size)

Foot Print & Weight

2300(L)X1350(W)X1820(H) / 3,000kg

SYSTEM LAYOUT



Previous Slide

Next Slide

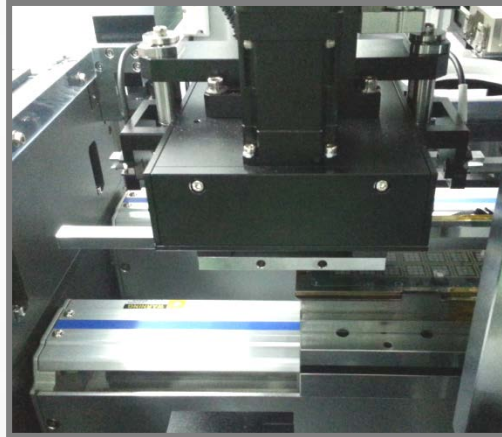
ON-LOADING ZONE



Magazine Loading



On-load Pusher



Electrical Gripper



PRS Inspection

- Conversion Time Reduction
- Automatic Magazine & Strip Width Adjustment (Auto Conversion)
- Strip War-page Free Design Picker & Long Strip Pusher (Motorized Strip Pusher)
- Prevent error from feeding strip and pick & place error

WORKING ZONE



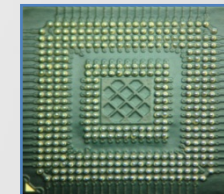
Flux Squeegee Zone



Ball Pick up Zone



Ball Tool Inspection



Ball Mount

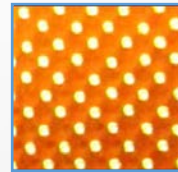
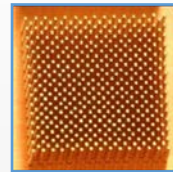
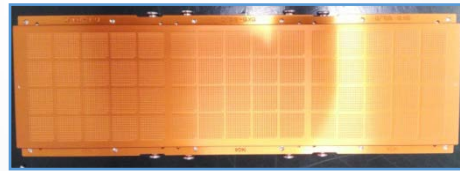
- Adjust Flux thickness (Patent Pending) → Thickness consistency (+- 3 um)
- Flux volume sensor control & Motorized supply system
- Flux Pin clean Heater block
- Less flux bridge & no over flow
- Ball Tool Inspection (5 Mega pixel)
- Universal Ball Floating Mechanism
- 1up(Strip base) - 4up (Block base)
- Dual Lane Feeding
- Control Vacuum by Electric Regulator
- Warped Strip workable
- Strip Transfer Table
- Linear Servo on Stone base

WORKING ZONE

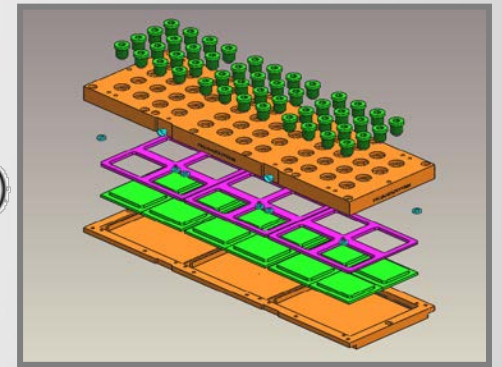
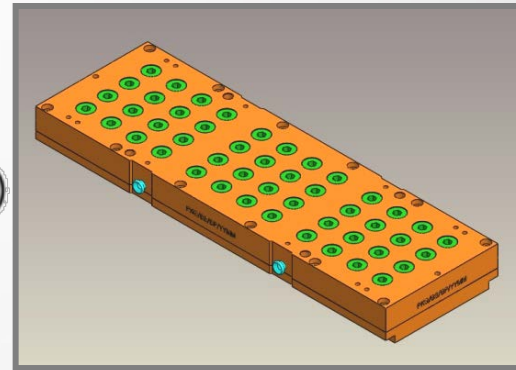
CONVERSION KIT (FLUX TOOL)



