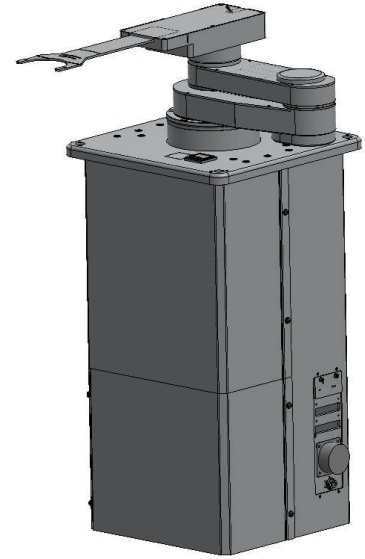
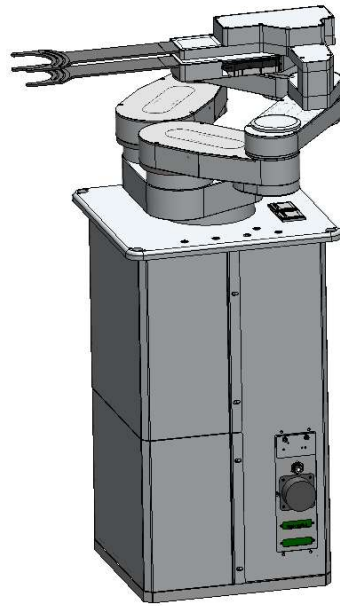
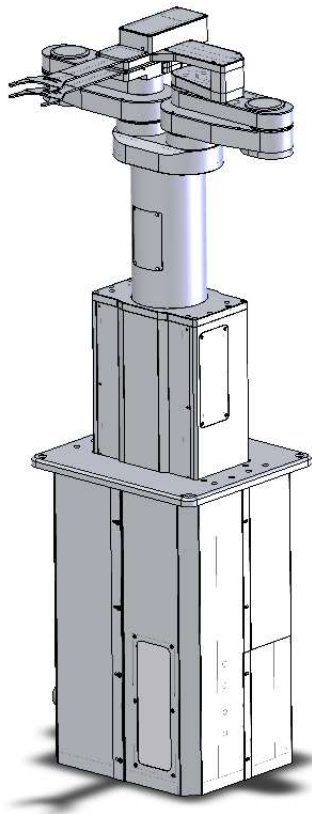




SMIF AUTOMATION SDN. BHD.



