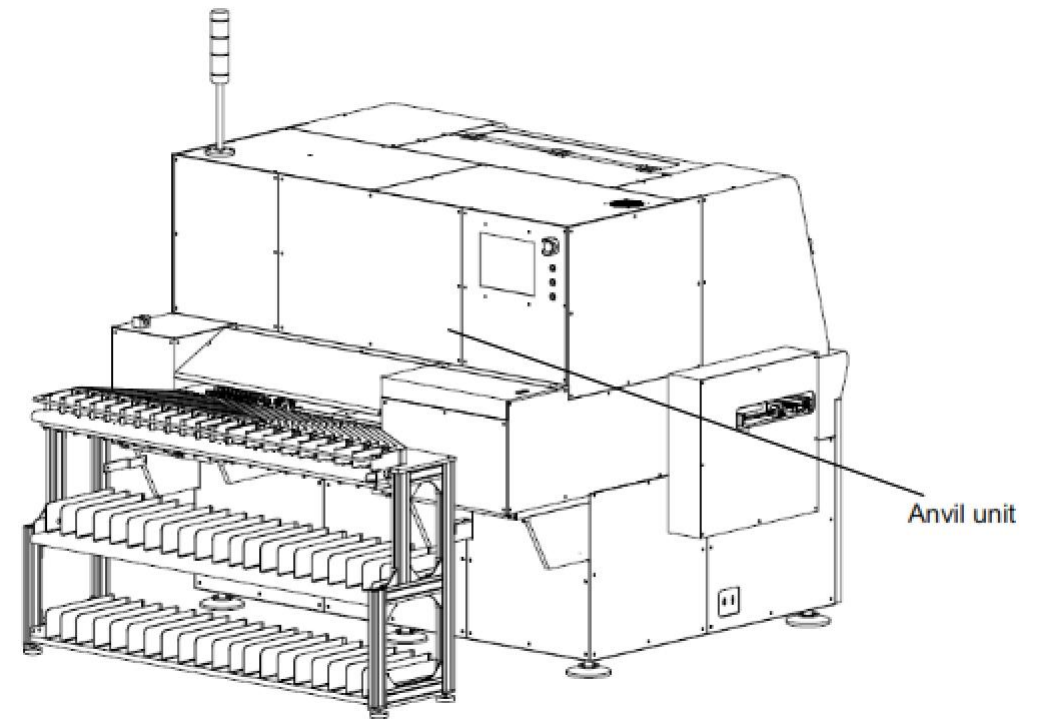
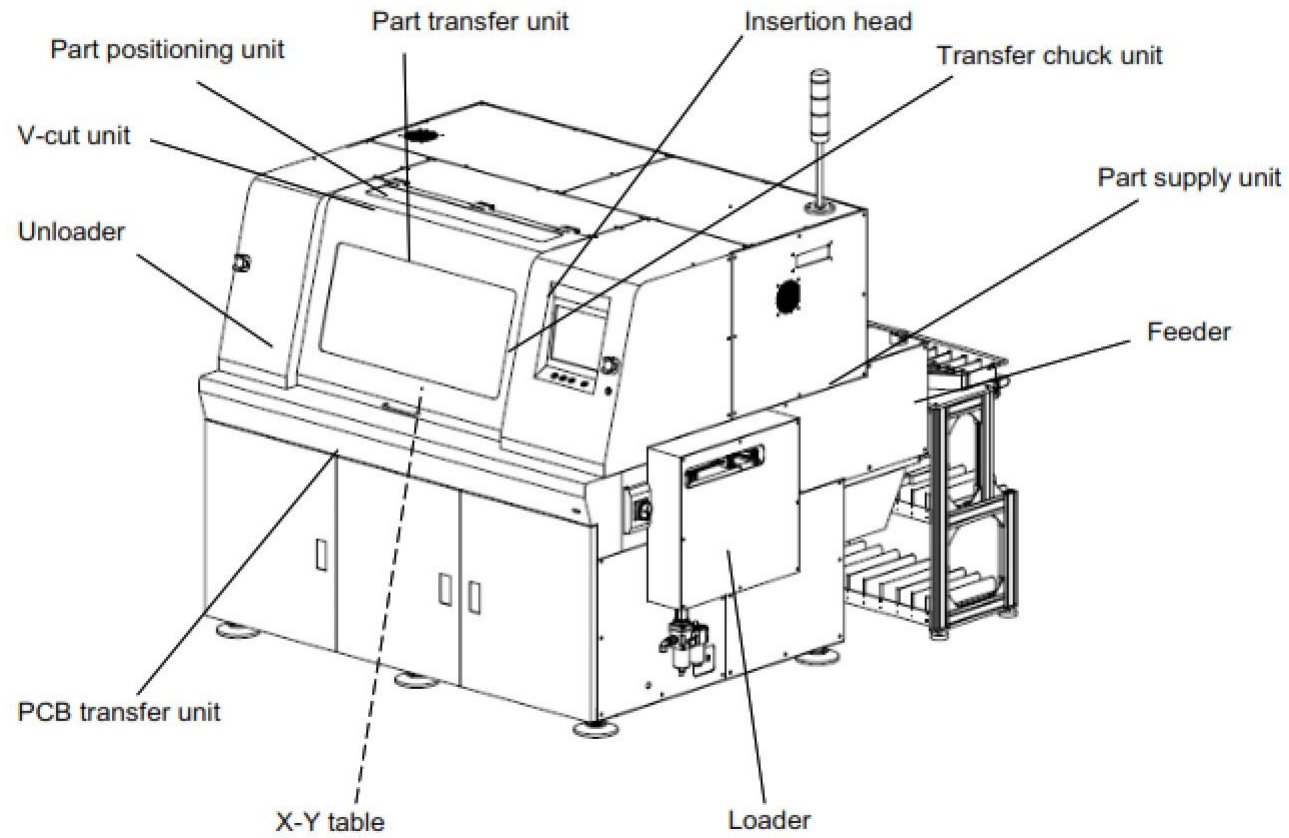


