

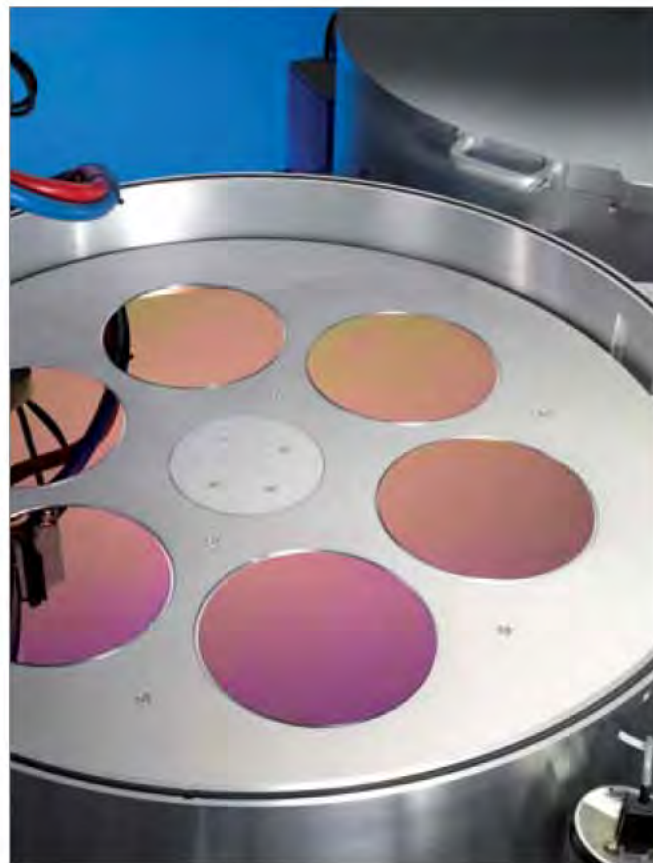
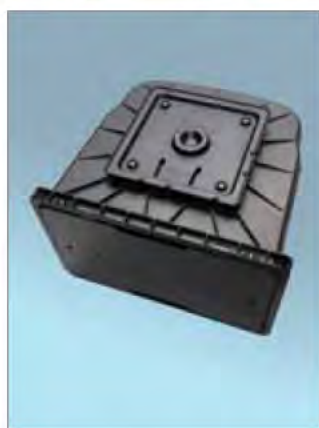
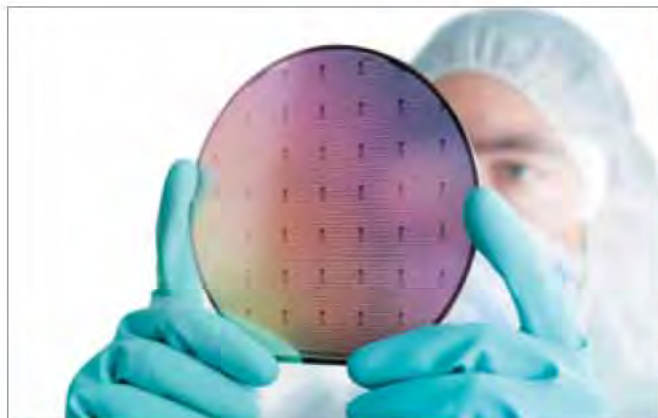
SEMICONDUCTORS/MEMS




S3Alliance

SUPPLY , SERVICE , SOLUTIONS

www.s3-alliance.com



S3 ALLIANCE

S3 Alliance provides the network, and product portfolio that brings leading edge solutions to our customers.

Our supply and service solutions are tailored to meet our customers ever changing requirements, enabling them to be competitive in what is now a truly global marketplace.

