

Equipment Front End Module **EFEM**



HIWIN Support

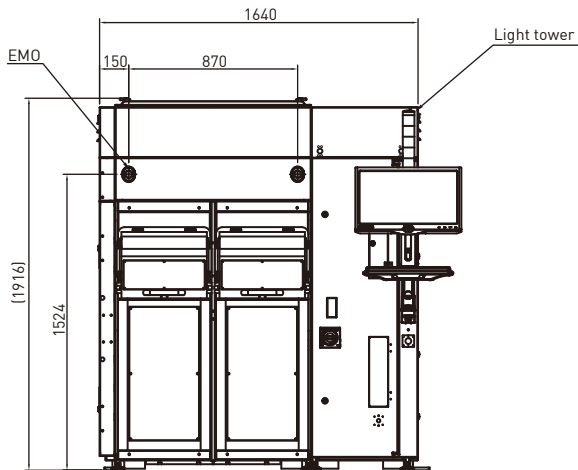
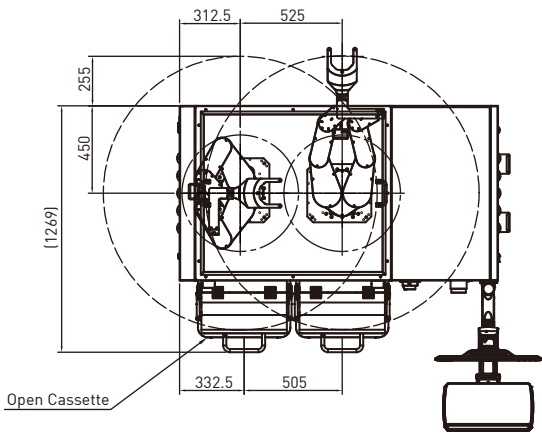


About HIWIN

EFEM220-D13



Dimensions / Working Range

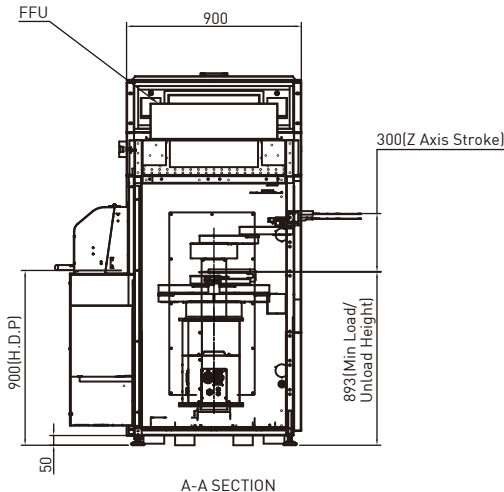


Features

- 6-inch and 8-inch Open Cassette standard models offer customizable configurations to meet specific requirements.
- Adhering to international semiconductor equipment safety standards defined by SEMI S2.
- All components are compliant with RoHS regulations, achieving the highest level of cleanliness, up to Class 1 (ISO 3) standards.
- Multiple sensors detect various components, allowing real-time monitoring of equipment status.
- Remote operation commands integrate various devices, accessible through a user-friendly single-command window.

Item	Specifications
Number of Ports	2 Ports
Robot Model	RWSE/RWDE/RWSA/RWDA*Note 1
Reach	255mm
Wafer	150mm, 200mm
Repeatability	±0.1mm
Dimensions	1640mm(W) x 1269mm(D) x 1916mm(H)
Cleanliness	Class 1 (ISO 3)
Power Supply	Single Phase, AC200~220V, 50/60Hz, 20A
Flow	Positive Pressure: 300L/min, Negative Pressure: 50L/min
Optional Accessories	<div><div><ul style="list-style-type: none">• Wafer ID Reader• 1D/2D Code Reader• Wireless RFID Reader• Wafer Edge Detection Module• Frame/Carrier Calibration Module</div><div><ul style="list-style-type: none">• Wafer Flip Module• API Command/UI Interface• ESD Resistance Requirements• Fork Material Selection</div></div>

* Note 1: Various robot models available according to customer's requirements.



