

November 12<sup>th</sup>, 2024

## **HBS CAPABILITIES STATEMENT**

Hydro Bioscience, LLC (HBS), launched in 2021 as a marketing arm for its sister company Diversified Power International, LLC (DPI). HBS shares its capabilities with DPI extending its manufacturing capabilities to include environmental products. Manufacturing processes have been added throughout the years for vertical integration into production and adding value to our services, all located in one factory, headquarters in eastern TN. Final Assembly products include Algae and Biofilm Remediation, Water and Air Quality Monitoring.

### **Printed Circuit Board (PCB) Assembly**

Populate PCBs up to 457mm (18in) square  
Component sizes from 0201 to 55mm  
SMT, Through-Hole, BGA or Mixed Technology  
Reflow Oven and Selective Point Soldering  
Conformal Coating, Potting Processes  
In Circuit Testing and JTAG Process  
Automated Optical Inspection (AOI) Testing  
X-Ray Testing, BGA Repair  
Parts Kitting  
RoHS compliant

### **Potting And Over-Molding**

UL listed urethane based, flame retardant encapsulant  
IP68 Rated construction  
Custom Pot Molds design and implementation  
Low pressure over-mold suitable for electronics

### **Transformers And Magnetics**

Lamination Type Transformer VA range: 100VA to 5kVA  
Split Core, Full Wind, and Ferro-Resonant Designs  
Ferrite Core Transformers and Power/Common Mode Inductors  
High Frequency Magnetics Design and Production  
Edge Wound Coil Winding  
Class A, F and Class H Listed Insulation Systems  
Terminations include flying leads, embedded connectors

### **Machining And Tooling**

CNC Lathe/Milling, Knee Milling, Cutting, Drilling, Forming  
Process most all materials including Metals/Woods/Plastics/Resins, Titanium  
Small to medium volume including single piece prototypes

### **Wire, Cable, And Harness Assembly**

Single, jacketed conductor capable including Battery Cable  
Wire/Cable Handling of 28AWG to 4-Aught Battery Cable  
Sheathed or Channel Construction Wire Harnesses  
Terminal Presses, Welding, Soldering - RoHS Compliant

### **Engineering-Design Services**

Cradle to Grave Design and Production Implementation  
Design/Develop Schematics, Artworks, and CAD Drawings  
Software Design includes Microprocessor Code Development  
Electronics Design experience includes Analog/Digital, Mixed Signal,  
Microprocessor and Printed Circuit Board layout  
Electronics Lab fully furnished with test, measurement, data-logging and  
analysis equipment

### **Box Builds**

More than 4 Roller Final Assembly Lines  
End-Of-Line Testing  
Mixed Technology Assembly  
Calibrated Air Drive Tools  
Labeling And Packaging

### **Product Compliance Testing**

Product Testing including Hipot, Load & Temperature  
Environmental Chamber Temperature  
IP6x Ingress Protection Chamber  
Salt Fog Chamber

### **Value Added Services**

Warehousing and storage  
Parts Sourcing and Kitting  
Drop Ship, Scheduling Supply Chain Capable

### **Compliance**

ISO9001:2015, UL, CSA, RoHS, REACH.  
Working towards PFAS free recognition