



EBARA

ULTRACLEAN EQUIPMENT SERIES

*“Model 000” in this catalogue is our model code.



Dear customers

We want to thank you for your warm interest in EBARA CORPORATION and the EBARA Group world wide.

Ebara Corporation has diversified operations into three major business sectors, Fluid Machinery & Systems Company (FMSC), Environmental Engineering Company (EEC) and Precision Machinery Company (PMC) since 2005.

PMC represents a development, manufacturing, sales and service of state of art precision machineries to cutting-edge industries such as manufacturing of Semiconductor, Flat panel, photovoltaic, MEMS and many others.

Our products are designed not only for fulfilling it's required performance, but also for meeting or exceeding customer's expectation for environment & safety regulation.

Globally Positioned ★ Regionally Connected

Our existence value is to live with customers as global basis, but to mutually be connected with individual needs.

We appreciate you to enjoy Ebara Enabling Solution.

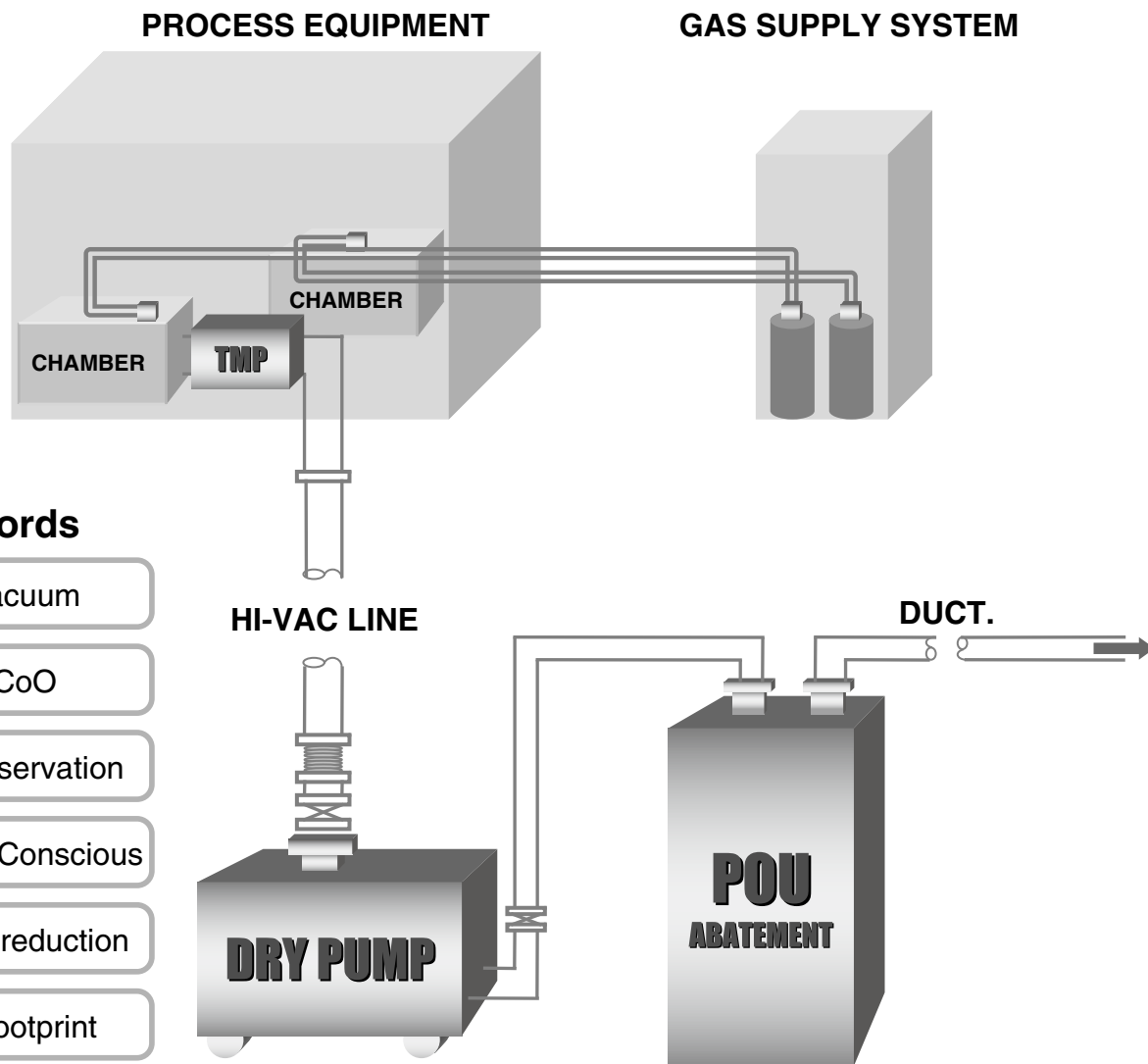
Ebara Corporation
Precision Machinery Company



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EBARA Exhaust Gas Management



Key Words

Clean Vacuum

Lower CoO

Energy Conservation

Environment Conscious

Facility load reduction

Smaller Footprint

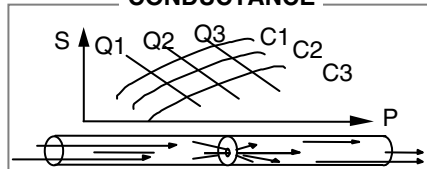
High Efficiency

Conductance Simulation Gas Analysis

FLOW ANALYSIS



CONDUCTANCE



Model Selection Vacuum Simulation

DRY PUMP

2,000 L/min	5,000 L/min
10,000 L/min	20,000 L/min
30,000 L/min	50,000 L/min
80,000 L/min	

TMP

300 L/s	600 L/s
1,300 L/s	1,600 L/s

Model Selection Efficiency Analysis

ABATEMENT

DRY RESIN
WET TYPE
COMBUSTION TYPE
(Model G5, Model G6)
F-CAPTURED (Model FDS)

DATA

PROCESS	GAS
RIE Si	...
RIE Al	...
ALD HfO	...
PE-SiN	

Dry Vacuum Pump

Model EV-S

Model EV-S

Model EV-S is an industry-standard, robust-roots type dry vacuum technology designed ideally for a light-to medium-duty applications having ultra low power consumption. Model EV-S consists of various advanced technologies such as controllable pumping speed for broadband pumping capacity coverage, sleep & idle mode function and the most advanced interlock feature as well as optional anti-corrosion Niresist material.