EFEM320-D02



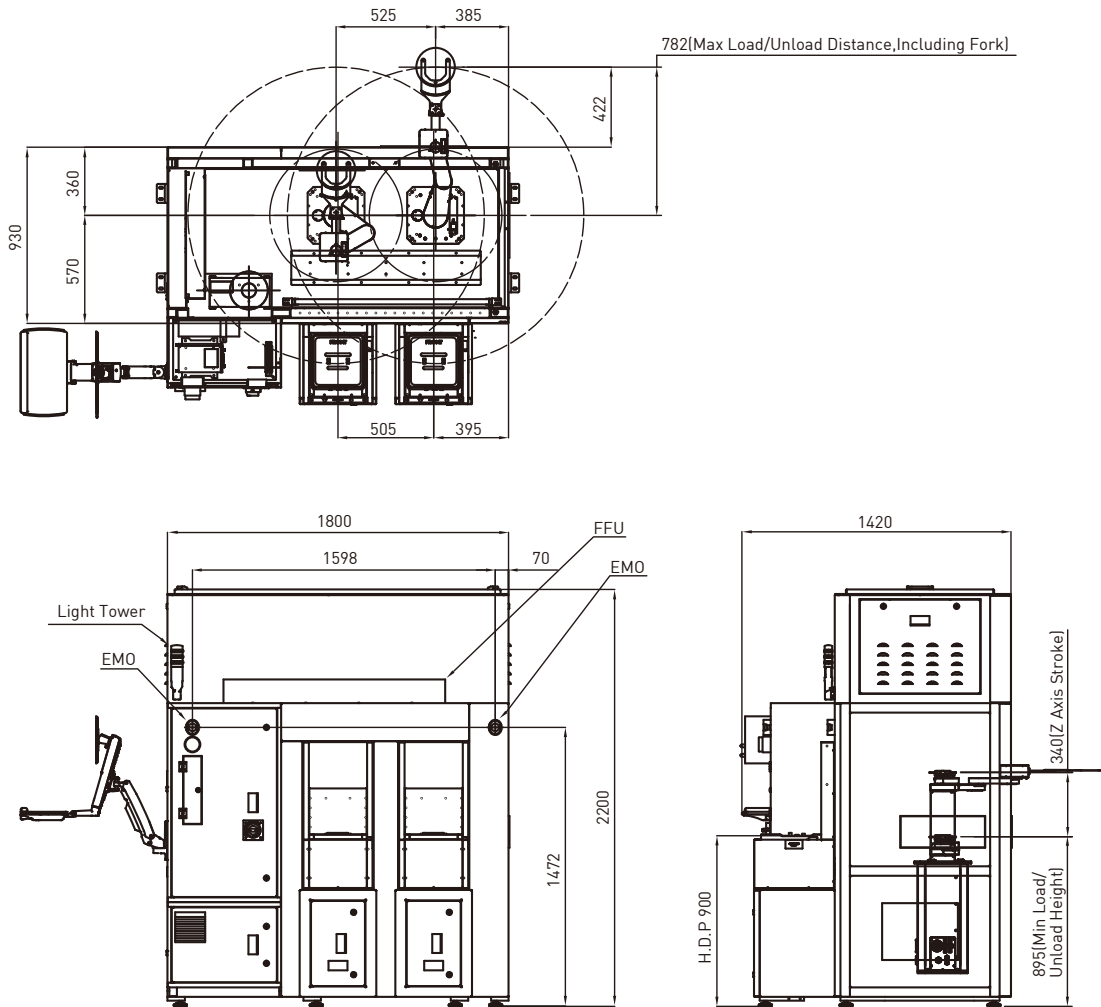
Dimensions / Working Range

Features

- 8-inch SMIF standard model.
- Designed with an external control box, maximizing interior rack space while meeting international semiconductor equipment safety certification SEMI S2.
- All components are compliant to RoHS regulations, achieving the highest level of cleanliness, up to Class 1 (ISO 3) standards.
- Multiple sensors detect various components, enabling real-time monitoring of equipment status, barcode, label, and character recognition, ensuring complete production process tracking.