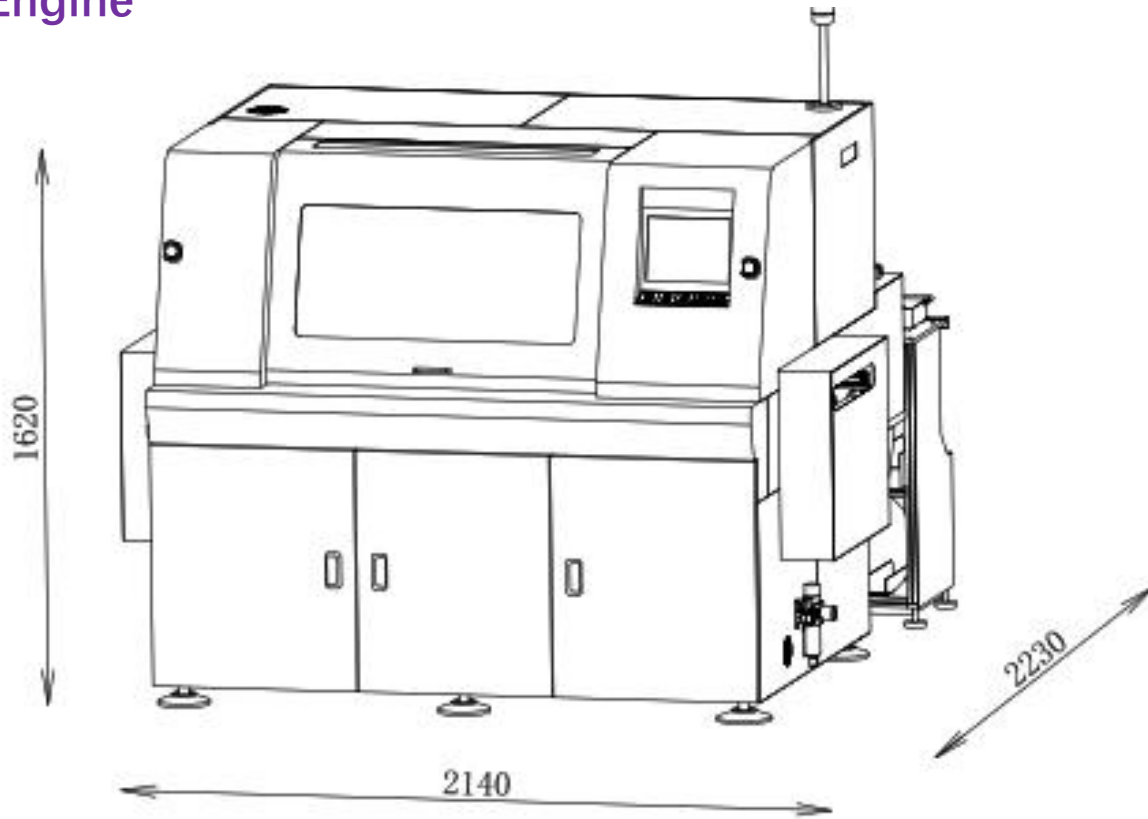
## Radial Insertion Machine S-3820A(20 Stations) /S3840A (40 stations)



## Overall Drawing

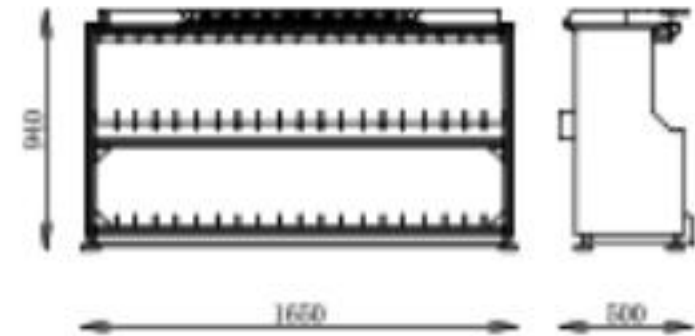


## Main Engine



2140 x 1760 x 1620 mm 2107 kg

## Rack



1650 x 500 x 940 mm 85 kg

## Machine Specifications

Item	Details
Power supply	<ul style="list-style-type: none"> <li>• Rated voltage Frequency 3-phase 380 V+20</li> <li>• Rated capacity 50/60 Hz</li> <li>• Approx. 3.5kVA</li> </ul>
Air supply	<ul style="list-style-type: none"> <li>• Supplied air pressure Min. 0.45 MPa to Max. 0.8 Mpa (Operation air pressure: 0.45- 0.5 MPa)</li> <li>• Supplied</li> <li>air mass Approx. 110 L/ min. (A.N.R)</li> </ul>
Dimensions	<ul style="list-style-type: none"> <li>• W3.200 × D2.417 xH1.575 mm (Not including signal tower)</li> </ul>
Mass	<ul style="list-style-type: none"> <li>• Approx. 2.000 kg (main body only)</li> </ul>
Environmental requirements	<ul style="list-style-type: none"> <li>• Ambient temperature 20°C ± 10°C</li> </ul>
Operating controls	<ul style="list-style-type: none"> <li>Interactive operation via color LCD touch screen.</li> <li>• IO functions</li> <li>• USB Slot (standard equipment)</li> <li>• Communication LAN communication (TCP/IP)</li> </ul>
Coating color	<ul style="list-style-type: none"> <li>• Standard color White + Blue</li> </ul>