Features

- Small footprint, light weight and lower power consumption design to pumping capacity
- Various pump configurations according to process application (Model EV-S*P: with N₂ purge, Model EV-SN: with Niresist material & N₂ purge)
- DC motor drive provides a lower power consumption and identical pumping performance regardless a frequency (50/60Hz)
- Unique exhaust pumping design contributes pumping performance around atmospheric pressure
- Advanced warning & alarm data storage capability
- Hands on feature for warning setting (programmable from LCD controller)
- Advanced sensing function reduces product down time
- Semi-S2/CE marking/NRTL available

Model	EV-S20 (P/N)	EV-S50 (P/N)	EV-S100 (P/N)	EV-S200 (P/N)
Max Pumping speed (L/min)	1,670	5,000	10,000	20,000
Power Consumption (kW) (at ultimate pressure)	0.40	0.55	0.65	0.75
Dimension (WxDxH mm)	230x450x274	230x450x520	260x510x520	275x650x580
Mass (kg)	60	100	120	170

Dry Vacuum Pump

Model EV-M

Model EV-M

Model EV-M is designed for harsh-duty applications where large volumes of by-products are generated in the semiconductor, liquid crystal, and solar cell manufacturing processes. Model EV-M has mastered the balance between resistance to harsh-duty applications and energy efficiency. This next-generation dry vacuum pump series sufficiently address customer needs to minimize downtime and reduce running cost.



Features

- Intelligent speed control for on-demand operation
- Small Footprint
- Energy Efficient
- Robust anti-corrosion type material

Model	EV-M20N	EV-M102N	EV-M202N	EV-M302N	EV-M502N	EV-M802N
Pumping Speed (L/min)	1,800	10,000	20,000	30,000	50,000	80,000
Approx. Power at Ultimate Pressure (kW)	1.2	1.8	1.9	2.3	2.1	2.8
Dimension (WxDxH mm)	370x770x450	380x790x752	380x820x752	380x910x830	485x975x870	630x1,000x1,030
Mass (kg)	170	320	360	400	500	740

Dry Vacuum Pump

Model EST

Model EST

Model EST is a stand-alone innovative screw pump technology ideal for harsh applications generating reactive chemical by-products. They are best suited for a powdery, corrosive applications.



Features

- Ideal configuration for powdery harsh & chemically corrosive application (Hot gas temperature & Niresist material)
- Large pumping capacity and high gas load stability
- Intelligent rotor RPM control function for flexible gas throughput
- Advanced warning & alarm data storage capability
- Hands on feature for warning setting (programmable from LCD controller)
- Semi-S2/CE marking/NRTL available

Model	EST10N	EST25N	EST100WN	EST200WN	EST300WN	EST500WN
Pumping Speed (L/min)	1,000	2,500	10,000	20,000	30,000	50,000

Dry Vacuum Pump

Model ESA

Model ESA

Model ESA is built Ebara's robust roots pump technology. Model ESA200W and larger models are best suited for fast pump down requirement on large volume chamber in industries such as LCD, photovoltaic manufacturing equipment. Model ESA 25-D and Model ESA70W dry vacuum pumps have the largest installed base pump on MO-CVD applications. Model ESA dry vacuum pumps also feature intelligent rotation sequence for high gas gasload and advanced interlock function.



Features

- Ideal design for fast pumping on large volume chamber *
- Intelligent rotor RPM control function for flexible gas throughput.
- Large diameter rotors enables compact size as pump unit
- Optional exhaust configuration is available for organic solvent application
- Advanced warning & alarm data storage capability
- Hands on feature for warning setting (programmable from LCD controller)
- Semi-S2/CE marking/NRTL available

Model	ESA15-D	ESA25-D	ESA70W(-D) ESA70WN(-D)	ESA80W-HDF ESA80WN-HDF	ESA100W ESA100WN	ESA200W	ESA300W	ESA500W
Pumping Speed (L/min) (50Hz/60Hz)	1,400/1,700	2,500/3,000	7,000/8,400	8,400	10,000	20,000	28,000/30,000	47,000/50,000
*Typical Application	MO-CVD · Large volume load lock · Other clean vacuum					Large volume load lock · Other clean vacuum		

Air Cooled Dry Vacuum Pump

Model PDV

Model PDV

Model PDV is air-cooled, featuring small-size, light weight, and energy efficiency. This next generation Plug & run dry vacuum pumps enable unconditional installation method for use on clean applications.



Features

- Light weight (less than 20kg)
- Air cooled / Lubricant oil free / Plug & run
- Non contact shaft seal (Periodical chip seal replacement not required)
- Low vibration / Low noise

Model	PDV250	PDV500
Pumping Speed (L/min)	230	500
Ultimate Pressure (Pa)	0.5	
Power consumption (kW) (at ultimate pressure) * Inflow gas volume dependant	0.24	0.27
Dimension (WxDxH mm)	168x442x253	185x467x285
Mass (kg)	15	20

Dry Vacuum Pump

Model EV-A10

Model EV-A10

Small Air cooled dry pump suitable for many vacuum applications. Flat pumping curve make this an excellent pump for pumping from atmospheric pressure. Highly flexible installation with power as the only required utility. Suitable applications include: Load locks, PVD Systems, Analytical Instruments, replacing wet pumps.



Features

- Air cooled dry pump for non-reactive gas general vacuum
- 1,000L/min (60m³/h) peak speed, strong for atmosphere pumping down
- Plug and play, required only electricity supply, flexible installability
- No cooling water required, best suited to Lithium-Ion Battery manufacturing
- Compliant with CE Marking, NRTL

Model		EV-A10
Pumping Speed (L/min)	Max	1,000
	At atm Press.	800
Ultimate Pressure (Pa)	Gas Ballast: Off	1.0
	Gas Ballast: On	2.0
Dimension (W×D×H mm)		317×544×344
Mass (kg)		75

Magnetically Suspended Turbo Molecular Pump

Model ET

Model ET

Model ET Turbo pump is equipped with five-axis magnetic bearings ensure high-speed rotor rotation and position. Model ET-W operates in a wide pressure range. Model ET Turbo pump is designed to withstand highly reactive gases with its corrosion resistance.



