SCREEN

Semiconductor Solutions

半导体制造设备产品手册



Cutting-Edge Devices

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IoT Applications

SCREEN's Product Lineup Covers Various Semiconductor Manufacturing Processes

Process Technology Center Global Training Center

Corporate Philosophy Company Profile

Efforts to Realize a Sustainable Society

SCREEN SPE GROUP COMPANY

AQUASPIN

Single Wafer Cleaner

单片式清洗设备

SU-3400

Wafer size 12 inch



The evolution of the world's No. 1*1 cleaning equipment

全球市场份额第一*1的清洗设备，
不断创新

FEATURES

- **High productivity with a maximum throughput of 1,200 wph**
  生产效率高，产能可达1200WPH
- **Footprint reduced by 30%*2**
  占地面积减少了30%*2
- **Reduction of environmental load: Exhaust/Nitrogen/Chemical**
  环境负荷减少（废气/氮气/化学药液）
- **Reliable operation backed by big data and problem prevention through camera surveillance**
  利用大数据实现稳定运行，
  通过摄像头监控预防问题的发生

*1 Based on SCREEN in-house research
*1 基于本公司调查

*2 Compared to SU-3300
*2 与SU-3300相比较

SCREEN Receives the Okochi Memorial Production Prize for the First Time
首次荣获第70届大河内奖"大河内纪念生产奖"

English Japanese

2023 Nikkei Business Daily Awards 日经产业新闻奖
Nikkei Excellent Products and Services Awards 日经优秀产品・服务奖

Japanese



Single Wafer Cleaner
单片式清洗设备

SU-3300

AQUASPIN

Wafer size 12 inch

A single-wafer cleaner with up to 24 chambers, offering first-tier processing technology and outstanding productivity

多达24腔室的高生产率，
集结了最高加工技术水平的单片式清洗设备

FEATURES

- **Improved processing environment through technology for increasing chamber cleanliness**
  采用新技术提高了腔室内的清洁度，改善了加工环境
- **Cutting-edge drying technology for rapid, high-precision control of the wafer surface air–liquid interface**
  以最新的干燥技术对晶圆上的气液界面进行高精度和高速度的控制
- **Optimal discharge of chemical solution for outstanding etching uniformity**
  优化化学药液的吐出，实现出色的刻蚀均匀性



Single Wafer Cleaner
单片式清洗设备

SU-3200

AQUASPIN

Wafer size 12 inch

The de facto standard in single wafer cleaners, expandable up to 12 chambers

配备12个腔室，
树立业界标准的单片式清洗设备

FEATURES

- **Handles a wide range of chemical solutions for enhanced processing flexibility**
  可处理多种化学药液，适用于广泛的工艺
- **Versatile chemical supply system**
  配备多种化学药液供应系统
- **Designed for exceptionally easy maintenance**
  便于维护的设备设计



Backside Cleaner
背面清洗设备

SB-3300

AQUASPIN

Wafer size 12 inch

Hybrid-chemical and brush cleaning functions
将刷洗和化学清洗相结合的清洗设备

FEATURES

- **The industry's first* hybrid-type chemical and brush cleaning system for more effective removal of particles from the backside of wafers**
  通过业界首创*的化学药液和刷子的组合清洗，实现了晶圆背面颗粒的高效去除
- **High precision etching control for the backside of wafers minimizes wafer warping**
  以高精度的晶圆背面刻蚀控制，最大程度减少晶圆翘曲
- **A proprietary chuck system securely holds the device side of wafers**
  采用独有的卡盘系统(chuck system)，切实保护晶圆表面

* Based on SCREEN in-house research (as of December 2020)
*基于本公司截至2020年12月的调查结果



Spin Scrubber
刷洗设备

SS-3300S

AQUASPIN

Wafer size 12 inch

Next-generation spin scrubber with 16 processing chambers for high throughput of up to 1,000 wph
新一代刷洗设备配备16腔室，产能高达1000WPH

FEATURES

- **Dual transport system for greater productivity**
  双传输系统带来高生产率
- **27% smaller footprint than two 8-chamber SS-3200 spin scrubbers**
  与两个8腔室的SS-3200相比，占地面积减少了27%
- **Handles a wide range of processes. Proprietary spray technology and brush function also available as options**
  适用于多种工艺。采用独有的喷雾技术，可选配刷洗功能



