

SEMICONDUCTORS/MEMS

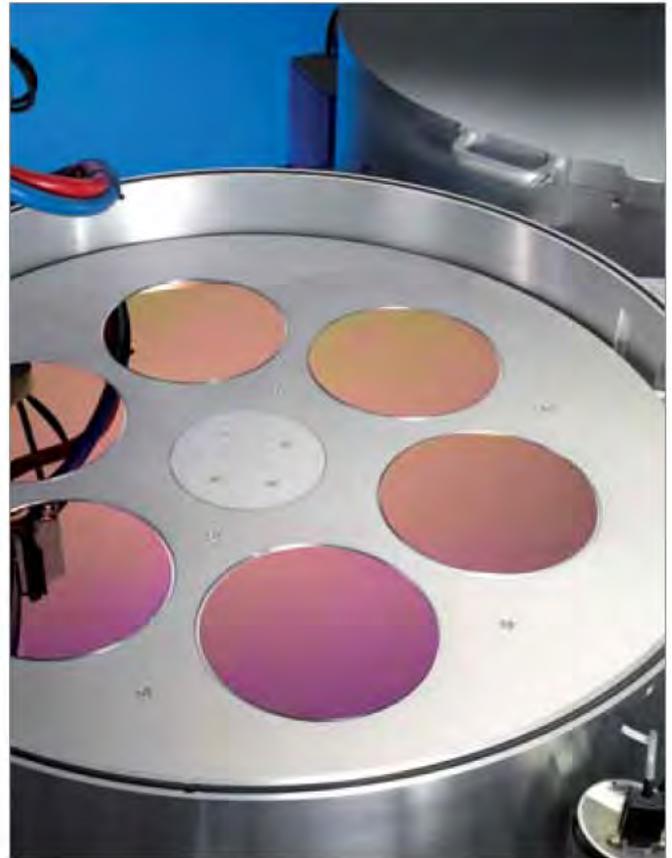
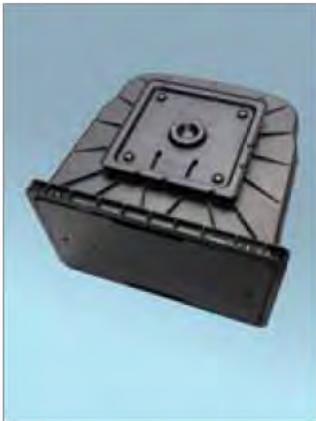
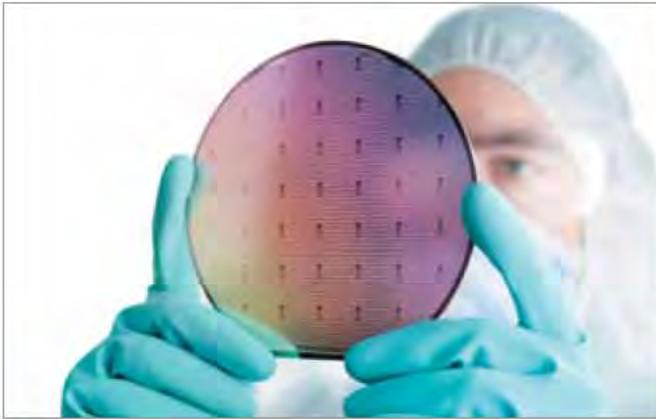


[www.s3-alliance.com](http://www.s3-alliance.com)



**S3Alliance**  
SUPPLY . SERVICE . SOLUTIONS

The logo consists of three interlocking loops in red, green, and blue, with a white circle in the center. Below the logo, the text "S3Alliance" is written in a bold, blue, sans-serif font. Underneath, the tagline "SUPPLY . SERVICE . SOLUTIONS" is written in a smaller, blue, sans-serif font, separated by dots.



## 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:

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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](http://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](http://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](http://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](http://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](http://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](http://www.ultraspray.com)

## Asher / Descum Equipment



### New E3511 Asher Equipment

### Remanufactured Asher Equipment

- ▷ Gasonics L3510, Matrix, ...

