

K O S T E P &
S U N G J I N
S E M I T E C H



SUNGJIN SEMITECH CO., LTD.



General View of the Company

The Management Policy

- **Development of New Technology**
- **Development of Home Equipment by Self-exertion**

CONTENTS



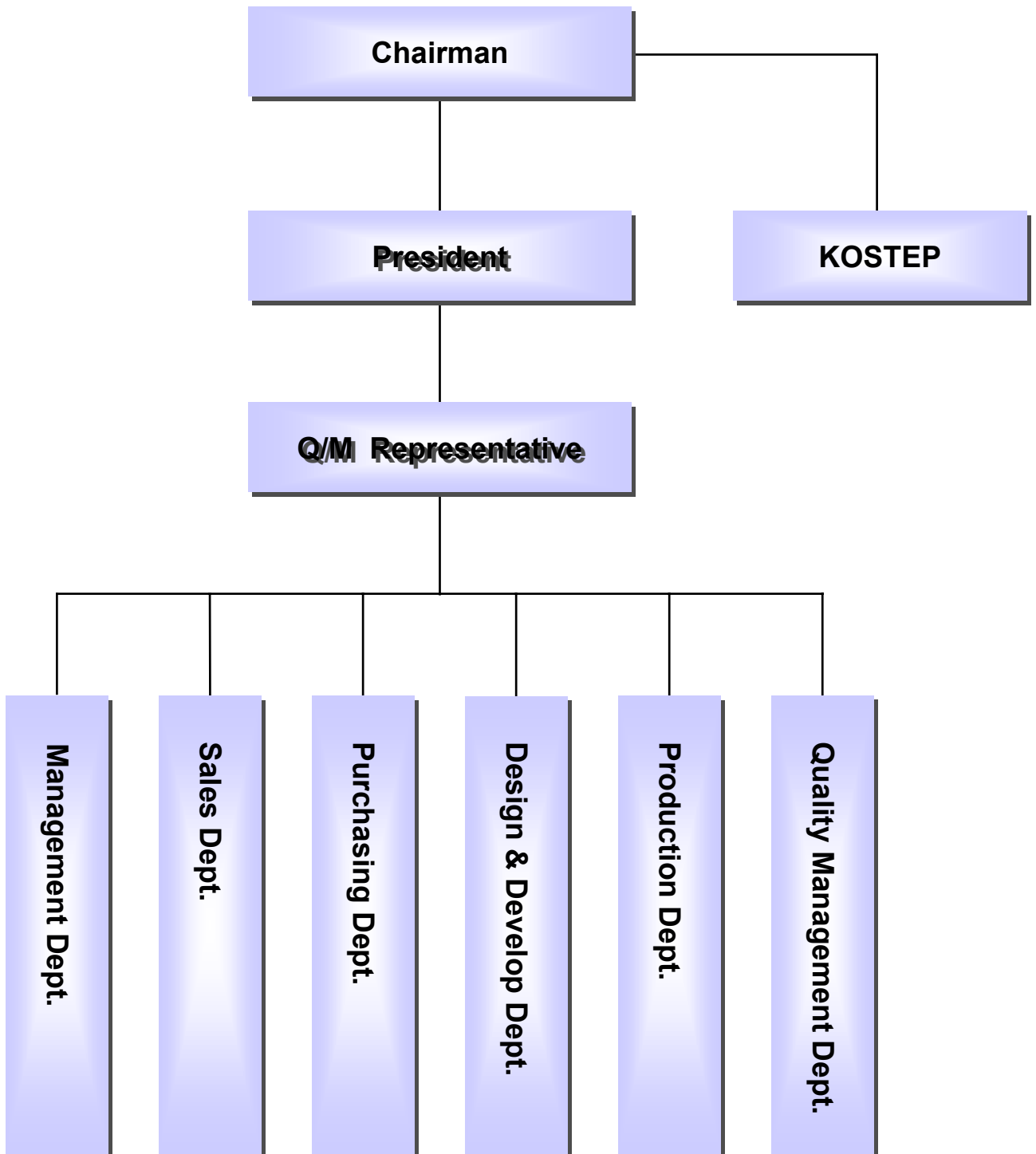
- 1. Company Profile**
 - 2. Brief History**
 - 3. Organization**
- 4. Main Products**
- 5. Business Plan**
- 6. Quality System**
 - Flow Chart
 - Organization
- 7. Equipment List**
 - MFG Equipment
 - Measuring Gauge
 - CAD System
- 8. Clean Room**
- 9. Major Customers**
- 10. Product List**

COMPANY PROFILE

1

- **Company Name : KOSTEP**
SUNGJIN SEMITECH Co., Ltd.
- **Established : Sep. 12, 1987**
- **Chairman : Rak-Sung Yang**
- **President : Rak-Woon Yang**
- **Head Office & Factory**
 - **Address : 3Da-201-2, Shihwa Industrial Complex,**
Shiheung-shi, Kyungki-do, Korea
 - **Tel. No. : (82-31) 498-4671**
 - **Fax No. : (82-31) 498-4673**
- **Kostep Head Office**
 - **2036-17 Jungwang-2Dong, Shiheung-City, Kyunggi-Do, Korea.**
 - **Tel. No. : (82-31) 319-6227~8**
 - **Fax No. : (82-31) 319-6229**
- **Number of Employees : Total 66**
 - **Q / M 3**
 - **Administration 12**
 - **Engineering 8**
 - **Manufacturing 33**
 - **A/S 10**

- Sep. 12, 1987** **Established KukJe Machinery Works**
- May 5, 1989** **Changed name to SungJin Industrial Machinery**
- Oct. 15, 1994** **Changed name to SungJin Industrial Machinery Co., Ltd. (Shared Capital : K.●210,000,000)**
- Sep. 12, 1995** **Moved to Shihwa Industrial Complex**
- July 8, 1996** **Selected as a prospective small & medium enterprise by HANBIT BANK**
- Nov. 29, 1996** **Selected as a special company of exemption from the military service by the Office of Manpower Administration**
- Mar. 28, 1997** **Increased the capital of K.●300,000,000 (Total : K.●510,000,000)**
- Jun. 10, 1997** **Constructed Clean Room (Area : 330m², Class : 1,000)**
- May 1, 1998** **Separated Semiconductor Div. from SungJin Industrial Co., Ltd. and established SungJin Semitech Co., Ltd. (Shared Capital : K.●300,000,000)**



SungJin Semitech Co., Ltd. pursues the Quality First Priority to meet customer's demand.