Spin Scrubber
刷洗设备

SS-3200

AQUASPIN

Wafer size 12 inch

High throughput has made it the de facto standard in spin scrubbers

以高产能树立业界标准的刷洗设备

FEATURES

- **An advanced transport system and proprietary algorithm deliver approximately twice the throughput* of the previous model**
  先进的传输系统和独特的算法实现了传统设备约两倍*的产能
- **Offers the same chamber configuration, cleaning items, and other processing functions as the SS-3100**
  继承了SS-3100的工艺性能，包括腔体结构和清洗装置

* Compared to SS-3100
*与SS-3100相比较



Spin Scrubber
刷洗设备

SS-3200 for 200mm

AQUASPIN

Wafer size 8 inch

Spin scrubber for 200mm wafer boasting throughput of up to 500 wph

适用于8英寸晶圆的刷洗设备，
产能高达500WPH

FEATURES

- **The amount of DI water used in wafer processing has been reduced, helping lower environmental impact**
  通过减少处理晶圆时纯水的使用量，降低环境负担
- **Spin chambers slide out for easier maintenance**
  旋转工艺腔体采用可拉出式设计，更便于维护

Wet Station

槽式清洗设备

FC-3100

Wafer size 12 inch



The de facto standard batch-type cleaner that boasts high productivity, stability and reliability

稳定性和可靠性高，
树立业界标准的槽式清洗设备

FEATURES

- **7 independent modules enhance system configuration flexibility**
  由7个独立模块组成，系统配置灵活
- **High throughput of up to 1,000 wph**
  产能高达1000WPH
- **The HiLPD (low-pressure drying) greatly reduces watermarks and high-concentration IPA vapor prevents pattern collapse**
  配备HiLPD(low-pressure drying)，可显著抑制水印。
  使用高浓度IPA防止图案坍塌



Flash Lamp Annealer

闪光灯退火设备

LA-3100

Wafer size 12 inch

The flash lamp annealer significantly contributing to the characteristic advancement of cutting-edge devices

对改善高端半导体特性有重要贡献的闪光灯退火设备

FEATURES

- **Fast annealing over a wide temperature range**
  可在短时间内实现宽温度范围的退火
- **Flash annealing and assist heating enable millisecond annealing**
  通过闪光灯退火和辅助加热，实现毫秒级退火
- **Flexible temperature profile control in sub-millisecond units**
  以亚毫秒级为单位，灵活控制温度分布

SOKUDO DUO

Coat/Develop Track

涂胶显影设备

DT-3000

Wafer size 8-12 inch

Coat/develop track equipped with a dual track system for a high throughput of over 450 wph

产能超过450WPH,
配备双传输系统的涂胶显影设备



FEATURES

- **High productivity and a compact footprint**
  生产效率高，占用空间小
- **Dual-track system enables non-stop operation**
  双传输系统实现无间断运行
- **Supports various lithography processes with flexible configuration**
  支持多种光刻工艺，配置灵活



Coat/Develop Track

涂胶显影设备

RF-300EX

LithoSpin

Wafer size 12 inch

A newly designed coat/develop track with a processing unit optimized for thin wafers and high-viscosity materials

全新设计的涂胶显影设备,
优化了面向薄晶圆和高粘度材料的工艺单元

FEATURES

- **For thin wafers**
  支持薄晶圆
- **Handles a broad range of chemical solutions for resist, polyimide, SOC and other applications**
  适用于各种化学材料:光刻胶、PI、SOC等



Coat/Develop Track

涂胶显影设备

RF-200EX

LithoSpin

Wafer size 6-8 inch

Introducing coat/develop track systems for power and automotive devices

适用于功率和车载半导体的涂胶显影设备

FEATURES

- **Expandability and flexibility to handle both legacy processes and DUV processes**
  可灵活扩展,适用于传统工艺和DUV工艺
- **Proven 300mm unit technologies have been redeployed to this new 150–200mm dedicated platform to deliver our highest-ever throughput**
  将已验证的12英寸设备工艺应用到全新6-8英寸专用机台上,
  达到我们历史最高产能



Single Wafer Cleaner
单片式清洗设备

SU-2000

AQUASPIN

Wafer size 6-8 inch

Single wafer cleaner delivering exceptional cost performance with proven high-end cleaning technology
采用高端清洗技术，实现高性价比的单片式清洗设备

FEATURES

- **Flexible chamber configuration enables advanced processing**
  灵活的腔室配置，支持高端工艺加工
- **Chucking mechanism handles substrates from standard size to thin wafers**
  从普通晶圆到薄晶圆都适用的卡盘装置(chuck system)
- **MV scanning technology enhances wafer etching uniformity**
  配备MV扫描技术，可提高晶圆刻蚀的均匀性