Bravo Robot Products

Innovation without Limitation



Bravo Robot

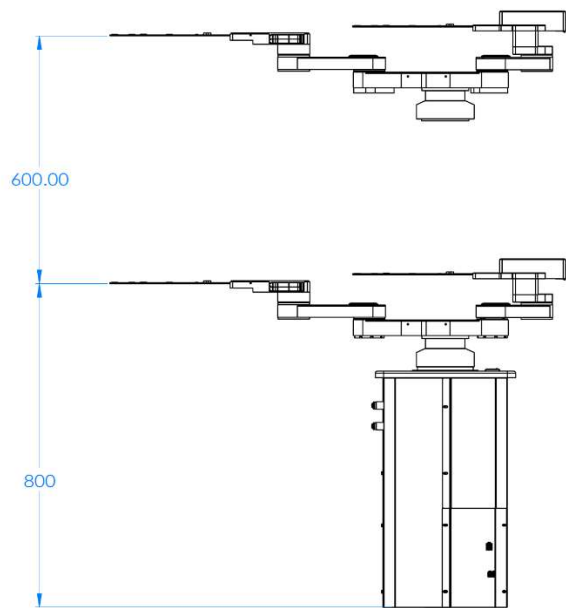
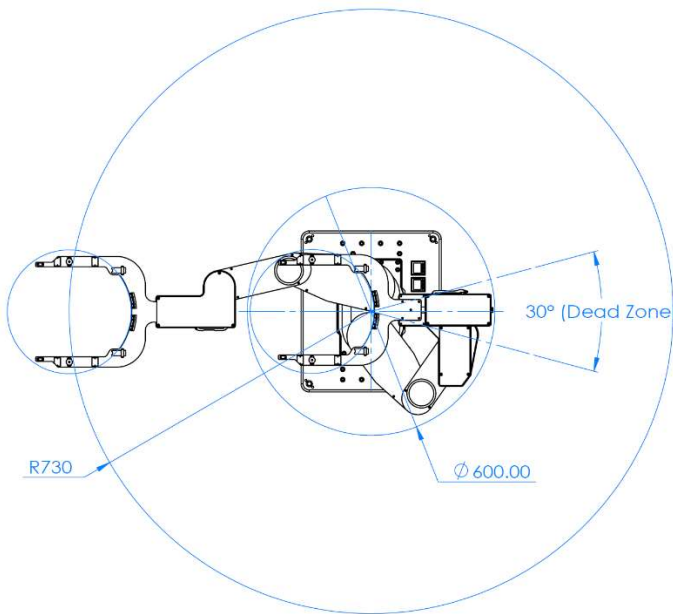
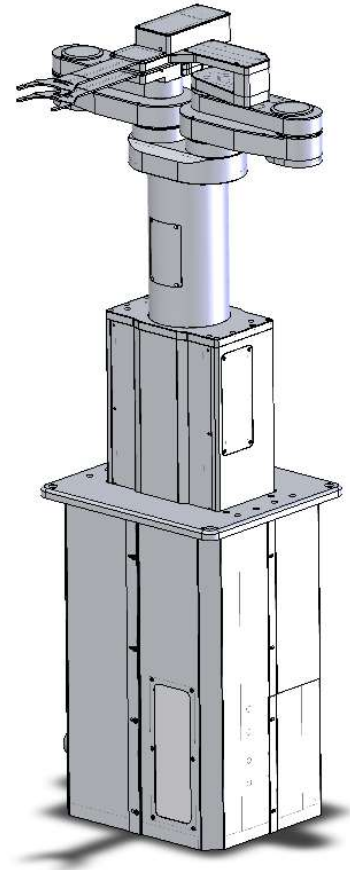
SMIF Automation was founded by a group of seasoned semiconductor robot experts to support the rapid growing semiconductor equipment sector in Malaysia. When the superior physical and chemical properties of third generation wafers like SiC and SiN enable many technology breakthroughs such as 5G communication, high power and high voltage applications, and much higher resolution medical imaging devices, the wafer transfer robots not only need to be highly reliable, but flexible in architecture to meet the wafer transfer challenges posted by these advanced applications. SMIF Automation's Bravo robots were developed to meet these challenges. Based on more than thirty years of field proven experiences and designs, Bravo Robot provide the following features.

- CAN OPEN control circuit - minimum wiring, easily maintenance and expandable circuitry.
- Flexible RS232 and TCP/IP communication protocols
- Embedded Web GUI control/configuration software
- Field editable application macros/motions design.
- Superior performance in vibration and noise controls
- Better than Class 1 cleanness
- Modular design enables quick turnaround for custom applications
- Provisions for track or trackless custom requirements
- Broad width of end-effector designs to suit all applications
- Customized robot configurations and new design are available

BR-220

Specification:

