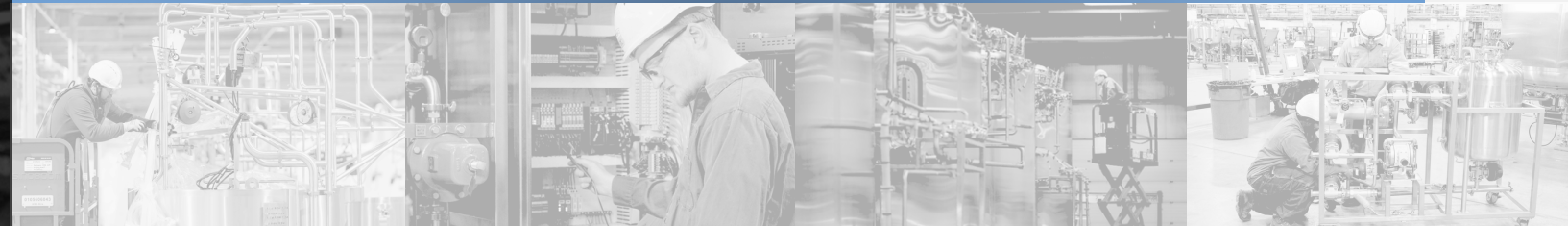




WHY ABEC? WE ARE UNIQUE IN THE INDUSTRY

TURNING PROBLEMS INTO SOLUTIONS

ABEC SERVICES



Global, Flexible & Experienced

- A large global team, responsive & flexible to your production schedule
- Process technology & engineering experts
- Design and manufacture new, upgraded and retrofit equipment
- certified bioprocess equipment technicians
- Access to 3,000+ suppliers of bioprocess components

Credible, Proven & Reliable

- Supporting the world's biopharmaceutical manufacturers
- Thousands of critical and complex service projects completed on time
- Fixed price, fully scoped projects
- Quality focused, results driven, safety certified
- 24/7/365 technical support delivered by ABEC SME's

Since 1974, ABEC has been a global leader in delivering integrated process solutions and services for manufacturing in the biopharmaceutical industry. The majority of the world's pharmaceutical and biotech companies are ABEC customers; with many of today's leading therapies manufactured by processes and equipment engineered, manufactured, installed and serviced by ABEC. ABEC's unique value is based on long experience, complete in-house capabilities, a custom, flexible approach and long-term credibility. Whether adding capacity or improving existing facilities, ABEC's turn-key solutions and support reduce overall cost and time to market while delivering maximum productivity.



To learn more about ABEC, visit abec.com or email info@abec.com



TURNING PROBLEMS INTO SOLUTIONS

COMPREHENSIVE BIOPROCESS SERVICES PORTFOLIO

SITE SERVICES

Routine Services

Preventative Maintenance

Routine scheduled maintenance including replacement of check valves and filters, elastomers, diaphragms, seals, all product-contact materials and gearbox oil changes

Shutdown Support

Supplemental labor to support and compress facility/suite/equipment shutdown time. Solution tailored to manage your entire shutdown

Spare & Tailored Parts

On-demand replacement parts from audited global vendors optimized for quality, cost, and delivery. Designed and engineered components, built to order or inventoried.

Lifecycle Services

Comprehensive decommissioning, dormant maintenance, and recommissioning to ensure assets remain clean, safe, and ready for use

Installation & Commissioning

Expert installation and commissioning for ABEC or sourced equipment, from design reviews and P&ID adherence to global product transfers

Electropolishing & Mechanical Polishing

Full-service cleaning and polishing on vessels of all sizes

Upgrade Services

Automation Services

Full responsibility, providing appropriate and defined personnel to support the customer manufacturing goals, achieved through utilizing innovative equipment technology and maintenance techniques

Vessel Modifications & Upgrades

Equipment enhancements to meet process / product changes and improve efficiency

Equipment Upgrades & Retrofits

Changes to equipment for modified functionality or footprint. Fully documented and compliant

Emergency Services

Site Emergency Services Troubleshooting & Repairs

24/7 Technical Support

Expert Analysis, root cause identification, and on-site remediation to maximize uptime and minimize downtime

Compliance Services

Vessel & Equipment Inspection

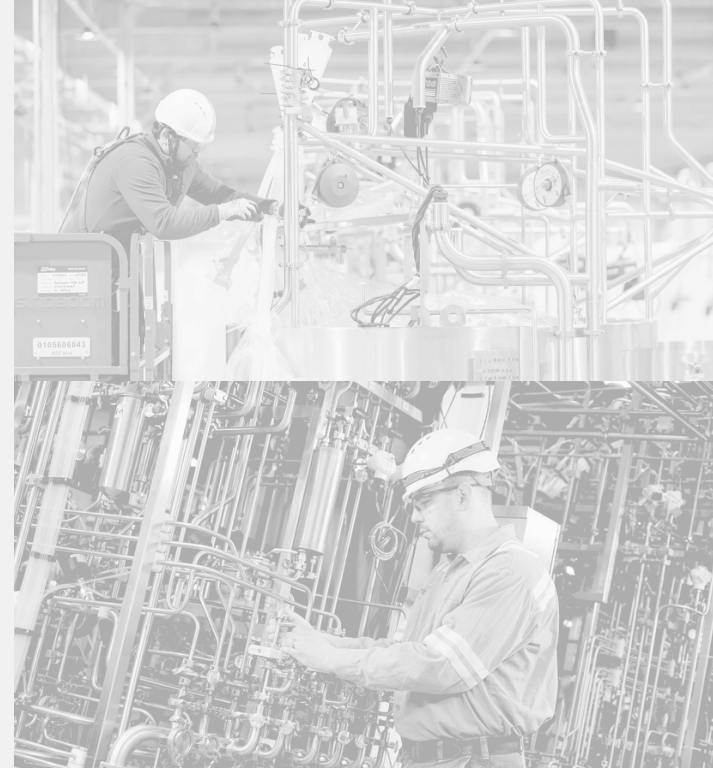
Expert vessel and equipment inspections for any provider. Output includes detailed reports, findings maps, and audit/qualification support

Training & Education

Customer-focused sessions aligned to operational or project needs

cGMP Documentation

Full cGMP documentation included with all services and products



FULL-TIME SUPPORT SERVICES

Personnel Augmentation

Skilled personnel working full-time on short or long-term assignments, within your team, at your site

Managed Process Services

Expert equipment and process analysis identifying improved functionality with development, integration, modifications and upgrades to equipment control systems, hardware and software

CONSULTING SERVICES

Consulting

Engineering design and project management for process/hardware modification, scale-up, technology transfer, optimization, etc.

Qualification Support

Preparation and / or execution of test plans for IQ / OQ, equipment commissioning, etc.

Reactor Performance Characterization

Assessment of mixed vessel performance via theoretical calculations, computational/laboratory modeling and/or actual scale testing

A GLOBAL SERVICE TEAM WITH GLOBAL REACH

ABEC's service team is highly trained and experienced, working for customers to maximize productivity, control operating costs and mitigate risk. In every way, we strive to eliminate unscheduled shutdowns, while bearing in mind all factors associated with maintaining and improving bioprocess production operations and equipment. Our expertise and capability to address your specific requirements, in line with your schedule, make us the first choice for bioprocess services, no matter the location, the scale of the task, or the original manufacturer