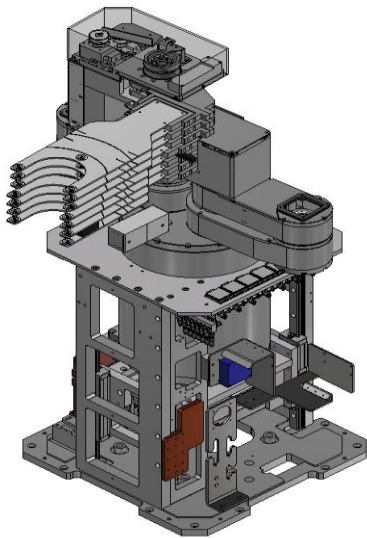
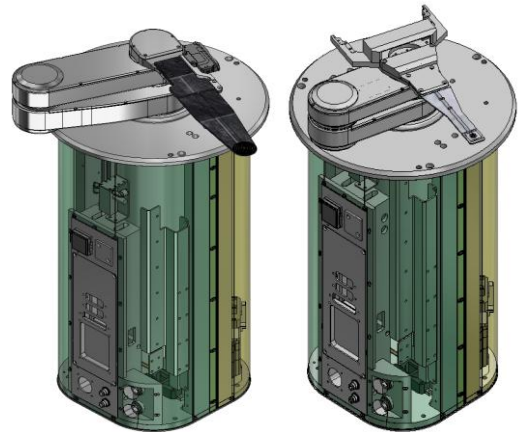