Flux Squeegee Zone

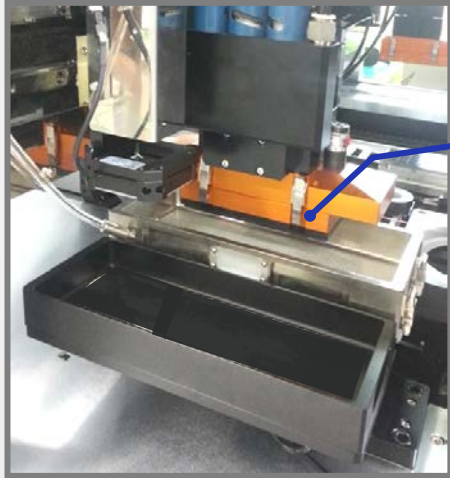


Flux Tool

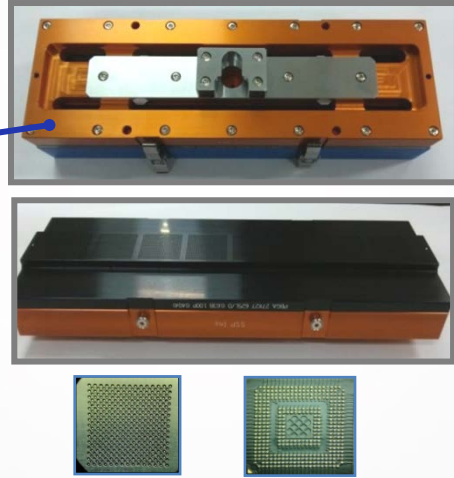


WORKING ZONE

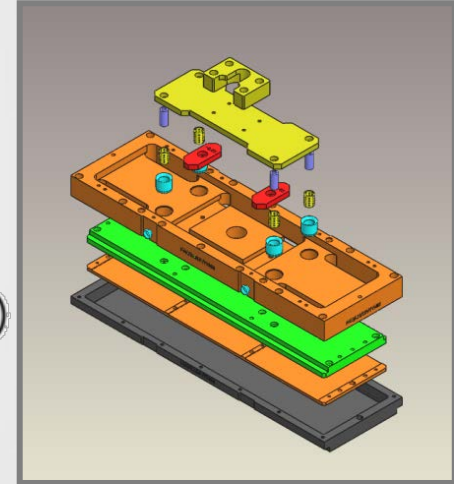
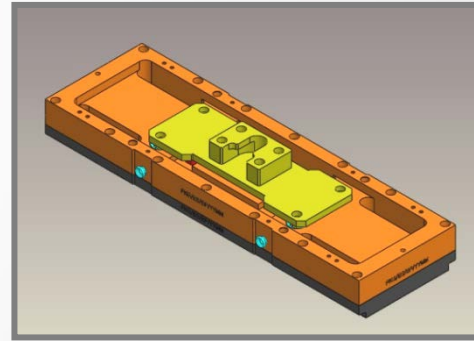
CONVERSION KIT (BALL TOOL)



Ball Pick up Zone

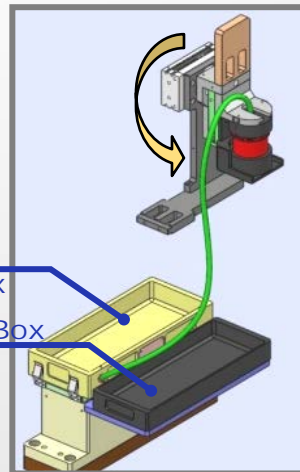


Ball Tool

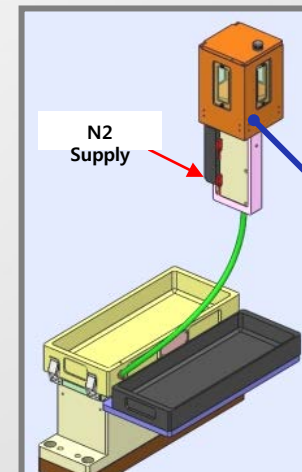


Ball Supply Unit

Ball
Floating Box
Dump Box



Rotate Type

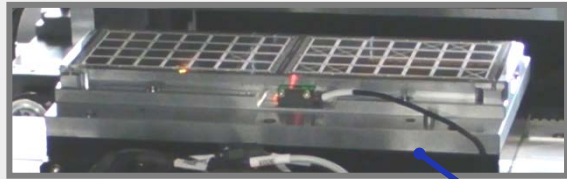


Hopper Type

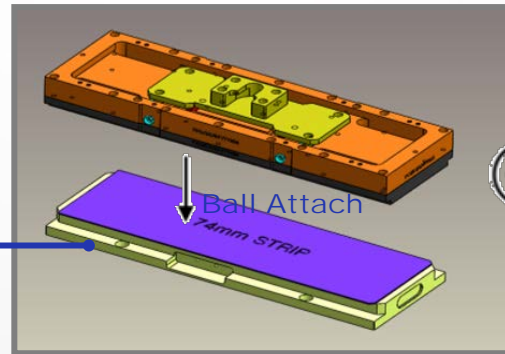
Ball Supply
System

WORKING ZONE

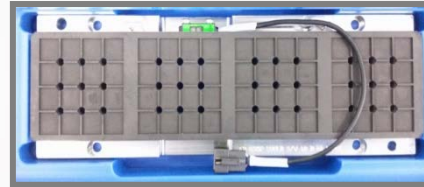
CONVERSION KIT (LIFT TOOL)