Especially, we lay emphasis on the super high precision parts and equipment with the first priority in quality improvement for our customers.

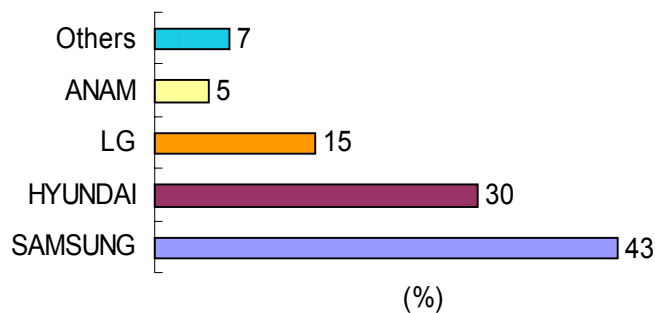
To achieve customer's satisfaction, we correspond to user's requirement by Quality Assurance System of ISO 9001 / KS A 9001.

Main Product

- **Semiconductor Equipment**
- **Semiconductor Automation System**
- **Spare Parts for Semiconductor Manufacturing facilities**
- **Various Shield for Semiconductor Manufacturing facilities**

1. Sales Plan of 2000

- Total Amount : K. • 6,000,000,000
- Expected Sales Distribution



2. Investment of 2000

(Unit : Million Won)

No.	ITEM	Amount	Remark
1	CNC Milling M/C	370	NO.9 M/C
2	2D Layout M/C	45	Q/M
3	Engineering Development	85	Equipment
TOTAL		500	

3. ISO 9001 / KS A 9001 Quality Assurance System Certificate Award in 2000

4. Development Plan : Wafer Transfer System

1. QUALITY POLICY

SungJin Semitech Co., Ltd. has the Quality Assurance System to meet the standard of ISO 9001(1994) / KS A 9001(1995) in order to assure design, production, service and quality of the product for customer's satisfaction.

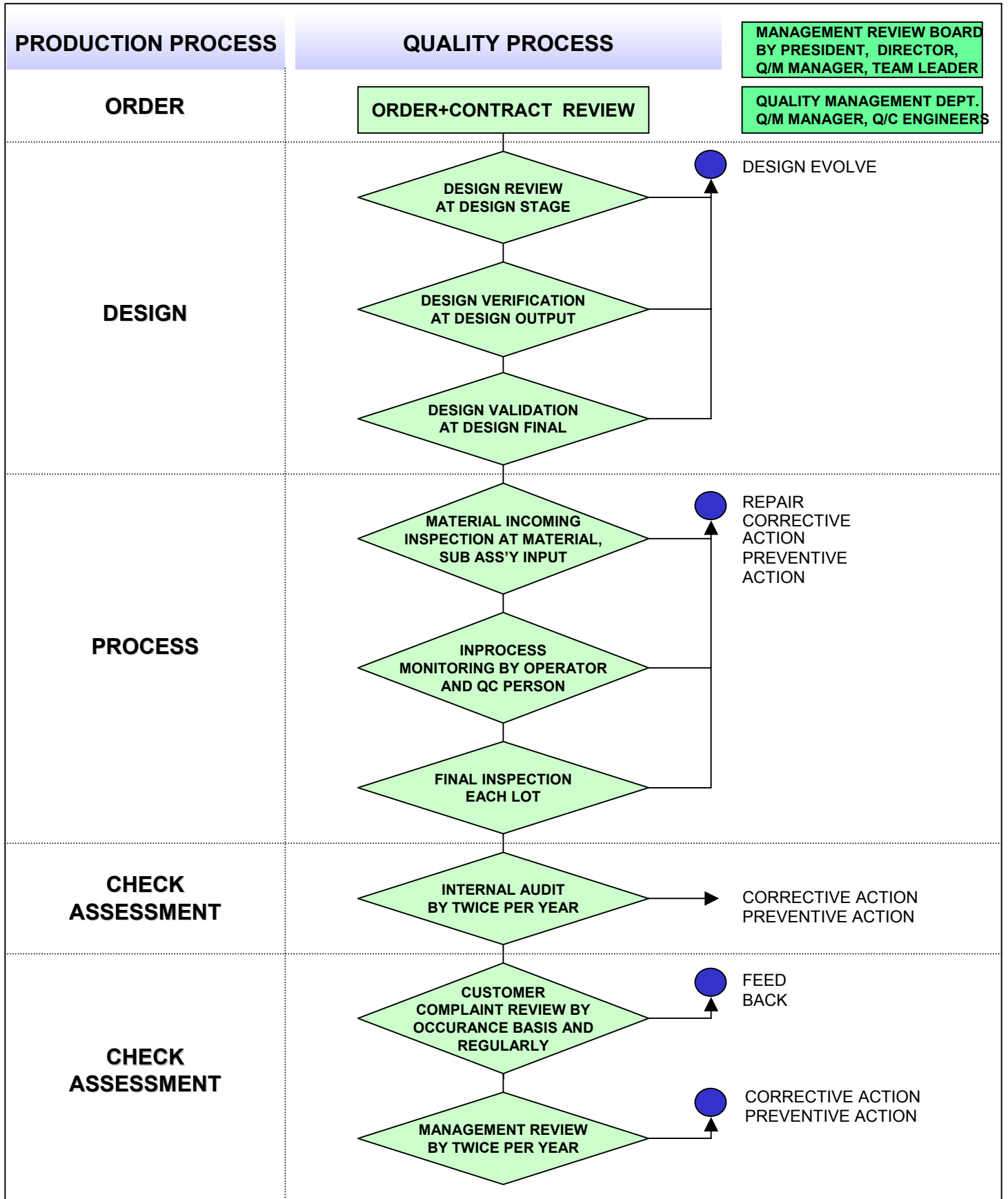
The Quality Policy of SungJin Semitech Co., Ltd. is "New Technology Development", "Customer Satisfaction", "Investment in Human Capital" and the Quality Objectives of 2000 are "Development of Domestic Production", "Quality Improvement", "Education Reinforcement".

