

Digatron

Member Update



Shelton CT, USA – Aachen, Germany – Qingdao, China – Pune, India

Global Technical Partnership

Digatron Power Electronics
A&D Technology
BBS Automation

The logo for AND Discover Precision, featuring the letters "AND" in a large, bold, blue, sans-serif font above the text "Discover Precision" in a smaller, blue, sans-serif font.

Turnkey Applied Solutions

- Automated End-Of-Line Testing
- Automated Module & Pack Assembly
- Automated Module Disassembly
- Process Control & Data Management
- Cell Assembly & High Volume Formation

The logo for BBS AUTOMATION, featuring the letters "BBS" in a large, bold, black, sans-serif font inside three overlapping circles (two orange, one blue) above the text "AUTOMATION" in a smaller, black, sans-serif font.

A&D Technology

Industry Leader in Battery Testing Solutions

- Strong and Stable – Over 3,100 Employees
- Global Support with Offices Located in:
 - U.S., Japan, China, U.K., Germany, Australia
- U.S. Headquarters – Ann Arbor, MI
 - Product Development, Engineering, Manufacturing, Integration, Training and Service
- 40 years of test automation system experience
- “Go-To” supplier for most major global R&D Labs
 - Over 1,200 battery test channels delivered



A&D Technology

Battery Test and Lab Management Solutions

- Common Interface for Cell, Module, Pack Testing
 - Reduced Training / Improved Support
 - Scalable for All Applications
- Part Tracker & Data Management
 - Full Traceability of Battery and Test Devices from Cell Prep to Shipment
- Test Monitoring & Remote Notification
 - Customized Interactive Dashboards
 - Automated Alerts – Text, Email, Phone App
- Automated Reporting
 - Integrated Calculation Engine
 - Fully Compatible with Voltaiq - Battery Intelligence Software Platform

BBS Automation

Industry Leading Assembly & Test System Integrator

- International footprint offers a globally interconnected team at 8 locations worldwide, with approximately 1200 employees - U.S., **Germany (HQ)**, Poland, China, Malaysia
- Flexible manufacturing capabilities for complete **turnkey solutions** with end-to-end execution at all production sites.
- An expert at sharing information and constantly improving its **technological proficiency**. Our multi-disciplinary project teams easily handle all aspects of a project, from **visualizing** the customer's desired machine to **delivering it, installing it, and training** customer personnel — wherever the final destination may be.
- Utilize **White Boarding** process to efficiently communicate station performance, process, relative specifications, major components, acceptance criteria, options, and questions while developing a final solution with our customers team.
- Experience dating back to 1964, resulting in participation in **industry development** over the last 50 years.

BBS Automation

Prismatic and Cylindrical Cell Module/Pack Assembly & Test

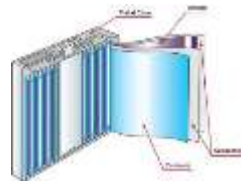
- Cell De-boxing
- Inspection and Sorting
- Stacking (Heat Sink/Cell)
- Adhesive Dispensing & Curing
- Insertion, flex circuitry
- Resistance, Laser, Ultrasonic Welding, or Mechanical Joining
- Battery Management System (BMS)
- EOL Testing



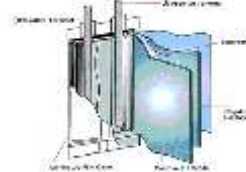
BBS Automation

Lithium Ion Cell Assembly (BBS Starts With Dry Coated Anode and Cathode Foils)

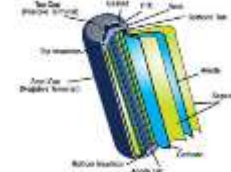
PRISMATIC (Container)



PRISMATIC (Pouch)