We source and offer quality products at the right price within the following areas:

	page
Equipment	3
Metrology & Handling	6
Parts & Consumables	8
Service / Cleaning and Facility	10

New CMP & Post CMP Scrubber, Remanufactured Systems



New CMP tool: CAPSTONE

- ▶ DIWO/DIDO
- ▶ 2 platen up to 4 carriers
- ▶ Multiple Multi zones carriers available for different applications

New Post CMP Scrubber: AQUARIUS

Refurbished CMP Platform

- ▶ AMAT / Mirra, Mirra Mesa
- ▶ IPEC Surface, 472, 372M
- ▶ Auriga, 676, 776
- ▶ Strasbaugh / 6EC, 6DSSP

Refurbished Post CMP Scrubber

- ▶ Ontrack / DSS 100, 200
- ▶ Synergy

Grinders

- ▶ Strasbaugh (7AF), Disco (DFG 841), Okamoto

Foundry Services for CMP, Backgrinding and Cleaning processes

CMP and Backgrinding Upgrades

Process Integration



www.axustech.com

CMP & Cleaning Systems for R&D



CMP

- ▶ Semi-automated CMP Systems from 2" to 12"

Post CMP Scrubber

- ▶ Semi-automated (4"-12") or fully automated 3" to 6"

GNP Process group provides also:

- ▶ Consumable development evaluation
- ▶ Process development and optimization
- ▶ Throughput enhancement
- ▶ Additional CMP Options Characterization like: MER, OEP
- ▶ Comprehension of CMP characteristics



www.gnptech.com

Tape/Detape/Wafer Mounting/Systems



Semi or Fully Automated Tape Lamination or Detape System

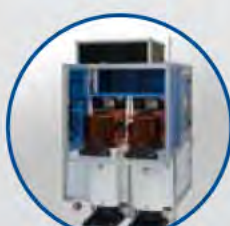
Wafer Mounting

UV Irradiation System

Edge Contact Handling and Processing

Applications

- ▶ BG Tape Lamination
- ▶ DFR Lamination for MEMS and SAW/BAW, Microfluidics
- ▶ Backside Coating Lamination
- ▶ Vacuum Lamination for Trench Filling, Via Filling
- ▶ BG Tape Remove, Cover Film Remove
- ▶ Dicing Tape Mount w/BG Tape Remove
- ▶ De-Mount/Reverse Wafer Mounting
- ▶ Regular Dicing Tape Mounting
- ▶ UV Irradiation



www.teikoku-taping.com

Tailored Wet Processing Systems



Linear Wet Benches

- ▶ Semi to Fully Automated

Spray Acid Tool (SAT)

Spray Solvent Tool (SST)

New SRD Systems

- ▶ Tabletop, Single or double Stack Stand Alone
- ▶ Plating Tools

Inception Single Wafer Spray

- ▶ manual or automated
- ▶ 2-4 chemical process tanks

Applications

- ▶ Advanced Metal Etch
- ▶ Metal Lift Off
- ▶ Resist Strip
- ▶ Advanced Cleaning



www.rena-na.com

Atomic Layer Deposition (ALD)



Technology

- ▶ Showerhead Type ALD / CVD Process
- ▶ Traveling Wave Type ALD Process
- ▶ Furnace Type Batch ALD Process
- ▶ High Film Uniformity & Quality

Applications

- ▶ Available Materials : Metal, Metal oxide, Metal nitride, Metal sulfide, Laminate and mixed materials
- ▶ Application fields : Semiconductor, Display, Solar cell, LED, MEMS, Optical-, Bio-, Nano- and flexible devices



www.cn-1.co.kr

Spray Coating Systems

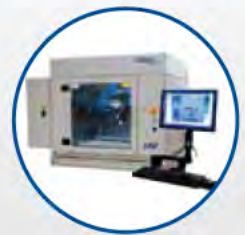


Nozzle-less ultrasonic spray head technology

- ▶ Sprays thin, uniform films down to sub-micron thickness
- ▶ Variety of precision coating platforms available from **bench-top to large format**

Applications

- ▶ Coating applications include display, semiconductor
- ▶ Photoresist, Polyimide
- ▶ Conductive Coating
- ▶ Metal Coating (EMI Shield)



www.ultraspray.com

Asher / Descum Equipment



New E3511 Asher Equipment

Remanufactured Asher Equipment

- ▶ Gasronics L3510, Matrix, ...

