

SCREEN

Semiconductor Solutions

半导体制造设备产品手册



Cutting-Edge Devices



SU-3400
Single Wafer Cleaner



SU-3300
Single Wafer Cleaner



SU-3200
Single Wafer Cleaner



SS-3300S
Spin Scrubber



SS-3200
Spin Scrubber



SB-3300
Backside Cleaner



FC-3100
Wet Station



DT-3000
Coat/Develop Track



LA-3100
Flash Lamp
Annealer



RF-300EX
Coat/Develop Track



RF-200EX
Coat/Develop Track



ZI-2000
Pattern Inspection
System



**VM-2500/
VM-3500**
Film Thickness
Measurement System



SU-2000
Single Wafer Cleaner



SP-2100
Spin Processor



SS-80EX
Spin Scrubber



**WS-620C/
WS-820C/820L**
Wet Station



FC-821L
Wet Station



CW-2000
Compact Wet Station



SK-60EX/80EX
Coat/Develop Track



SC-80EX
Spray Coater



ZI-3600
Pattern Inspection
System



**VM-1200/
VM-1300**
Film Thickness
Measurement System



VM-1020
Film Thickness
Measurement System



RE-3500
Film Thickness
Measurement System

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

Introducing coat/develop track systems for next-generation power devices and automotive devices

面向下一代功率半导体和车载半导体的涂胶显影设备登场



RF-200EX



RF-300EX

Contributing to the device industry through high productivity,
a small footprint, improved ease of maintenance
and operability plus eco-friendly processing to support green transformation.

通过提供面向绿色转型的环保加工技术,提高设备生产率,减小占地面积,
改善设备的可维护性和可操作性,为半导体行业做贡献

LithoSpin **NEW**

Coat/Develop Track

涂胶显影设备

RF-200EX

Wafer
size **6-8 寸**

FEATURES

- ▶ **Expandability and flexibility to handle both legacy processes and DUV processes**
可灵活扩展。既适用于传统工艺,也适用于微型化工艺
- ▶ **300 mm unit technology is redeployed in a new 150–200 mm dedicated platform system**
全新6-8寸专用系统平台沿用12寸的单元加工技术

Coat/Develop Track

涂胶显影设备

RF-300EX

Wafer
size **12 寸**

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



Single Wafer Cleaner

单片式清洗设备

SU-3400

Wafer size **12 寸**

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，
实现进一步的发展

FEATURES

- ▶ **High productivity with a maximum throughput of 1,200 wph**
高生产效率。每小时高达1200片的产量
- ▶ **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





Single Wafer Cleaner

单片式清洗设备

SU-3300

AQUASPIN

Wafer size 12 寸

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 寸

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

配备12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



Spin Scrubber

刷洗设备

SS-3300S

AQUASPIN

Wafer size 12 寸

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, 吞吐量高达每小时1000片

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 寸

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



AQUASPIN

Backside Cleaner

背面清洗设备

SB-3300

Wafer size 12 寸

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

采用独自の卡盘系统(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

Wet Station

槽式清洗设备

FC-3100

Wafer size
12 寸

**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**
高达每小时1000片的生产量
- ▶ **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





Coat/Develop Track

涂胶显影设备

DT-3000

Wafer size **8-12 寸**

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

每小时超过450片的高生产率，
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



Flash Lamp Annealer

闪光灯退火设备

LA-3100

Wafer size **12 寸**

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





Single Wafer Cleaner

单片式清洗设备

SU-2000

AQUASPIN

Wafer size **6-8 寸**

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 寸**

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 LiTaO₃**
支持SiC、GaN、LiTaO₃等多种化合物晶片
- ▶ **Flexibly handles wafer sizes from 76 to 200 mm**
可灵活适应3-8寸晶圆片尺寸
- ▶ **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 寸**

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 寸**

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个的搬运机器人, 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 寸**

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 寸**

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 **6-8 寸**

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

- ▶ **Capable of handling a wide range of substrates, including thin wafers and thick substrates**
能够处理薄晶圆和厚衬底等多种多样的衬底
- ▶ **Handles multiple chemical solutions for resist and polyimide coatings, etc.**
可处理多种化学材料，如光刻胶，聚酰亚胺等
- ▶ **Various options are available for handling an increasingly diverse range of electronic devices**
选配功能多样，可应对多样化电子产品的工艺需求