Features

- High gas flow and wide range pressure range
- Nickel plating on turbine blade for corrosive application
- Optional heating mechanism preventing by-products accumulation
- Intelligent interlock function

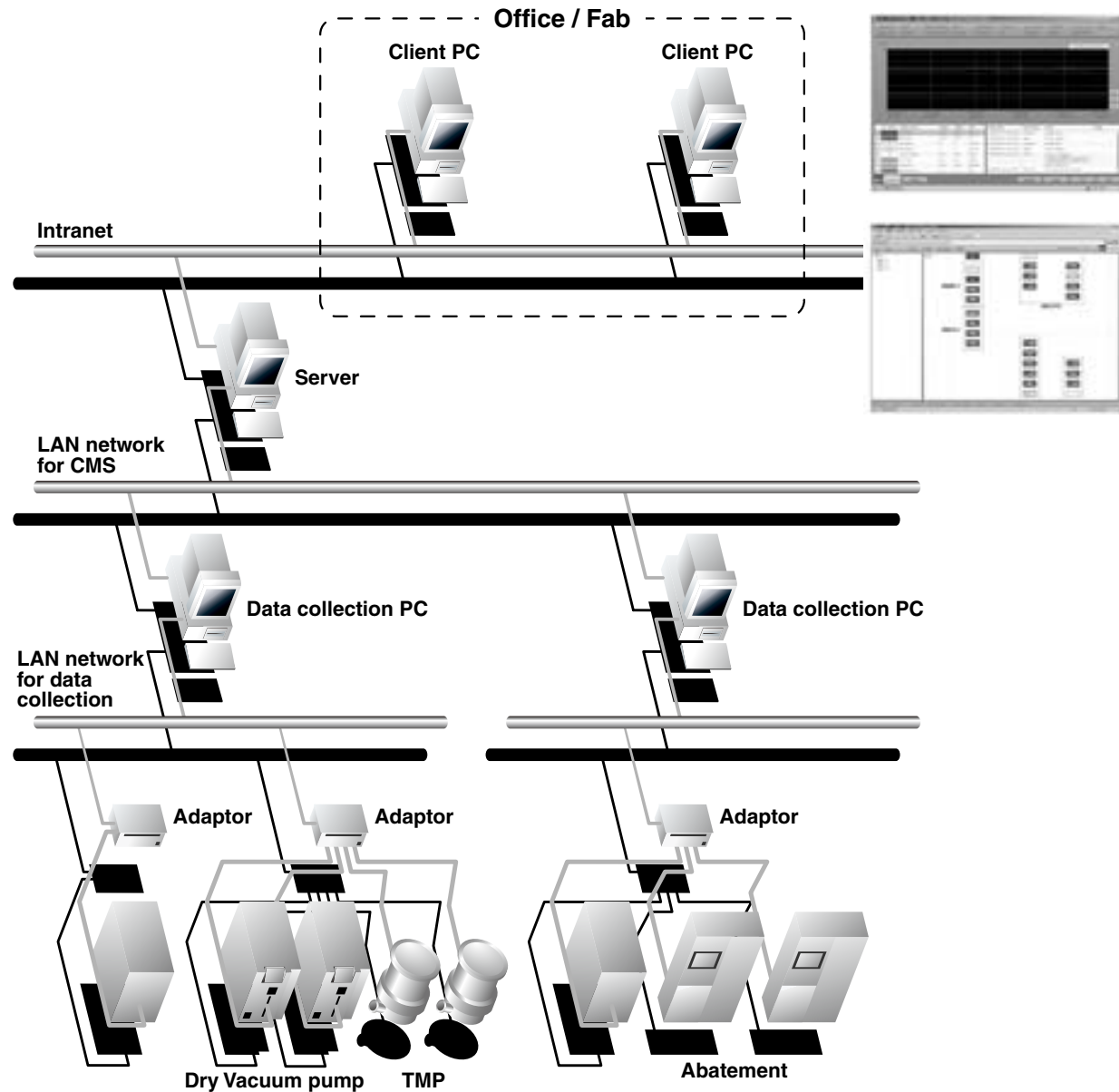
Controller



Model	ET300W	ET600W	ET1301W	ET1600W
Pumping Speed (L/s)	300	600	1,300	1,600

Central Monitoring System

Ebara's advanced networking remote monitoring system features for Ebara component product family. Smart and high-speed data transmission, large storage capacity for data collection maximizes equipment uptime.



Features

- Remote monitoring capability through web browser once the system is connected to customer's own LAN network
- Most advanced IT technologies (fast transmission speed, large storage capacity) thanks for second interval data collection.
- Store & monitor a real operating data and warning/alarm history
- Maximum of 1,200 dry vacuum pumps are connected to one server
- Reporting function for operating data & warning/alarm history according to a pre set time frequency
- Optional warning E-mail message feature

Gas Abatement System

Model G5

Model G5

Model G5 is capable of abating the majority of general processing and cleaning gases including PFCs used in the manufacturing operations of semiconductors, LCD panels, solar cells, and LEDs. This compact system automatically removes powdery by-products with on-demand operation, thus achieving reduction in maintenance and running cost.



Features

- High efficient abatement of various material gases such as global warming gases including PFCs
- Low Cost of Ownership by on-demand operation of changing necessary fuel volume due to variety of gases
- High up-time by the feature of removing powdery by-product

Fuel	LNG				LPG				
	Model	G5-A1	G5-A2	G5-A3	G5-A4	G5-P1	G5-P2	G5-P3	G5-P4
Gas Inlet Port Qty	1	2	3	4	1	2	3	4	
Max Inflow Gas (L/min)	350								
Dimension (WxDxH mm)	1,200x650x1,900								

Gas Abatement System

Model G6

Model G6

Model G6 is capable of abating the majority of general processing and cleaning gases including PFCs used in the manufacturing operations of semiconductors, LCD panels, solar cells, and LEDs. Model G6 is based on Model G5 and well suited to the process of using large flow of high-heat-generating hydrogen gas.



Features

- Inflow gas volume is three times larger than Model G5
- High up-time by the feature of removing powdery by-product
- Low Cost of Ownership by on-demand operation of changing necessary fuel volume due to variety of gases
- Easy-maintenance design for high gas load such as large capacity of trap for capturing powdery by-product

Fuel	LNG				LPG				
	Model	G6-A1	G6-A2	G6-A3	G6-A4	G6-P1	G6-P2	G6-P3	G6-P4
Gas Inlet Port Qty	1	2	3	4	1	2	3	4	
Max Inflow gas (L/min)	1,200								
Dimension (WxDxH mm)	1,200x2,000x2,300								

Gas Abatement System

Model G6-E

Model G6-E

Model G6-E is suited to the abatement of gases containing hydrogen and chlorine used for epitaxial growth and other systems in processes to manufacture semiconductors.



