

# Equipment Front End Module **EFEM**



# EFEM320-D01

SEMI S2(EFEM320 Series) APPROVED

Supports 8"SMIF



## Features

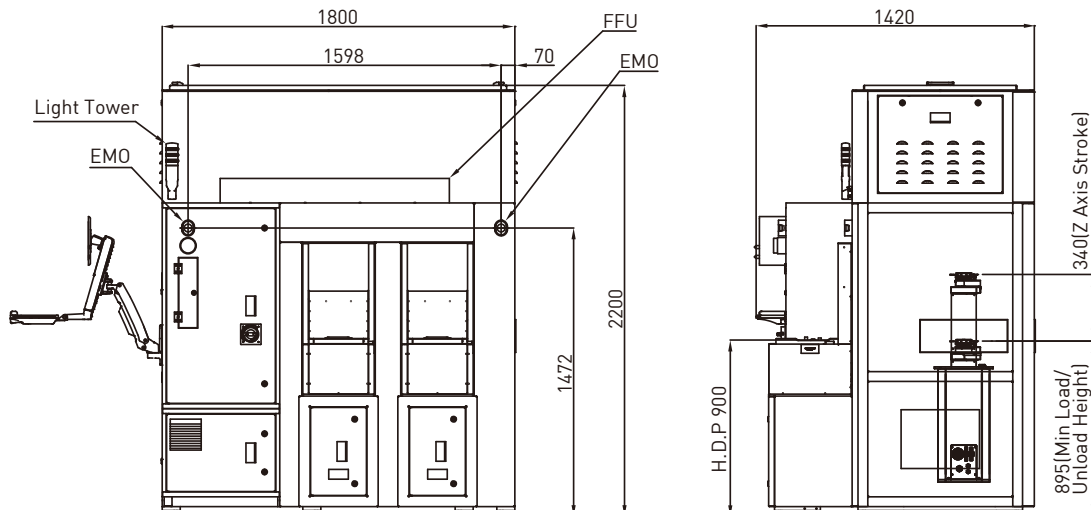
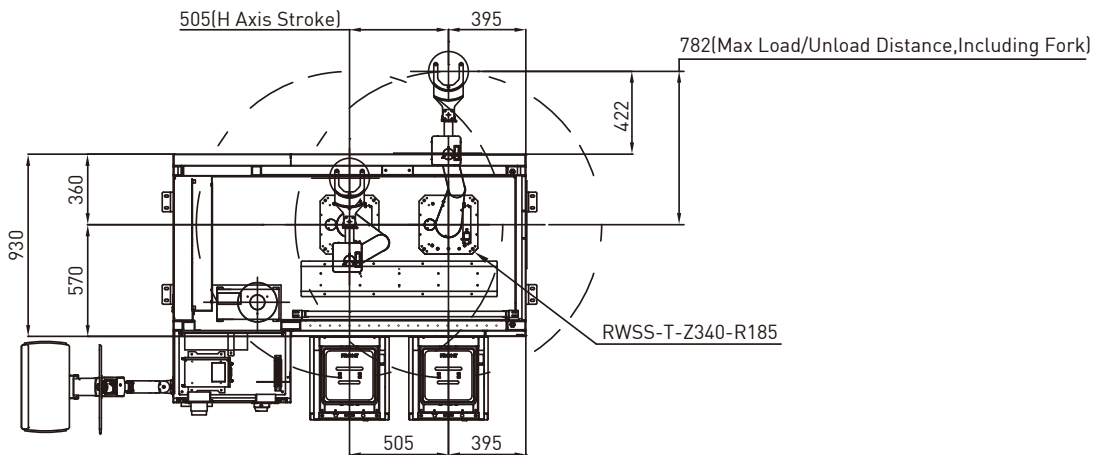
- Supports bar code, label and character recognition, complete tracking of the production process.
- Provides real-time video monitoring.
- Micro-environmental control such as high-efficiency purification and static elimination to ensure there is no contamination during transfer.
- An automatic pressure control system detects ambient pressure and adjusts the fan speed to maintain the set value.
- Supports customized wafer or other substrate handling requirements.

