

上海申和热磁电子有限公司座落于上海经济开发区之一——宝山城市工业园区，是继Ferrotec在中国创建杭州大和热磁电子有限公司以后的又一家高科技现代化外商独资企业。

主要从事热电半导体材料、单晶硅、数控机床、SDBC覆铜陶瓷基板和金属电镀的生产。

Shanghai Shenhe Thermo-Magnetics Electronics Co.,Ltd. was located in Baoshan City Industrial Park which is one of the Economic Development Districts in Shanghai, she is another Hi-Tech & Modern Foreign-Venture enterprise set up by Ferrotec Corporation, following the establishment of Hangzhou Dahe Thermo-Magnetic Electronics Co., Ltd. For the production of thermoelectric materials, single crystal silicon, NC machinery, SDBC substrates and plating etc.

上海申和热磁电子有限公司洗净事业部新厂房于2001年竣工完成，并在原来生产半导体制冷器件材料、金属表面处理加工基础上新建的精密再生洗净处理项目。

The new factory for Cleaning Department of Shanghai Shenhe Thermomagnetic Co.,Ltd. was built in 2001, with the newly-established project of fine regeneration cleaning treatment on the basis of the existing refrigeration materials of semi-conductor, metal surface treatment processing.

ferroTec
Ferrotec China



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洗净流程

Fine Regeneration Cleaning

使用最新设备和最新技术进行洗净•再生

精密再生洗净处理

The latest machine and technology will be applied to cleaning • regeneration

ferroTec

上海申和热磁电子有限公司

Shanghai Shenhe Thermo-magnetics Electronics Co.,Ltd.

序

随着最近的半导体产业、电子零件产业的显著发展，各种装置带来的微粒污染成了很大的问题。

其中一个主要原因是“附着在真空成膜装置内部治具等上的膜的剥落”。因此进行定期的零件洗净再生可以将微粒发生抑止于未然之中，有望提高产品的出成、制造装置的运转率等。

所谓的再生服务，就是将组装于喷溅装置、CVD装置、蚀刻装置、黄光装置、TFT & PDP装置等上的保护用零件、内部治具等的膜除去，同时进行表面粗糙的调整、零件矫正、修理等，含有交货后，在可立即使用的状态下送到客户手中的全部业务含义。

With the recent great development of semiconductor industry, industry of electronic parts, the pollution of particles brought about by all types of machines has become a big issue. A major issue is "stripped film attached in the vacuum film forming facilities".

Therefore, providing a regular cleaning of parts for reproduction can control particles before it will happen, and hopefully it will enhance the output of products and running rate of manufacturing equipment, ect.

The so-called reproduction service means eliminating the film of protection-used parts and inner facilities on the Sputter PVD Equipment, CVD Equipment, Etch Equipment, Photo Equipment, TFT & PDP Equipment while it is necessary to carry out adjustment, parts correction and repair, etc. on surface coarseness and goods can be provided to clients in the status of immediate use after delivery.

特 长 Features:

防止零件劣化

在剥离附着膜的工程中，根据膜质、母材等的种类选择最适当的作业方法，所以可以将零件的劣化控制在最小限度。（在零件的反复使用上发挥效果）

充分的检查和跟踪服务

根据规格参数实施规格检查（尺寸形状、表面粗糙度等）不符合规格的零件要矫正、修理，另外在交换的基础上收购。

对环境的柔和的脱脂洗净

极力抑制环境污染，采用脱脂洗净液，通过强力超声波进行高品质的脱脂作业。

使用低温泵的真​​空加热干燥

零件的干燥是在清洁室内进行真空加热干燥。

零件的组装、调整

在清洁室内，实施洗净结束品的组装、调整等。

石英零件的洗净、修理

包装

在无尘室内作业，进行二次重包装（防静电聚乙烯袋、空气帽），将微粒污染抑制在最小限度。

Deterioration of parts avoided

In the process of stripping the adhesive film, select the most appropriate method according to the types of film quality and base metal to control the deterioration of parts at the minimum.

Complete check and follow-up service

Perform specification check(sizes and shape, surface coarseness)according to specification parameters, and those inferior parts are to be corrected and repaired. And acquisition will be exercised on the basis of replacement.

Degreased cleaning, friendly to the environment

Inhibit the best the environmental pollution using degreased cleaning liquid through quality degreased Job by powerful ultrasonic.