Features

- Suitable for the treatment of epitaxial grown processing gas
- Treat large volume chlorine gas and hydrogen gas simultaneously. Up to 400sim is available
- High up-time by the feature of removing powdery by-product

Fuel	LNG				LPG				
	Model	G6-E-A1	G6-E-A2	G6-E-A3	G6-E-A4	G6-E-P1	G6-E-P2	G6-E-P3	G6-E-P4
Gas Inlet Port Qty	1	2	3	4	1	2	3	4	
Max Inflow gas (L/min)	400								
Dimension (WxDxH mm)	1,200x650x1,900								

Gas Abatement System

Model G6-PV

Model G6-PV

Model G6-PV is capable of abating the majority of general processing and cleaning gases including PFCs used in the manufacturing operations of semiconductors, LCD panels, solar cells, and LEDs. Model G6-PV is well suited to the abatement of cleaning gas (NF₃) used in large amounts for plasma CVD systems in processes to manufacture thin film solar cells.



Features

- Inflow gas volume is three times larger than Model G5
- Suitable for the treatment of large volume cleaning gas. Up to 150sim NF₃ available
- Anti-corrosion for acid gases such as HF

Fuel	LNG				LPG				
	Model	G6-PV-A1	G6-PV-A2	G6-PV-A3	G6-PV-A4	G6-PV-P1	G6-PV-P2	G6-PV-P3	G6-PV-P4
Gas Inlet Port Qty	1	2	3	4	1	2	3	4	
Max Inflow gas (L/min)	1,200								
Dimension (WxDxH mm)	1,200x2,000x2,300								

Gas Abatement System

Model FDS

Model FDS

Model FDS is unique thermal & chemical capture technology for ultimate PFCs gas treatment. Since the Model FDS systems do not require water scrubbing, zero waste-water generated to the facility.



Features

- Fluoride gas captured within reactor (Zero waste)
- Max inlet gas flow of 250L/min with 99% treatment (Model FDS250)
- Model FDS100D/FDS250: 100% uptime due to serial flow design
- Model FDS100: Easy replacement with existing dry type abatement

Model	FDS100S	FDS100D	FDS250*
Reactor	Single	Dual	Dual
Max Inflow Gas (L/min)	100		250
Dimension (WxDxH mm)	600x600x2,000	900x600x2,000	1,520x1,000x2,150

Applicable Gas and Efficiency

Target Gas	Max Inflow Gas Concentration	Efficiency
CF ₄	SiF ₄	NF ₃
C ₂ F ₄	CHF ₃	HF, F ₂
C ₂ F ₆	CH ₂ F ₂	PF ₃
C ₃ F ₆	CH ₃ F	BF ₃
C ₃ F ₈	OF ₂	WF ₆
C ₄ F ₆	XeF ₂	TaF ₅
C ₄ F ₈	SF ₆	SO ₂ F ₂
C ₅ F ₈	CO	SO ₂ F ₂
PFCs	1.0%	<50 ppm as CF ₄ (Reactor exchange recommended)
CO	2.0%	<25 ppm (TLV-TWA)
SiF ₄	2.0%	<0.5 ppm as HF (TLV-TWA)

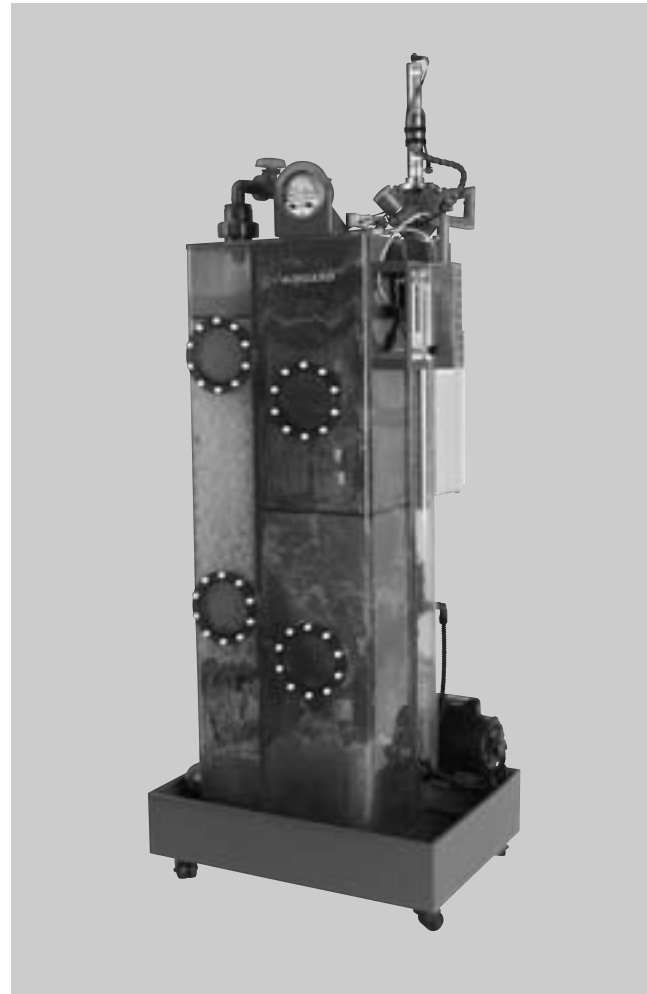
* Listed items

This Product falls under "the goods listed in the Export Trade Control Order of Japan". In case of export of the product, you are required to obtain the export licence through the Minister of Economy, Trade and industry.

Gas Abatement System

Water Scrubber

Airgard Model C / Model C-XL is simplified system design and high flow circulation water abatement suitable for water soluble gases. Airgard Model C has automatic plunger at inlet gas port as standard configuration contributing system uptime.



Features

- High gas flow design
- Unique gas inlet device (Clogging free at gas inlet)
- Simple design with lower CoO

Model	Airgard Model C	Airgard Model C-XL
Max Inflow Gas (L/min)	1,000	5,000
Efficiency	>95%	
Utility	Power (for circ water pump)/N ₂ /City Water	
Diemension (WxDxH mm)	826x725x2,300	1,198x1,355x2,052

Airgard Model C / Model C-XL is water abatement. It is recommended for water soluble gases only.

Dry Pump Integrated Gas Abatement System

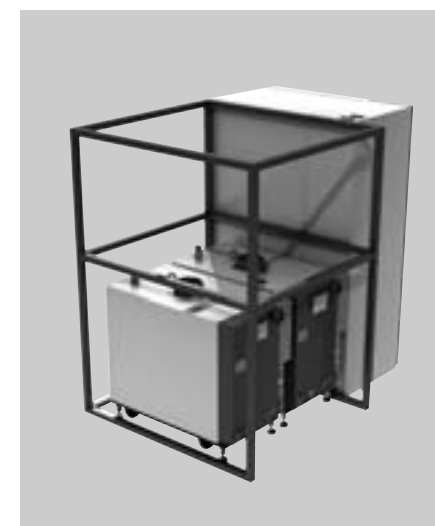
Dry Pump Integrated Gas Abatement System is a harmonized system between vacuum technology & abatement technology based upon EBARA's best know-how. The system is designed in accordance with customer's facility needs for customized integrated solutions.