To assure the effective achievement of the quality policy and objective, we have established and managed the Quality System for every workers to perform, maintain and improve it.

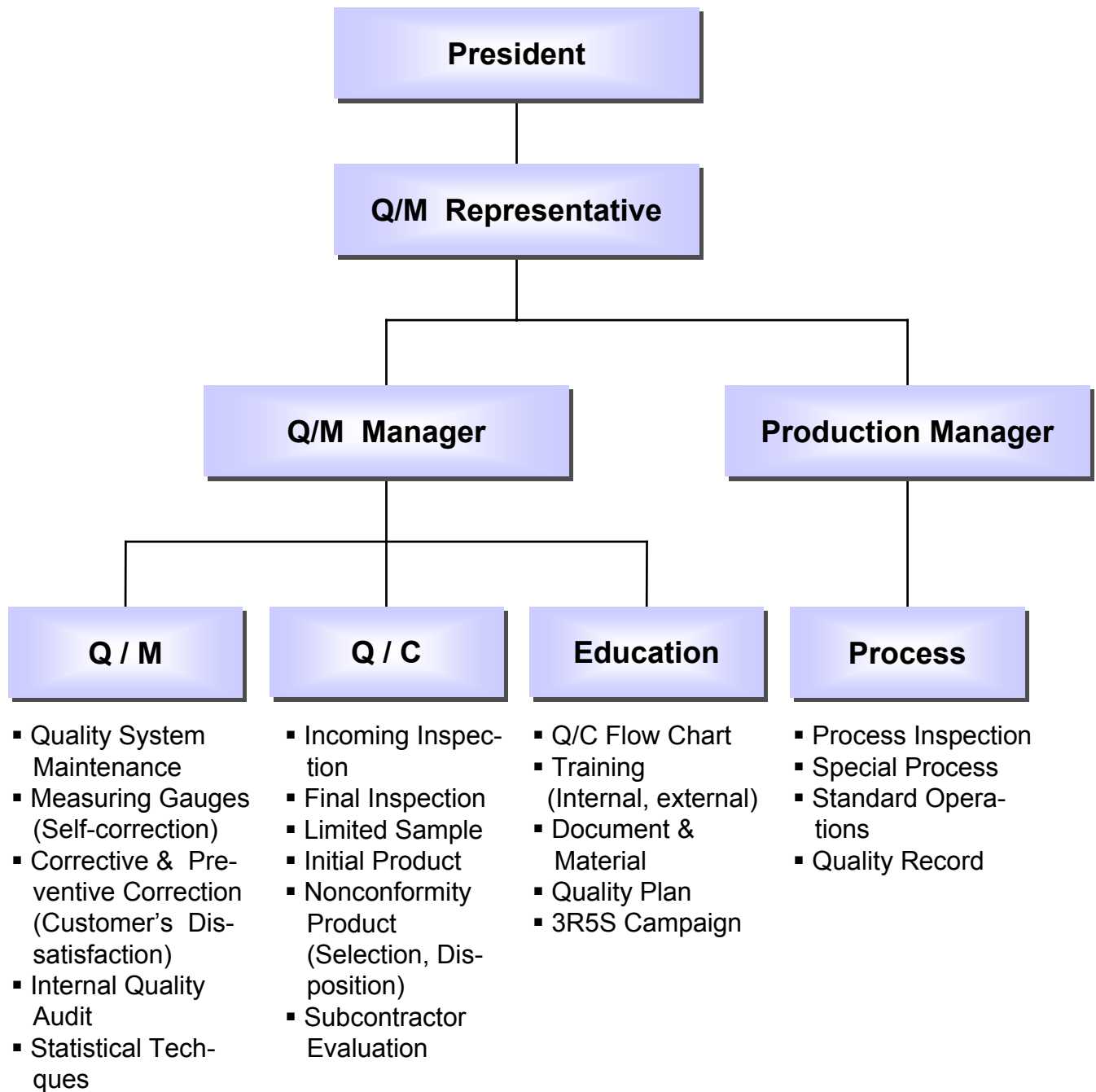
All of us, SungJin Semitech Co., Ltd. do our best to offer the best quality for which we pursue constantly.