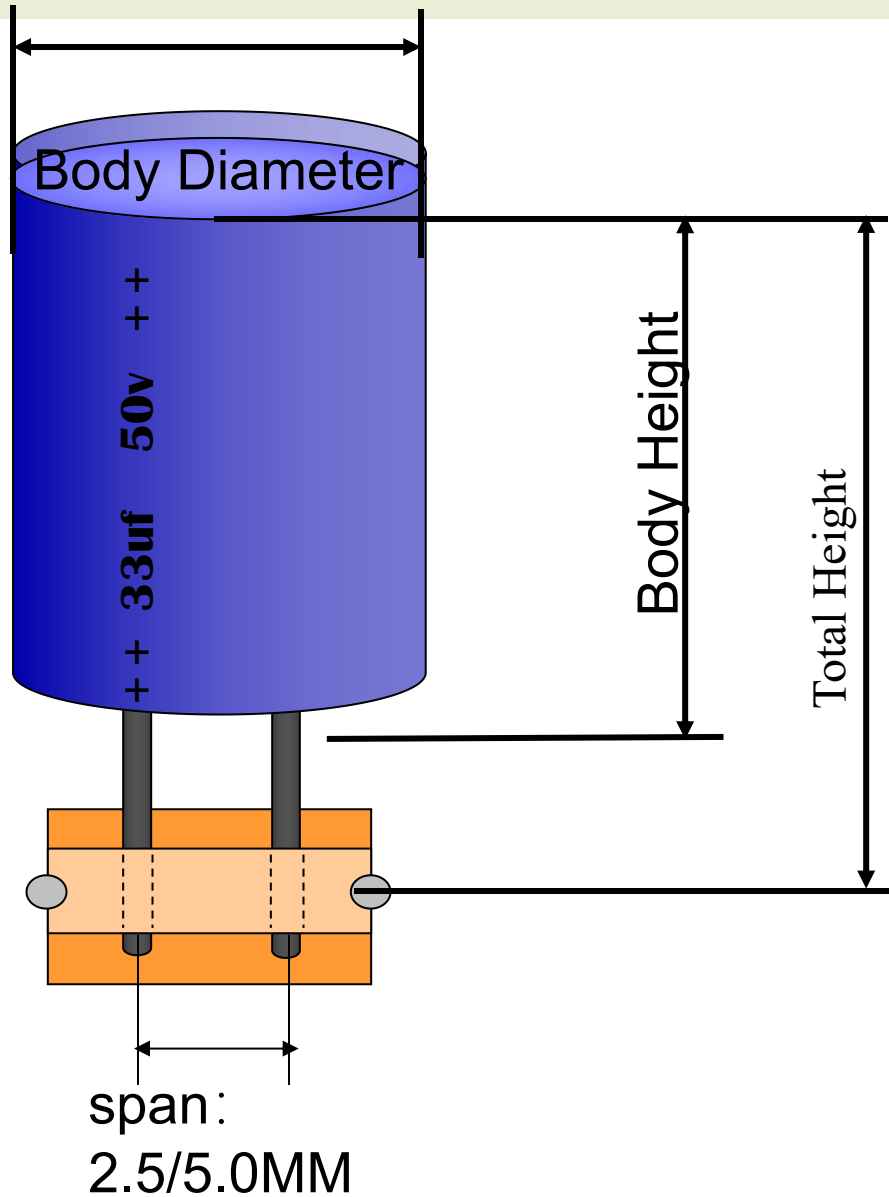
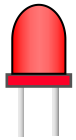
## Basic Performance

Item	Details
Insertion tact time	<ul style="list-style-type: none"> <li>• Max. tact time: Approx. 0.168 s/point (0.20, 0.25, 0.3 s/point changeable)</li> <li>• 1 X-Y table movement at the tact time of 0.168 s/point: Within 49mm Insertion direction: each 1degree (0°- 90°. 0°- (-190° :0.168 s/point) (90°.180°,91°. (-)180°: 0.20 s/point)</li> <li>• 2 The tact time above is enabled only when components are continuously taped. (Tact time varies if there are missing portions.)</li> <li>• 3 Tact time varies between the beginning and the last of the insertion.</li> <li>• 4 Tact time varies when new components are inserted for recovery.</li> <li>• 5 Tact time varies also if 10 or more feeders are operated at a time due to the NC data setting.</li> <li>• 6 Tact time must be set between 0.25 and 0.30 s when inserting components more than 12 mm in diameter or more than 18 mm in height</li> </ul>
Applicable components	Insertion pitch: 2.5 and 5.0 mm(standard), 7.5 and 10.0 mm (option) Height: Hn = Max. 25 mm Diameter: D = Max. 13 mm Resistors, electrolytic capacitors, ceramic capacitors, LEDs, transistors, filters and resistor networks
Component packaging	<ul style="list-style-type: none"> <li>• Taping (in pack or reel)Component pack must be lower than 360 mm and width less than 62 mm.Component reel must be up to 360 mm in diameter and 62 mm in width.Bracket and reel shaft are required. Cannot be used on the upper stage of the supply unit.</li> </ul>

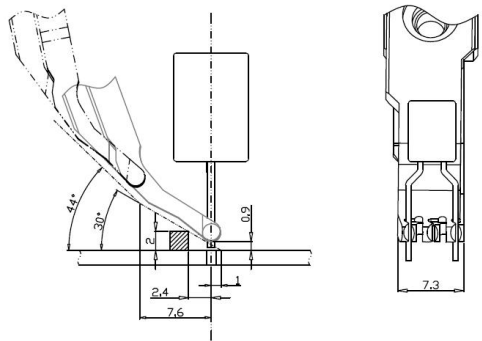
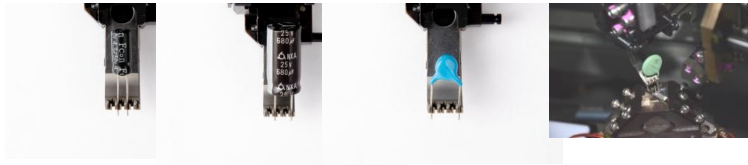
Item	Details
PCB replacement time	Approx. 2 second (Ambient temperature: 20°C): PCB replacement time only includes time for loading. It takes approx. 3 to 4 seconds including the table return time.
Applicable PCB	<ul style="list-style-type: none"> <li>• Dimensions Min. 50 x 50 mm to Max. 508 x 381 mm Width-to-length ratio: Width should be equal to or less than length. Consult us for boards having width longer than length.</li> <li>• Allowable insertion area Min. 50 x 40 mm - Max. 508 x 371 mm</li> <li>• Thickness 1.6 mm ±0.15 mm (for standard specification) Boards of thickness from 0.6 mm (min.) to 2.0 mm (max.) are applicable. Even if the board thickness is within the above range, clinched angle of the inserted lead or lead length may vary, or board transfer error may occur depending on the shapes of board or insertion holes. Please contact us in advance.</li> <li>• Mass Max. 1 kg per board including inserted components.</li> <li>• Flow direction Right to left (Standard) or Left to right (Option)</li> <li>• Board positioning method Pin positioning (Standard, without positioning in the Y direction). Contact us separately for edge positioning.</li> </ul>
Insertion pitch	<ul style="list-style-type: none"> <li>• 2-pitch (standard), 3-pitch or 4-pitch (option)</li> <li>2.5 mm and 5.0 mm (standard),</li> <li>2.5mm, 5.0 mm, 7.5 mm, or 2.5 mm, 5.0 mm, 7.5 mm, 10.0 mm (Option)</li> </ul>
Insertion direction	<ul style="list-style-type: none"> <li>• 360 degrees by 1 degree</li> </ul>
Anvil	<ul style="list-style-type: none"> <li>• Cutting &amp; Clinch type system (Piezoelectric detection system)</li> </ul>
No. of component inputs	<ul style="list-style-type: none"> <li>• 40 types</li> </ul>