Features

- Ebara original integrated abatement system with Ebara dry pump.
- Reduce installation workload & time, facility load.
- Operation & interlock function are integrated as system operation.
- Dry pump Qty: 1~8 units
- Applicable Dry pump Model: EV-S/ESR/EST/ESA
- Applicable Abatement Model: G5/GT

Customized pump rack enables reduction of system footprint & maintenance space



Parallel type rack
For > 30,000L/m class pump mounting



Stackable type rack
For <30,000L/m class pump mounting



Pump lifter for exchange
Dedicated lifter for safe pump exchange

The system a customized products. Please contact Ebara for further information

Non particle Pump

Model NDC

Model NDC

Model NDC compact magnetic pumps transport and pressurize ultrapure water and liquid chemicals to meet the requirements of the semiconductor and liquid-crystal manufacturing processes. Hydrodynamic bearings eliminate mechanical contact and the resulting particle emissions from the pump interior. Additionally, metallic ion elusion and pulsation have been virtually eliminated.

Features

- **Particle-free**

Hydrodynamic bearings eliminate mechanical contact and reduce particle emissions to extremely low levels.

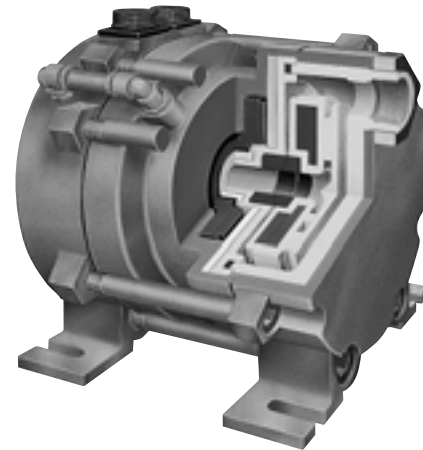
- **High quality**

The utilization of high purity ceramics and silicon tetrafluoride resins suppresses metallic ion elusion to below detectable levels.

- **Low pulsation**

This centrifugal pump minimizes pulsation, suppresses reemissions from the filter and significantly improves filtration.

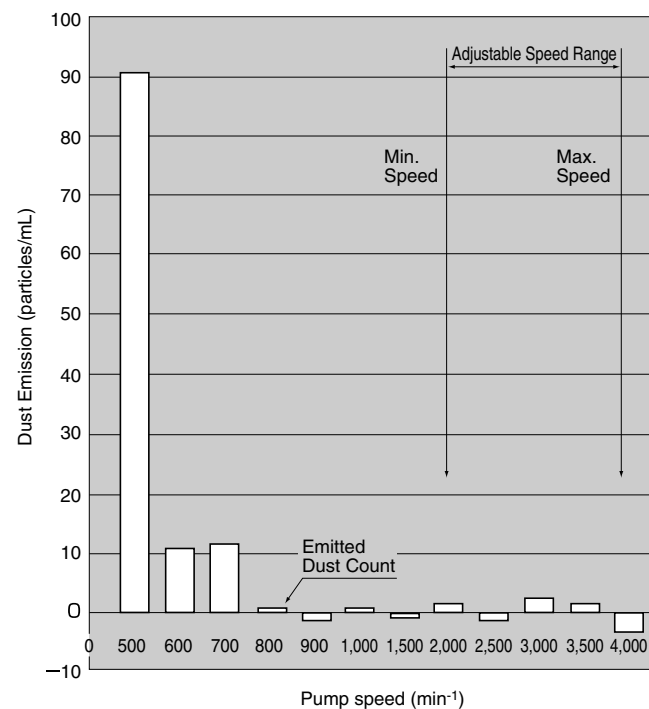
- **Compact, low noise, variable speed, 50/60 Hz**



Basic Testing Data

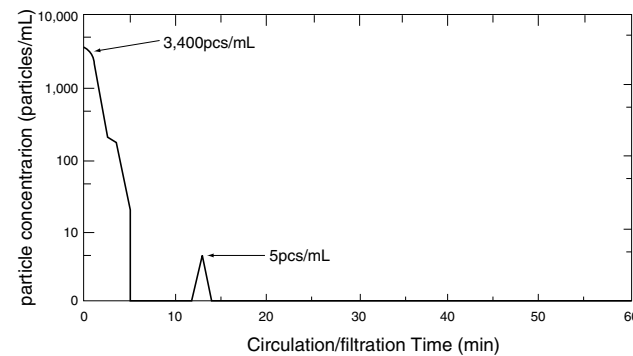
Particle measurement values (particles/mL)

The quantity of dust (0.1µm or larger) emitted by the pump during continuous operation at various speeds are shown below. Rotating speed can be switched 10 high speed and low speed operations. For normal use, the speed should be adjusted to appropriate in high speed operation, and during stand by, the speed should be switched to low speed operation. By this operation speed switch, the dust emission can be eliminated and the electric power consumption can be reduced.

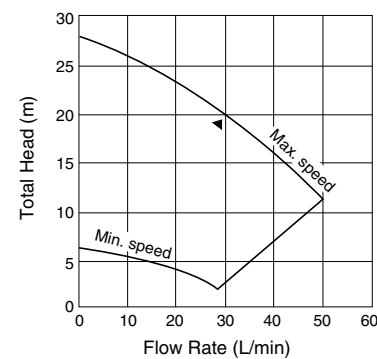


Filtration performance (particles/mL)

Particle concentration change is shown below. 0.212µm of standard particles (10,000 particles/mL) were dissolved into the overflow tank and circulated by this pump



Performance Chart



* Listed items
This Product falls under "the goods listed in the Export Trade Control of Japan".
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Ultra High Concentration Clean Ozonizer