Sungjin Semitech CO. LTD.
President Rak-Woon YANG

2. QUALITY ASSURANCE FLOW-CHART



3. Q/A Organization



EQUIPMENT LIST

7

1. Manufacturing Equipment

No.	IT E M	SPEC .	Q 'TY	REM ARK
1	Lathe	510×1500	1	DAEWOO
2	Lathe	560×2000	1	∴
3	Lathe (TIRL-4)	450×1060	2	∴
4	Lathe (TIRL-5)	580×2050	3	∴
5	CNC Lathe	PUMA-6UHS	1	∴
6	Machine Center	MCH-20A	1	∴
7	Machine Center	TNV-40	1	∴
8	Machine Center	BMC-40	1	∴
9	Machine Center	ACE-V30	1	∴
10	Machine Center	ACE-V500	1	∴
11	Machine Center	ACE-V600	1	∴
12	Milling M/C #3	1350×310	4	HUNGHAN
13	Milling M/C #6	1600×700	1	"
14	Milling M/C N.S.M-A	1600×700	1	NAMSUN
15	Milling M/C N.S.M-T	1600×700	1	NAMSUN
16	Radial Deilling M/C	USR-1500	1	NAMSUN
17	Bench Drilling M/C	1HP	5	∴
18	Taping M/C	1250×325	1	CHUNIL
19	Arc Welder	12KW	5	NAMSUN
20	CO2 Welder	500A	4	∴
21	TIG Welder	500A	4	KYOUNGWON
22	Flat Grinder	300-680	1	JAPAN
23	Air Plasma	SC-61P	1	DAIDEN
24	Cutter	3-32U	1	SUPER

2. Measuring Gauges

No.	ITEM	Spec.	Q'ty
1	Cylinder Gauge	6 † 10 MM	1
2	Cylinder Gauge	10† 18.5 MM	1
3	Cylinder Gauge	18 † 35 MM	2
4	Cylinder Gauge	35 † 60 MM	2
5	Cylinder Gauge	50† 150 MM	4
6	Cylinder Gauge	160† 250 MM	2
7	Cylinder Gauge	250† 400 MM	1
8	Cylinder Gauge	400† 600 MM	1
9	Combination Gauge	500 MM	5
10	Combination Gauge	800 MM	5
11	Depth Gauge	0† 25 MM	1
12	Depth Gauge	0† 50 MM	1
13	Dial Gauge	1/1000 MM	4
14	Height Gauge	0 † 300 MM	2
15	Height Gauge	0 † 600 MM	2
16	Height Gauge	0† 1000 MM	1
17	Picth Gauge	0.25 † 6 MM	1
18	Picth Gauge	0.25† 1.9 MM	1
19	Picth Gauge	0.25† 6.5 MM	1
20	Radius Gauge	R 1 † 7 MM	1
21	Radius Gauge	R 7.5† 15 MM	1
22	Radius Gauge	R15.5† 24 MM	1
23	Thickness Gauge	0.03† 3 MM	2
24	Thickness Gauge	0.6† 1.01 MM	2
25	Magnetic Base	2 Ton	2

No.	ITEM	Spec.	Q'ty
26	Direct Square	1 M	6
27	Direct Square	2 M	4
28	Plate Square	1.8† 2.5 M	2
29	Right Angle Square	1 M	1
30	Semi-Auto Weight	0.5† 50 Kg	1
31	Electric Weight	10† 80 Kg	1
32	Vernier Calipers	0† 150 MM	9
33	Vernier Calipers	0† 200 MM	1
34	Vernier Calipers	0† 300 MM	9
35	Vernier Calipers	0† 600 MM	2
36	Gear Micro (Tooth)	50† 75 MM	1
37	Gear Micro (Tooth)	75† 100 MM	1
38	Gear Micro (Tooth)	100† 250 MM	2
39	Test Indicator Micrometer	0 † 1 MM	1
40	Test Indicator Micrometer	0 † 25 MM	2
41	Test Indicator Micrometer	25 † 50 MM	2
42	Test Indicator Micrometer	50 † 75 MM	2
43	Test Indicator Micrometer	75† 100 MM	2
44	Test Indicator Micrometer	100† 125 MM	2
45	Test Indicator Micrometer	125† 150 MM	2
46	Test Indicator Micrometer	150† 175 MM	2
47	Test Indicator Micrometer	175† 200 MM	2
48	Test Indicator Micrometer	150† 300 MM	2
49	Test Indicator Micrometer	300† 400 MM	1
50	Test Indicator Micrometer	400† 500 MM	1
51	Test Indicator Micrometer	500† 600 MM	1

3. CAD System

No.	ITEM	Spec.	Q'ty	Maker
1	CAD System	Pentium-III	7	HP
2	CAD System	Pentium-II	4	HP
3	Color Monitor	17"	4	VIEWSONIC
4	Color Monitor	20"	8	VIEWSONIC
5	Plotter	JET 600	2	HP
6	Laser Printer	COLOR 4500	1	HP
7	Laser Printer	HP4V, A3-A4	2	HP
8	Digitizer	12" × 12"	12	WACOM
9	Notebook	NT-540	5	SAMSUNG

CLEAN ROOM

8

Entrance



Air Shower



The Inside



The Inside



- **Samsung Electronics Co., Ltd.**
- **Samsung Aerospace Industries Co., Ltd.**
- **Hyundai Electronics Co., Ltd.**
- **LG Electronics Co., Ltd.**
- **Anam Semiconduct Co. Ltd.**

PRODUCT LIST

10

- FURNACE (SJF-2000)
 - M.G.V
 - GLASS DUMPER
 - ULTRASONIC CLEANER
 - LIQUID HORNING M/C
 - PACKING SYSTEM
 - SCALAR ROBOT
 - ANTI-VIBRATION CART
 - NOMAL CARRIER CART
 - SMOCK CABINET
 - SHOES CABINET
 - HAND CLEANING
 - OTHER
-
- AUTO DOOR SYSTEM
 - END PRESET WAFER ALIGNMENT
 - 6" THIN ASSY
 - LIFT PIN ASSY
 - CLAMP RING 8"
 - ORIENTAL CHUCK
 - HALOGEN LAMP REFLECTOR
 - SLIT VALVE
 - SHIELD PLATE – D
 - SHIELD PLATE – C
 - HEATER BLOCK SHIELD
 - SHIELD RING HTR 150MM
 - GAS RING
 - SHIELD 8" PC2
 - UPPER COLLIMATOR RING
 - LOWER CLAMP RING
 - ALTUS SHOWER HEAD
 - B/IPC CHUCK
 - ESC CHUCK
 - UPPER ELECTRODE
 - AL LIFT HOOP
 - LIFT HOOK (TIN)
 - REFLOW CLAMP RING
 - CATHODE JMF
 - BASE WELDMENT 150MM (4-PIN)
 - HOUSING W/F HOLDER
 - COLLIMATOR
 - SHIELD, PLASMA CONFINEMENT
 - SHIELD TABLE 200MM FLAT
 - SHIELD LOWER (AL)
 - SHIELD UPPER (AL)
 - ELECTRIC RING
 - PERFORATE PLATE
 - NITRIDE COLD TRAP
 - WAFER CLAMP RING 6" / 8"
 - RING HEATER CENTERING
 - CHAMBER
 - CROX EMBOSING CHIMNEY
 - WASHER RETAINER
 - FEEDTHRU HEATER POWER
 - FAB STRAB FLECXIBLE
 - HEATING BLOCK