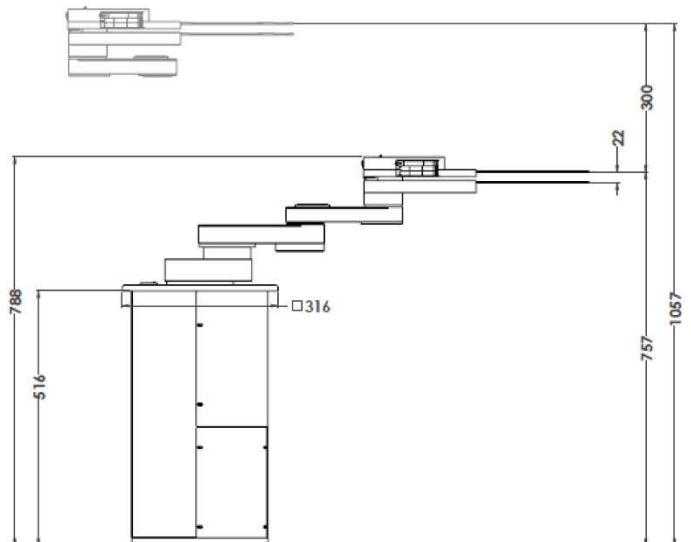
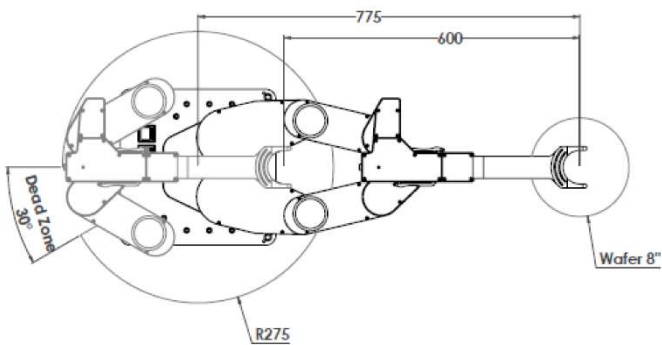
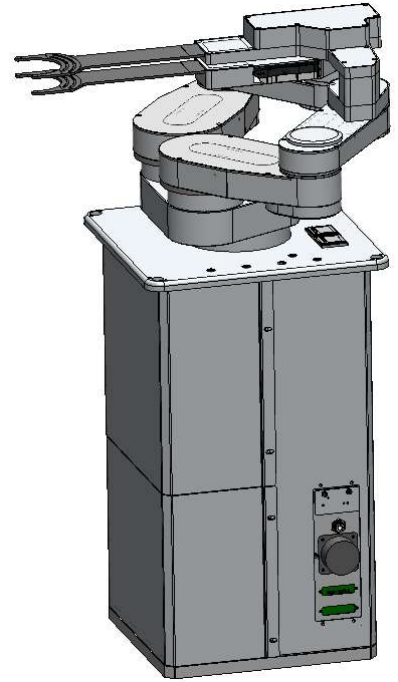
Model		BR-220
Wafer Size		200mm/300mm
Controlled Axis		5
Arm Type		Dual Arm
Z Type		Dual Z
Motion range	R1/R2 axis	730 mm
	T axis	330 deg
	Z1/Z2 axis	300 mm
Speed	R1/R2 axis	1100 mm/ s
	T axis	196 deg/ s
	Z1/Z2 axis	400 mm/ s
Repeatability		±0.1mm
Utilities Requirements		Vacuum: -90±10kPa Power: 220VAC, 60Hz, 6A, 3 wires single phase
Clean Class		Class 1
Weight		70 kg
End-effector		Vacuum blade Edge-grip blade
Option		Wafer mapping function



BR-120

Specification:

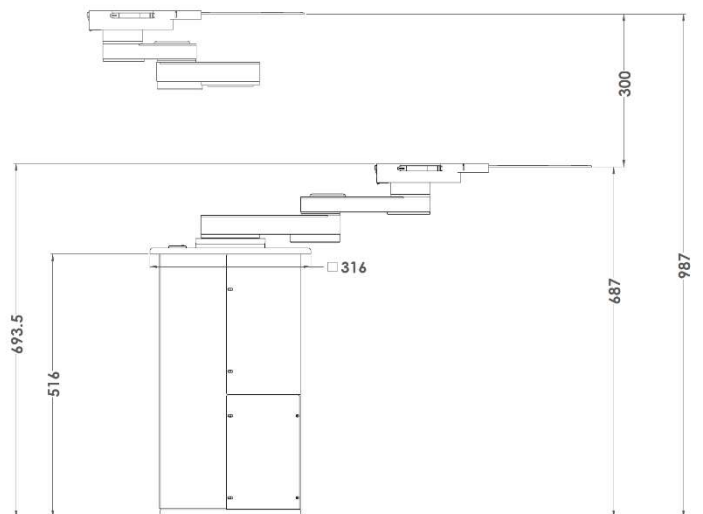
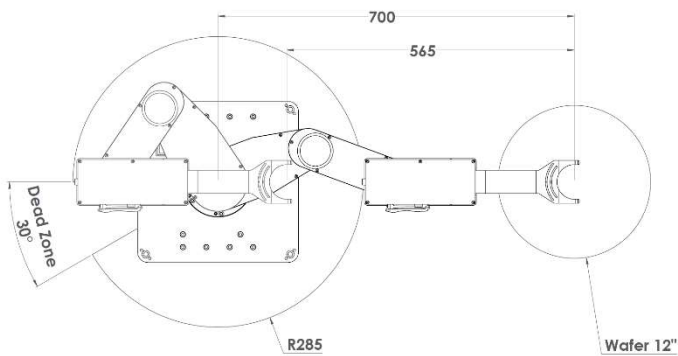
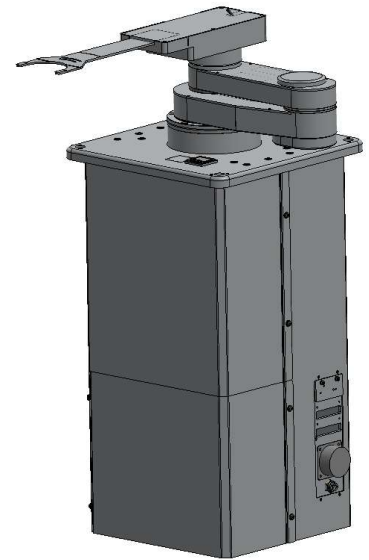
Model		BR-120
Wafer Size		200mm/300mm
Controlled Axis		4
Arm Type		Dual Arm
Z Type		Single Z
Motion range	R1/R2 axis	775 mm
	T axis	330 deg
	Z axis	300 mm
Speed	R1/R2 axis	1100 mm/ s
	T axis	196 deg/ s
	Z axis	400 mm/ s
Repeatability		±0.1mm
Utilities Requirements		Vacuum: -90±10kPa Power: 220VAC, 60Hz, 6A, 3 wires single phase
Clean Class		Class 1
Weight		60 kg
End-effector		Vacuum blade Edge-grip blade
Option		Wafer mapping function