Unique innovative Upgrades

Applications

- ▶ Semiconductor / MEMS
- ▶ Nanotechnology & LED Industries
- ▶ Biomedical



www.esi-semi.com

Critical Point Dryers (CPD)



Critical Point Dryers (CPD)

- ▶ Semi to Fully Automated

Products for cleanroom and non-cleanroom

- ▶ Research chemicals Supplies
- ▶ Accessories and instruments for the electron microscopy and analysis laboratory

Applications

- ▶ FOM, Aerogel, MEMS, SEM Preparation



www.tousimis.com

Dry cleaning system & Laser applications



Laser Cleaner Applications

- ▶ Frontend: Wafer Backside cleaning
- ▶ Backend: Probe Card & Socket cleaning
- ▶ General Cleaning: Rust & Residue removal, Mold cleaning, Others

CO₂ Cleaner Applications

- ▶ Dry cleaning technic (soft dry ice with specific nozzles)
- ▶ Microjet: Glass cleaning
- ▶ Snow: Dust & Ash removal after Laser processing
- ▶ Super Snow: Mold cleaning (precise plastic mold, Press mold)
- ▶ Pellet: Metal parts cleaning, Stone parts cleaning



www.imt-c.co.kr

Room Temperature Wafer Bonder



Principle surface activation
Room Temperature
Vacuum
Void-free high yield rate bonding can be realized

Applications

- ▷ Si / Si
- ▷ SiO₂ / SiO₂
- ▷ Si / Quartz, Quartz / Quartz
- ▷ Cu / Cu
- ▷ Wafer Level Pack. for MEMS (Acc. sensor)



www.nidec.com

Manufacturer of Plasma (RIE/ICP) Systems

**RIE, ICP Etch**

- ▷ Phantom III
- ▷ Minilock

PECVD

- ▷ Titan
- ▷ Minilock Orion
- ▷ Oracle III

Resist Strip / Descum

- ▷ Apollo (single chamber)
- ▷ Gemini (multi chamber)



www.triontech.com

Scribe and Break

**DTX Scribe and Break**

The automatic diamond scribe and break and break only systems can manage diverse, precision processes.

DXB Wafer Bonders**DXE Wafer Expanders****Applications**

- ▷ Semiconductor, MEMS
- ▷ OptoElectronics Devices
- ▷ Biomedical



www.dynatex.com

Spin Coater

**High-Precision Spin Coating System**

Multiple Vacuum Chucks available, up to 3000 rpm

ACE-200

Up to 6 inches

TOP-8

Up to 8 inches

Applications

- ▷ All typical coating applications



www.spincoater.net

High Purity DIW quartz heater



(Europe except UK and Ireland)

Modell Quantum NXT

- ▷ Exceptional temperature response (quick, accurate)
- ▷ Ultra Clean Design (quartz, PFA)
- ▷ Water Stop Option (cut off IDLE mode water usage)
- ▷ Recirculation Option (recirculation for the water process line)



www.treborintl.com

Non-invasive Flow Measurement & Bubble Detection



(except UK)

Ultrasonic Measurement

SEMIFLOW clamp-on flow sensor

- Real-time instantaneous flow measurement
- Reliable flow measurement up to 400 L/min
- Accuracy of +/- 2%
- 8 different sensor sizes

SONOCHECK air bubble detector

- Non-invasive measurement method directly through the tubing wall
- Fitting for a wide range of plastic tubing types

www.sonotec.eu



Scanning Electron Microscope



(Germany)