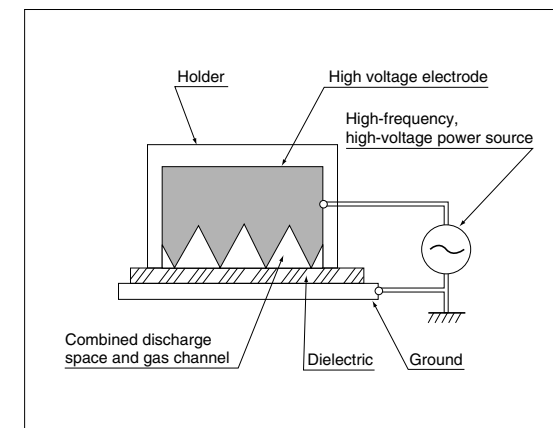
Model OZC

Model OZC

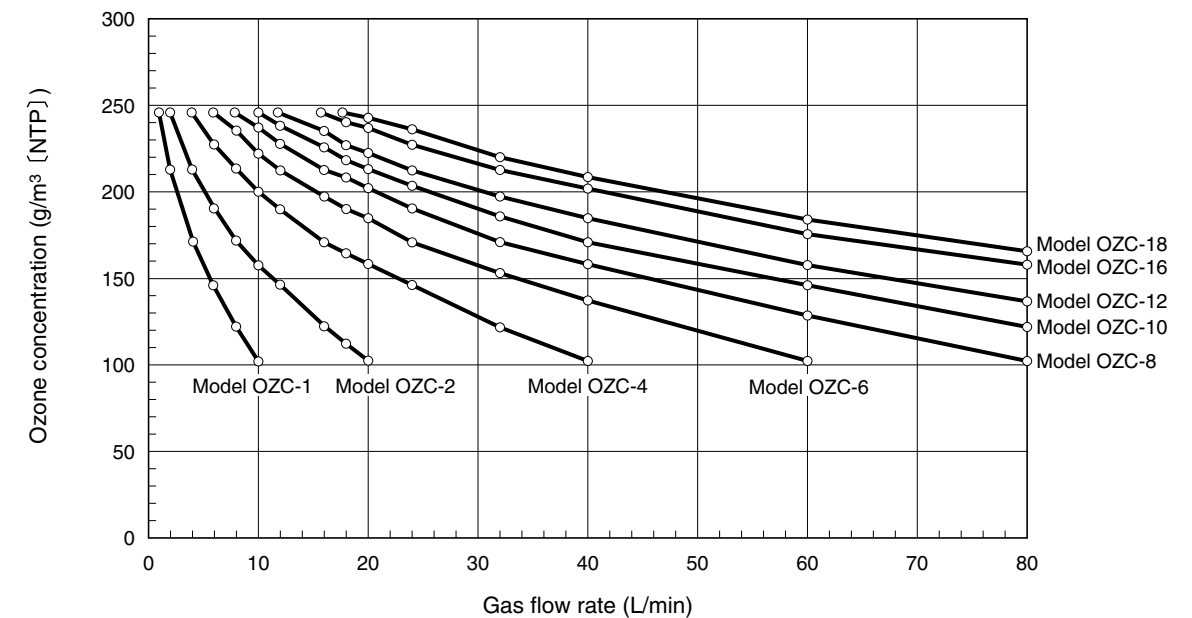
Ozonizer employing a new discharge principle that generates highly concentrated ozone through both silent and surface discharge methods.

Features

- **Steadily generates large volumes of highly concentrated ozone (10 vol% or higher)**
- **Achieves ultra clean ozone through the adoption of ceramic coated electrodes and sapphire dielectrics**
- **Compact ozonizer capable of generating ozone of a significant volume per unit area**
- **Ozone leak sensor is standard**



Performance curve



Ozonized Water Generator

Model OZW

Model OZW

This ozonizer continuously supplies clean ozonized water to meet the requirements of next-generation wet process through the use of a fluorocarbon hollow fiber membrane, a clean and high-concentration Ozonized Water Generator and a particle-free pump.

Features

●High concentration, large volume ozonized water supply

The system is capable of providing a continuous supply of ozonized water at an ozone concentration ranging from high to very low level. Both the ozone concentration of the ozonized water and its flow rate are variable to suit the required operating conditions.

●Impurity-free ozonized water

The use of the clean ozonizer and particle-free pump specially developed by Ebara Corporation marks a major advance in virtually eliminating impurities. The dispersive dissolving of ozone gas in ultra-pure water through a fluorocarbon hollow-fiber membrane also marks a significant step toward virtually eliminating the bubble formation and the ingress of TOC and metal impurities.

●Superior concentration and flow rate stability

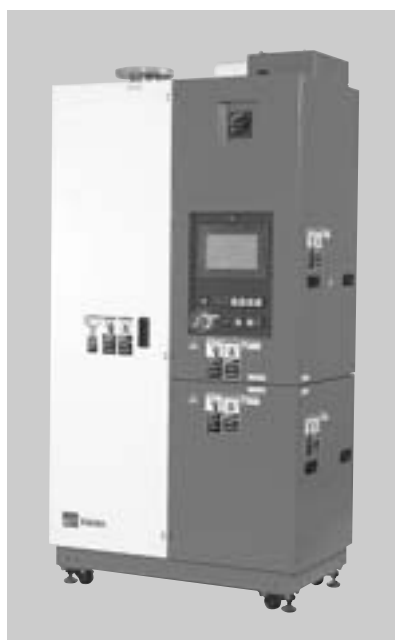
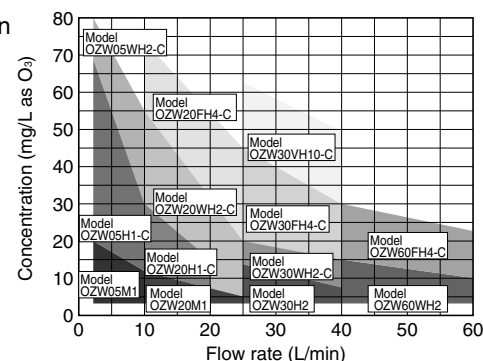
The ozonized water is continuously monitored and the measurement data is used for feed back control to stabilize the ozone concentration at a steady level. Thanks to the use of an infinitely variable speed particle-free pump developed by Ebara Corporation, it is possible to supply a constant flow of ozonized water even when the system has been installed so that a level difference exists between the wet station and the ozonizer.

●Superior ease of operation, safety and reliability make the system ideally suited for production line use

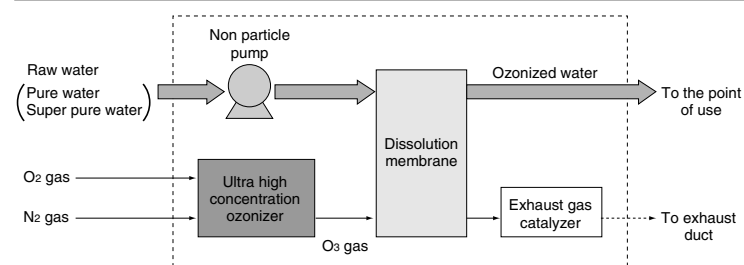
To facilitate operation in combination with a wet station, built-in coupled operating signal and interlock signal circuits are provided, with the system configuration designed to assure easy maintenance of all units. The system also has a safety circuit to stop the units safely in an error or emergency. (Can be a Semi S2/CE available)

Performance

Table for Model OZW selection



Flow chart



* Listed items
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Pure Water Jet Pump

Model PJ

Model PJ

Model PJ delivers high-pressure plunger pumps for single wafer jet cleaning with ultra-pure water. Pump surface purity is maintained through electrolytic polishing of the interior surfaces. Simple pump construction has minimized the area which comes in contact with the ultra-pure water and has eliminated the mixing of particles produced from the seal parts with the jet water.