Item	Specifications
Number of Ports	2 Ports
Robot Model	RWSE/RWDE/RWSA/RWDA*Note 1
Reach	422mm
Wafer	200mm, warpage $\pm 0.5\text{mm}$, thickness 500~1000 μm
Repeatability	$\pm 0.1\text{mm}$
Dimensions	1800mm(W) X 1420mm(D) X 2200mm(H)
Cleanliness	Class 1 (ISO 3)
Power Supply	Single Phase, AC200~220V, 50/60Hz, 20A
Flow	Positive Pressure 300L/min, Negative Pressure 50L/min
Optional Accessories	<div><div><ul style="list-style-type: none">• Wafer ID Reader• 1D/2D Code Reader• Wireless RFID Reader• Wafer Edge Detection Module• Frame/Carrier Calibration Module</div><div><ul style="list-style-type: none">• Wafer Flip Module• E84 Module• API Command/UI Interface• ESD Resistance Requirements• Fork Material Selection</div></div>

* Note 1: Various robot models available according to customer's requirements.



EFEM320-D13



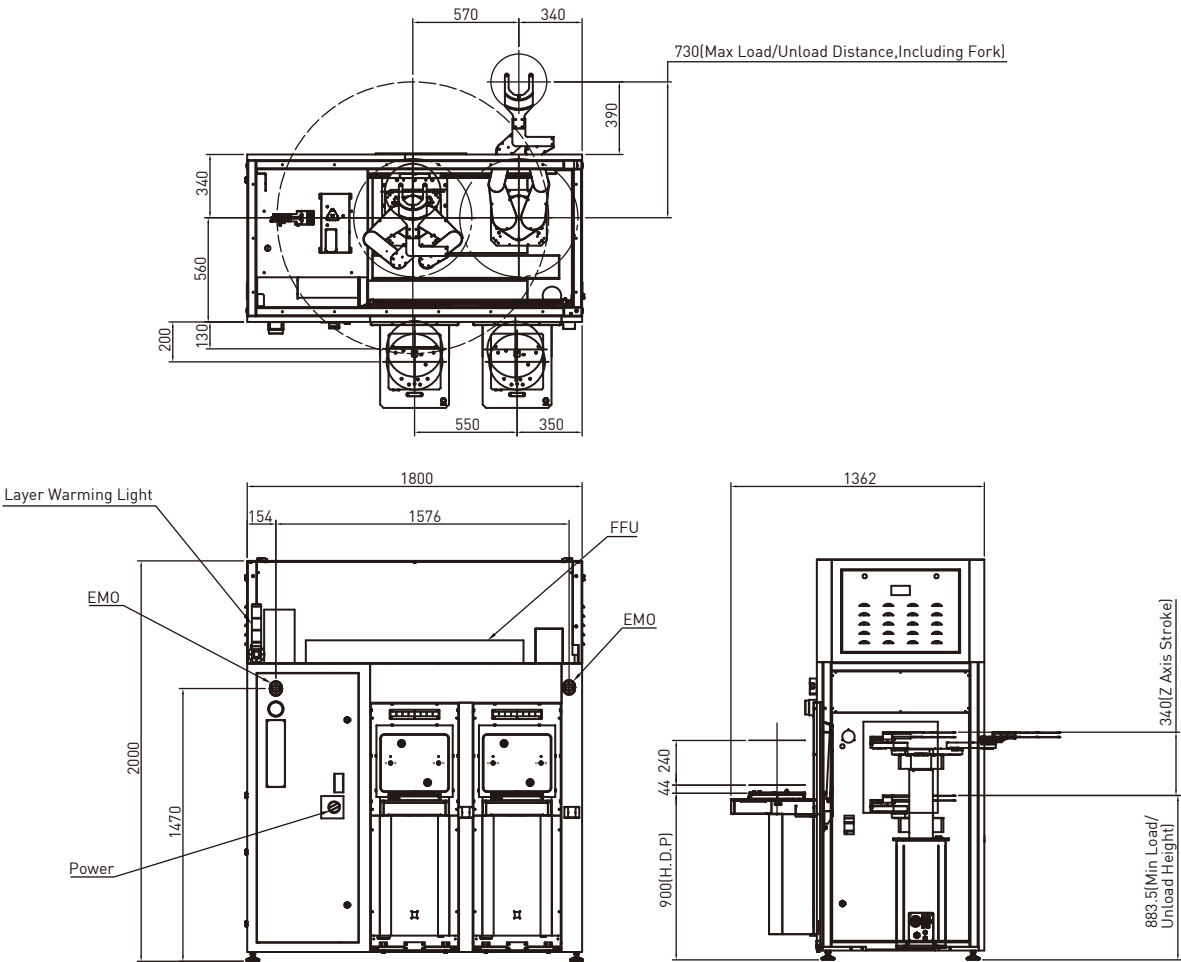
Dimensions / Working Range

Features

- 8-inch and 12-inch standard models.
- Electric control cabinet can be adjusted according to customer's requirement.
- Compliant with international semiconductor equipment safety certification SEMI S2.
- All components adhere to RoHS regulations, achieving the highest level of cleanliness, up to Class 1 (ISO 3) standards.
- Multiple sensors detect various components, enabling real-time monitoring of equipment status.
- Real-time video monitoring, barcode and label character recognition complete production process tracking.
- Offering customized solutions for wafer and other substrate handling.

Item	Specifications
Number of Ports	2 Ports
Robot Model	RWSE/RWDE/RWSA/RWDA*Note 1
Reach	390mm
Wafer	200mm, warpage $\pm 0.5\text{mm}$, thickness 500~700 μm ; 300mm, warpage $\pm 1\text{mm}$, thickness 650~750 μm
Repeatability	$\pm 0.1\text{mm}$
Dimensions	1800mm(W) X 1362mm(D) X 2000mm(H)
Cleanliness	Class 1 (ISO 3)
Power Supply	Single Phase, AC200~220V, 50/60Hz, 20A
Flow	Positive Pressure 300L/min, Negative Pressure 120L/min
Optional Accessories	<div><div><ul style="list-style-type: none">• Wafer ID Reader• 1D/2D Code Reader• Wireless RFID Reader• Wafer Edge Detection Module• Frame/Carrier Calibration Module</div><div><ul style="list-style-type: none">• Wafer Flip Module• API Command/UI Interface• ESD Resistance Requirements• Fork Material Selection</div></div>

* Note 1: Various robot models available according to customer's requirements.