Tabletop SEM

- Compact & Light
- High-Resolution (*200k@30kV)
- 100% motorized stage & 4Ch BSE as a basic model
- Fast and Easy Operations (ready in 90s)
- No gun alignment required
- Integrated EDS from every maker (option)

Applications

- Semiconductors and electronics
- Microsystems, Solar Cells, Carbone Nano Tubes
- Materials Science, Energy, Biology, Insects

www.emcrafts.com



Metrology



RT-3500

All in one wafer metrology System;
Following non contact measurement combinable:

- Thickness, bow and warp
- Step height and roughness
- Film thickness

www.koviseng.com



Ion Sputter Coater



(Germany)

Ion Sputter Coater G20

- Easy Operation with 7" Touch Screen
- Vacuum-Auto Coating-Vent One
- Touch Operation
- 7 Sample holder (F14mm) Together in Chamber
- Minimize Footprint with Compact Product Size
- Very Good Uniformity with Pirani Gauge Inside

Applications

- SEM Preparation
- Metal thin film coating of non and slightly conductive Specimens (Au, Pt)

www.koreasem.com



Chemical concentration measurement



Ultrasonic conductivity and temperature technology for simultaneous monitoring of chemical concentrations in real time during the production process.

Applications

- Cleaning
- Photoresist and Stripping
- Etching
- CMP

www.rhosonics.com



Automated Wafer Handling Loader / Unloader

JABIL

Standard wafer handling solutions for non-standard wafer handling requirements (OEM, end-users)

- From 50mm to 450mm
- Bridge tool capability with no tooling change-over
- Non-standard wafer handling solutions (thin, warped, glass, thick, film frame)
- For all types (SMIF, FOUP or open cassette)
- SIM (Standard Interface Module) SIM 500, SIM 1000



www.jabil.com

Wafer Handling Tools

STC Standard Technology Corp.

- Manual Wafer Transfer from 2" to 8"
- Auto Wafer Transfer from 2" to 8"
- Manual Flat/Notch finder
- Auto Flat/Finder
- Manual Wafer Lifter from 2" to 8"



www.stc.tw

Automatic Batch Wafer Systems

R2D INGENIERIE

(Italy and UK)

- Single Batch Transfer
- 2/3 Station or Vertical Transfer
- Sorters, OCR Sorters
- OCR Readers



www.r2d-automation.com

Optical Defect Scanner

LUMINA INSTRUMENTS

(DACH, Benelux, North France)

Full-surface scan with sub-nanometer sensitivity

With the four detection channels:

- Polarization
- Reflectivity
- Surface Slope
- Dark Field

Imaging of sub-nm film coatings, nm size particles, scratches, pits, bumps, stress points and other defects.

Applications

- Capable on transparent, silicon, compound semiconductor and metal substrates.



www.lumina-inst.com

PARTS & CONSUMABLES

Retaining Ring & Customized Plastic Parts



Retaining Ring available in different materials

- ▷ PEEK, PPS, PBN
- ▷ available for AMAT Mirra, Reflexion, Ebara FREX Others

Parts for CVD and ETCH Producer, Speed, Endura, Centura

www.willbesnt.com

Back Grinding Wheel, CMP Pad Contitioner



Diamond CMP Pad Conditioner

- ▷ Flexible and accurate diamond arrangement
- ▷ ARIX Technology (extended Lifetime) Defectivity Reduction
- ▷ CVD Type Technology (LASER Processing)

Backgrinding Wheels

- ▷ Available for all Type of Grinders, DISCO, OKAMOTO, TSK, Strasbaugh,
- ▷ Super Polish Wheels for Low Roughness and low Sub surface Damage

www.shinhandia.co.kr

CMP Parts & Services



- ▷ Development and Manufacturing of CMP Parts for AMAT & EBARA parts
- ▷ Silicone and Rubber parts for CMP, Etch and Other
- ▷ Other CMP Parts and Repairs (Rotary Union, Motors,...)