Features

●Simple construction

One wafer can be cleaned with one stroke operation. Simple construction and minimal movement decrease the number of particles produced.

●Clean sealing

Anti dust wipers prevent particles produced in the high pressure seal part from entering the discharge water.

●Always clean

Overflow construction keeps the pump filled with fresh water even when the pump is not operating. Because there is no stationary water, the growth of bacteria can be prevented, and startup time after a long shutdown period is reduced.

●Simple maintenance

Clean discharge water makes filter replacement trouble free.



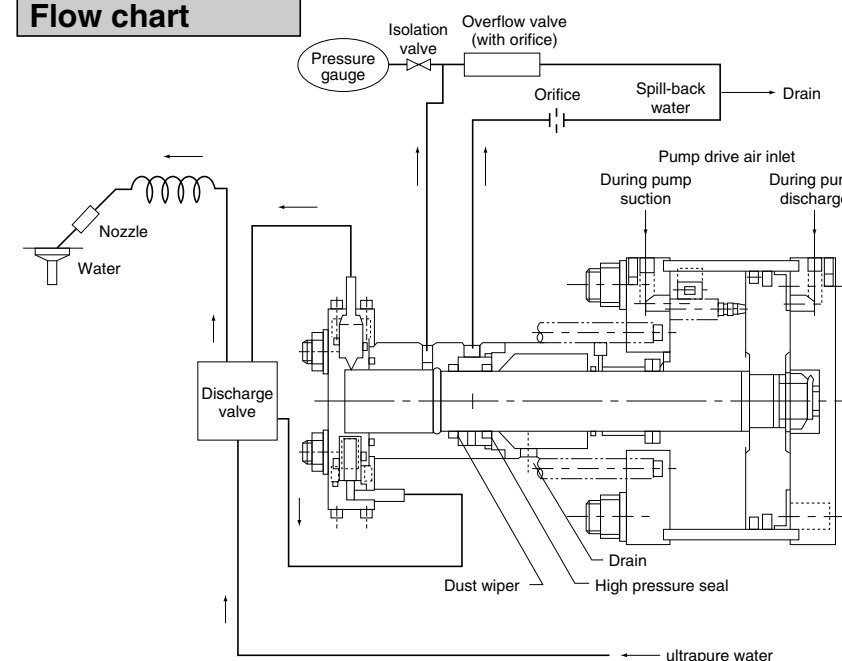
Basic Testing Data

Particle Measurement Values	(particles/mL)		
Particle size (μm)	0.2~0.3	0.3~0.5	0.5<
Particle count contributed by pump	6	2	1

Specifications

Pump discharge pressure:
5MPa
10MPa
Discharge flow rate:
Max. 50mL/stroke
Required air pressure:
0.4MPa
Outer dimensions
(WxDxH mm): (example)
200×410×270

Flow chart



Chemical Mechanical Polishing System

Model F-REX

Model F-REX

Model F-REX is clean room compatible Chemical Mechanical Polishing Systems with proven high reliability high process performance. Various options are available to meet every customer's needs.

Advantages

- Dry-In/Dry-out*
- High Process Performance
- Improved Productivity (with high reliability and easy maintenance)
- Multi Step Chemical Cleaning Capability
- Process End Point Monitor (Option)
- In-line Thickness Monitor (Option)
- Customer Specific Options
- High Volume Production Capability

*"Method and Apparatus for Dry-in/Dry-out Polishing and Cleaning of a Semiconductor Device" is patented in main countries for semiconductor industry.

Planarization technology perfected by EBARA's experience, is here.



F★REX200

Item	Specification	
Configuration	Number of top rings (For 200mm wafers)	2
	Number of turntables	2
	Number of buff tables	2
	Number of cleaning units	4
Throughput (wafer/hour) (Polish time = 2 min)	48	
Outline dimensions (WxDxH mm)	2,000x3,490x2,450	



F★REX300SII

Item	Specification	
Configuration	Number of top rings (For 300mm wafers)	4
	Number of turntables	4
	Number of cleaning units	4
Throughput (wafer/hour) (Polish time = 2 min)	72	
Outline dimensions (WxDxH mm)	2,300x4,950x2,850	

EBARA Wafer Plating System

Model UFP

Model UFP

Model UFP is a clean room compatible electroplating system for wafer Bumping, Re-wiring layer and Via filling.

Features

Model UFP-AD (Compact Type)



Patent :
JP 3979847
US 7,402,227
KR 0804714
TW I281516

- Suitable for small volume production with variety of product types or R&D purpose
- Water is vertically immersed (Minimize tool foot print)
- Capable for multi-step or individual plating upto 4 different chemistries. (Model UFP-304AD/ADS)
- High speed paddle system enables high speed plating with superior thickness non-uniformity (1% @ 1σ)
- Semi-auto function enables irregular process test

Item	Specification			
	UFP-304AD	UFP-206AD	UFP-306AD	UFP-304ADS
Applicable Wafer Size (mm)	200/300	100/150/200	200/300	200/300
# of Plating Cells	1+1+1+1 (4)	1+5 (6)		1+1+1+1 (4)
Outline Dimensions (WxDxH mm)	1,600x4,665x2,450			1,600x3,750x2,450
Suitable Applications	R&D or Small Volume Production (Automated/Semi-automated)			R&D (Semi-automated Only)

Model UFP-A (High Volume Production Type)