Furnace (SJF-2000)

For : Furnace

Process : Oxidation(Wet/Dry)

Doping(P/N)

Annealing

Sintering

SJF-2000



성진세미텍주식회사

M.G.V

- For : Samsung (LCD)
Material : AL, SUS
Use : This is the loading and unloading system of cassette filled with glass used in LCD process.

SJT-MGV340

M·G·V System



성진세미텍주식회사

GLASS DUMPER

For : LCD

Use : LCD GLASS TRANSFER.



성진세미텍주식회사

ULTRASONIC CLEANER

For : SAMSUNG

Material : SUS

Use : This is a cleaning machine for parts from SPUTTER, CVD, DRY, IMP and other process that required periodical cleaning by ultra sonic and hot D.I effect.



LIQUID HORNING M/C

For : SAMSUNG
Material : SUS, AL
Use : This is the machine to remove the DEPO parts layer after the process by emery powder pump and BEED gun.

SJ-SDS100

Liquid Horning System

SUNGJIN



성진세미텍주식회사

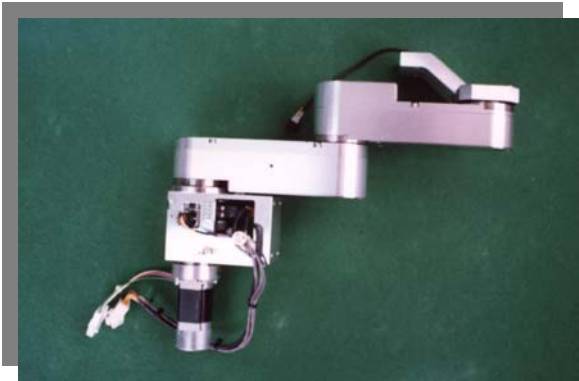


PACKING SYSTEM

For : Samsung Aerospace

Material : Al, SUS, Teflon (Ass'y)

Use : Loading glass by robot for packing or sorting in the glass manufacturing process.

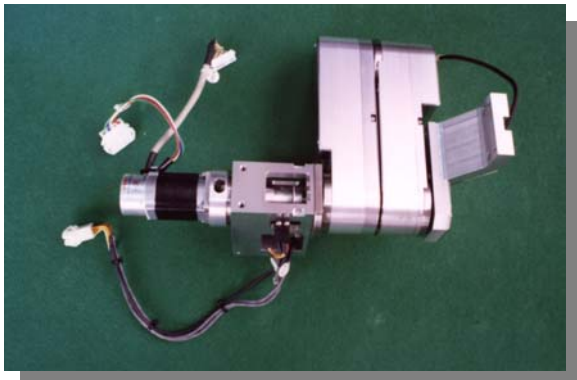


SCALAR ROBOT

For : Kokusai

Material : AL, SUS

Use : Wafer loading / unloading system

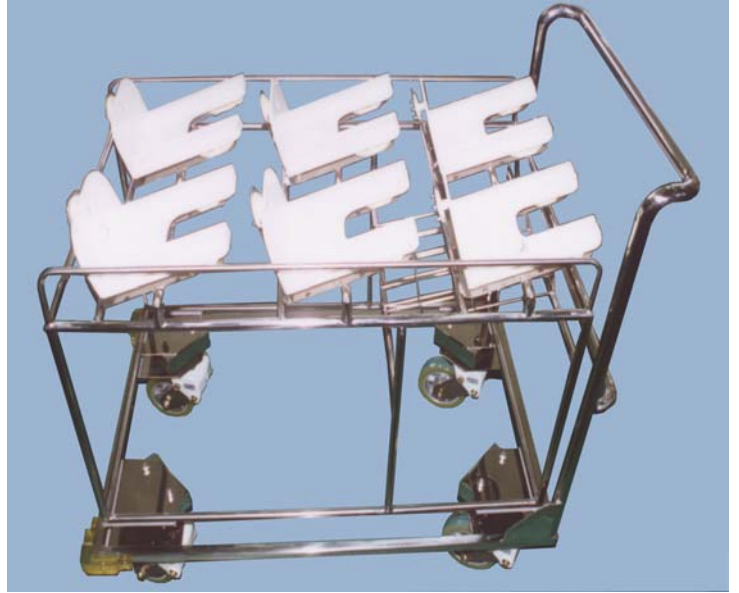


ANTI-VIBRATION CART

For : SAMSUNG, HYUNDAI

Material : SUS, ACETAL

Use : This is a support cart for carry the wafer carrier without the vibration to protect the damage.



NORMAL CARRIER CART

For : ANAM

Material : SUS, MC NYLON

Use : This is a cart to carry parts in FAB



SMOCK CABINET

For : SAMSUNG

Material : STEEL

Use : This is a cabinet to store smocks in FAB.



SHOES CABINET

For : SAMSUNG

Material : STEEL

Use : This is a cabinet to store outdoor shoes before entering FAB.