# Wafer Transfer Robot FOUP Transfer Robot

## ● 8",12" Wafer Single Arm

- 250(L) x 250(W) x 987(H)
- Max. Radial Reach 670mm
- Z Axis Stroke 330mm

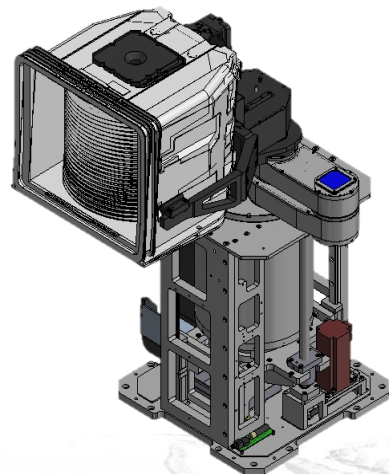


## ● 12" Wafer Multi Finger

- 820(L) x 430(W) x 925(H)
- Max. Radial Reach 670mm
- Z Axis Stroke 300mm

## ● FOUP Transfer Robot

- 680(L) x 430(W) x 965(H)
- Max. Radial Reach 670mm
- Z Axis Stroke 300mm



◆ 요구사항 Customizing 가능

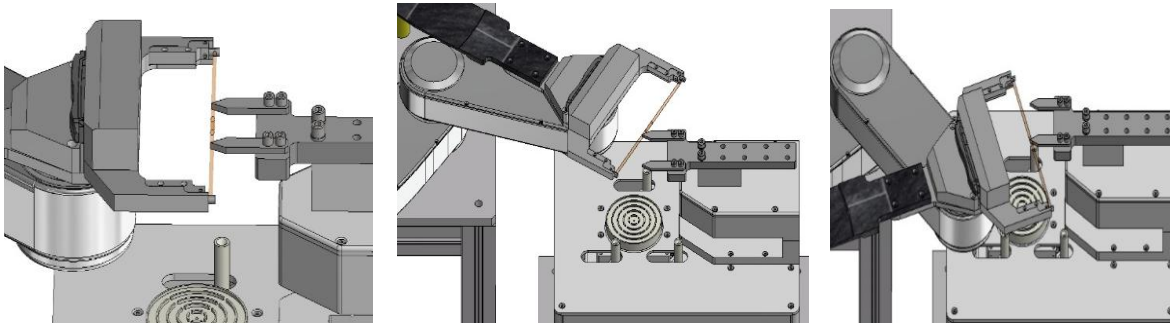




# Robot 자가진단 Auto Calibration System

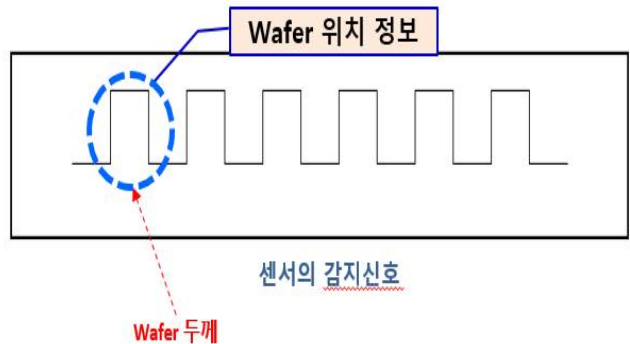
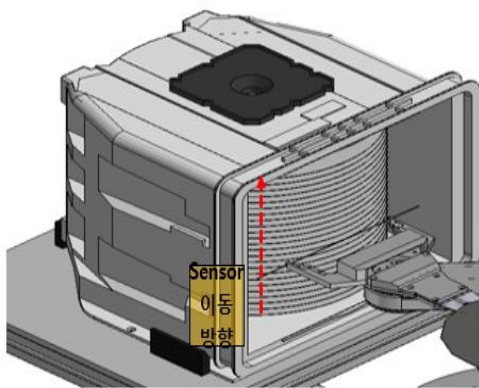
## ● Robot 자가진단 및 Auto Calibration

Robot 상태를 주기적으로 체크, 전축 (X, Y,  $\theta$ ) 자동 보정



## ● Wafer Mapping 및 Auto Teaching

Wafer Mapping 및 위치정보 취득, 처짐량 감안한 Auto Teaching

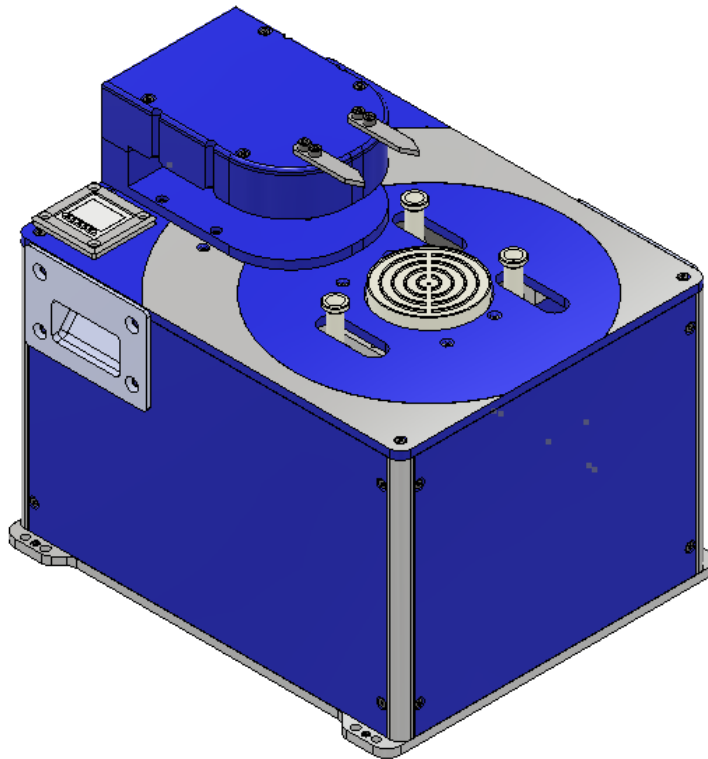




# 투명 Wafer Hybrid Aligner

## ● 주요 성능

- 200mm / 300mm 웨이퍼
- 투명 웨이퍼 & 불투명 실리콘 웨이퍼 동시 대응
- 상용PLC 기반 안정성 및 기능 확장성
- Align정밀도 :  $< \pm 25\mu\text{m}$
- Tact Time :  $< 10 \text{ Sec}$

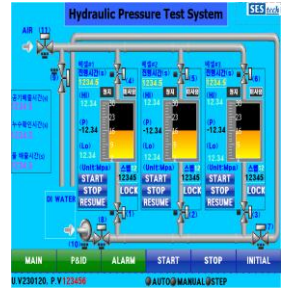




# 고압설비 자동시험시스템 다채널 미세리크 감지시스템

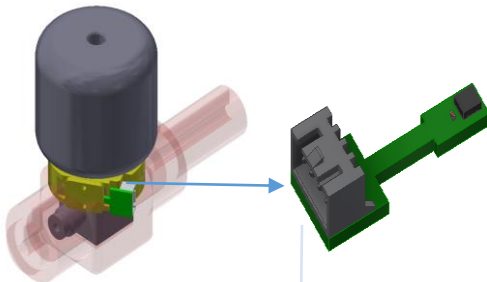
## ● 기압/수압시험 자동화시스템

- 고압설비 및 압력Tank 제작
- ASME인증 (미국기계학회)
- KGS인증 (한국가스안전공사)
- 용접 및 비파괴검사

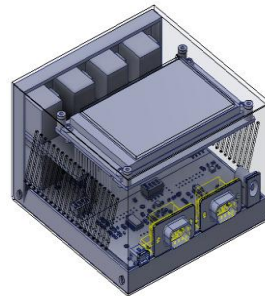


## ● 다채널 미세리크 감지 시스템

- 다수 밸브를 사용 고압설비에 적용
- 오토밸브, 가스센서 일체형 모듈 (특허)
- 다채널 중계보드 : 리크 감지 범위 설정 및 모니터링
- 중계보드와 PC간 통신 및 배선 최소화