CYLINDRICAL

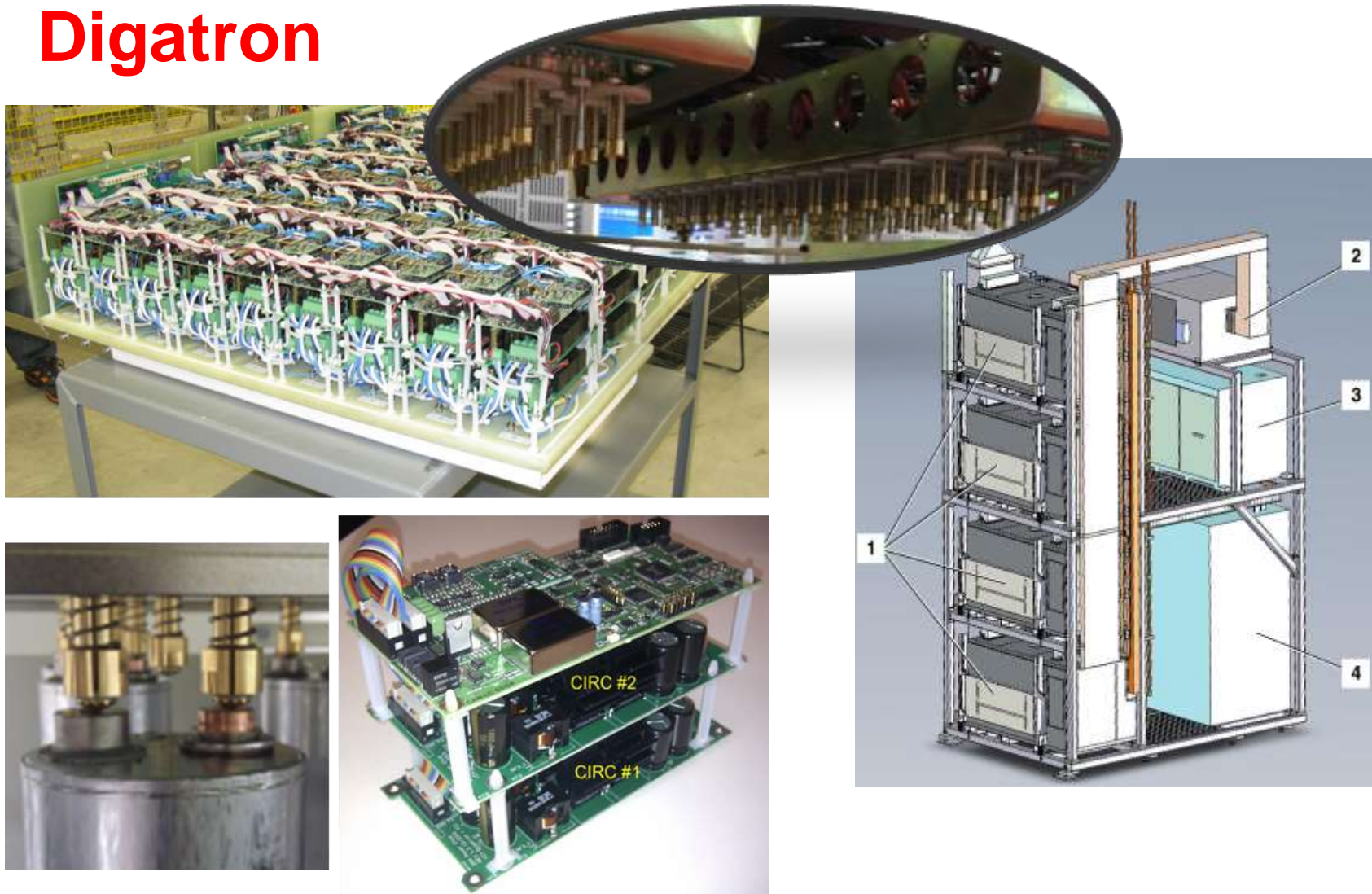


- Anode, Separator, and Cathode Winding / Folding
- Connector Insertion and Weld
- Pouch or Container Insertion
- Heat Seal or Weld
- Drying Oven
- Electrolyte Filling and Seal Container
- Testing: Hipot, Continuity, Voltage, Resistance, Impedance
- Labeling



Ultra Dry Clean
Room Experience
.5 um / .5% RH

Digatron



What does regenerative mean in Formation?

- **Cooler:** Discharge energy not dissipated as heat
- **Energy Efficient:** Discharge energy used to charge other cells or put back on grid
- **Quieter:** No large fans necessary
- **Denser:** More circuits in the same space (4x to 8x smaller)

For example:

- ✓ A plant producing 10 million 40 Ah cells per year would save over € 5 million (~\$5.7MM) in electricity over 10 years .
- ✓ Require only 30-50% of physical floorspace for formation of cells.

Your Power Solution Team!