## Radial Inserter S-3820A Component Spec

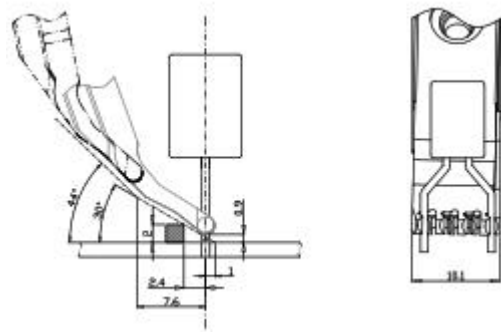
*Max Body Height: 20MM ,  
MAX Body Diameter 10MM  
Span: 2.5/3.5/5.0/7.5/10mm*



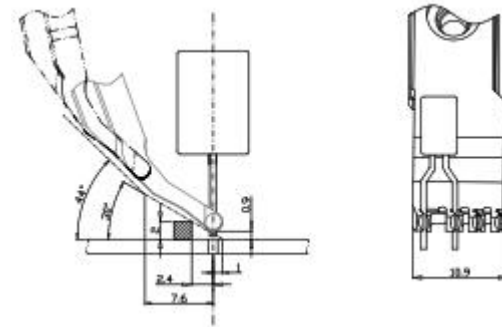




(2.5 5.0mm Span)

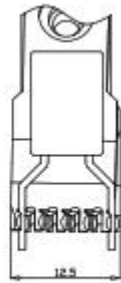
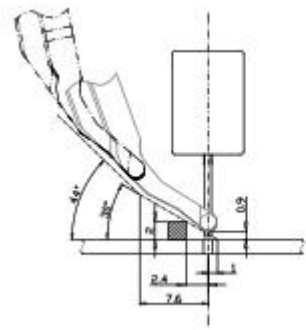
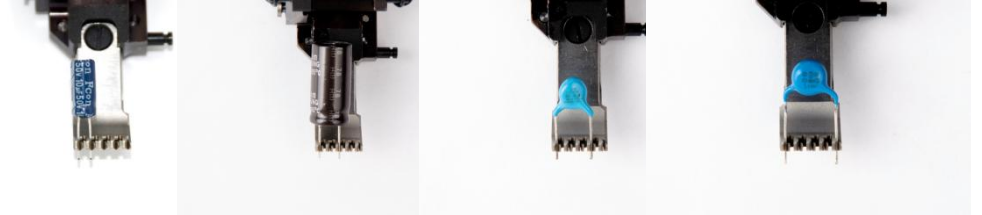
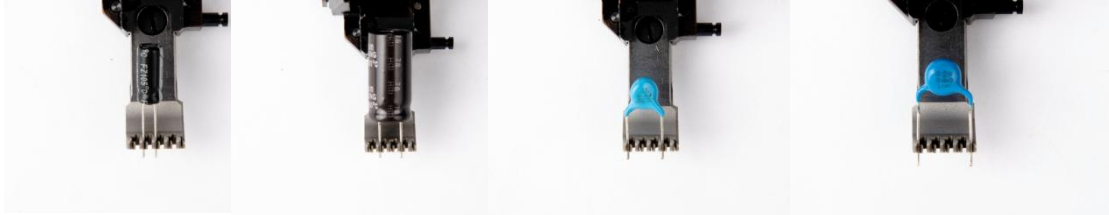


(2.5 5.0 7.5mm Span)

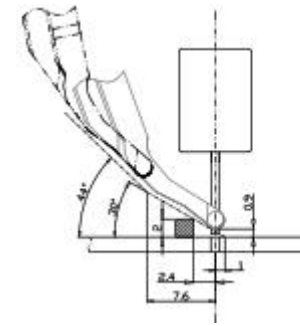


(2.5 5.0 3.5mm Span)





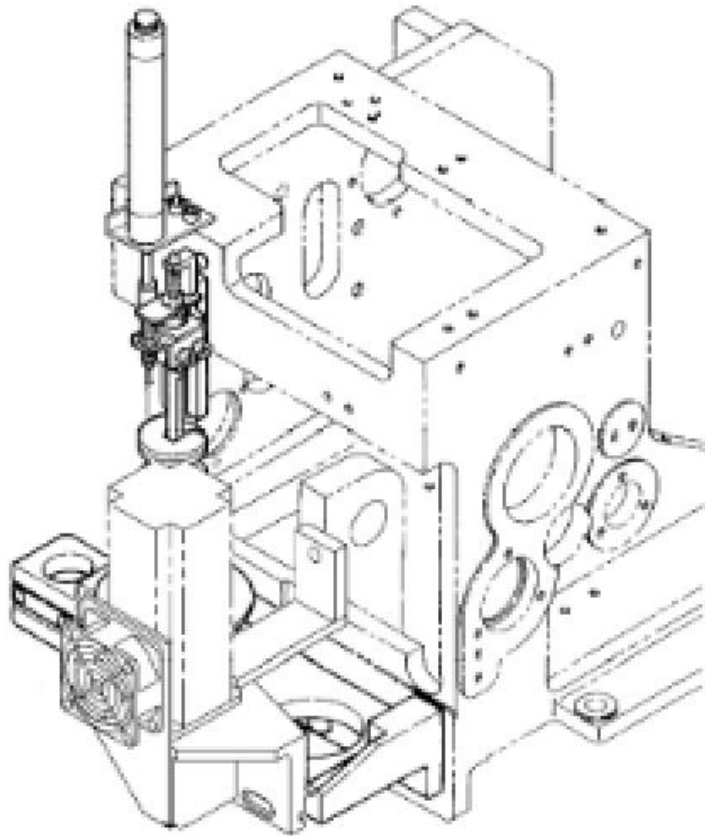
(2.5 5.0 7.5 10mm Span)



Special (2.5 5.0 7.5 10mm Span)