Spin Processor
单片式清洗设备

SP-2100

AQUASPIN

Wafer size 3-8 inch

A spin processor that meets needs with a variety of functions and expandability
功能多样，扩展性强，满足时代需求的单片式清洗设备

FEATURES

- **Suitable for a wide range of compound wafers including SiC, GaN, and $LiTaO_3$**
  支持SiC、GaN、$LiTaO_3$等多种化合物晶圆
- **Flexibly handles wafer sizes from 76 to 200 mm**
  可灵活处理3-8英寸的晶圆尺寸
- **Handles a wide range of processes including RCA cleaning, metal etching, and aluminum etching**
  支持RCA清洗，金属刻蚀，铝刻蚀等多种工艺



Spin Scrubber
刷洗设备

SS-80EX

AQUASPIN

Wafer size 4-8 inch

Spin scrubber combining high productivity and functionality
高生产效率兼具多功能性的刷洗设备

FEATURES

- **Equipped with 5 varieties of cleaning tools to meet a wide range of needs**
  配备5种不同的清洗工具，可满足多种需求
- **Precision bevel cleaning contributes to yield increase**
  精细的边缘清洗帮助提高良率
- **Maintenance can be performed during operation, reducing downtime**
  可在设备运转中进行维护，减少了停机时间



Wet Station
槽式清洗设备

WS-620C/ WS-820C/820L

Wafer size 6-8 inch

High-throughput batch cleaning systems enabling flexible line configuration
可实现灵活的生产线配置，具有高产能的槽式清洗设备

FEATURES

- **Flexible system configuration for a wide range of processes**
  灵活的系统配置，适用于多种工艺
- **Can be equipped with multiple baths and up to 6 transfer robots for higher productivity**
  通过多个处理槽和多达6个的传送手臂，实现高生产效率
- **Two types of transfer enable handling even of special wafers**
  提供两种传输方式，能够处理特殊晶圆
- **Newly developed S-LPD technology reduces drying time by 50%* compared to the conventional method**
  新开发的S-LPD技术将传统的干燥时间缩短了50%*

* Compared to the conventional LPD technology
*同传统的LPD技术相比较



Wet Station
槽式清洗设备

FC-821L

Wafer size 8 inch

Compact half-pitch and one-bath batch cleaning system
采用half-pitch和one-bath的紧凑型槽式清洗设备

FEATURES

- **Enables half-pitch transfer of wafers. The size of baths has been reduced to minimize the volume of chemicals and DI water used**
  实现了晶圆间的half-pitch传输。通过处理槽小型化，减少了化学药液和纯水的使用量
- **The CHB chemical circulation bath allows for the use of high-temperature and high-concentration chemicals**
  化学药液循环槽（CHB）可使用高温和高浓度的化学药液
- **A low-pressure dryer prevents watermarks and pattern collapse**
  通过减压干燥，有效抑制水印和图案坍塌



Compact Wet Station
紧凑型槽式清洗设备

CW-2000

Wafer size 2-8 inch

An efficient batch-type cleaner with half the footprint* and 1.5 times the productivity*
1/2的占地面积，1.5倍的生产效率，高性价比的槽式清洗设备

FEATURES

- **Space saving achieved through an all-in-one concept**
  采用一体化设计，节省空间
- **In addition to a DIS (Drain & IPA Substitution) drying system, an eco-friendly hot air blow-drying system using no IPA is also available**
  除了DIS（Drain & IPA Substitution）干燥方式以外，还可选择不使用IPA的温风干燥方式
- **The number of processing tanks can be increased (4, 6, 8 tanks)**
  可灵活增加处理槽的数量（4・6・8槽）

* Compared to CW-1500
*同CW-1500相比较



Coat/Develop Track

涂胶显影设备

SK-60EX/SK-80EX

Wafer size 2-8 inch

Coat/develop tracks featuring a variety of applications and functions to meet diverse device needs

面对多样化的产品需求，
能够支持多种应用和提供多种功能的涂胶显影设备

FEATURES

- **These highly compact systems handle everything from R&D such as device prototyping and materials development through to mass production**
  可应对从研发（如器件原型设计，材料开发）到量产需求的紧凑型设备
- **The SK-60EX, for 150 mm and smaller wafers, is configured with a particularly compact footprint, enabling it to fit seamlessly into existing production lines**
  SK-60EX适用于6英寸及更小尺寸的晶圆，占地面积更小，易于集成到现有的生产线
- **Both systems are capable of handling a wide range of applications, including special wafers and polyimide**
  适用范围广，包括特殊基板和PI材料