www.warde.com.sg

CMP Pads



CMP Polyurethane Pads

- ▷ Controlled pore size and distribution using Single Mold Technology
- ▷ Window Pad available for EPD
- ▷ All types of grooves

Applications

- ▷ Oxide, STI, W, Cu
- ▷ Sapphire, Glass, Quartz

<http://www.ivt.com.tw>

Materials for Cleaning Critical Surfaces



Materials

- ▷ ScrubPads
- ▷ Foams
- ▷ Microfiber Wipers
- ▷ Swabs
- ▷ Ergonomic Tools (ScrubPen, tips...)
- ▷ Control Wiper Polycheck

Chamber Cleans

- ▷ CVD, HDP chamber from AMAT, LAM
- ▷ ETCH from LAM, AMAT, TEL
- ▷ VOC Free PM Wiping Change tent
- ▷ Implant, Photo

www.foamtecintlwc.com

Diaphragm Pumps & Heaters



(Europe except UK and Ireland)



- ▷ High Purity PFA Chemical Pumps
- ▷ High Purity Di Water Quartz Heater
- ▷ High Purity Chemical Heaters
- ▷ New Flexible Chemical Heaters

www.treborintl.com

Wafer Cassette



Wafer Cassette

- ▷ PEEK from 4" to 8"
- ▷ Teflon/PFA, PP from 2" to 12"

Shipping Box from 2" to 8"

Single Wafer Carrier 2", 3", 4", 5", 6" made of PP

Mask package, Reticle SMIF POD

Plastic or Metal Film Frame

FOUP for Thin Wafer

www.ckplas.com

Products for Silicon Wafer Handling



Products for Silicon Wafer Handling:

- ▷ Wafer carrier
- ▷ Storage Boxes
- ▷ Wafer Shipping Products
- ▷ All handling plastic items

New from remaining stock of Entegris or other Brands or Reclaimed and fully quality controlled.

www.redstonetechnical.com

Bearingless Pumps



(UK & Ireland)



For following applications:

- ▷ Slurry mixing and dispense
- ▷ Electro Chemical Deposition (Au, Cu, Permalloy, Solder)

www.levitronix.com

Dicing Saw & Blades



Chuck Tables

- ▷ New and Refurbished

Dicing Saw

Dicing Blades

- ▷ Resin, Electro formed, Metal, vitrified Bond

High Temperature UV Tape

Polishing Template

www.npmt.com.tw

SERVICE / CLEANING AND FACILITIES

Vacuum Pump and Power Supply Repair / Exchange



- ▶ Cryo Pump Repair, Refurbishment or Exchange
- ▶ Power Generators / Supply Repair and Refurbishment
- ▶ Refurbished turbo and mechanical pumps



www.ptbsales.com

Atmospheric and Vacuum Robot Repair / Exchange



Robots and Aligner

- ▶ Aligners, Brooks, PRI, Equipe Genmark, Rorze

Head Platen Motors

- ▶ Kollmorgen

CVD Vaporizer / LMFM Unit Repair / Overhaul

- ▶ Source Material: TEOS, TDMAT, TEP, TMCTS, BCHD



www.greenspec.co.kr

Trebor Pumps Repair



(Europe except UK and Ireland)

Signature Service Provider

- ▶ S3 Alliance GmbH is a certified Signature Service Provider (SSP) for Trebor Products, specializing in the repair of all Trebor Diaphragm Pump Models.
- ▶ We have the facilities (wet bench, compressor) and toolsets for this service, as well as a variety of rebuild kits available for immediate repair out of our stock.