HAND CLEANING

For : SAMSUNG

Material : STEEL

Use : This cleaner machine is used to remove and sterilize particles and perspiration before entering the FAB.



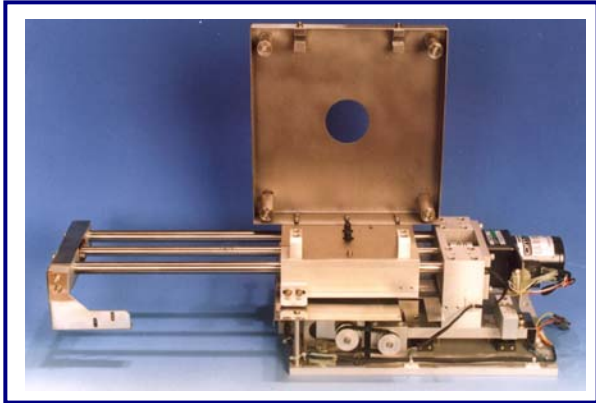
OTHER

1. Stockers

- Stockers for run box.
- Parts Stocker for quarts, ceramic, AL, SUS and spare parts.
- Tool Stocker.

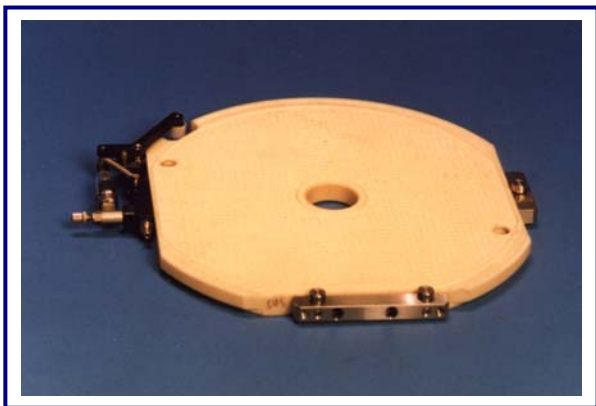
2. Work Table

- This is a Stainless steel table.



AUTO DOOR SYSTEM

For : TEL Sagami
Material : Al, SUS304 (Ass'y)
Use : Horizontal type CVD



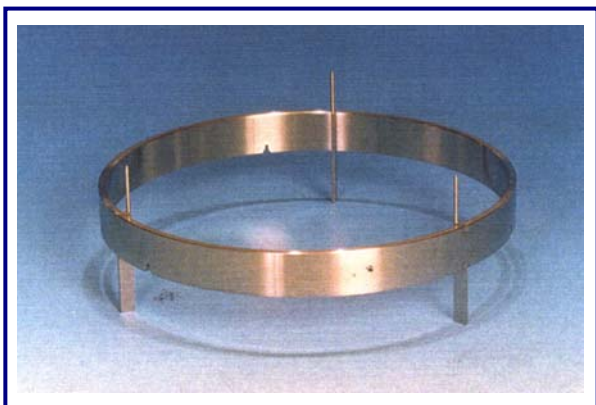
END PRESET WAFER ALIGNMENT

For : Nikon
Material : Al, SUS304, Ceramic (Ass'y)
Use : Not stacking wafer in process



6" THIN ASSY

For : Tegal
Material : Al 6061
Use : Part for 6" wafer loading / unloading



LIFT PIN ASSY

For : Varian MB2
Material : SUS304
Use : Part for wafer loading / unloading



CLAMP RING - 8"

For : AMK

Material : SUS316

Use : Part for wafer loading / unloading
with safety



ORIENTAL CHUCK

For : AMT

Material : Al 7075

Use : Part for wafer loading / unloading

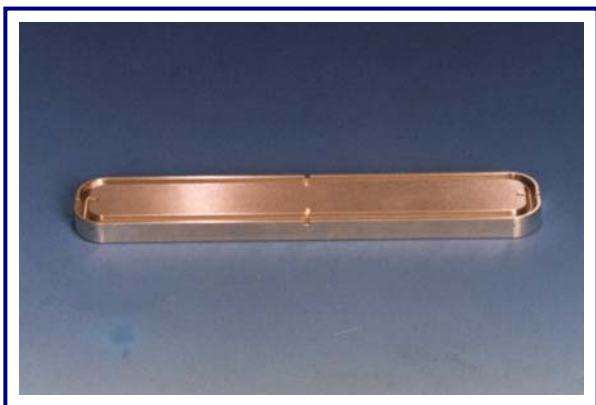


HALOGEN LAMP REFLECTOR

For : Kokusai

Material : SUS316 (Gold coating)

Use : Focusing and reflecting the ray

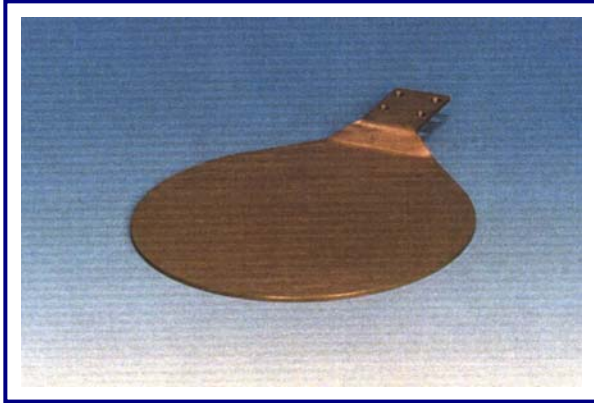


SLIT VALVE

For : AMK Endura

Material : AL 6061

Use : Part for vacuum sealing in the middle
of between chamber and sub chamber



SHIELD PLATE - D

For : ULVAC

Material : Titanium

Use : Preventing wafer from sputtering of oxidized target



SHIELD PLATE - C

For : ULVAC

Material : Titanium

Use : Preventing wafer from sputtering of oxidized target



HEATER BLOCK SHIELD

For : Varian M2000

Material : SUS304

Use : Part for wafer loading / unloading safely



SHIELD RING HTR 150MM

For : VARIAN

Material : SUS304 (SANDING)