Vacuum heating and drying with low-temperature pump

Drying of parts is carried out by heating and drying in the clean room

Assembly and adjustment of parts

Perform assembly and adjustment of washed parts in the clean room.

Cleaning and repair of quartz parts

Packaging

In the clean room, perform twice packaging (anti-electrification polyethylene, air cap), and control the pollution of particles into the minimum.



洗净・再生 对象装置及零件

Cleaning・regeneration object equipment and parts

对 象 装 置 Object equipment

喷溅装置	Sputter PVD Equipment
CVD装置	CVD Equipment
蚀刻装置	Etch Equipment
黄光装置	Photo Equipment
TFT & PDP装置	TFT & PDP Equipment
其他真空装置	Other Vacuum Equipment

对 象 零 件 Object Patrs

防护着保护 Protective Protection	卷帘门 Curved Door	捣砂锤 Plugging Bar
基板夹具 Base Fixture	防护着板 Protective Board	电极板 Electrode Board
托盘类 Tray	石英零件 Quartz Parts	其他真空零件 Other Vacuum Parts
陶瓷零件 Ceramic Parts	真空泵 Vacuum Pump	

洗净流程 Cleaning Process

受入检查	Acceptance checks	判定附者膜质、数量、可否再生，确认规格参数的内容等。 Judging adhesive film, quantities and regeneration.
打湿过程	Wet process	在酸性或碱性水溶液中浸泡，比例附着膜。 Immersed in acid or alkaline solution, with proportional adhesive film.
干燥过程	Drying process	使用喷射机剥离附着膜。 Peel off the adhesive film by ejector.
精工作业	Fine work	使用喷射机，除去剥离作业的斑迹的同时，为了提高膜的附着性，将表面按一定的粗糙度处理好。 Use ejector to get rid of the mark left by peel-off work, while treating the surface as per the certain coarseness to enhance the adhesion of film.
矫正、修理	Correction\repair	检查歪曲（反翘、变形等）的有无的同时，如零部件有损伤要修理。 While checking if there is distortion, warp and transformation, it is required to repair the damaged parts.
检 查	Check	检查尺寸、歪曲、表面的粗糙度、丝锥孔等。 Check sizes, distortion and surface coarseness.
脱 脂	Dissolving discharge degreased	使用水系自动精密洗净装置及纯水自动精密洗净装置，进行脱脂洗净。 To carry out degreased cleaning by using water-system auto fine cleaner and pure-water auto fine cleaner.
真空加热干燥	Heating & drying	通过高真空加热干燥除去水分。 Dewatering by high-vacuum heating & drying.
最终检查	Final check	检查应剥离的膜、脏污、喷射研磨剂等的残渣、异物等的附着、尺寸不良伤、变形、反翘、锈、破损等的欠缺。 Check the stripped film, dirt, residues and foreign matter of ejected abrasive, deformation, counter warpage, rusting and damages, etc.
包 装	Packaging	洗净完毕的零件用防静电聚乙烯袋和空气帽进行二重包装。包装时，用专用的塑料箱并放入足够的缓冲材料。 The parts cleaned are required to be packaged twice by anti-electrification polyethylene and air cap. You need to use specialized plastic box with adequate buffer materials when packaging.
发 货	Delivery	我社专用邮班或送货上门。 We will deliver goods by special post or personally.



受入检查 | Acceptance check

① 进 货
作好零件洗净清单，与实物对照。

Acceptance
List the cleaning parts in order to compare with the existing one.



大型半自动液洗机 | Large sized Semi-auto cleaning tank

② 液 洗
在配备了废水处理设备的液洗室，用碱或酸进行湿处理。

Chemical etching
It will be treated by alkali and acid in the washing room with wastewater treatment facilities.

液洗线 | Chemical etching line



高压水洗 | High pressure shower equipment





喷砂线 | Blast line

③ 喷 砂

重力式、直压式的喷砂机进行皮膜剥离和最后作业。

Blast

Gravitation, direct pressure blaster will provide skin and film stripping and final task.

大型自动喷砂机 | Large sized Auto blasting equipment



④ 测 量

持有ring chuck 全自动检查机，进行每件产品的检查。

Measurement

Provided with ring chuck full auto checking machine to check every product.