Spray Coater

喷涂设备

SC-80EX

Wafer size 4-8 inch

Spray coater capable of flexible, optimized coating of uneven 3D structures

对凹凸不平的立体结构，
提供最佳且灵活涂布的喷涂设备

FEATURES

- **Stable, uniform coating on uneven stepped and through-hole substrates**
  对凹凸不平的阶梯衬底和通孔衬底，实现稳定和均匀的涂布
- **Capable of spraying thick film coatings using minimal chemicals**
  能够以较少的化学材料涂布厚膜
- **Simple system configuration enables easy maintenance, greatly reducing downtime**
  设备结构简单，易于维护。极大减少了停机时间

Wafer Pattern Inspection System

图形晶圆检测设备

ZI-3600

Wafer size 6-12 inch



Equipped with three lenses in different resolutions
A wafer pattern inspection system with high resolution and productivity

配备三种不同分辨率的镜头，
具有高分辨率和高生产效率的图形晶圆检测设备

FEATURES

- **Doubling* the throughput of the previous model**
  实现约为传统设备两倍*的高产能
- **Able to detect and analyze of micro-defects smaller than 1 μm**
  能够检测1μm以下的微小缺陷并对其进行分析
- **Easy to create recipes using actual wafer images**
  通过使用实际的晶圆图像，可以轻松创建检测程序

* Compared to ZI-3500
*同ZI-3500相比

ZI-3500 晶圆背面检测功能（选配）

Wafer surface inspection and backside inspection can be performed in one wafer load

单次装载晶圆即可完成晶圆表面检测和背面检测

FEATURES

- **Backside deposits and edge cracks that cause wafer damage can be detected at the same time as wafer surface inspection**
  在进行表面检测的同时，还可以检测导致晶圆损坏的背面附着物和边缘裂纹
- **Wafer surface and backside inspection results can be overlaid**
  可叠加晶圆表面和背面的检测结果



Wafer Pattern Inspection System
图形晶圆检测设备

ZI-2000

Wafer size 3-8 inch

Compact high-speed wafer pattern inspection system offering exceptional efficiency
快速且高性价比的紧凑型图形晶圆检测设备

FEATURES

- **High-speed inspection is unaffected by the size or number of chips on a wafer**
  快速检测，不受晶圆内芯片尺寸和数量的影响
- **Uses a comparative inspection method that does not require pre-training with a reference image**
  采用对比检测方式，无需事前进行参考图像的学习
- **Numerous useful functions, including real-time auto defect classification**
  配备实时自动缺陷分类等多种功能



SCREEN Intelligence System
SCREEN智能系统

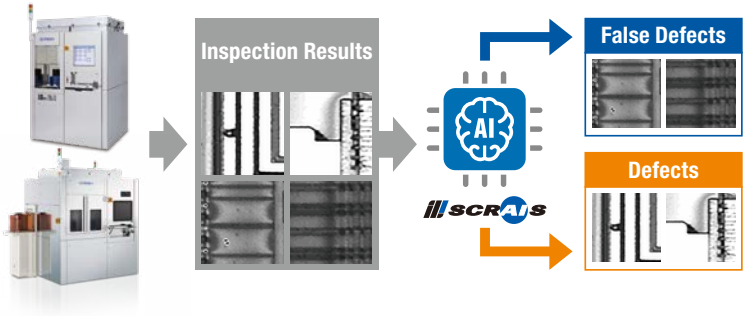
OPTION

SCRAIS

Automatic evaluation of inspection results using image recognition AI
利用AI图像识别技术自动评估检测结果

FEATURES

- **AI-based false defect filtering system**
  基于AI的伪缺陷过滤系统
- **AI model reduces labeling person-hours**
  通过应用AI模型，减少标记工时
- **Applies deep learning to auto defect classification (ADC)**
  将深度学习应用于ADC(自动缺陷分类)