EFEM310-D13



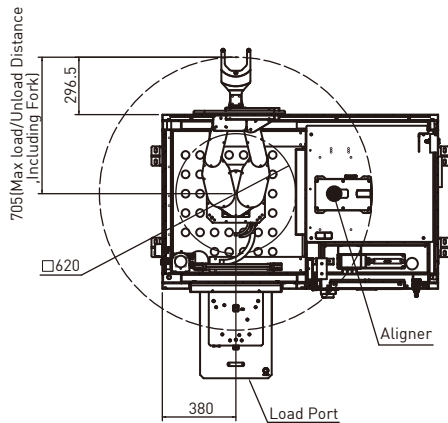
Dimensions / Working Range

Features

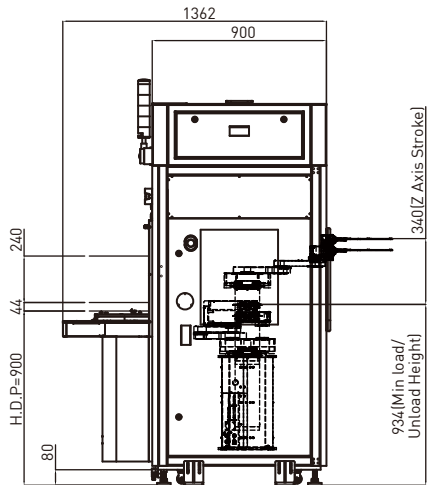
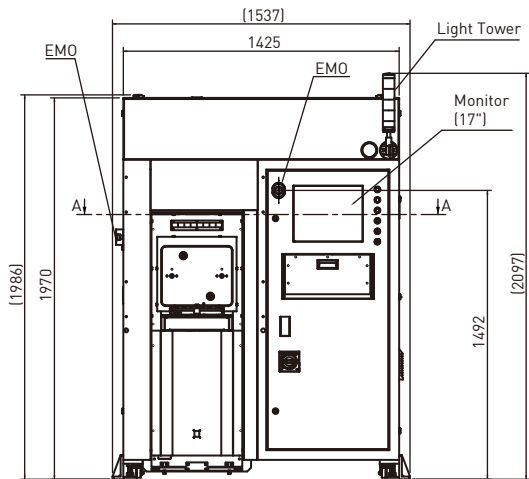
- 8-inch and 12-inch Standard Models.
- The type of electric control cabinet can be adjusted according to customer's requirement.
- Certified to meet international semiconductor equipment safety standards, SEMI S2.
- All components comply with RoHS regulations, achieving the highest level of cleanliness, up to Class 1 (ISO 3) standards.
- Multiple sensors detect various components, providing real-time equipment status monitoring and offering customized solutions for wafer or other substrate handling needs.
- An automatic pressure control system adjusts fan speeds to maintain set values in response to environmental pressure fluctuations.

Item	Specifications
Number of Ports	1 Ports
Robot Model	RWSE/RWDE/RWSA/RWDA*Note 1
Reach	296.5mm