Item	Specification
Number of Ports	2 Ports
Robot Model	RWSS-T-Z340-D5R185
Reach	422mm
Wafer	8" (200mm), warpage $\pm 1$ mm, thickness 500-1000 $\mu$ m
Repeatability	$\pm 0.1$ mm
Dimensions	1420mm X 1800mm X 2200mm
Cleanliness	Class1 @ 0.12 $\mu$ m
Power Supply	1 phase, 220VAC, 25A
Flow	Positive Pressure 100L/min, Negative Pressure 50L/min
Optional Accessories [Note 1]	Wafer ID Reader Bar Code Reader RFID Tag Reader E84 Module Static Eliminator SECS/GEM Communication [Note 2]

\* Note: 1. Optional Accessories not included.

2. SECS/GEM to be developed by local system integrators and software company.

## Outer Dimensions / Working Range



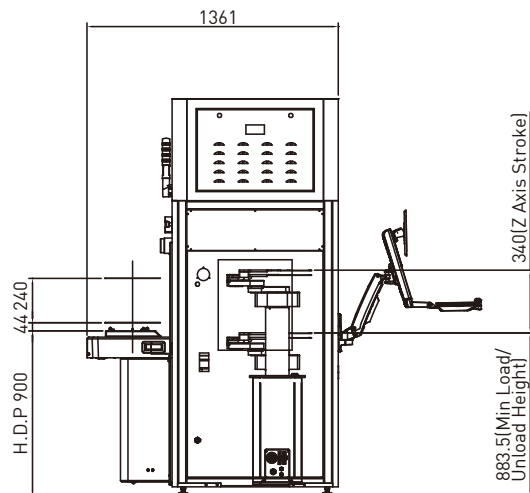
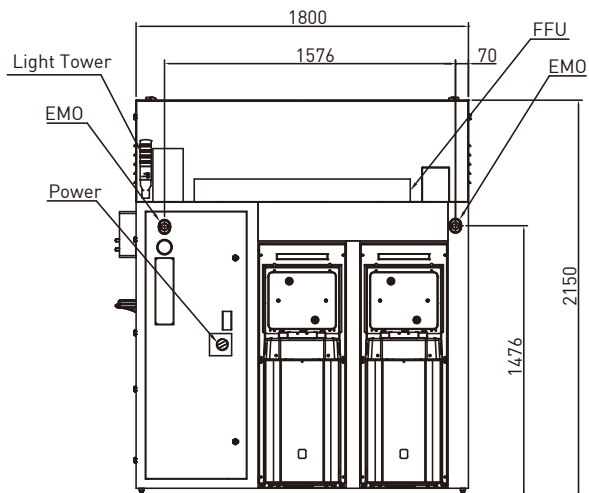
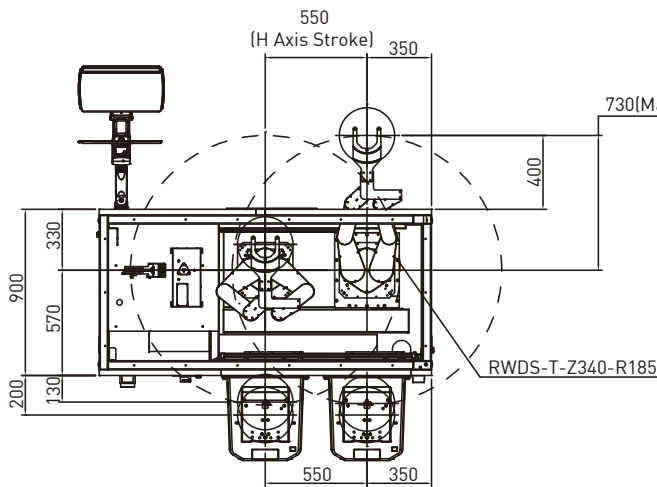
# EFEM320-D02

SEMI S2(EFEM320 Series) APPROVED

Supports 8", 12" WAFER



Outer Dimensions / Working Range



## Features

- Supports bar code, label and character recognition, complete tracking of the production process.
- Provides real-time video monitoring.
- Micro-environmental control such as high-efficiency purification and static elimination to ensure there is no contamination during transfer.
- An automatic pressure control system detects ambient pressure and adjusts the fan speed to maintain the set value.
- Supports customized wafer or other substrate handling requirements.