Spectroscopic Film Thickness Measurement System
光干涉膜厚测量设备

VM-2500/VM-3500

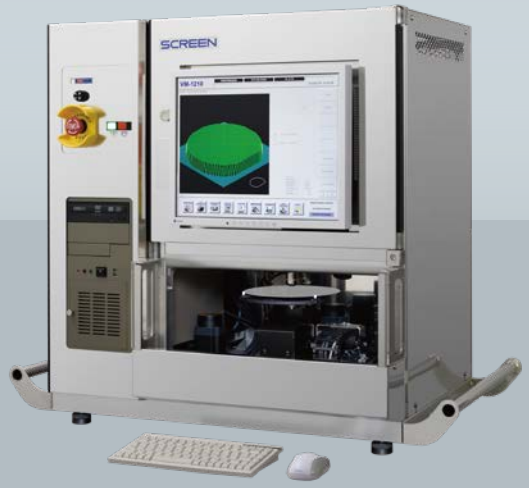
Wafer size 6-12 inch

Mass production capacity throughput with multi-point measurement capability
高产能，可设定多点测量，适合生产线的膜厚测量设备

FEATURES

- **A mass production level throughput of up to 160 wph in high-speed mode (SiO_2, 5-point measurement)***
  高速模式下产能可达160WPH (SiO_2, 5点测量) *
- **Easy recipe creation**
  轻松创建测量程序
- **High-precision transfer and pattern recognition using advanced image alignment enable film thicknesses to be measured for specified locations and areas**
  通过精确传输和利用图像对准功能进行晶圆图形识别，可在特定位置/区域测量薄膜厚度

* VM-3500: 100 wph
*VM-3500: 每小时100片



Spectroscopic Film Thickness Measurement System
光干涉膜厚测量设备

VM-1200/VM-1300

Wafer size 4-12 inch

Desktop-type spectroscopic film thickness measurement systems for production lines
可用于生产线上的台式膜厚测量设备

FEATURES

- **Simultaneous measurement of the entire wavelength range of visible light for rapid, high-precision measurement of film thickness**
  可同时测量整个可见光波长范围，实现快速、高精度的膜厚测量
- **Simultaneous measurement of up to 4 film layers**
  最多可同时测量4层膜
- **Precise measurement of many compound wafers including SiC, GaN, GaAs and LT/LN**
  可以精确测量包括SiC，GaN，GaAs和LT/LN在内的多种化合物基板



Spectroscopic Film Thickness Measurement System
光干涉膜厚测量设备

VM-1020

Wafer size 2-12 inch

Microscope-type spectroscopic film thickness measurement system ideal for R&D
最适合R&D的显微镜型膜厚测量设备

FEATURES

- **Compact model consisting of a microscope and a spectrometer**
  由显微镜部分和光谱仪组成的小型设备
- **In addition to the wide range of preset measurement programs, a user registration function enables creation of custom programs**
  除了多种测量程序外，通过用户登录功能还可创建自定义程序
- **Various types of samples can be measured, including wafers, square substrates and chips Customization for special film types is also possible by adding measurement conditions**
  适用于各种样品测量（如晶圆、方形基板和芯片）
  可通过添加测量条件来定制特殊类型薄膜的测量



Ellipsometric Film Thickness Measurement System
光谱椭偏膜厚测量设备

RE-3500

Wafer size 6-12 inch

High-end ellipsometric film thickness measurement system
配备光谱椭偏仪的高端膜厚测量设备

FEATURES

- **Precise measurement of minute areas down to 40 μm square**
  高精度测量小至40μm见方的微小区域
- **Equipped with a spectroscopic ellipsometer for simultaneous measurement of film thickness and optical constants**
  配备光谱椭偏仪，可同时测量薄膜厚度和光学常数
- **Can be equipped with an optional single wavelength ellipsometer for high-precision measurement of ultra-thin films**
  可选配用于高精度测量超薄薄膜的单波长椭偏仪

SCREEN's Product Lineup Covers Various Semiconductor Manufacturing Processes

SCREEN支持半导体制造工艺的产品系列

Front-end Wafer Process 前段晶圆工艺

Cleaning
清洗



The silicon wafers that form the base of the semiconductor are cleaned. Even a slight contamination of a wafer will cause defects in the circuit. Therefore, chemical agents are used to remove all contamination, from ultra-fine particles to minute amounts of organic (oil, etc.) or metallic residues generated in the production process, or unwanted native oxide layers generated due to exposure to air.

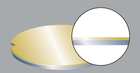
使用药液去除晶圆上的超细颗粒污染物，制造过程中产生的微量有机污染物（油脂等），金属污染物，以及接触大气产生的自然氧化膜等。



- FC-3100/WS-820L/CW-2000 Wet Station
- SU-3400/SU-3200/SU-2000 Single Wafer Cleaner

FC-3100

Film Deposition
薄膜沉积



A thin film that will become the circuit material is formed on the wafer. There are a number of ways to form these films, including chemical vapor deposition (CVD), sputtering, and thermal oxidation.