### Unique innovative Upgrades

### Applications

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

[www.esi-semi.com](http://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](http://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

### CO<sub>2</sub> 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](http://www.imt-c.co.kr)

## Room Temperature Wafer Bonder

**Nidec**  
-All for dreams



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

### Applications

- ▷ Si / Si
- ▷ SiO<sub>2</sub> / SiO<sub>2</sub>
- ▷ Si / Quartz, Quartz / Quartz
- ▷ Cu / Cu
- ▷ Wafer Level Pack. for MEMS (Acc. sensor)

[www.nidec.com](http://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](http://www.triontech.com)

## Scribe and Break

**CORNING**  
Laser Technologies  
Former: **dynatex**



### 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](http://www.dynatex.com)

## Spin Coater

**동아 무역**  
DONG AH TRADE CORP



### 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](http://www.spincoater.net)

## High Purity DIW quartz heater

**TREBOR**<sup>®</sup>

(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](http://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](http://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, Carbon Nano Tubes
- Materials Science, Energy, Biology, Insects

[www.emcrafts.com](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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 PMWiping Change tent
- Implant, Photo

[www.foamtecintlcc.com](http://www.foamtecintlcc.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](http://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](http://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](http://www.redstonetechnical.com)

## Bearingless Pumps



(UK & Ireland)



### For following applications:

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

[www.levitronix.com](http://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](http://www.npmt.com.tw)

# SERVICE / CLEANING AND FACILITIES

## Vacuum Pump and Power Supply Repair / Exchange



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

[www.ptbsales.com](http://www.ptbsales.com)

## Atmospheric and Vacuum Robot Repair / Exchange



### Robots and Aligner

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

### Head Platen Motors

- o Kollmorgen

### CVD Vaporizer / LMFM Unit Repair / Overhaul

- o Source Material: TEOS, TDMAT, TER, TMCTS, BCHD

[www.greenspec.co.kr](http://www.greenspec.co.kr)

## Trebor Pumps Repair



(Europe except UK and Ireland)



### Signature Service Provider

- o S3 Alliance GmbH is a certified Signature Service Provider (SSP) for Trebor Products, specializing in the repair of all Trebor Diaphragm Pump Models.
- o 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](http://www.s3-alliance.com)

## Yaskawa and Kawasaki Robot Repair Service



### Yaskawa Robot Repair and Service

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

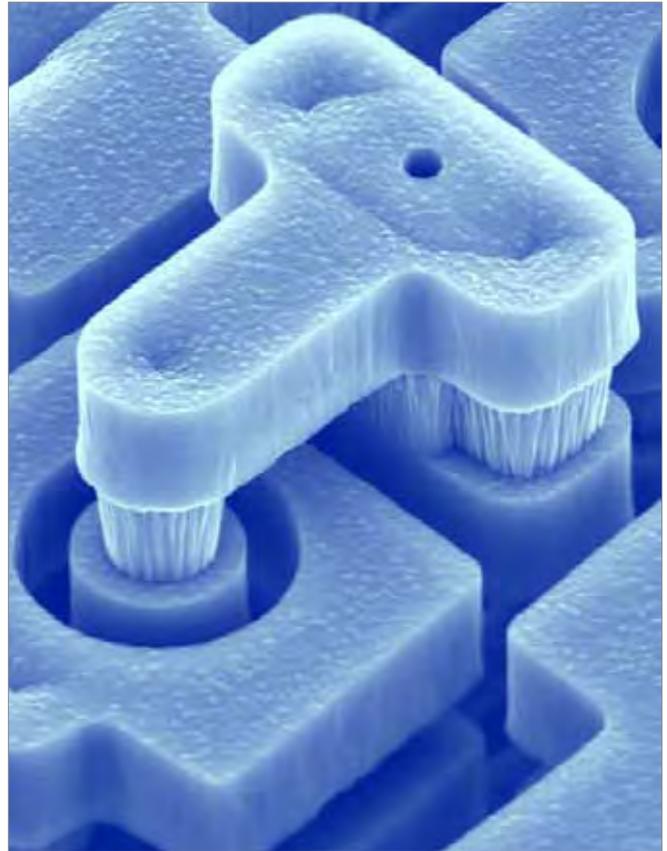
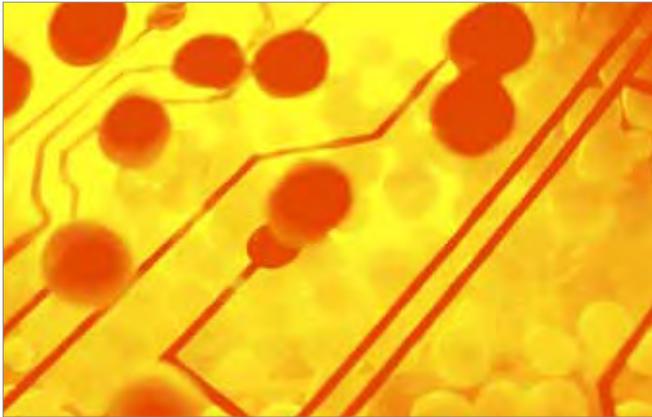
### Kawasaki Robot Repair

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

[www.cektech.com](http://www.cektech.com)

## ABOUT S3 ALLIANCE

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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,...)

