Zeta fermentation systems for microbial and cell culture fermentation

- Bioreactor sizes: 15 L – 20,000 L
- Package-units and superskids adapted to customer requirements
- Materials: 316 L (1.4435/1.4404) or higher quality
- Surface: Ra ≤ 0.6 electropolished or higher quality
- Pressure stages according to project requirements

- Bioreactor design in compliance with cGMP guidelines and ASME BPE standard
- Integrated CIP/SIP system
- Sampling systems
- User- and maintenance-friendly skids manufactured in modular design
- 25 years of experience in construction and manufacturing of magnetic agitators
- Computational Fluid Dynamics (CFD) simulations in the early design phase
- High flexibility in selecting feed and aeration scenarios
- Company-own batch-, automation- and audit trail system “evolution®”
- Usage of qualified software modules
- Batch management according to ISA S88 guideline
- GAMP5 (FDS, SDS, HDS)
- Audit trail and usage tracking
- Software-FAT-simulation (Office test)
- Static and dynamic FAT conducted at manufacturer’s works with ultra-pure media (ultra-pure steam, PW, WFI)

Your benefits:

- **Reduction of interfaces due to “one-stop shop” solution:** Zeta provides a one-stop shop for its clients offering all disciplines – detail engineering, construction, project management, component construction, installation, automation, planning and construction of switch cabinets, commissioning and qualification

- **Functional and process-safety:** Automation experts with background knowledge of procedural and biotechnological processes

- **Fast and safe start-up at the customer’s sites:** Conduction of static and dynamic FAT at manufacturer’s works

- **High plant availability:** Company-own service-team and service hotline; Preventive maintenance by experts who are acquainted with the process and your plant

- **Acceptance certainty by FDA-inspection:** One-stop shop for qualification (DQ, IQ, OQ) – consistent documentation of the whole scope of delivery
As a technology supplier of the biotechnological and pharmaceutical industry, we design, manufacture and install customised solutions for renowned companies around the world.

- Biopharmaceutical systems
- Preparation and formulation systems
- CIP/SIP- and media systems
- Process equipment
- Sterile plant installation
- Automation solutions
- Agitation and mixing technology
- Freeze & thaw systems