在晶圆上形成作为电路材料的薄膜。成膜的方法有CVD法，溅射法，和热氧化法等。薄膜沉积需要对形成的薄膜进行精确的检测和管理。



- RE-3500
  Ellipsometric Film Thickness Measurement System
- VM-3500/VM-2500
  Spectroscopic Film Thickness Measurement System

RE-3500

Post-Deposition Cleaning
薄膜沉积后清洗



Minute particles adhering to the wafer after film deposition are removed using brushes, spray, or other physical cleaning methods.

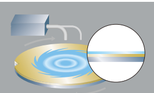
薄膜沉积后附着的微小颗粒可以使用纯水和药液通过刷子或喷雾(水的颗粒)等物理清洗方法去除。

- SS-3300S/SS-3200
  Spin Scrubber
- SB-3300
  Backside Cleaner
- SU-3400/SU-3200/SU-2000
  Single Wafer Cleaner



SS-3300S SB-3300

Resist Coating
涂胶



The wafer surface is coated with resist (photosensitive polymer). The wafer is then spun, causing a uniform layer of resist to be formed on its surface by centrifugal force.

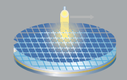
在晶圆表面涂上光刻胶（光敏聚合物）。然后旋转晶圆，通过离心力在其表面形成均匀的光刻胶膜。

- DT-3000/RF-300EX
- RF-200EX/SK-80EX/SK-60EX
  Coat/Develop Track



RF-200EX RF-300EX

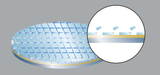
Exposure
曝光



The wafer is exposed using short-wavelength, deep-ultraviolet radiation projected through a mask on which the circuit pattern has been formed. Only the areas of the resist layer that are exposed to the light undergo a structural change, thereby transferring the pattern to the wafer. There are a variety of exposure units, including steppers, which expose several chips at a time, and scanners, which expose the wafer using a slit through which light is projected onto the wafer.

将紫外线通过绘制有半导体电路图案的掩膜照射到晶圆表面，图案就会被转印到被照射了的光刻胶上。曝光设备通过镜头将掩膜的图案缩小并投影到晶圆上，在曝光一次矩形区域后只需移动晶圆，就可重复曝光矩形区域。

Development
显影



The resist pattern is etched on the wafer surface by discharging a developer (chemical solution) onto the surface of the exposed resist film which removes the redundant areas.

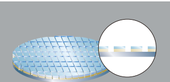
将显影剂（化学药液）涂布在曝光后的光刻胶膜上以除去不需要的部分，在晶圆上只留下光刻胶的图案。



- DT-3000/RF-300EX
- RF-200EX/SK-80EX/SK-60EX
  Coat/Develop Track

RF-200EX RF-300EX

Etching
刻蚀



There are two kinds of etching. In wet etching, the thin film is dissolved using a chemical solution such as hydrofluoric acid or phosphoric acid. In dry etching, it is removed using reactive ions or gas.

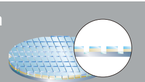
用氢氟酸和磷酸等化学药液来腐蚀和去除多余的薄膜后形成图案。还有一种干法刻蚀，通过离子轰击去除薄膜。

- FC-3100/WS-820L/CW-2000 Wet Station
- SP-2100 Spin Processor
- SU-3400/SU-3200/SU-2000
  Single Wafer Cleaner



SU-3400

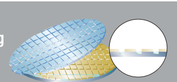
Ion Implantation
离子注入



In order to give the silicon substrate semiconducting properties, impurities such as phosphor or boron ions are implanted in the wafers.

在晶圆中注入磷和硼等杂质离子，使硅衬底具有半导体特性。

Resist Stripping Post-Ash Cleaning
去胶・去胶后清洗



Resist can be stripped off in one of two ways: using chemicals to remove the resist; or by ashing, which removes the resist by inducing a chemical reaction using gases. If ashing is used to remove the resist, the wafer is cleaned afterwards.

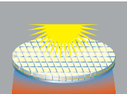
去胶有两种方法：一种是用化学药液去胶，另一种是灰化法，通过与气体的化学反应去胶。灰化后也需进行清洗。

- SU-3400/SU-3200/SU-2000
  Single Wafer Cleaner
- FC-3100/WS-820L/CW-2000 Wet Station



SU-3400

Activation
激活



Activation is performed by heating the substrate instantaneously using a laser or flash lamps. These tools are able to activate the doped ions without diffusion. Instantaneous activation, measured in microseconds, is required to create the micro transistors on the substrate.