www.s3-alliance.com

Yaskawa and Kawasaki Robot Repair Service



Yaskawa Robot Repair and Service

- ▶ Robot Maintenance & Service Contract
- ▶ Robot and Controller Repair Service

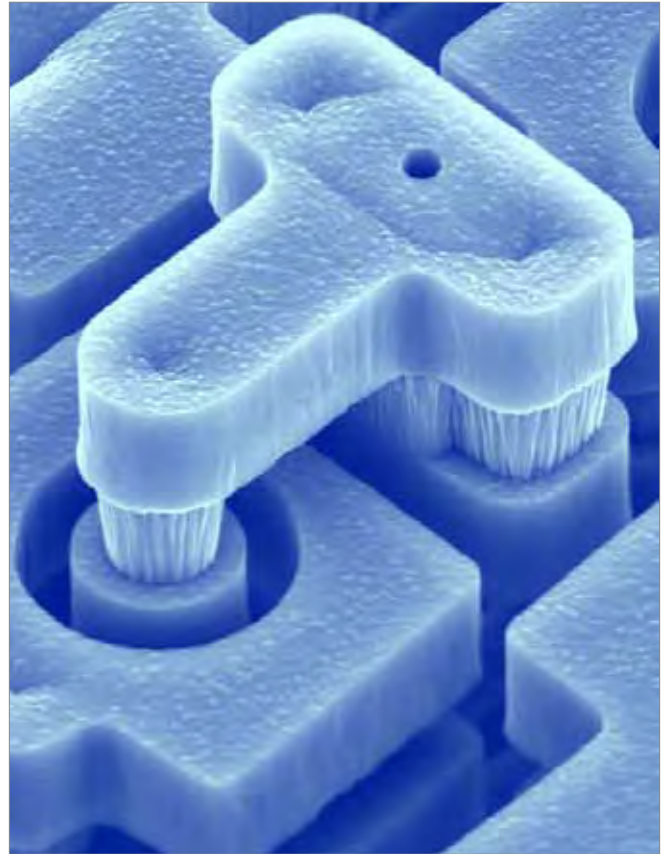
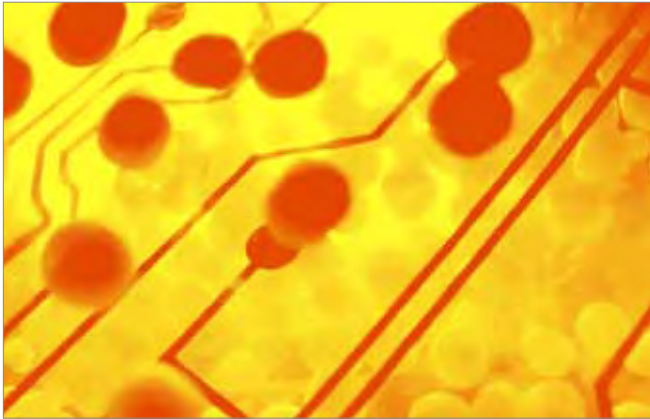
Kawasaki Robot Repair

- ▶ Receiving Robot
- ▶ Visual Inspection
- ▶ Disassembly, Assembly, Function Test
- ▶ Final Assembly & Torque Test



www.cektech.com

ABOUT S3 ALLIANCE



Customer service is the key driving force behind our company and the reason our customers keep coming back to us.

We strive to ensure customer satisfaction at all times by maintaining permanent communication, keep our staff well trained, work closely with suppliers if technical support is needed.

And having market adapted conditions (pricing, response time,...)