Ball Mount



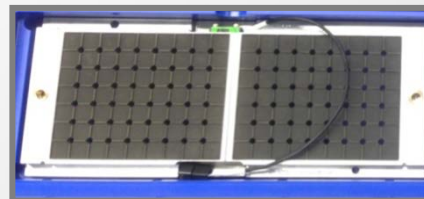
Lift Tool



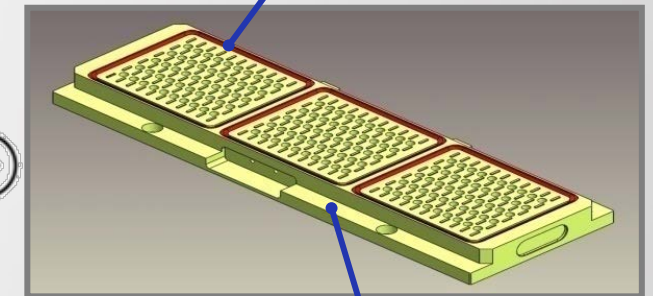
62mm Lift Tool



74mm Lift Tool



95mm Lift Tool



Rubber Pad

Lift Block

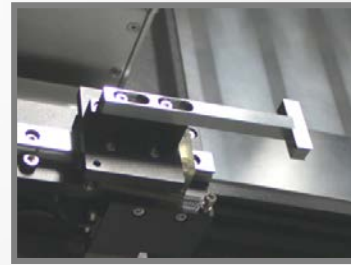
OFF-LOADING ZONE



Ball Condition Inspection



Electrical Gripper



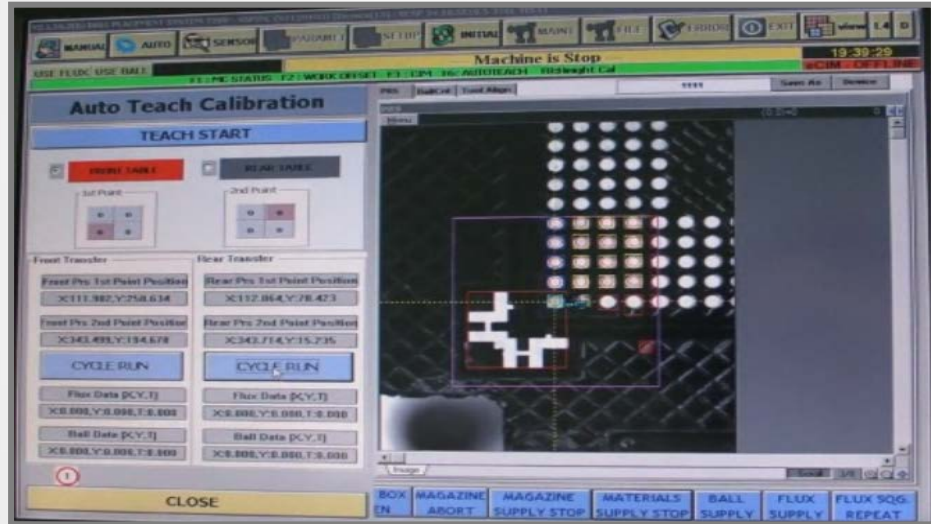
Off-load Pusher(Reject)



Reject Magazine Good conveyor

- High Resolution 5 Mega CCD Camera for Ball Quality Vision Inspection.
- Very fine pitch inspection and Normal Package Inspection
- Electrical Gripper System for Strip Off-loading
- Automatic Magazine and Strip Width Adjustment (Gripper Auto Conversion)
- Various solution for Strip off-loading to Reflow
- Reject Buffer Magazine & Elevator

AUTO TOOL SET-UP



- Automatic alignment → Substrate / Flux / Ball
- Tool PRS → tool position compensation
- Quick Tool Set up & Calibration
- 3-High Resolution CCD Camera (PRS, Look-up, Look-down Camera System)
- Improvement for user convenience
- Manual Setting → Auto Setting

Jig
Calibration

Ball Tool
Calibration

Flux Tool
Calibration

Rear PCB
Calibration

Front PCB
Calibration

No Need Vision Teaching

Technical realization

to create an imagined reality