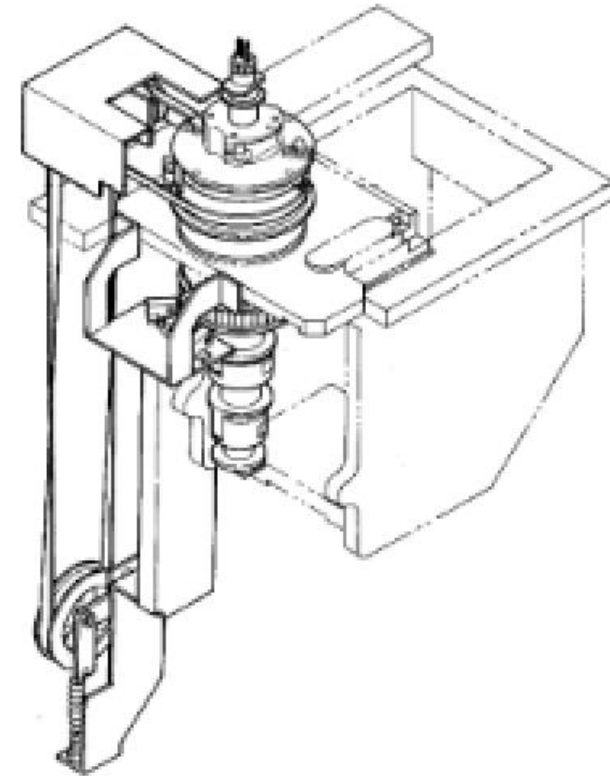


## Insertion Head



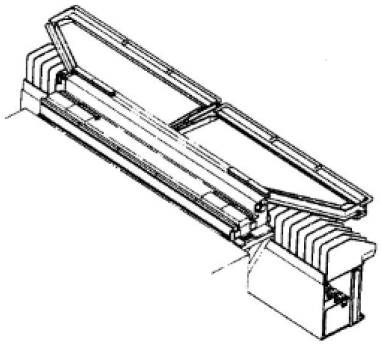
*Inserts the radial component delivered from the transfer chuck to an optional position on the PC board.*