BR-110

Specification:

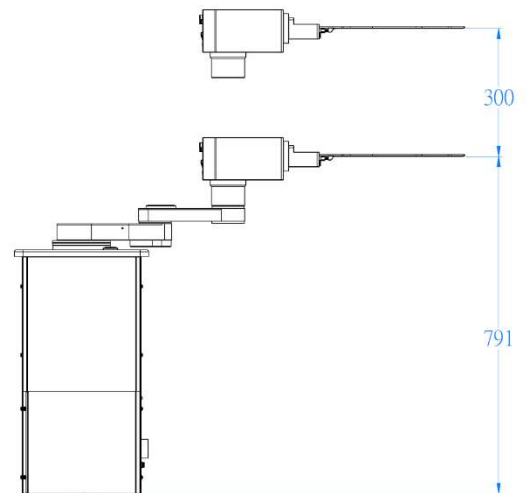
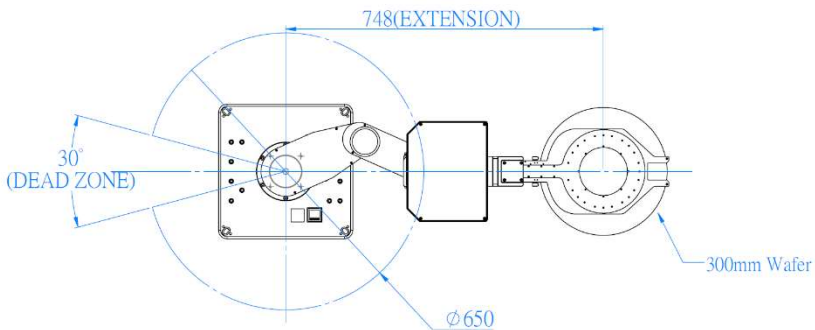
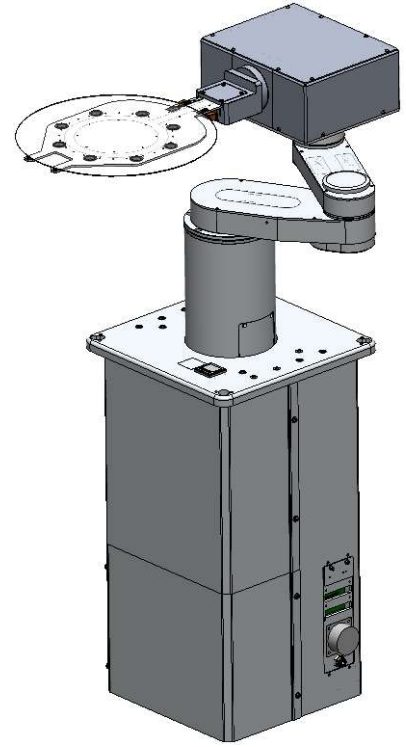
Model		BR-110
Wafer Size		200mm/300mm
Controlled Axis		3
Arm Type		Single Arm
Z Type		Single Z
Motion range	R axis	700 mm
	T axis	330 deg
	Z axis	300 mm
Speed	R axis	1150 mm/ s
	T axis	196 deg/ s
	Z axis	400 mm/ s
Repeatability		±0.1mm
Utilities Requirements		Vacuum: -90±10kPa Power: 220VAC, 60Hz, 6A, 3 wires single phase
Clean Class		Class 1
Weight		50 kg
End-effector		Vacuum blade Edge-grip blade
Option		Wafer mapping function



BR-111

Specification:

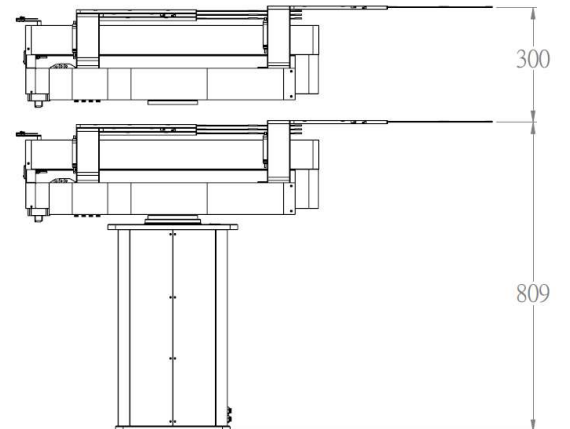
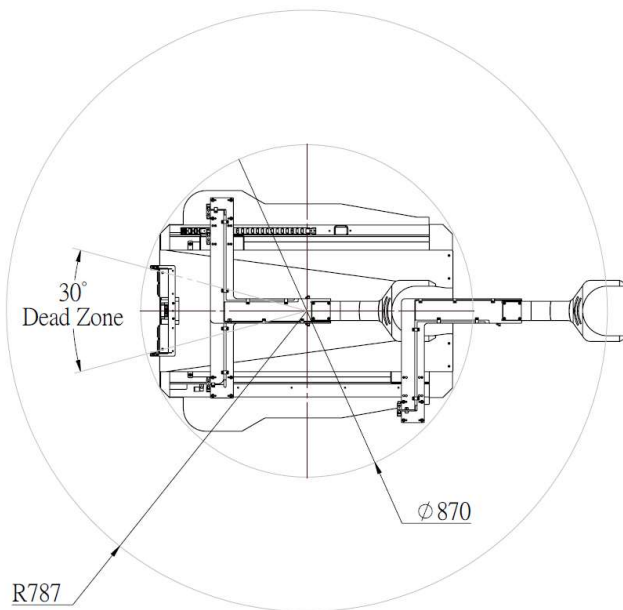
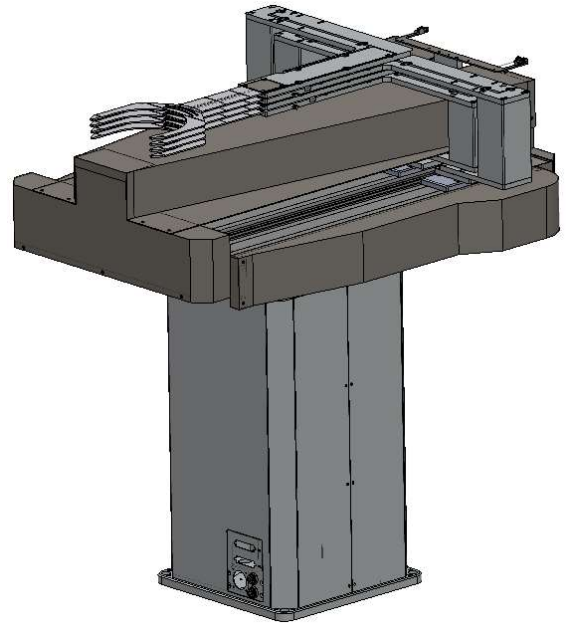
Model		BR-111
Wafer Size		200mm/300mm
Controlled Axis		4
Arm Type		Single Arm
Z Type		Single Z
Motion range	R axis	730 mm
	T axis	330 deg
	Z axis	600 mm
Speed	R axis	1150 mm/ s
	T axis	196 deg/ s
	Z axis	400 mm/ s
Repeatability		±0.1mm
Utilities Requirements		Vacuum: -90±10kPa Power: 220VAC, 60Hz, 6A, 3 wires single phase
Clean Class		Class 1
Weight		54 kg
End-effector		Vacuum blade Edge-grip blade
Option		Wafer mapping function



BR-140

Specification:

Model		BR-140
Wafer Size		200mm/300mm
Controlled Axis		6
Arm Type		Single Arm
Z Type		Single Z
Motion range	R axis	787 mm
	T axis	330 deg
	Z axis	300 mm
Speed	R axis	1050 mm/ s
	T axis	196 deg/ s
	Z axis	250 mm/ s
Repeatability		±0.1mm
Utilities Requirements		Vacuum: -90±10kPa Power: 220VAC, 60Hz, 6A, 3 wires single phase
Clean Class		Class 1
Weight		100 kg
End-effector		Vacuum blade Edge-grip blade
Option		Wafer mapping function



