

- OMEGA™ - Neutralization System



Applications

- For: acidic wastewater **and** alkaline wastewater
- Sizes: 10, 15, 20, and 25 GPM flow
- Continuous and/or batch flow
- Fully automatic pH adjustment with continuous pH chart recording

Standard Features

- Influent flow: Gravity or pump to the system
- Metal skid designed for industrial use, sandblasted with two passes of powder coating for durability and resistance to environmental and industrial abrasion
- Neutralization tank with pH controller, preamp, and sensor
- Monitoring tank with pH monitor, preamp, and sensor
- Chemical tanks and metering pumps (Acid and Caustic)
- Mixer with 316 stainless steel shaft and propeller for neutralization tank
- Chart recorder for pH monitoring tank
- Influent Rotameter with visual scale
- Nameplates for all components
- NEMA 4 control panel
 - Single point connection
 - Dry contact for alarm condition
 - ON/OFF switch
 - Emergency push button
 - Alarm strobe light

Standard Options

- Flow monitor with Totalizer (paddle wheel type)
- High flow alarm switch (reed type)
- Chemical tank low level alarm
- Chemical tank auto fill
- Motorized high pH shutoff valve
- For waste streams that incorporate traces of HF, our design can include special epoxy coating for the shaft mixer, a special pH electrode for HF, and other misc. components
- ZEUS™ PLC software option (see right)

Operational Guidelines

- Influent temperature (must be less or equal to 120° F)
- pH must be between two and eleven. Extreme pH values reduce performance and sensor life
- Large debris may clog plumbing and damage sensors
- Not suitable for heavy metal removal and/or acid waste with pH below 2
- Not suitable for waste streams with traces of solvents, chelating agents and/or chemical solutions which will prevent conventional pH adjustment

Materials of Construction

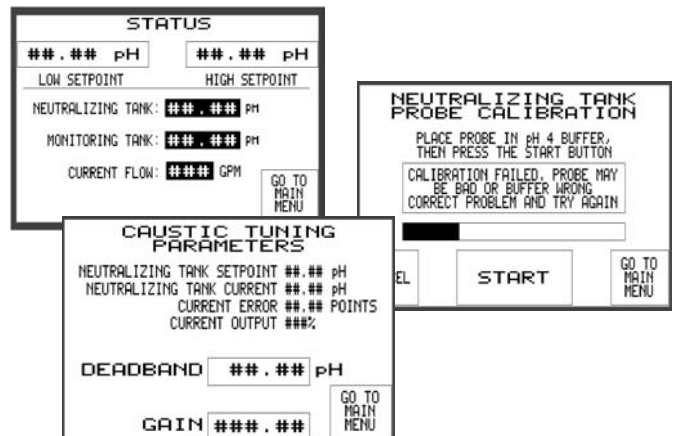
- Tanks (Polyethylene)
- Tank covers (Polypropylene)
- View port (clear PVC)
- Mounting bolts (316 SS)
- Plumbing (PVC)
- Metering pumps (Polypropylene or PVC)

Custom System Options (please contact factory)

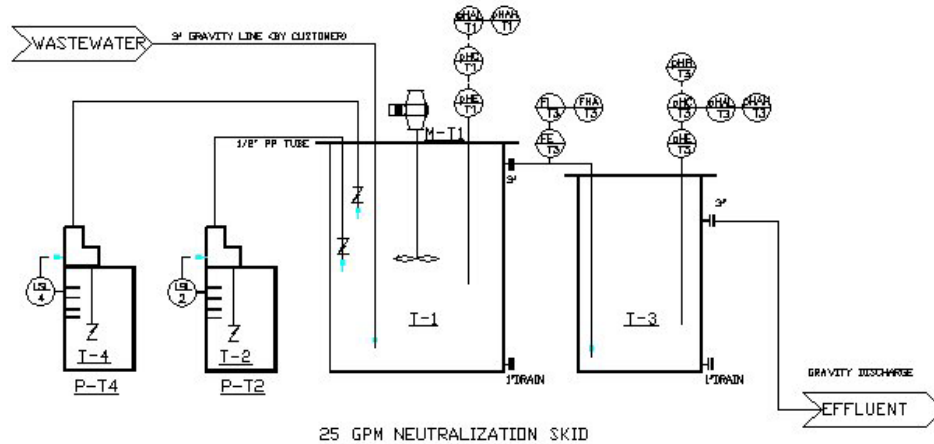
- Larger capacity systems (≥ 30 GPM)
- Custom tank, pump, mixer, and skid sizes
- Tank level, influent/effluent flow, temperature, pressure, ORP, and conductivity/resistivity monitoring and control
- Special material for HF application
- Stainless steel tanks
- PVDF for acid waste and HI temperature influent
- Complete automation with custom Zeus PLC software
- pH control panel upgrades or replacement to existing systems
- UL rated control panels
- Custom alarms to beepers, SCADA or dialer
- Flow switches
- Secondary contained tanks with leak detection alarms
- Double containment piping and tubing
- Data logging software for PC monitoring
- Communication options including wireless, Ethernet, or DeviceNET

ZEUS™ Software Option (please call for pricing)

- PLC control with touchscreen (monochrome)
- Easy to setup
- Intuitive status and pH tuning screens
- Calibration wizard on screen
- On screen instructions and help information



Process Flow Diagram (typical)



25 GPM NEUTRALIZATION SKID

Part No.	Flow Rate (GPM)	Approx. Length	Approx. Width	Approx. Height	Inlet Size (Pump)	Inlet Size (Gravity)	Outlet Size	Approx. Wt. (lb)
OMEGA-10	10	7'-6"	4'-6"	5'-0"	1", FPT	2", FPT	2", FPT	800
OMEGA-15	15	8'-6"	4'-10"	5'-0"	1.5", FPT	2", FPT	2", FPT	950
OMEGA-20	20	8'-6"	4'-10"	7'-0"	1.5", FPT	2.5", FPT	2.5", FPT	1100
OMEGA-25	25	9'-0"	5'-7"	7'-0"	2", FPT	3", FPT	3", FPT	1350

Options

PART NO.	DESCRIPTION
OMEGA-OPT-FS	Flow Switch
OMEGA-OPT-FT	Flow Totalizer
OMEGA-OPT-LL	Chemical Low Level Switch
OMEGA-OPT-AF	Chemical Auto Fill Line
OMEGA-OPT-HP	High pH Shutoff Valve (Motorized)
OMEGA-OPT-ZEUS	ZEUS™ Software (PLC and touchscreen)

WASTECH firmly backs up all system design and equipment selections as the most effective way to provide our clients reliable and long-term performance capabilities.

Wastech Controls & Engineering, Inc. is the industry leader in custom design, engineering, and manufacturing of a wide variety of industrial control, state-of-the-art turn-key systems, in the areas of chemical handling and process automation. Whether your project is large or small, we have the knowledge and capability to assist you with the most efficient, cost-effective, custom-designed system that best suits your operation.



Controls & Engineering Inc.
21201 Itasca St.
Chatsworth, CA 91311