## Anvil Unit

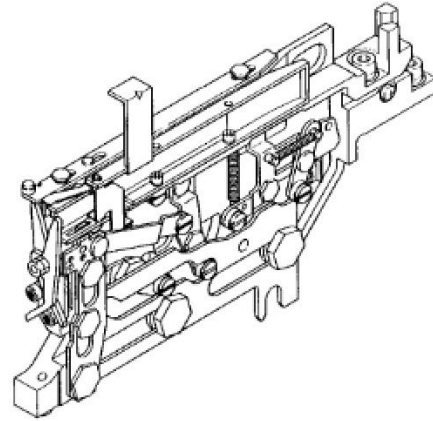


*Cuts and clinches the leads of radial component below the PC board.*

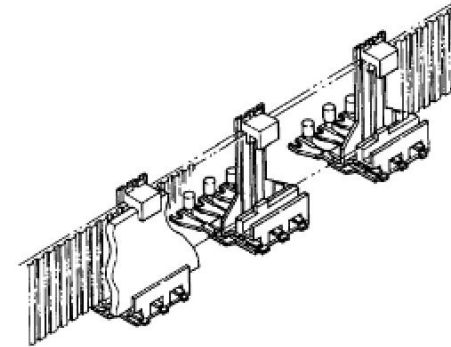
Part Supply Unit



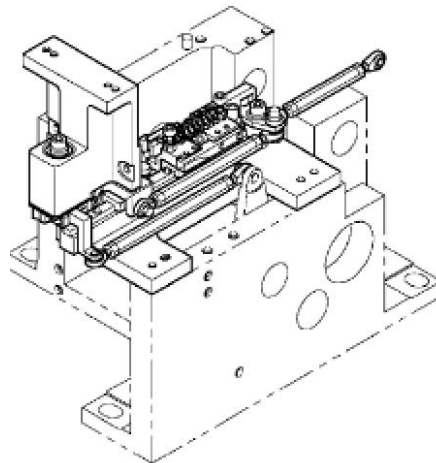
Feeder



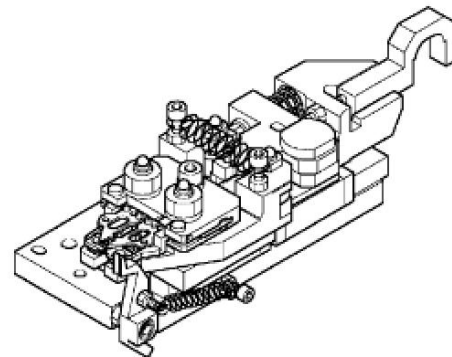
Part Transfer Unit



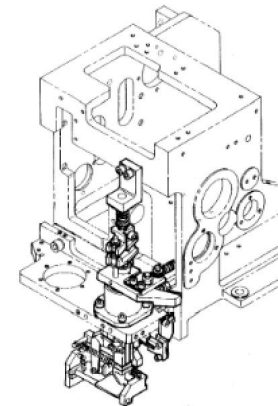
Part Positioning Unit



V-cut Unit



Transfer Chuck Unit



## Power ON

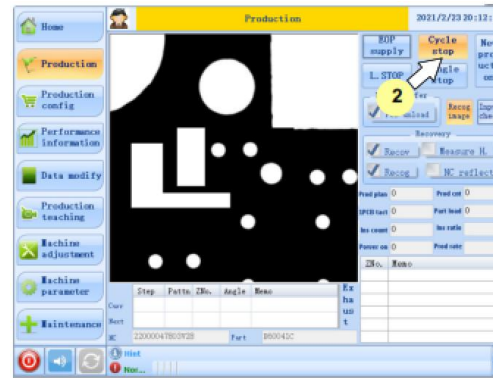


## Start

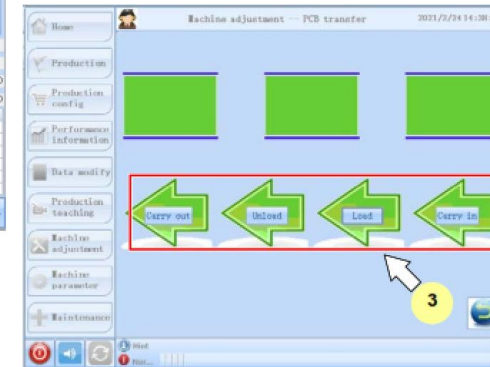


## Color Touch Panel

## Insert



## Status

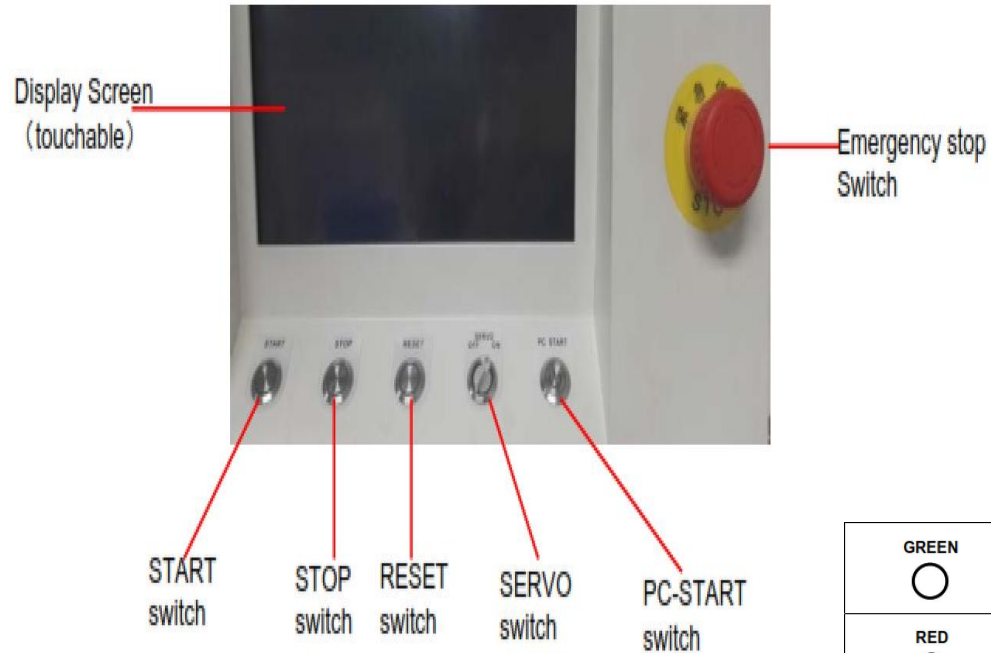


## Power OFF

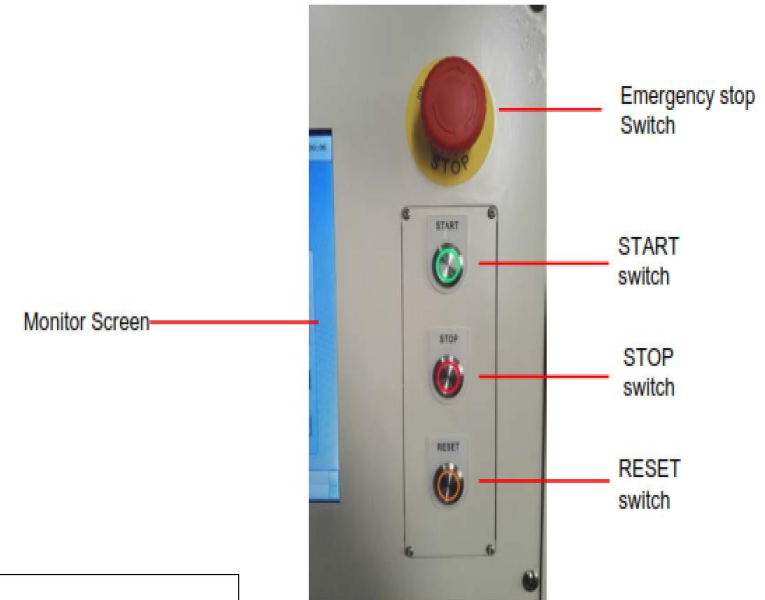










## Control panel (front)

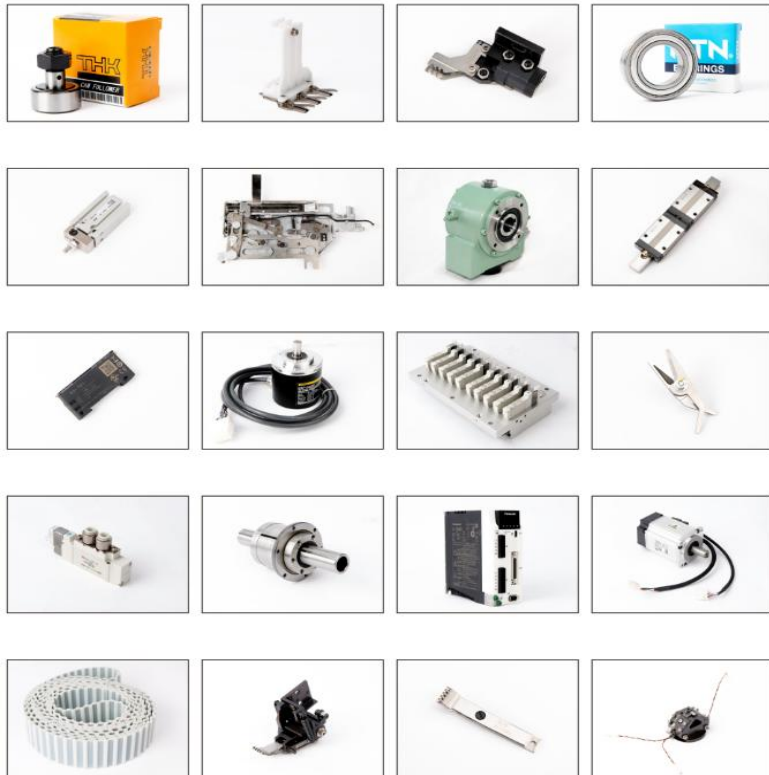


## Control panel (rear)



<b>GREEN</b> 	Used to start production and return from a single stop. *Start switch accepts both front and rear.
<b>RED</b> 	Used to stop production temporarily (single stop). *Stop switch accepts both front and rear.
<b>YELLOW</b> 	Press this switch to clear the error message displayed on the control panel. *Stop switch accepts both front and rear.
	<b>SERVO switch</b> Turns ON power to the motor. When accessing the moving parts, be sure to set the switch to "OFF (O)". Before starting production, make sure this switch is in the ON (I) position both on front and rear control panels.
	<b>Emergency stop switch</b> Press this switch in the event of danger or trouble. When pressed, the machine stops instantly. Turn clockwise and pull to release. (Front/rear: 4 positions)
<b>PC-START</b> 	<b>PC-START switch</b> Press this switch to run the industrial PC.