Spray Coater

喷涂设备

SC-80EX

Wafer size **4-8 寸**

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

对凹凸不平的立体结构，
提供最佳且灵活的涂覆的喷涂设备

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覆
- ▶ **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

图形晶圆外观检测设备

ZI-3600

Wafer size **4-12 寸**

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外观检测设备

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 μ m**
能够检测1 μ m以下的微小缺陷并对其进行分析
- ▶ **Easy to create recipes using actual wafer images**
查看实际晶圆图像的过程中，轻松创建检测流程

* Compared to ZI-3500

* 同ZI-3500相比



Wafer Pattern Inspection System

图形晶圆外观检测设备

ZI-2000

Wafer size **3-8 寸**

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外观检测设备

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



Spectroscopic Film Thickness Measurement System

光干涉膜厚测量设备

VM-2500/VM-3500

Wafer size **4-12 寸**

Mass production capacity throughput with multi-point measurement capability

高产能, 可设定多点测量, 适合产线的膜厚测量设备

FEATURES

- ▶ **A mass production level throughput of 160 wph in high-speed mode (SiO₂, 5-point measurement)***
高速模式下产能可达每小时160片晶片 (SiO₂, 5点测量)*
- ▶ **Easy recipe creation**
轻松创建测量程序
- ▶ **Equipped with log function for improved maintenance support**
配备日志存储功能(log function), 利于维护支持

* 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 寸**

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**
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



Spectroscopic Film Thickness Measurement System

光干涉膜厚测量设备

VM-1020

Wafer size **2-12 寸**

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



Ellipsometric Film Thickness Measurement System

光谱椭偏膜厚测量设备

RE-3500

Wafer size **5-12 寸**

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40 μm 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

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

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

Film Deposition 薄膜沉积

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

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

Post-Deposition Cleaning 薄膜沉积后清洗

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。



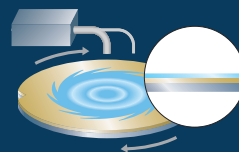
SS-3300S

SB-3300

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

Resist Coating 涂胶

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。



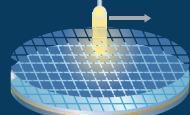
RF-200EX

RF-300EX

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

Exposure 曝光

曝光

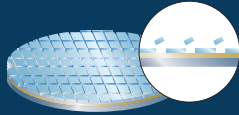


The wafer is exposed using short-wavelength, deep-ultraviolet radiation projected through a mask on which the circuit pattern has been formed. Only the areas of the resist layer that are exposed to the light undergo a structural change, thereby transferring the pattern to the wafer. There are a variety 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

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。



RF-200EX

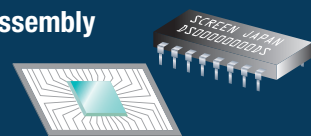
RF-300EX

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

Packaging Process 后段工艺

Inspection/Assembly 检查·组装

检查·组装



After the 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)。



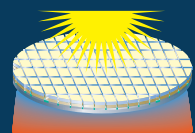
ZI-3600

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

These processes are repeated
重复上述工艺

Activation 激活

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。

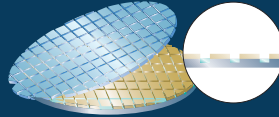


LA-3100

- ▶ LA-3100 Flash Lamp Annealer

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

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。

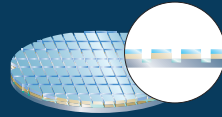


SU-3400

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

Implantation of Impurities 离子注入

离子注入

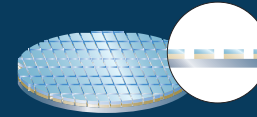


In order to give the silicon substrate semiconducting properties, impurities such as phosphor or boron ions are implanted in the wafers.