Ring Chuck 检查机 | Ring Chuck check machine



中间检查室 | Mid-check room

大型平面测量台 | Large sized flatness table



放大镜 | Magnifying glass x 1200



7槽式洗净机 | 7-Tubs cleaner

⑤ 七槽洗净

最新型的超大型全自动7槽洗净设备（槽尺法.....）进行超音波洗净。

7-Tubs cleaning

With the latest super huge auto machine with 7 tubs cleaning machine (by way of a chamfer tank) to conduct supersonic cleaning.



大型封口机 | Large sized sealing equipment

大型烘干机 | Large sized oven



Class10000, 1000, 100 Level



真空烘干机 | Vacuum oven

⑥ 三槽洗净
和七槽同样的三槽超纯水洗净设备在1000级净空房内
进行最后洗净。

3-Tubs cleaning

3-Tubs cleaning super pure water cleaning like 7 tubs
cleaning is fitted in class 1000 clear room to provide final
cleaning.



3槽式洗净机 | 3-Tubs cleaner



Class 1000



Class 1000

检测 | checking



电弧溶射机 | ARC spray



Plasma 溶射机 | Plasma spray

⑦ 溶 射
用等离子溶射和电弧溶射机来满足客户的要求。

Spray

Adopting plasma spray and ARC spray machine to meet
with the requirements of customers.



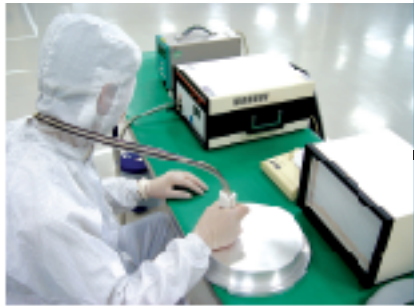
溶射室 | Spray room



Class 10000



Class 100



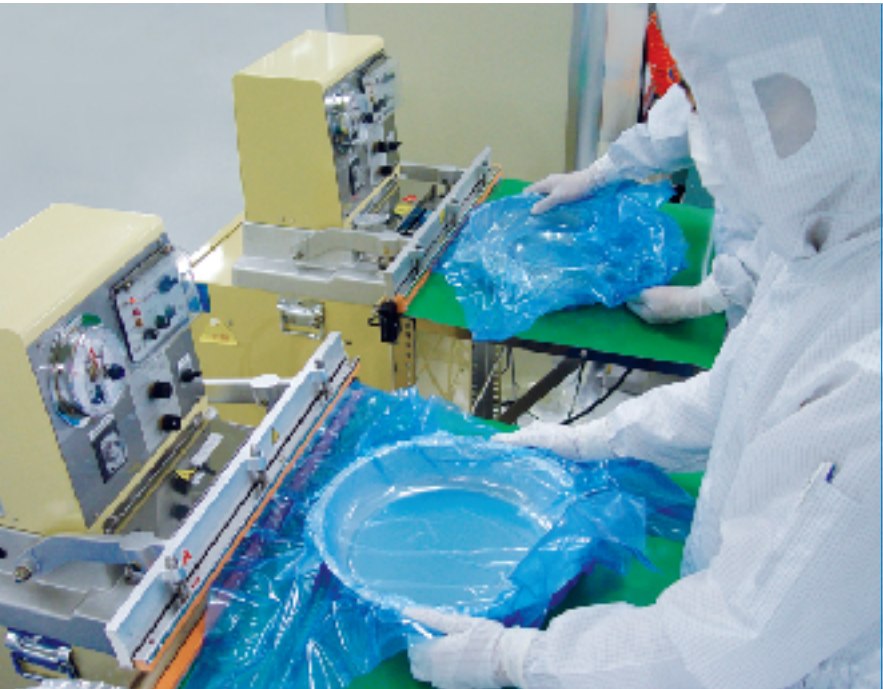
Class 100

表面微粒子测定 | Surface particles testing

⑧ 无尘室（最终检查）
根据规格进行制品检查，确认品质。

Cleaning room (Final check)

Conduct check over products as per specifications for
quality confirmation.



真空捆包 | Vacuum packing

⑨包 装

要既可以安装于真空装置又要缩短完成时间，为此要针对防尘措施作最充分的注意。

Packaging

Either be installed in the vacuum unit or have the completion time shortened. Therefore special attention to anti-dust measurement.



泵处理 | Surface partices testing



⑩ 出货

迅速且小心地送至客户手中。

Delivery

Quick and careful delivery to customers.

洗净事业出货厢 |
Delivery compartment after cleaning



废水处理设备 | Waste treatment



纯水设备 | Pure water equipment