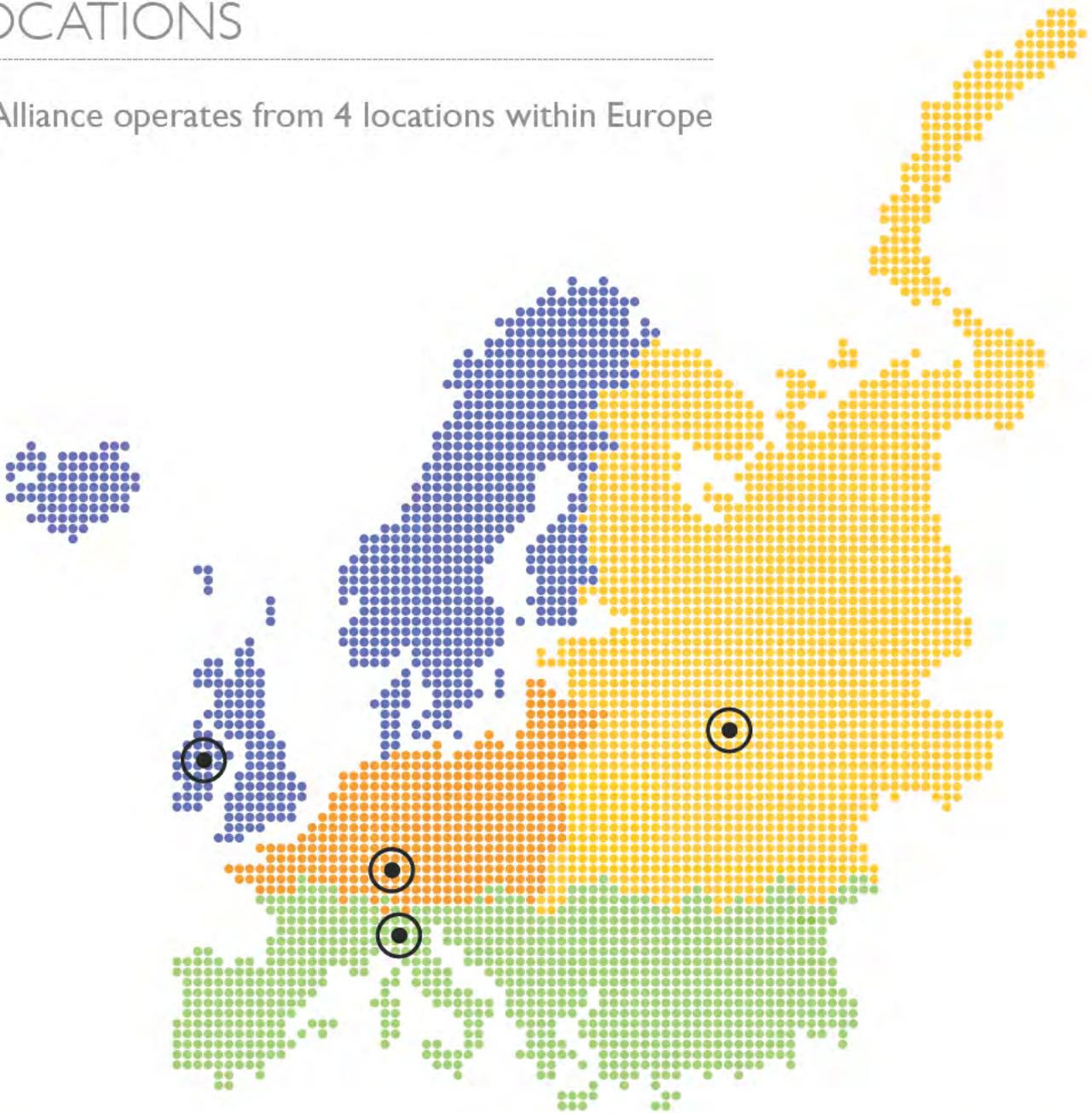
We provide warranty on all our tools and services, offer onsite support where necessary and often accommodate what would be traditionally defined as out of hours support. Different service contracts are proposed with preventive and/or corrective maintenance up to Full service contract.

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



## UK - Ireland Office

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## Russian Office

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