为了激活注入的杂质离子，需要使用闪光灯或激光照射进行热处理。要制造微小的晶体管，必须在瞬间加热并激活晶圆。

- LA-3100 Flash Lamp Annealer

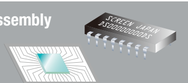


LA-3100

These processes are repeated
重复上述工艺

Packaging Process 后段工艺

Inspection/Assembly
检查・组装



After the front-end wafer processes are finished, the wafer is separated into individual chips (dicing). These chips are connected to a metal frame called a lead frame using metal wire (wire bonding) and then enclosed in ceramic or epoxy resin material (packaging).

晶圆加工完成后被切割成单个芯片（切割），用金属线连接到称为引线框架的金属框上（引线键合），然后封装在陶瓷或树脂等材料中（封装）。



- ZI-3600/ZI-2000
  Wafer Pattern Inspection System
- VM-3500/VM-2500
  Spectroscopic Film Thickness Measurement System

ZI-3600

Process Technology Center

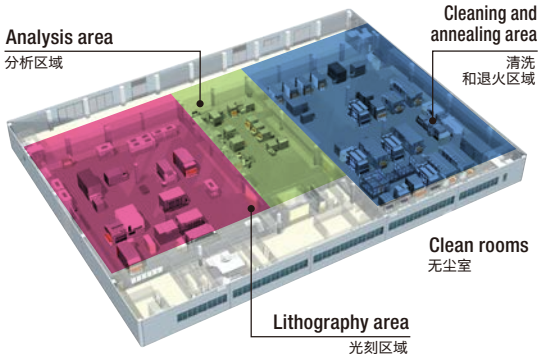
工艺技术中心

The Process Technology Center is equipped with a clean room dedicated to the evolution of efficiency and advancement processes of semiconductor manufacturing equipment. Here, we conduct a broad range of research and innovation to meet our client's needs such as:

1. Enhancement of process development capabilities
2. Improvement of equipment quality and reliability
3. Accelerate the joint development with our customers

为了高效、快速地实现半导体制造设备高端工艺的开发，工艺技术中心配备了开发专用的无尘室和一系列实验设备。为了给客户提供解决问题的方案，我们进行了多方面的研究开发。

1. 强化工艺开发能力
2. 提高设备质量和可靠性
3. 加快与客户共同开发的速度



Global Training Center

全球培训中心“匠—TAKUMI—”

The TAKUMI Global Training Center is a space dedicated to training engineers. The center provides customer training for product maintenance, installation and setups, as well as develop field service engineers responsible for a broad range of support services. The engineers gain:

1. Product knowledge and work skills necessary for product support
2. Education essential to semiconductor production line operations
3. Safety training based on SCREEN's work safety standards

“匠—TAKUMI—”是汇集了半导体制造设备商所需的工程师培训功能的全球培训中心(位于日本熊本县)。该中心为客户提供产品维护培训，培养负责公司产品搬入，安装，以及各种支持的现场服务工程师。

1. 学习产品支持所需的产品知识和作业技能
2. 学习半导体生产线作业中不可或缺的知识
3. 进行基于SCREEN安全作业标准的安全培训









Corporate Philosophy

企业理念

Mission 使命

Shape the Bright Future for Society and Employees as a Result of Our Contribution to the Customers

通过对客户做出贡献，为社会和我们的员工创造更美好的未来

Vision 愿景

To be a Company Recognized for Operational Excellence

成为公认的运营卓越的公司

6 Core Values 六项行动准则

- **Customer-Oriented**
  以客户为本，为客户的事业做出贡献，成为深受客户喜爱的公司
- **Commitment & Accountability**
  承诺取得结果，并为之负责
- **Ownership**
  带着作为当事人的意识行动
- **Quality**
  提高开发、生产、销售和服务质量
- **Innovation**
  通过创新为客户做出贡献并不断改进我们的工作
- **Great place to work**
  通过工作成长，使这里成为一个有工作价值的公司

Company Profile

公司简介

Company Name 公司名称

SCREEN Semiconductor Solutions Co., Ltd.