Wafer	200mm, warpage $\pm 0.5\text{mm}$, thickness500~700 μm ; 300mm, warpage $\pm 1\text{mm}$, thickness650~750 μm
Repeatability	$\pm 0.1\text{mm}$
Dimensions	1537mm(W) x 1362mm(D) x 2097mm(H)
Cleanliness	Class 1 (ISO 3)
Power Supply	Single Phase, AC200~220V, 50/60Hz, 20A
Flow	Positive Pressure 300L/min, Negative Pressure 100L/min
Optional Accessories	<div><div><ul style="list-style-type: none">• Wafer ID Reader• 1D/2D Code Reader• Wireless RFID Reader• Wafer Edge Detection Module• Frame/Carrier Calibration Module• Wafer Flip Module</div><div><ul style="list-style-type: none">• E84 Module• API Command/UI Interface• ESD Resistance Requirements• Fork Material Selection• 8-inch Adapter Selection</div></div>

* Note 1: Various robot models available according to customer's requirements.



SECTION A-A



EFEM320-D06



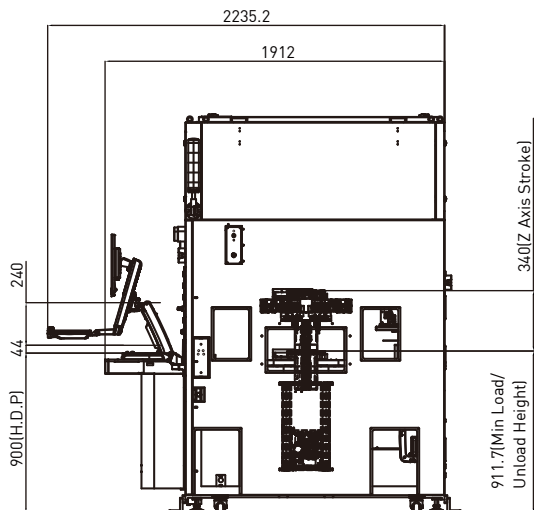
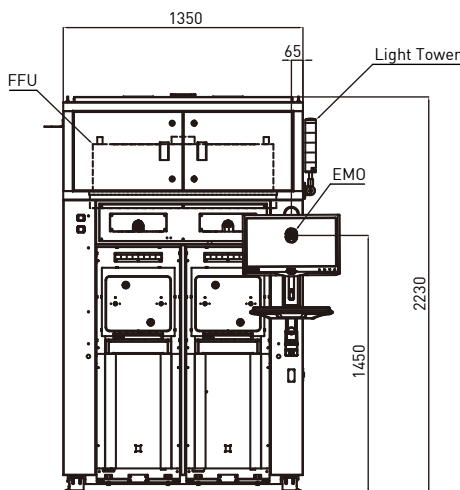
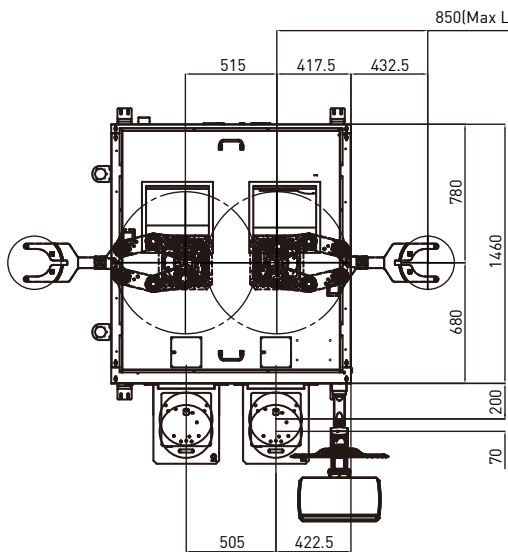
Dimensions / Working Range