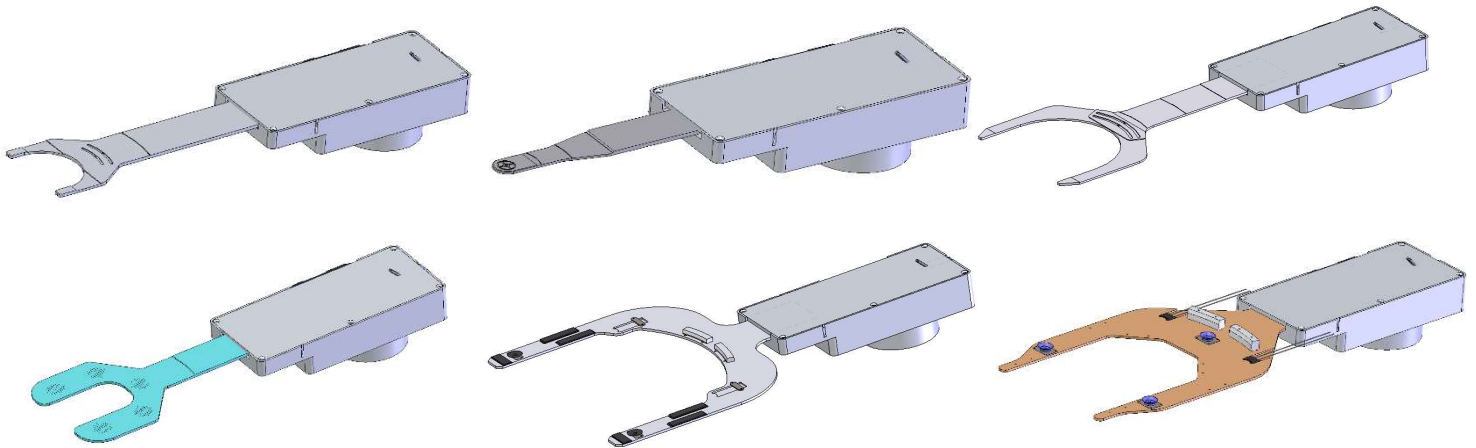
Teach Pendant

- RS422 interface with handshake protocol to avoid message losing
- With EMS and Dead-Man Switch. Best safety control.

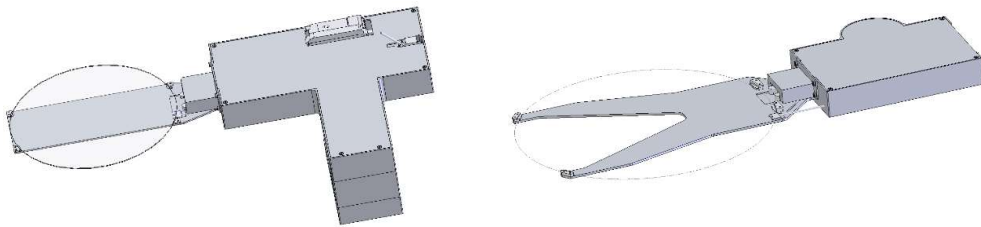


Various EEF

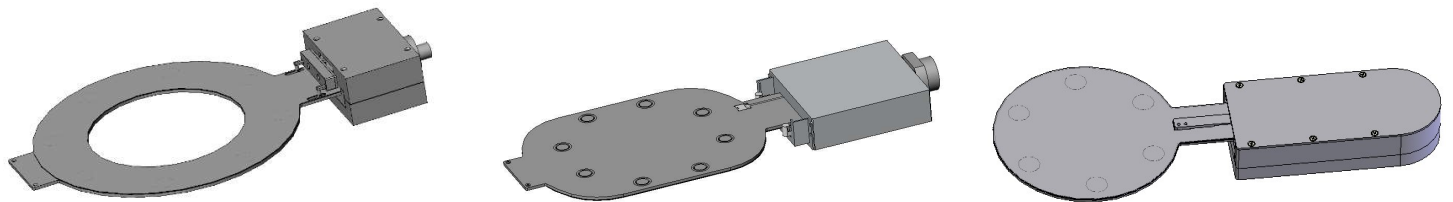
Vacuum type



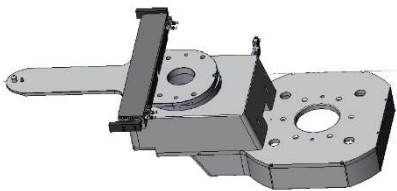
Edge-grip type



Bernoulli type



FOUP EEF



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