Registered head office 总部所在地

Tenjinkita-machi 1-1, Teranouchi-agaru 4-chome, Horikawa-dori, Kamigyo-ku, Kyoto 602-8585
邮编602-8585 京都市上京区堀川通寺之内上四丁目天神北町1番地1

Established 设立日期

July 3, 2006
2006年7约3日

Representative 代表

Akihiko Okamoto, Representative Director, President
代表董事 总裁兼首席执行官 冈本 昭彦

Net Sales 营业额

417.6 billion yen (Fiscal year ended March 31, 2024)
4,176亿日元（截至2024年3月31日）

Latest financial information here
查看最新业绩报告

English Japanese

Capitalization 资本金

310 million yen
3.1亿日元

Number of consolidated employees 员工数

3,776 (As of April 1, 2024)
3,776人（截至2024年4月1日）

Below sustainability activities will be published in the digital catalog only, already removed from the paper version

为实现可持续发展社会做出的努力

Participation in the Semiconductor Climate Consortium

参与Semiconductor Climate Consortium

As one of the founding members, SCREEN participated in the Semiconductor Climate Consortium established by SEMI. We will continue to propose effective semiconductor ecosystem initiatives to address climate change issues.

SCREEN作为创始成员之一，参与 了SEMI成立的Semiconductor Climate Consortium。我们将继续提出有效的半导体生态系统措施，以应对气候变化产生的问题。

Read more › English

Semiconductor Climate Consortium FOUNDING MEMBER

Expanding water management application to entire Hikone Site—using water management visualization to accelerate environmental impact reduction

将 Water Management Application扩展到整个彦根生产基地
～通过水资源管理可视化加速减少环境负荷～

We have introduced FTD Solutions INC's Water Management Application (WMA) for visualizing water management to accelerate sustainability development efforts. We intend to deploy the system throughout the Hikone Site to accelerate our advanced initiatives to reduce environmental impact.

为了加速可持续发展，我们引入了FTD solutions INC的Water Management Application (WMA)，以实现水资源管理的可视化。今后，我们将把这一应用扩展到整个彦根生产基地，加快采取先进措施，减少环境负荷。

Read more › English

Introducing "zeroboard," a cloud service for calculating and visualizing CO_2 emissions

引入用于计算和可视化二氧化碳排放量的云服务"zeroboard"

As an industry first, SCREEN has incorporated "zeroboard" into the semiconductor manufacturing equipment world. We will continue to monitor CO_2 emissions for SCREEN products and services.

SCREEN首次在半导体制造设备行业引入"zeroboard"。我们将继续推进产品和服务中二氧化碳排放量的可视化。

Read more › English

关于"zeroboard"

"zeroboard" is a cloud service developed by Zeroboard Inc., marketed by Nagase & Co., Ltd. It is used to calculate and visualize greenhouse gas (GHG) emissions derived from corporate activities and their supply chains based on the international standard GHG protocol.

"zeroboard" 是由zeroboard Inc.开发的云服务，由Nagase & Co., Ltd.经销。它是基于国际基准GHG协议，对企业活动及其供应链产生的GHG(温室气体)排放量进行计算并将其可视化的云服务。



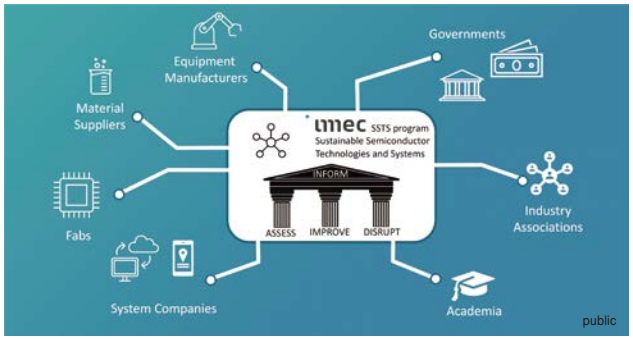
Participation in imec SSTS

参与imec・SSTS

To reduce the environmental impact of the semiconductor industry, SCREEN participated in the new research program "SSTS" promoted by imec.

SCREEN参与了imec推动的新研究项目SSTS (Sustainable Semicondcutor Technologies and Systems)，以减少半导体行业对环境产生的负荷。

Read more › English



SCREEN SPE GROUP COMPANY



SCREEN Semiconductor Solutions Co., Ltd.

Head office

• Tenjinkita-machi 1-1, Teranouchi-agaru 4-chome, Horikawa-dori, Kamigyo-ku, Kyoto 602-8585, Japan
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总公司 邮编602-8585 京都市上京区堀川通寺之内上四丁目天神北町1番地1 电话：+81-75-414-7111

Global Network

International Japan

www.screen.co.jp/spe

Additional product and corporate information can be accessed from here.

screen spe

Chinese English Japanese

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Specifications and equipment designs are subject to change without notice.

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