Item	Specification
Number of Ports	2 Ports
Robot Model	RWDS-T-Z340-D5R185
Reach	400mm
Wafer	8"(200mm), warpage $\pm 1$ mm, thickness 500-1000 $\mu$ m; 12"(300mm), warpage $\pm 1$ mm, thickness 650-1200 $\mu$ m
Repeatability	$\pm 0.1$ mm
Dimensions	1361mm X 1800mm X 2150mm
Cleanliness	Class1 @ 0.12 $\mu$ m
Power Supply	1 phase, 220VAC, 25A
Flow	Positive Pressure 100L/min, Negative Pressure 50L/min
Optional Accessories [Note 1]	Wafer ID Reader Bar Code Reader RFID Tag Reader E84 Module Static Eliminator SECS/GEM Communication [Note 2]

\* Note: 1. Optional Accessories not included.

2. SECS/GEM to be developed by local system integrators and software company.

# EFEM220-D03

Supports 6", 8" WAFER



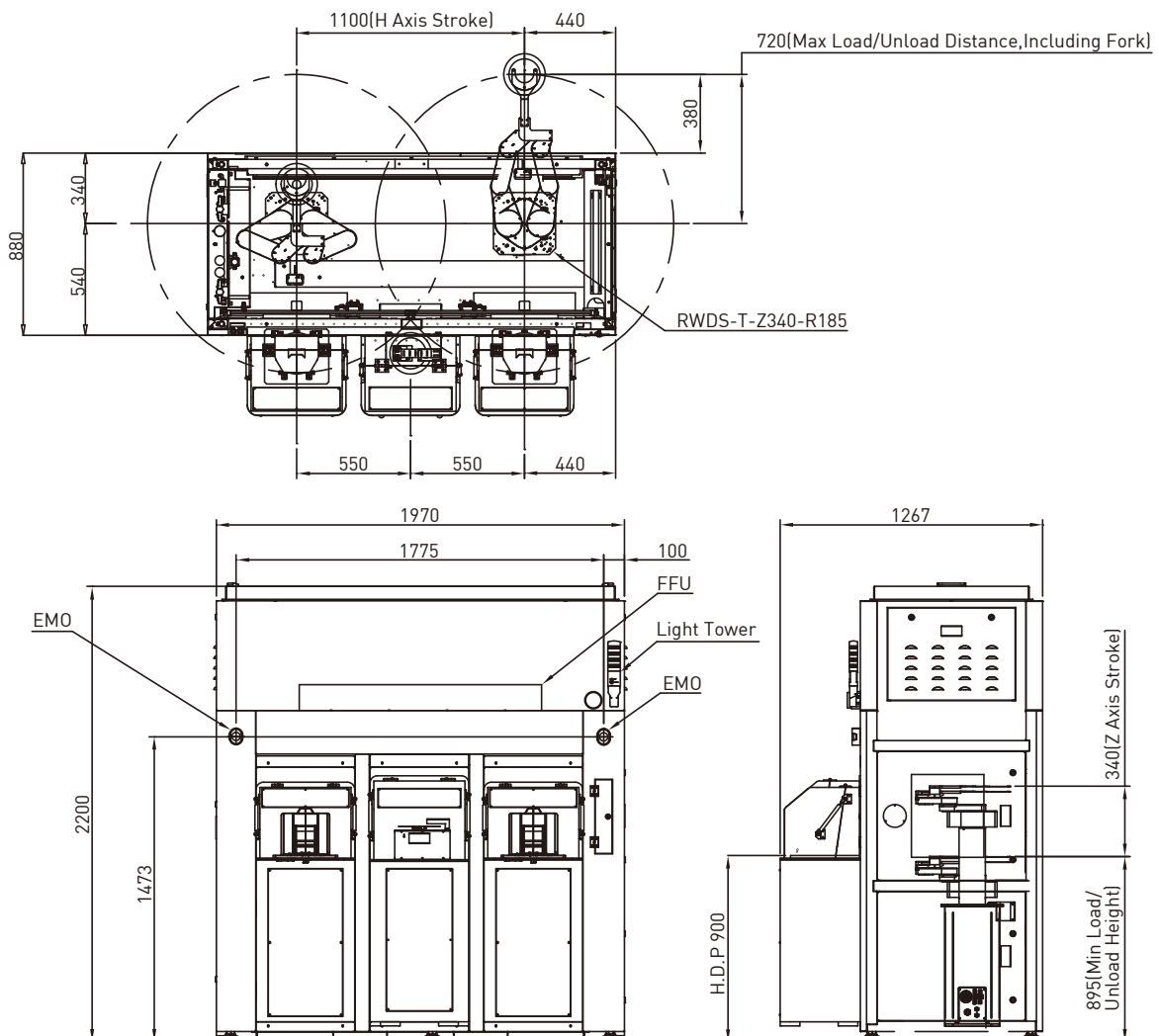
Outer Dimensions / Working Range

## Features

- Supports bar code, label and character recognition, complete tracking of the production process.
- Provides real-time video monitoring.
- Micro-environmental control such as high-efficiency purification and static elimination to ensure there is no contamination during transfer.
- An automatic pressure control system detects ambient pressure and adjusts the fan speed to maintain the set value.
- Supports customized wafer or other substrate handling requirements.
- Comply with SEMI S2 design standard.

Item	Specification
Number of Ports	2 Ports
Robot Model	RWDS-T-Z340-D5R185
Reach	380mm
Wafer	6"(150mm), warpage $\pm 1$ mm, thickness 400~600 $\mu$ m; 8"(200mm), warpage $\pm 1$ mm, thickness 500~1000 $\mu$ m
Repeatability	$\pm 0.1$ mm
Dimensions	1267mm X 1970mm X 2200mm
Cleanliness	Class1 @ 0.12 $\mu$ m
Power Supply	1 phase, 220VAC, 25A
Flow	Positive Pressure 100L/min, Negative Pressure 50L/min
Optional Accessories [Note 1]	Wafer ID Reader Bar Code Reader RFID Tag Reader E84 Module Static Eliminator SECS/GEM Communication [Note 2]

\* Note: 1. Optional Accessories not included.  
2. SECS/GEM to be developed by local system integrators and software company.