오토밸브/가스센서 일체형 모듈



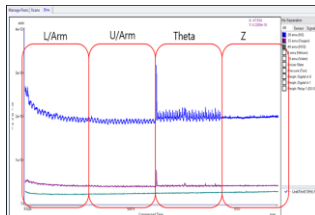
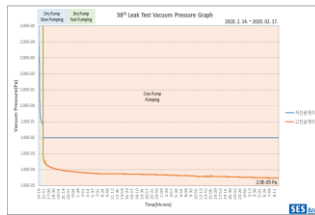
다채널 중계보드  
Size(mm) : 114x117x50





# 진공로봇 / 진공챔버 Overhaul, 성능개선, 국산화

- **Overhaul / 국산화**  
모터, 감속기, CRB, 유체씰, 벨트
- **성능개선**  
고속화, 제어기 성능, Tact 단축
- **고진공도 관리**  
1x10<sup>-5</sup>Pa이하
- **잔류가스 분석**  
RGA (Residual Gas Analyze)
- **청정도 관리**  
Ion Chromatography 분석  
100ppb 이하
- **정밀 측정**  
Laser Tracker 반복 정밀도  
X,Y: 0.7mm Z: 0.3mm 이내  
진직도 0.8mm 이내
- **발열 개선**  
방열모듈, Air Circulation

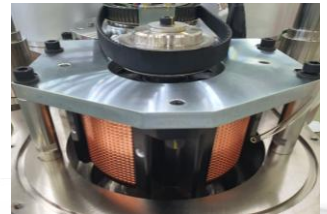
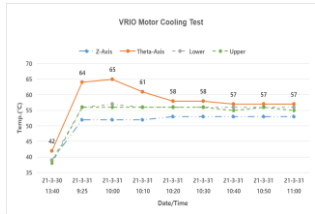


RACE KOREA 2019 2019

Method: Ion Chromatography (C)  
Concentration in ppb (ng/g)

Detection Limits (ppb)	Concentration in ppb (ng/g)			
	THETA- LINK ARM FRAME	TOP COVER	Z-BASE	REF L-LINK ARM
0.1	0.43	<0.1	0.16	<0.1
0.1	7.3	8.5	55	0.27
0.1	2.3	30	56	0.50
0.1	5.3	9.4	8.4	0.20
0.1	<0.1	<0.1	<0.1	<0.1

emping using Lab provided swab. After sampling, swab was placed in tube pre-filled with acid to lab. After received, samples were extracted per IGC procedure at 70°C.





# EFEM / FOUP Buffer Cluster Tool Controller

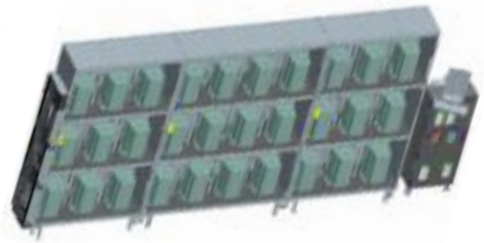
- **EFEM**

마이크로 OLED EFEM In-line물류



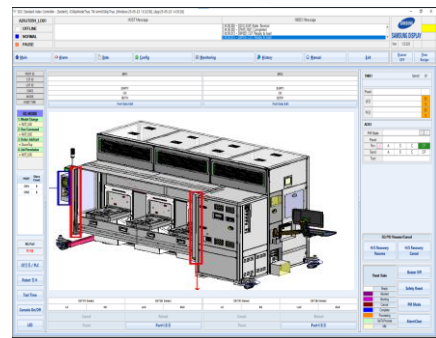
- **FOUP Buffer**

30단 N2공급 시스템



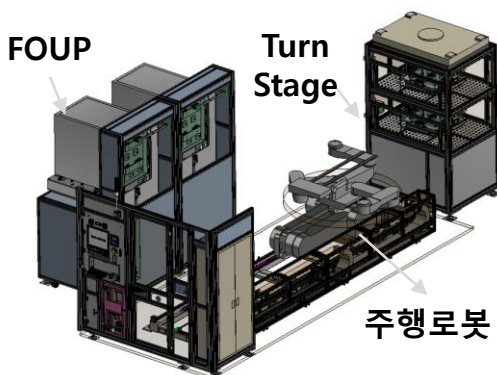
- **Cluster Tool Controller**

자체개발 SW Framework



- **로봇물류 자동화 시스템**

마이크로OLED EFEM In-line물류



### FOUP Opener