Features

- On the 12-inch Wafer and 12-inch Metal Carrier standard models.
- Featuring a flat-panel-style electrical control cabinet design, the one-to-two configuration is the optimal choice, meeting international semiconductor equipment safety standards, SEMI S2.
- All components are RoHS compliant, achieving the highest level of cleanliness, up to Class 1 (ISO 3) standards.
- Multiple sensors detect various components, providing real-time equipment status monitoring.
- Real-time video monitoring, barcode and label character recognition complete production process tracking.
- Offering customized solutions for wafer and other substrate handling.

Item	Specifications
Number of Ports	2 Ports
Robot Model	RWSE/RWDE/RWSA/RWDA*Note 1
Reach	432.5mm
Wafer	300mm, warpage ± 1 mm, thickness 650~1200 μ m
Iron Frame	300mm, warpage ± 1 mm, thickness 1600 μ m
Repeatability	± 0.1 mm
Dimensions	1350mm(W) x 1912mm(D) x 2230mm(H)
Cleanliness	Class 1 (ISO 3)
Power Supply	Single Phase, AC200~220V, 50/60Hz, 20A
Flow	Positive Pressure 300L/min, Negative Pressure 120L/min
Optional Accessories	<div><div><ul style="list-style-type: none">• Wafer ID Reader• Optional 1D/2D Code Reader• Wireless RFID Reader• Wafer Edge Detection Module• Frame/Carrier Calibration Module</div><div><ul style="list-style-type: none">• Wafer Flip Module• E84 Module• API Command/UI Interface• ESD Resistance Requirements• Fork Material Selection• 8-inch Adapter Selection</div></div>

* Note 1: Various robot models available according to customer's requirements.