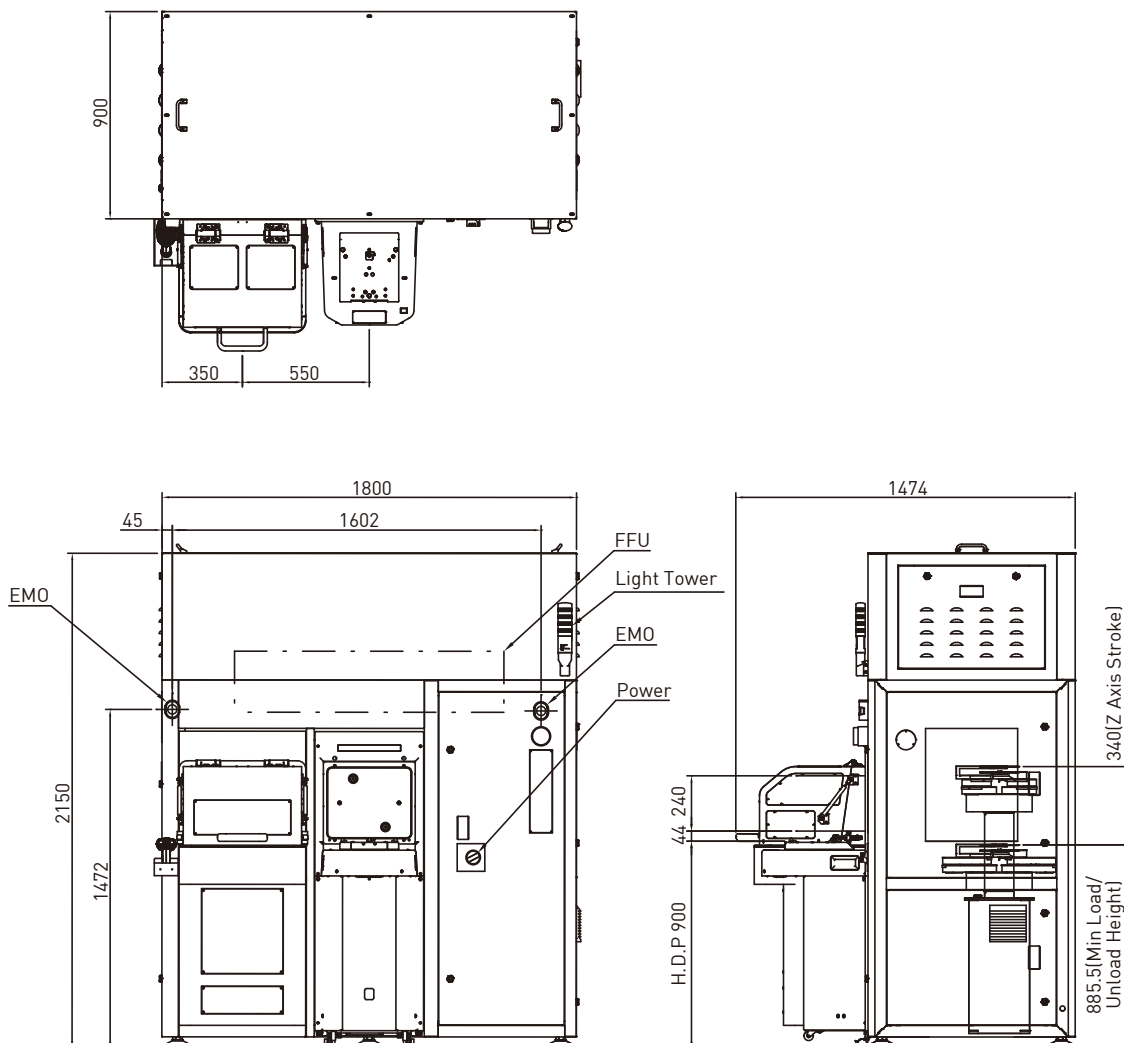


# EFEM420-D04

Supports 8", 12" WAFER AND 8", 12" FRAME



Outer Dimensions / Working Range



## Features

- Supports bar code, label and character recognition, complete tracking of the production process.
- Provides real-time video monitoring.
- Micro-environmental control such as high-efficiency purification and static elimination to ensure there is no contamination during transfer.
- An automatic pressure control system detects ambient pressure and adjusts the fan speed to maintain the set value.
- Supports customized wafer or other substrate handling requirements.
- Comply with SEMI S2 design standard.

Item	Specification
Number of Ports	2 Ports
Robot Model	RWDS-T-Z340-D5R185 (Upper arm vacuum module, lower arm clamping module needs to be replaced with corresponding sizes.)
Wafer	8" (200mm), warpage $\pm 1$ mm, thickness 500-1000 $\mu$ m; 12" (300mm), warpage $\pm 1$ mm, thickness 650-1200 $\mu$ m
Iron Frame	200/300mm, warpage $\pm 1$ mm, thickness 1600 $\mu$ m
Repeatability	$\pm 0.1$ mm
Dimensions	1474mm X 1800mm X 2150mm
Cleanliness	Class1 @ 0.12 $\mu$ m
Power Supply	1 phase, 220VAC, 25A
Flow	Positive Pressure 100L/min, Negative Pressure 50L/min
Optional Accessories [Note 1]	Wafer ID Reader Bar Code Reader RFID Tag Reader E84 Module Static Eliminator SECS/GEM Communication [Note 2]

\* Note: 1. Optional Accessories not included.  
2. SECS/GEM to be developed by local system integrators and software company.