GAS RING

For : KOKUSAI
Material : Al 6061 (Sanding)



SHIELD 8" PC2

For : AMT
Material : Al 6061 (Sanding)



UPPER COLLIMATOR RING

For : AMT (M2i)
Material : SUS304 (Sanding)



LOWER CLAMP RING

For : AMT
Material : SUS304 (Sanding)



ALTUS SHOWER HEAD

For : NOVELUS
Material : AL6061



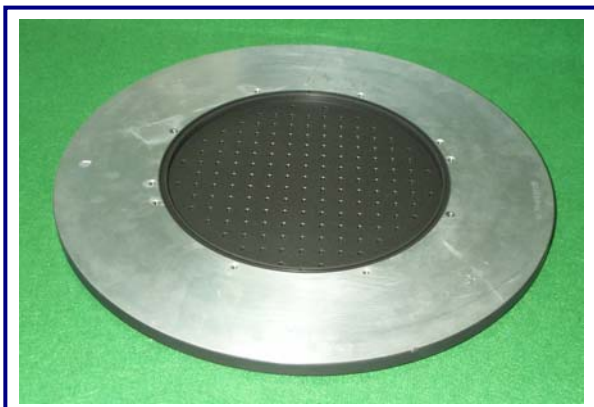
B/IPC CHUCK

For : BLANSON-II
Material : AL6061



ESC CHUCK

For : LAM
Material : AL6061 (ANODIZING)



UPPER ELECTRODE

For : TEL
Material : AL6061 (ANODIZING)



AL LIFT HOOP

For : AMK
Material : SUS316
Use : Clampring Un-loading



LIFT HOOK (TIN)

For : AMK
Material : SUS316
Use : Clampring Un-loading



REFELOW CLAMPRING

For : A.M.K
Material : TITANUM
Use : Wafer loading



CATHODE JMF

For : AMT
Material : TITANUM



BASE WELDMENT 150MM (4-PIN)

For : MRC

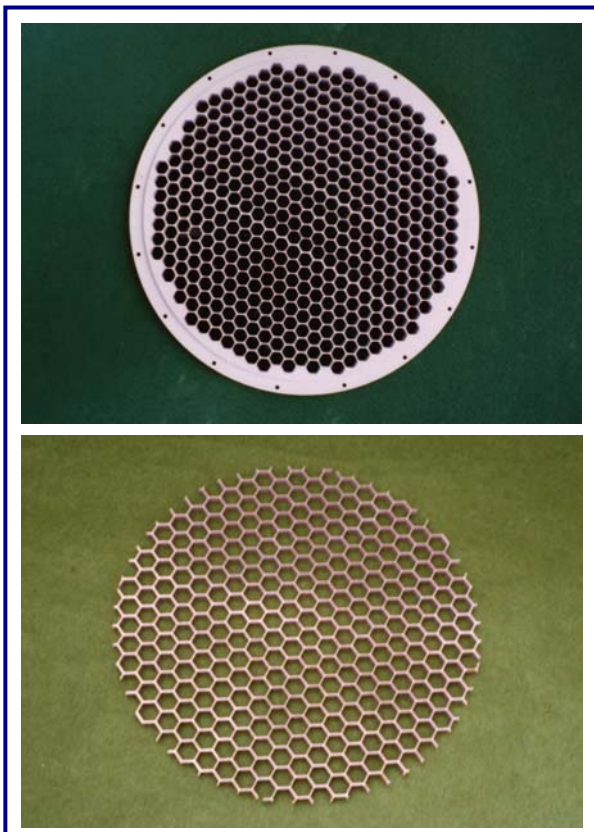
Material : SUS304 / SUS316



HOUSING W/F HOLDER

For : MRC

Material : AL6061



COLLIMATOR

For : Varian

Material : Al, SUS, Titanium

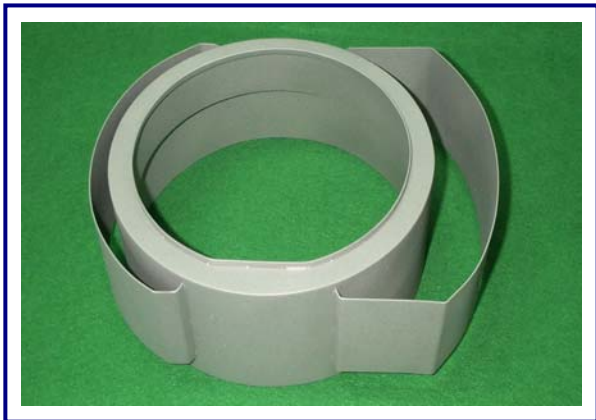
Use : Part for vertical uniformity of deposited layer.



SHIELD, PLASMA CONFINEMENT

For : VARIAN

Material : AL6061 (Sanding)



SHIELD TABLE 200mm FLAT

For : AMT

Material : SUS304



SHIELD LOWER (AL)