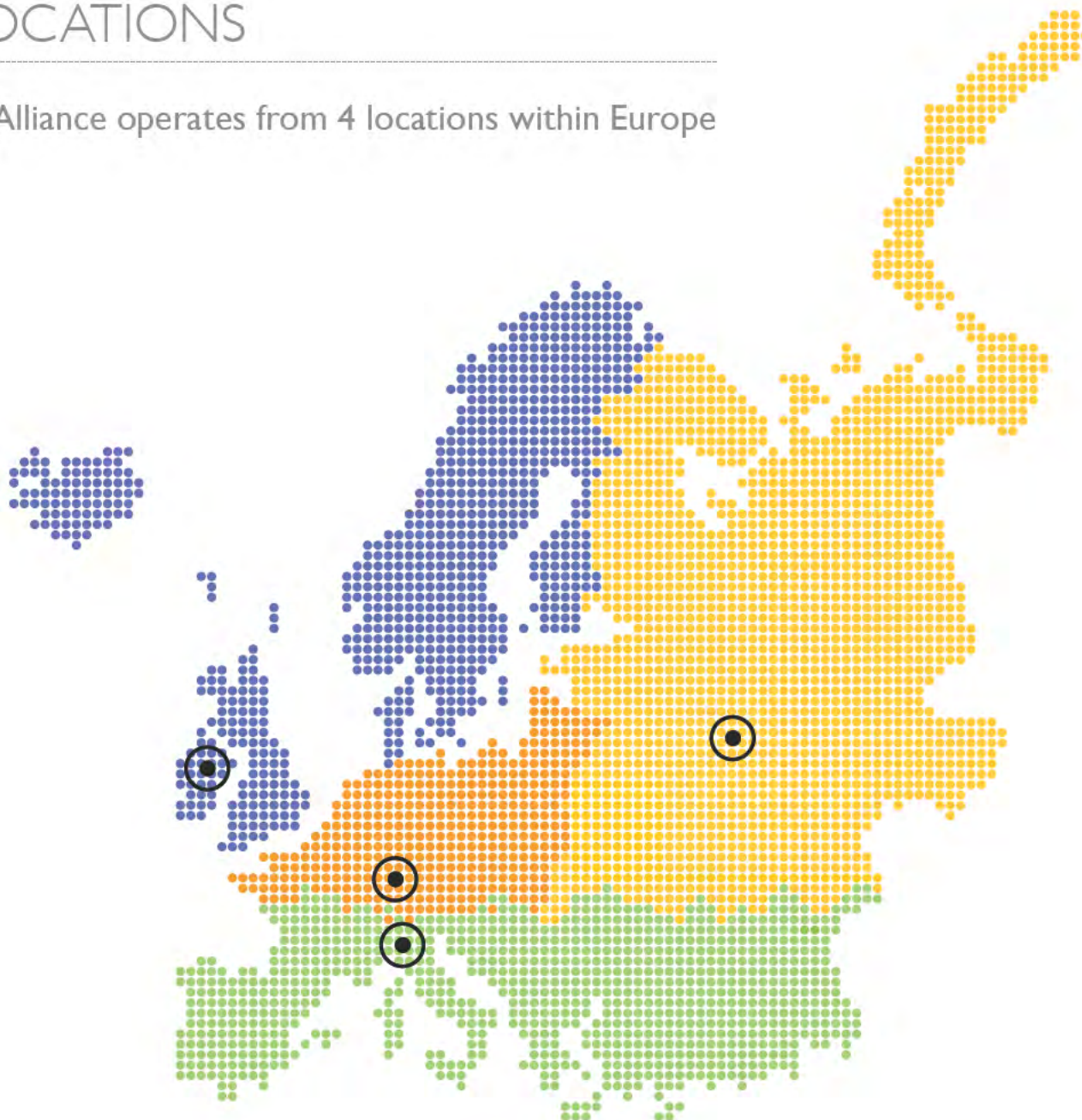
We provide warranty on all our tools and services, offer onsite support where necessary and often accommodate what would be traditionally defined as out of hours support. Different service contracts are proposed with preventive and/or corrective maintenance up to Full service contract.

We also apply an escalation policy in order to have different level of reaction based on the criticality of the situation.



LOCATIONS

S3 Alliance operates from 4 locations within Europe



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Fax: +44 2871 357 744
E-mail: salesuk@s3-alliance.com



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Fax: +49 7121 16 777-10
E-mail: salesgmbh@s3-alliance.com



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E-mail: salesit@s3-alliance.com