# EFEM320-D06

SEMI S2(EFEM320 Series) APPROVED

Supports 12" WAFER AND 12" METAL CARRIER



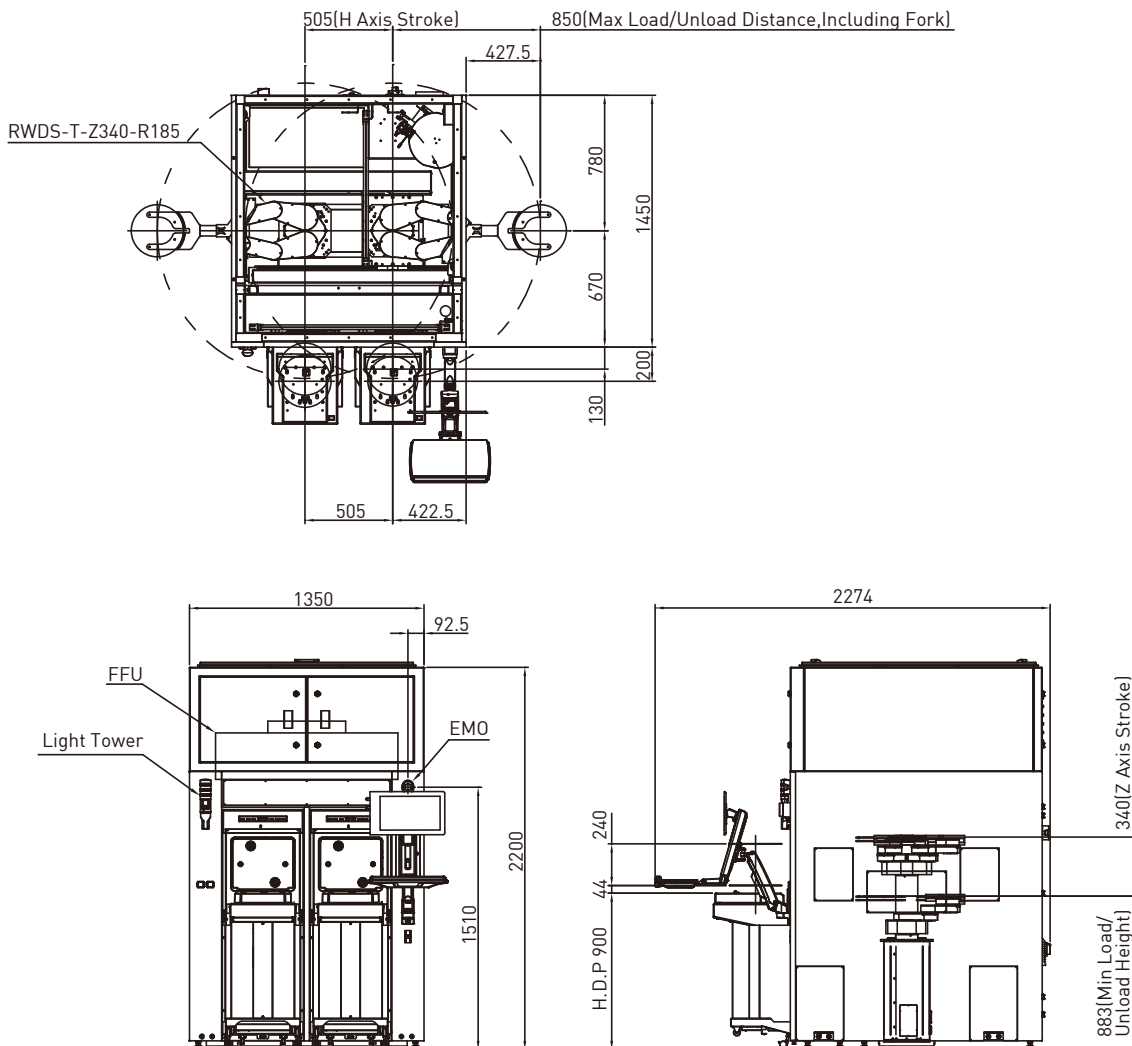
## Features

- Supports bar code, label and character recognition, complete tracking of the production process.
- Provides real-time video monitoring.
- Micro-environmental control such as high-efficiency purification and static elimination to ensure there is no contamination during transfer.
- An automatic pressure control system detects ambient pressure and adjusts the fan speed to maintain the set value.
- Supports customized wafer or other substrate handling requirements.