For : AMT

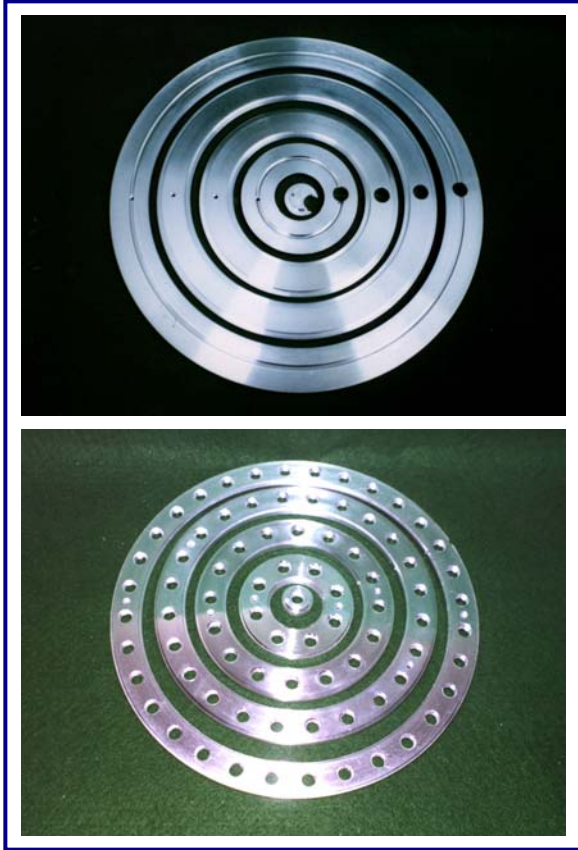
Material : AL6061 (SANIDNG)



SHIELD UPPER (AL)

For : AMT

Material : AL6061 (SANDING)



ELECTRIC RING

For : SungJin

Material : Copper <Silver coating>

Use : Reflector Socket



PERFORATE PLATE

For : AMT (Mirra)

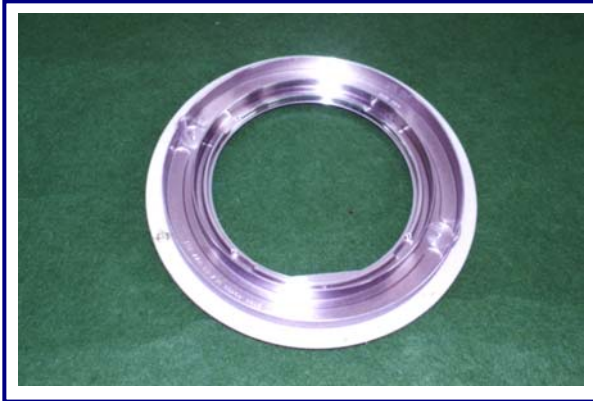
Material : AL6061 (Anodizing)



NITRIDE COLD TRAP

For : KOKUSAI

Material : SUS304 (Sanding)

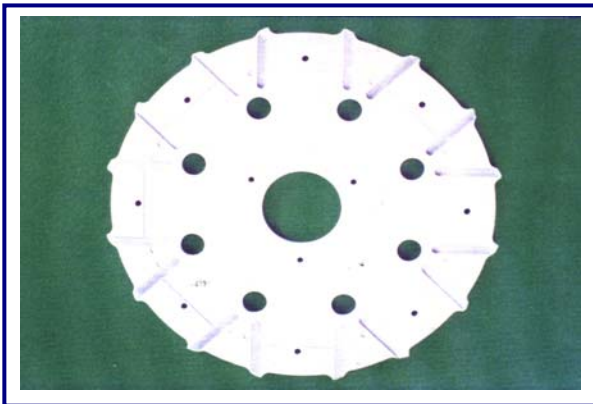


WAFER CLAMP RING - 6" / 8"

For : Varian M2000

Material : SUS 316

Use : Part for wafer loading / unloading
with safety

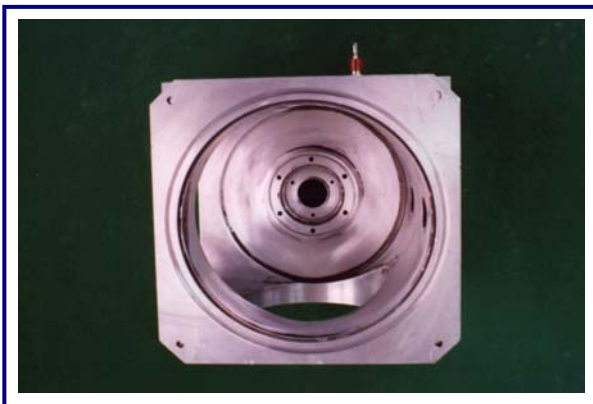


RING HEATER CENTERING

For : Novellus (Concept - One, Two)

Material : Al 6061

Use : Part for wafer transfer in a chamber



CHAMBER

For : Genus 1500

Material : Al 6061

Use : Housing chamber



CROX EMBOSSING CHIMNEY

For : ULVAC

Material : Al 6061 (Embossing)

Use : Preventing the pollution in the
chamber



WASHER RETAINER

For : AME Rainbow - Dry
Material : Al 6061 (Anodizing)



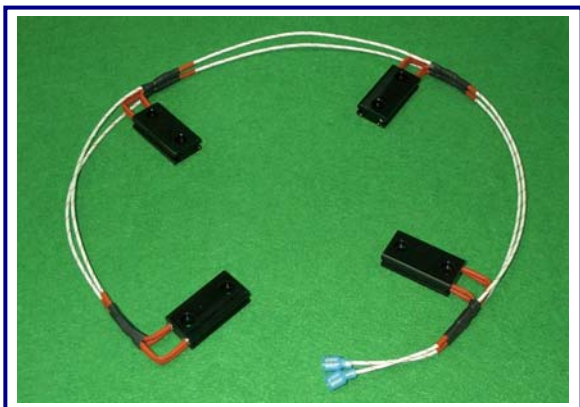
FEEDTHRU HEATER POWER

For : NOVELUS
Material : Copper / Teflon



FAB STRAB FLECXIBLE

For : G1510
Material : Silver



HEATING BLOCK

For : AMT (P-5000)
Material : AL6061 (Anodizing)



SUNGJIN SEMITECH CO., LTD.

**3DA-201-2, SHIHWANG INDUSTRIAL COMPLEX,
JUNGWANG-DONG, SHIHEUNG-SHI,
429-450, KYUNGKI-DO, KOREA**

TEL : (82-31) 498-4671

FAX : (82-31) 498-4673