

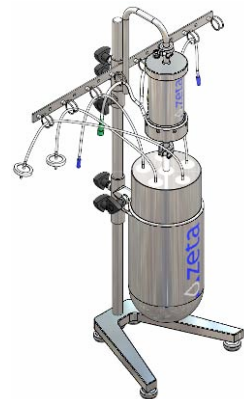
## bio-t<sup>®</sup> bag – the disposable Bioreactor System

The disposable bioreactor system from zeta allows you to step into the disposable age. The popular single-use cultivation system represents a successful collaboration between Meissner and zeta. The DPS™ bag technology from Meissner and zeta's classical fermentor knowledge from bio-t<sup>®</sup> mini and bio-t<sup>®</sup> pro combined with the innovative agitation system makes the disposable bioreactor system from zeta a powerful tool for the upcoming future trend.



### Bioreactor System:

- Presterilized, disposable bio-t<sup>®</sup> bag with integrated single-use measuring probes and mixing element allowing a gasket free agitation
- Open, double jacket stainless steel supporting container to take up disposable bag for heating and cooling
- Vibro mixer with frequency and amplitude for free configuration
- Bioreactor platform to hold vibro mixer and supporting container into position
- Bag hanger to take up all supply bags for acid, base and nutrient addition or sampling.



### Control System:

#### Hardware:

- Compact and easy to clean stainless steel housing
- Control system with 8" color touch screen
- Heating circuit
- Controller for temperature, agitation (frequency and amplitude), pH and pO<sub>2</sub>
- 4 free to configure peristaltic pumps and rotameter
- Connections for external pumps, pressure sensor and balance
- Gas mixing station



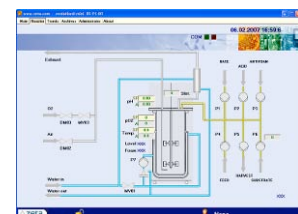
#### Software Evolution<sup>®</sup> mini:

- Simple menu-driven data entry
- Measurement of various process parameters
- Trend visualization and alarming
- Manual or automatic control mode
- Calibration menu
- Password protected access levels
- Time depended set point profile (Ramp function)
- Cascade control for aeration (gas mix/agitation/feed)



### SCADA:

- Visualization and trending of process data on external PC
- Data export to Excel



Predefined packages of the bio-t<sup>®</sup> bag disposable bioreactor system are available for bacterial culture and cell culture. In addition the gas mixing station can be realized in three different versions: Standard, Pulse Flow Control and Continuous Flow Control. The complete disposable bioreactor line is available in for up-scale within 3L, 15L, 75L, 375L and 1875L total volume.