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。

Etching 刻蚀

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。



SU-3400

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

Process Technology Center

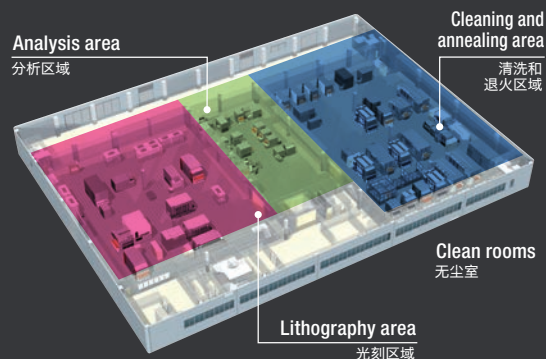
工艺技术中心

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月3日

Representative 代表

Masato Goto, Representative Director, President
代表董事 总裁兼首席执行官 後藤 正人

Net Sales 营业额

370.9 billion yen (Fiscal year ended March 31, 2023)
3,709亿日元 (截至2023年3月31日)

Latest financial information here
查看最新业绩报告 (QR code)



English



日本語

Capitalization 资本金

310 million Yen
3.1亿日元

Number of consolidated employees 员工数

3,480 (As of April 1, 2023)
3,480人 (截至2023年4月1日)



Efforts to Realize a Sustainable Society

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



For a video message regarding SCREEN's participation in the SCC, please click on the button below.

我们发布了有关参与SCC的相关视频，敬请观看。

English



Introducing "zeroboard," a cloud service for calculating and visualizing CO₂ 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 CO₂ emissions for SCREEN products and services.

SCREEN首次在半导体制造设备行业引入"zeroboard"。我们将继续推进在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

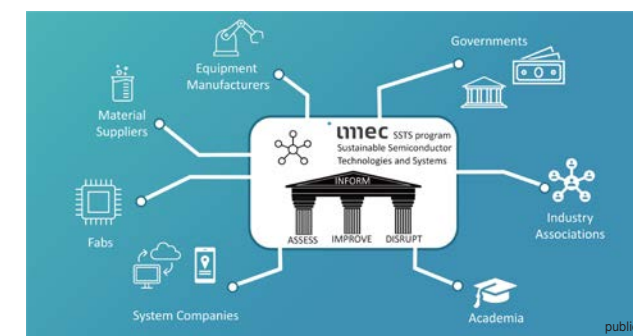
参与imec·SSTS

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 Semiconductor Technologies and Systems)，以减少半导体行业对环境产生的负荷。

Read more >

English



Introducing a visualization application into the Hikone Plant's Process Technology Center

在日本彦根的工艺技术中心引入Water Management Application

SCREEN has introduced FTD solutions INC's Water Management Application (WMA) to visualize water management to accelerate sustainability development. As the company with the top global market share for semiconductor cleaning systems, which consume water, we will accelerate advanced initiatives to reduce the environmental impact.

SCREEN引入了FTD solutions INC的Water Management Application (WMA)，将水资源管理可视化，加速可持续发展。半导体清洗设备与水密切相关，我们作为全球市场份额第一的半导体清洗设备公司，将加快采取先进措施，以减少对环境的影响。

Read more >

English

SCREEN SPE GROUP COMPANY

SCREEN SPE Korea Co., Ltd.

Laser Systems & Solutions
of Europe SASU (LASSE)

SCREEN SPE Germany GmbH

SCREEN Electronics Shanghai Co., Ltd.

SCREEN SPE Taiwan Co., Ltd.

SCREEN SPE Singapore PTE. Ltd.

SCREEN SPE USA, LLC

Head office

SCREEN Semiconductor Solutions Co., Ltd.

SCREEN SPE Tech Co.,Ltd.

SCREEN SPE Service Co.,Ltd.

SCREEN SPE Works Co.,Ltd.

SCREEN SPE Quartz Co.,Ltd.

SCREEN Semiconductor Solutions Co., Ltd.

Head Office

• Tenjinikita-machi 1-1, Teranouchi-agaru 4-chome, Horikawa-dori, Kamigyo-ku, Kyoto 602-8585, Japan
Phone: +81-75-414-7111

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



Additional product and corporate information
can be accessed from here.

screen spe 



Chinese



English



Japanese

本目录中的产品规格和设计可能会因改良而有所变更，望知悉。
Specifications and equipment designs are subject to change without notice.

No.154-165 V4 Printed in Japan 12-23 040CCI

www.screen.co.jp/spe