Model UFP-300A



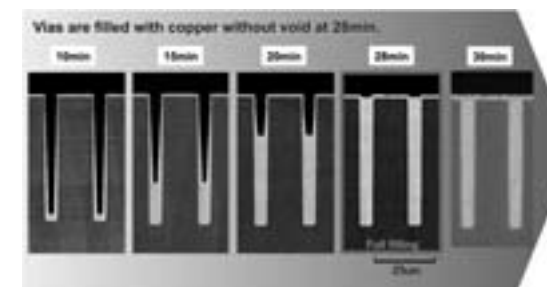
Model UFP-200A



Model UFP-300M/200M

Superior Via Filling Technology

- Bottom-up growth progress and thickness Non-uniformity

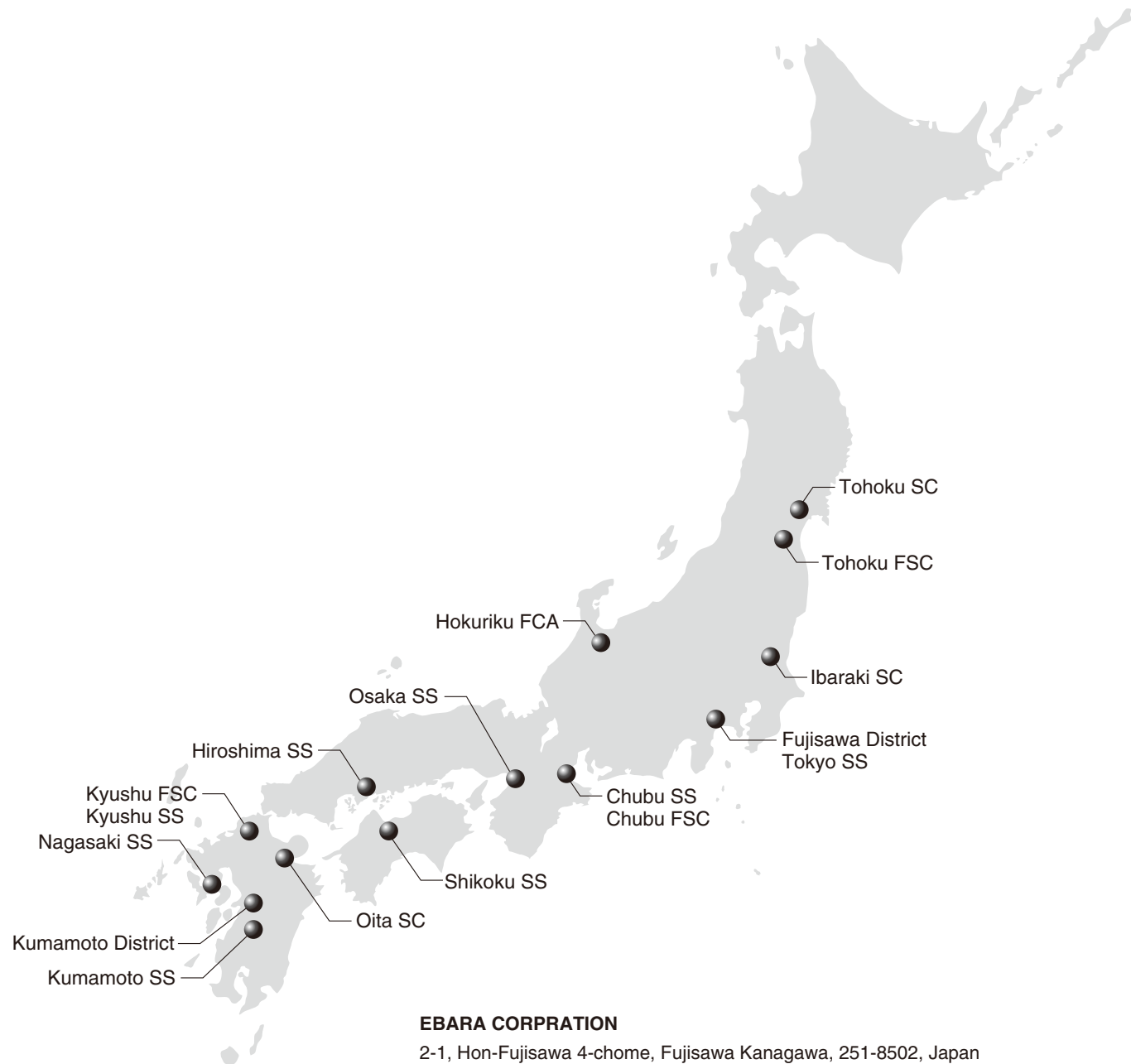


1% @ 1σ, 300mm wafer

Ebara Global Customer Support Network – PRODUCT-Plus

Ebara defines that customer support is one of our product which has been established since our business started.

● Technical support/Facility consultation ● Process support ● Product field support ● Product refurbishment/upgrade




FSC : Full Scale Service Center
 SC : Support Center
 SS : Support Shop

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 Tohoku QRC Miyagi • Ibaraki QRC Ibaraki • Chubu QRC Mie • Osaka QRC Osaka
 Hiroshima QRC Hiroshima • Shikoku QRC Ehime • Fukuoka QRC Fukuoka • Oita QRC Oita
 Kumamoto QRC Kumamoto • Nagasaki QRC Nagasaki




 **USA**
 Ebara Technologies Inc


H Q: Sacramento (CA)
FSC: Sacramento (CA)
QRC: San Jose (CA)
 Albany (NY)
 E. Fishkill (NY)
 Manassas (VA)
 Hillsboro (OR)
 Newburyport (MA)

 **EUROPEAN UNION**
 Ebara Precision Machinery Europe GmbH

H Q: Hanau, Germany
FSC: Livingston, UK
QRC: Dresden, Germany
 Regensburg, Germany
 Evry, France
 Rousset, France
 Graz, Austria
 Villach, Austria
 Newcastle, UK
 Dublin, Ireland
 Haifa, Israel
 Qiryat Gat, Israel

 **SINGAPORE**
 Ebara Engineering Singapore Pte.Ltd


H Q: Tuas Link
FSC: Tuas Link

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 Ebara Precision Machinery Korea Inc

H Q: Gyeonggi-do
FSC: Mogok-Dong
QRC: Hwasung Icheon Chungju

 **CHINA**
 Shanghai Ebara Precision Machinery Co.,LTD

H Q: Shanghai
FSC: Shanghai
QRC: Wuxi Dalian Nanjing

 **TAIWAN**
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H Q: Taipei
FSC: Hukou
QRC: Linkou Taichung Tainan



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CAUTION

- The Products described herein fall under “the goods listed in row 16 of the appended table 1 of the Export Trade Control Order of Japan”, so in cases of export of such Products, you need to confirm “use” and “purchaser and/or end-user” and, as case may be, obtain the approval of the Minister of Economy, Trade and Industry. (Please confirm these conditions on your own.) Furthermore, some of the Products fall under now 1-15 of the appended table 1 (listed items). In case of export of these listed items, you are required to obtain the export license from the Minister of Economy, Trade and industry. For more information, please contact our sales office located near you.
- All specifications are subject to change without notice.
- “Model ○○○” in this catalogue is our model code.