Item	Specification
Number of Ports	2 Ports
Robot Model	RWDS-T-Z340-03R185
Reach	427.5mm
Wafer	12" (300mm), warpage $\pm 1$ mm, thickness 650-1200 $\mu$ m
Iron Frame	300mm, warpage $\pm 1$ mm, thickness 1600 $\mu$ m
Repeatability	$\pm 0.1$ mm
Dimensions	2274mm X 1350mm X 2200mm
Cleanliness	Class1 @ 0.12 $\mu$ m
Power Supply	1 phase, 220VAC, 25A
Flow	Positive Pressure 100L/min, Negative Pressure 50L/min
Optional Accessories [Note 1]	Wafer ID Reader Bar Code Reader RFID Tag Reader E84 Module Static Eliminator SECS/GEM Communication [Note 2]

\* Note: 1. Optional Accessories not included.  
2. SECS/GEM to be developed by local system integrators and software company.

## Outer Dimensions / Working Range



# EFEM120-D07

Supports 8", 12" FRAME



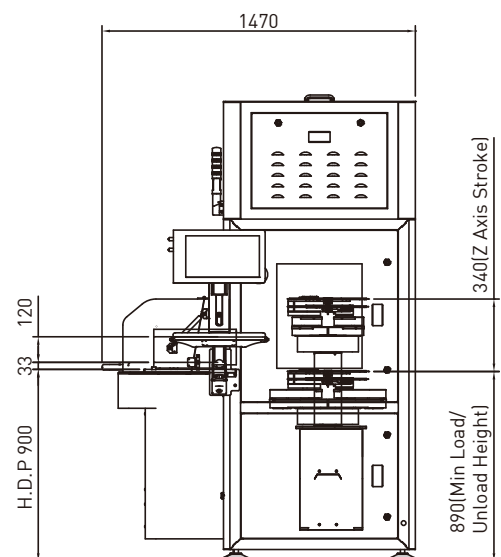
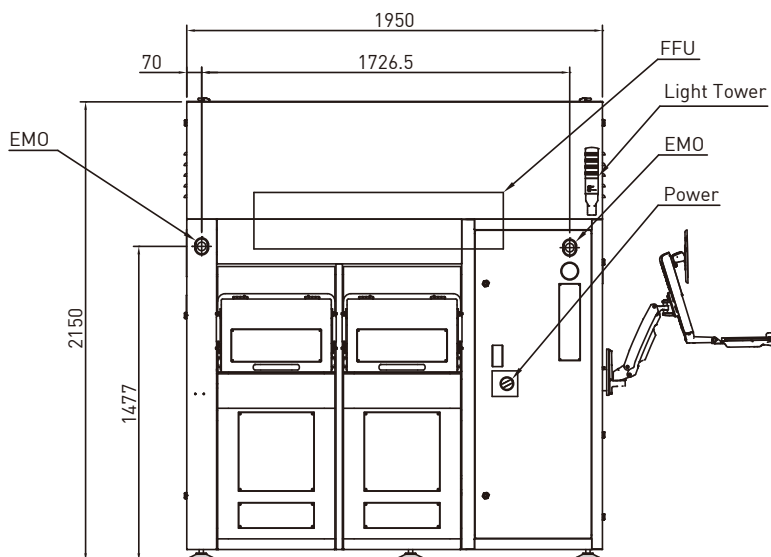
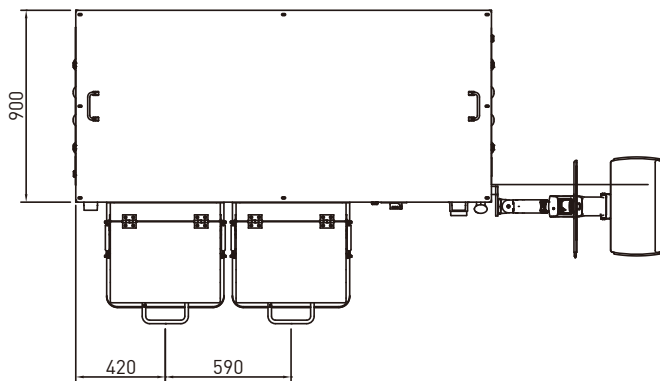
## Features

- Supports bar code, label and character recognition, complete tracking of the production process.
- Provides real-time video monitoring.
- Micro-environmental control such as high-efficiency purification and static elimination to ensure there is no contamination during transfer.
- An automatic pressure control system detects ambient pressure and adjusts the fan speed to maintain the set value.
- Supports customized wafer or other substrate handling requirements.
- Comply with SEMI S2 design standard.

