

BioDELTA™ BATCH BIOWASTE INACTIVATION SYSTEMS

Biological waste produced by laboratories and the pharmaceutical and medical industries is considered hazardous to human health and therefore requires deactivation before it can be safely discharged to the sewer.

The **BioDELTA™ Batch Waste Inactivation System** is a skid-mounted thermal biological deactivation unit that performs by using heat to elevate and hold a high temperature to "destroy" living microorganisms and biological wastes. Cooling water is used to cool the tank contents prior to discharging from the skid. Instrumentation installed within the inactivation tank monitors and records the effluent temperature of the waste being discharged.



BATCH BIODKILL SYSTEM WITH PH ADJUSTMENT



CONTINUOUS BIODKILL SYSTEM

Specifications

- 316L SS inactivation tank
- 316L SS piping
- Steam heating or electric heater
- Thermal retention for complete deactivation
- Pumped or gravity discharge
- Skid-mounted design, ready to install
- Factory-piped, wired, and tested before shipment
- Indoor installation

Standard Features

- Cooling heat exchanger
- UL-Listed control panel
- NEMA 4 powder-coated or NEMA 4X steel enclosure
- PLC-based control system with color touchscreen HMI
- Dry contacts for common alarm, influent permissive, and out-of-range temperature
- Run permissive for remote enable/disable
- Temperature probes in tank and recirculation piping

Optional Features

- Waste holding tank
- Duplex heat exchangers
- Integral pH neutralization
- Automated CIP cleaning
- Double containment (includes leak detection)
- Discharge flow meter with totalizer
- Discharge temperature sensor
- Digital data logger for discharge temp, pH, and/or flow
- Piping and tank insulation

ORDERING INFORMATION											
BDB	BioDELTA™ Batch										
	Major System Options (Choose One, or None)										
	-DUO	Integral pH Neutralization (Chemical Day Tanks, Metering Pumps, and Instrumentation)									
	-TRIO	Integral pH Neutralization AND Integral CIP System (Chemical Day Tanks, Metering Pumps, and Instrumentation)									
	Batch Size (Choose One)										
	-100	100 Gallon Batch									
	-250	250 Gallon Batch									
	-500	500 Gallon Batch									
	-XX	Custom Flow Rates Available									
	Inactivation Temperature (Choose One)										
	-XX	Specify Temperature in Degrees Celsius									
	Inactivation Hold Time (Choose One)										
	-XX	Specify Hold Time in Minutes									
	Type of Heating (Choose One)										
	-SH	Steam – Heat Exchanger (Plate and Frame – Recirculation)									
	-SI	Steam – Direct Injection (Inactivation Tank)									
	-EH	Electric Heater (Recirculation)									
	Type of Cooling (Choose One)										
	-NC	No Cooling (Inactivation Temperature Must be Lower than Dischargeable Limits)									
	-CW	Chilled Water Heat Exchanger (Plate and Frame - Recirculation)									
	-CJ	Chilled Water Tank Jacket									
	Control Option (Choose One)										
	-AM	Allen-Bradley MicroLogix PLC with 7" Maple HMI									
	-AB	Allen-Bradley MicroLogix PLC with 10" PanelView Plus HMI									
	-AX	Allen-Bradley CompactLogix PLC with 10" PanelView Plus HMI									
	Power Requirements (Choose One)										
	-1	115 VAC / 1 / 60 Hz									
	-2A	208 VAC / 1 / 60 Hz									
	-2B	230 VAC / 1 / 60 Hz									
	-3A	208 VAC / 3 / 60 Hz									
	-3B	230 VAC / 3 / 60 Hz									
	-4	460 VAC / 3 / 60 Hz									
	Enclosure Rating (Choose One)										
	-N4	NEMA4 – Powder Coated Carbon Steel									
	-N4XS	NEMA4X – 304 Stainless Steel									
	Options (Choose Any)										
	-HT	Holding Tank (Twice capacity of inactivation tank)									
	-IN	Insulation on All Hot Surfaces									
	-ASME	PE Stamp for ASME Rated Inactivation Tank									
	-FL	Discharge Line Flow Meter									
	-DL	Data Logger (Temperature), Includes Flow w/ "FL" Option									
Example Part Numbers											
BDB	-TRIO	-250	-100	-60	-SH	-NC	-AM	-4	-N4	-HT	BDB-TRIO-250-100-60-SH-NC-AM-4-N4-HT



Shown: BDB-500-93-30-SI-CW-AX-4-N4-HT-FL-DL. 500 gallon inactivation tank, 1000 gallon holding tank, 93 °C, 30 minute hold time, direct steam injection to tank, chilled water heat exchanger, 460 VAC NEMA 4 control panel with Allen Bradley CompactLogix PLC and 10" Maple HMI.



Shown: BDB-265-121-60-SI-CW-AX-4-N4-DL-IN. 265 gallon inactivation tank, 121 °C, 60 minute hold time, direct steam injection to tank, chilled water heat exchanger, includes insulation, 460 VAC NEMA 4 control panel with Allen Bradley CompactLogix PLC and 10"