EFEM340-D13



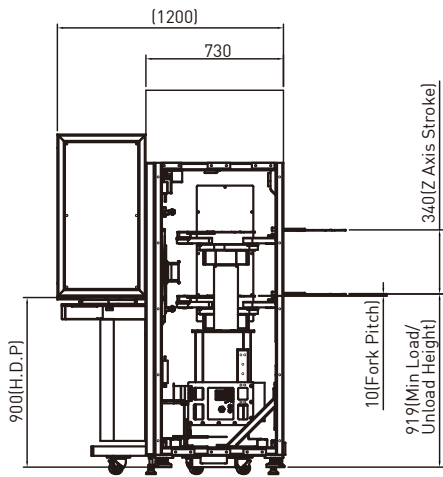
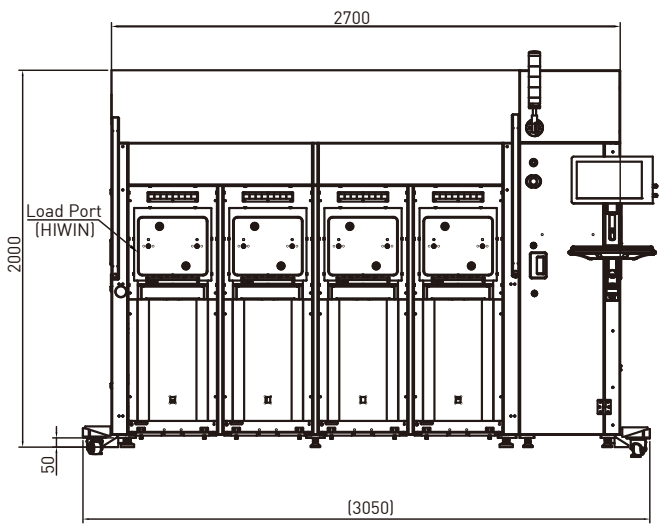
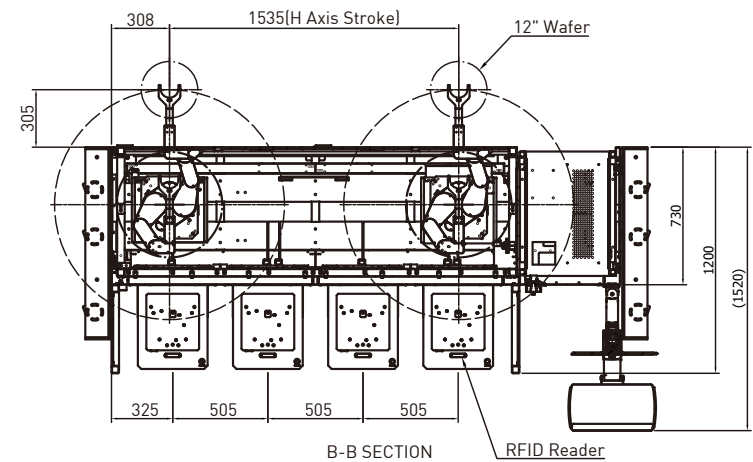
Dimensions / Working Range

Features

- High-Speed long-travel distance 12-inch standard model.
- Equipped with a safety light curtain design to enhance safety, it's the best choice for intelligent factories, meeting international semiconductor equipment safety standards, SEMI S2.
- All components are RoHS compliant, achieving the highest level of cleanliness, up to Class 1 (ISO 3) standards.
- Multiple sensors detect various components, enabling real-time equipment status monitoring.
- Remote operation commands integrate various devices, accessible through a user-friendly single-command window.

Item	Specifications
Number of Ports	4 Ports
Robot Model	RWSE/RWDE/RWSA/RWDA*Note 1
Reach	305mm
Wafer	300mm, warpage ± 1 mm, thickness 650~750 μ m
Repeatability	± 0.1 mm
Dimensions	2700mm(W) x 1200mm(D) x 2000mm(H)
Cleanliness	Class 1 (ISO 3)
Power Supply	Single Phase, AC200~220V, 50/60Hz, 20A
Flow	Positive Pressure 600L/min, Negative Pressure 120L/min
Optional Accessories	<div><div><ul style="list-style-type: none">• Wafer ID Reader• 1D/2D Code Reader• Wireless RFID Reader• Wafer Edge Detection Module• Frame/Carrier• Calibration Module• Wafer Flip Module</div><div><ul style="list-style-type: none">• E84 Module• API Command/UI Interface• ESD Resistance Requirements• Fork Material Selection• 8-inch Adapter Selection</div></div>

* Note 1: Various robot models available according to customer's requirements.



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 USA

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

HIWIN s.r.o.

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

HIWIN CHINA

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

HIWIN JAPAN

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

HIWIN FRANCE

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

HIWIN BULGARIA

SOFIA, BULGARIEN
www.hiwin.bg
info@hiwin.bg

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 408208, Taiwan
Tel: +886-4-23594510
Fax: +886-4-23594420
www.hiwin.tw
www.hiwin.support.com
business@hiwin.tw (Sales)
robotservice@hiwin.tw (Customer Service)

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