Item	Specification
Number of Ports	2 Ports
Robot Model	RWDS-T-Z340-03R185 (Clamping module needs to be replaced with corresponding size.)
Iron Frame	200/300mm, warpage $\pm 1$ mm, thickness 1600 $\mu$ m
Repeatability	$\pm 0.1$ mm
Dimensions	1470mm X 1950mm X 2150mm
Cleanliness	Class1 @ 0.12 $\mu$ m
Power Supply	1 phase, 220VAC, 25A
Flow	Positive Pressure 100L/min, Negative Pressure 50L/min
Optional Accessories [Note 1]	Wafer ID Reader Bar Code Reader RFID Tag Reader E84 Module Static Eliminator SECS/GEM Communication [Note 2]

Outer Dimensions / Working Range

\* Note: 1. Optional Accessories not included.  
2. SECS/GEM to be developed by local system integrators and software company.



## Global Sales And Customer Service Site

### HIWIN GmbH

OFFENBURG, GERMANY  
www.hiwin.de  
www.hiwin.eu  
info@hiwin.de

### HIWIN Schweiz GmbH

JONA, SWITZERLAND  
www.hiwin.ch  
info@hiwin.ch

### HIWIN KOREA

SUWON • CHANGWON, KOREA  
www.hiwin.kr  
info@hiwin.kr

### HIWIN JAPAN

KOBE • TOKYO • NAGOYA • NAGANO •  
TOHOKU • SHIZUOKA • HOKURIKU •  
HIROSHIMA • FUKUOKA • KUMAMOTO,  
JAPAN  
www.hiwin.co.jp  
info@hiwin.co.jp

### HIWIN s.r.o.

BRNO, CZECH REPUBLIC  
www.hiwin.cz  
info@hiwin.cz

### HIWIN CHINA

SUZHOU, CHINA  
www.hiwin.cn  
info@hiwin.cn

### HIWIN USA

CHICAGO, U.S.A.  
www.hiwin.us  
info@hiwin.com

### HIWIN FRANCE

STRASBOURG, FRANCE  
www.hiwin.fr  
info@hiwin.de

### Mega-Fabs Motion Systems, Ltd.

HAIFA, ISRAEL  
www.mega-fabs.com  
info@mega-fabs.com

### HIWIN Srl

BRUGHERIO, ITALY  
www.hiwin.it  
info@hiwin.it

### HIWIN SINGAPORE

SINGAPORE  
www.hiwin.sg  
info@hiwin.sg

# HIWIN®

## HIWIN TECHNOLOGIES CORP.

No. 7, Jingke Road,  
Taichung Precision Machinery Park,  
Taichung 40852, Taiwan  
Tel: +886-4-23594510  
Fax: +886-4-23594420  
www.hiwin.tw  
business@hiwin.tw [Sales]  
robotsservice@hiwin.tw [Customer Service]

- HIWIN is a registered trademark of HIWIN Technologies Corp. For your protection, avoid buying counterfeit products from unknown sources.
- Actual products may differ from specifications and photos provided in this catalog. These differences may be the result of various factors including product improvements.
- HIWIN website for patented product directory: [http://www.hiwin.tw/Products/Products\\_patents.aspx](http://www.hiwin.tw/Products/Products_patents.aspx)
- HIWIN will not sell or export products or processes restricted under the "Foreign Trade Act" or related regulations. Export of restricted products should be approved by proper authorities in accordance with relevant laws and shall not be used to manufacture or develop nuclear, biochemical, missiles or other weapons.

The specifications in this catalog are subject to change without notification.

Copyright © HIWIN Technologies Corp.

©2022 FORM C28DE01-2202 (PRINTED IN TAIWAN)