## Parts

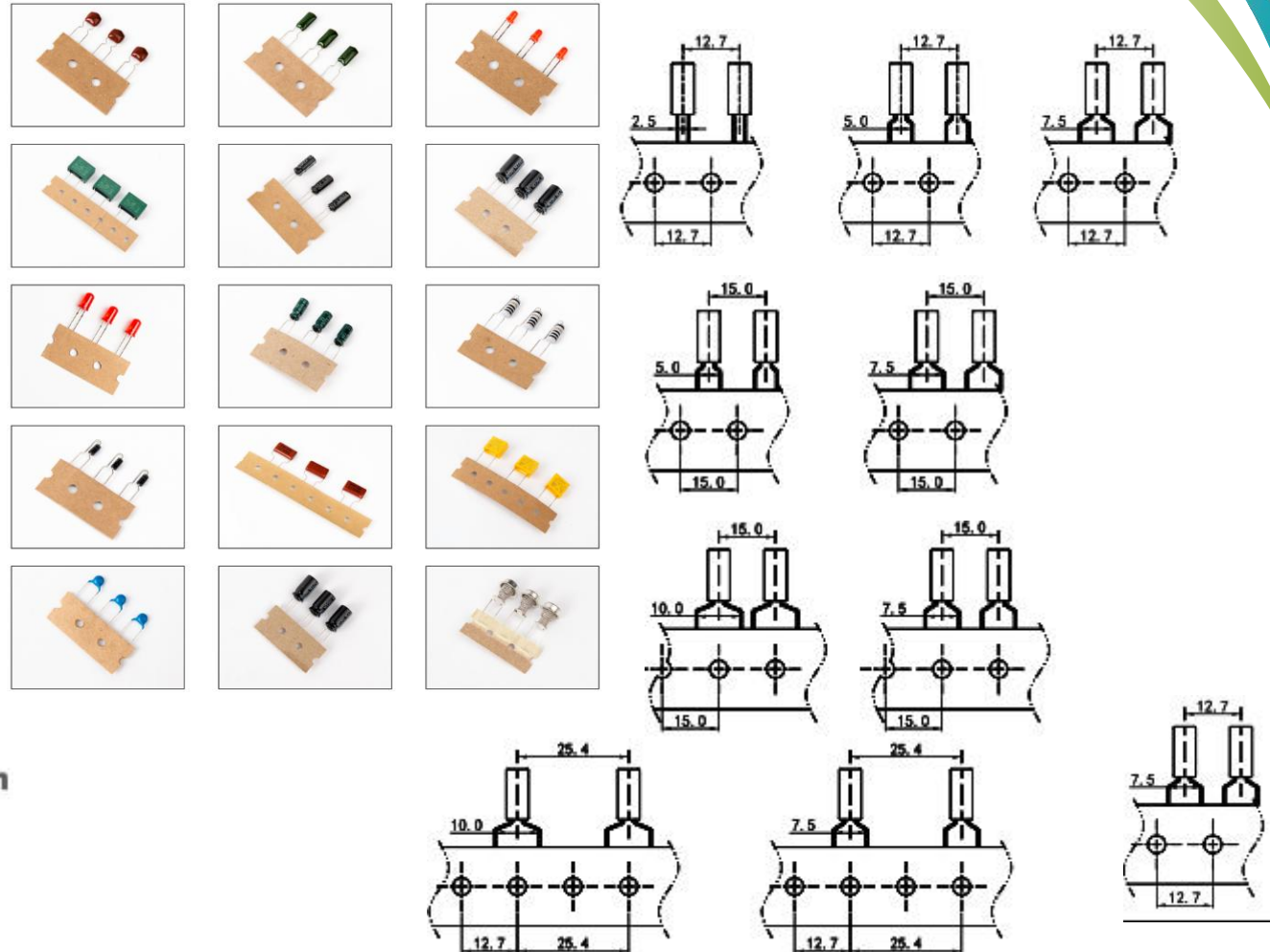


**Japan Panasonic/Taiwan Delta AC servo motor/Japan Omron photoelectric sensors/Absolute encoder**

**Japan THK Spline\Screw\Slide rail**

**Japan SMC/ Taiwan AirTAC pneumatic accessories**

## Applicable Components



# S-3820A Radial Insertion Machine Application



**LED Signage / LED Illumination**



**LED Drivers / Fluorescent Ballasts**



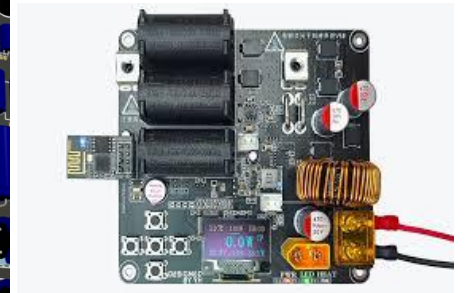
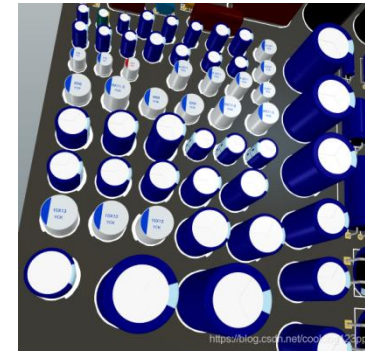
**Set-top Box / Game / Motherboard**



**Appliance (White Goods)**



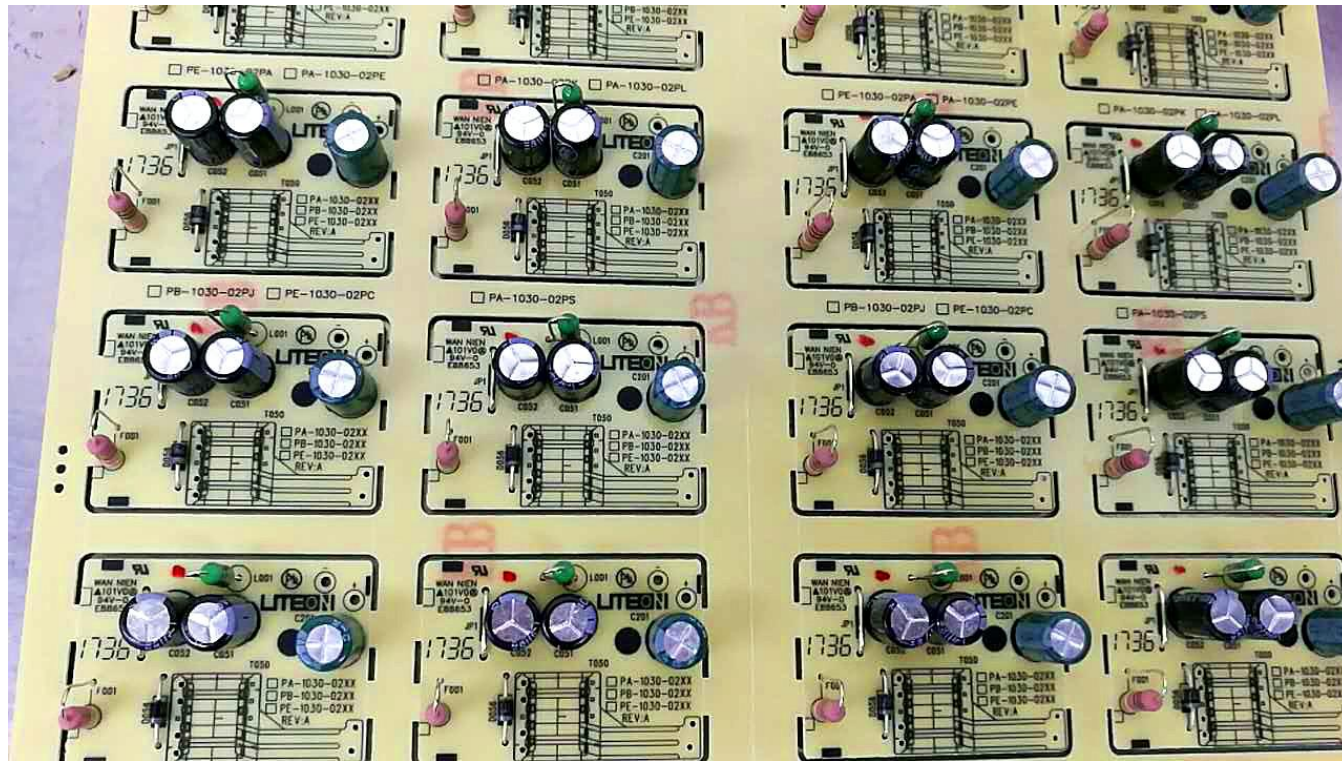
**Power Conversion**



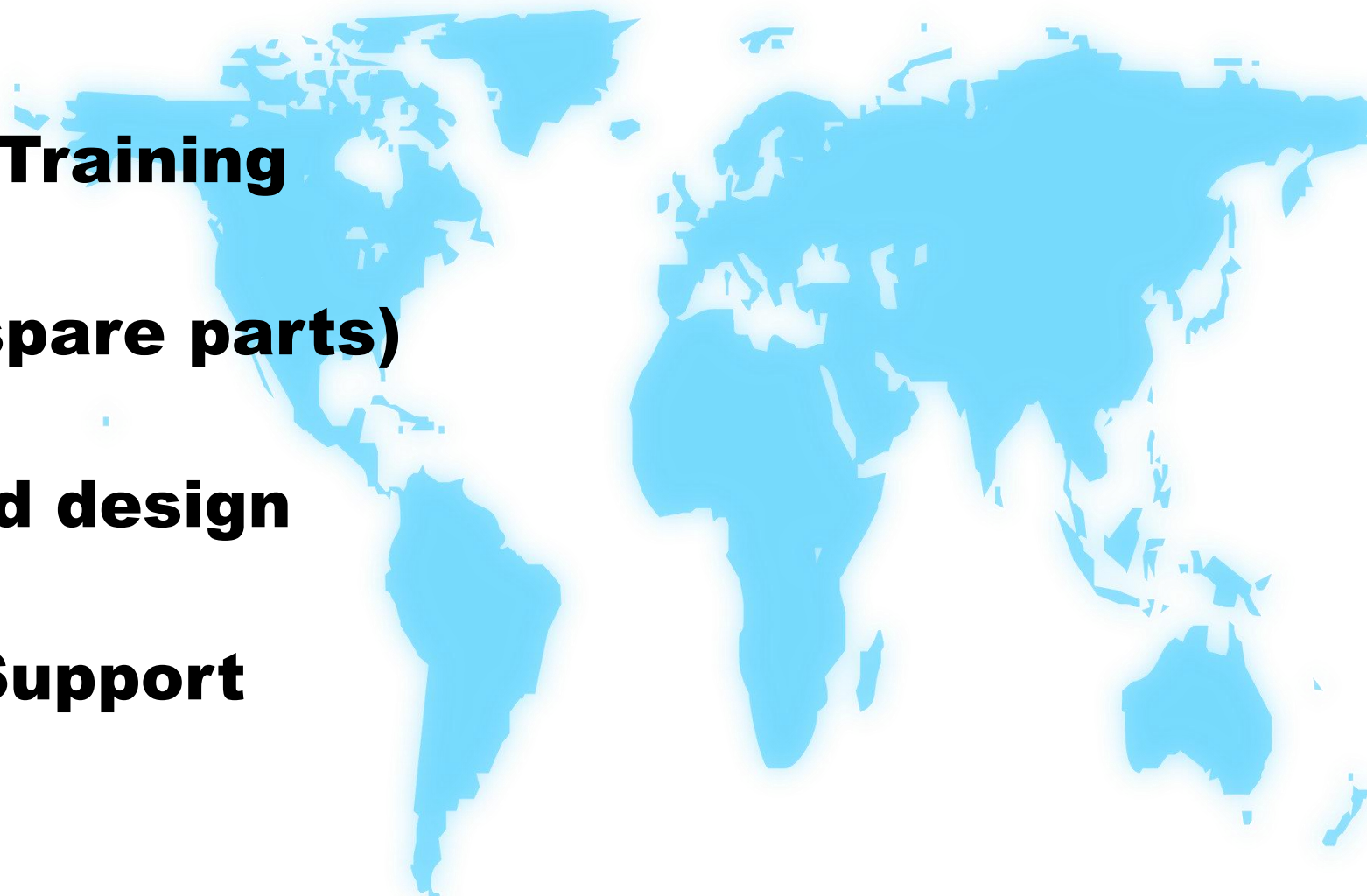
**High-Mix Environments**



## Product



# Best After-sales service

- **Free Installation/ Training**
  - **1 day lead-time (spare parts)**
  - **5 days customized design**
  - **7x24 Worldwide Support**
- 



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