

The E/One Extreme Series Grinder Pump



About the E/One Extreme Series Grinder Pump

All E/One grinder pump systems currently offered use the Extreme Series grinder pump.

The grinder pump turns on and off automatically and runs for very short periods several times per day. Electrical consumption is low – a household that uses 250 gallons of water per day should use between 6 kWhr and 23 kWhr per month to run the pump. (Actual water and power usage will vary depending on the system pressure.)

More information: [E/One Extreme Series brochure](#)

Operational Information

Motor: 1 HP, 1725 rpm, high torque, capacitor start, thermally protected, 240 or 120 volt, 60 hertz, 1 phase

Discharge:

15 gpm at 0 psig
11 gpm at 40 psig
7.8 gpm at 80 psig

[Download the E/One Extreme pump curve](#)

Electrical Information

For a standard 240v single-phase installation, a dedicated 30A breaker is required, with #12 wire, to the E/One panel. You need to bring L1, L2, N and Gnd.

If only 208v power is available, a buck boost transformer is **required** to boost 208v to 240v. The E/One pump requires a minimum of 216v to start and run reliably.

Pump Diagram Drawings

[Download the parts diagrams](#) for Extreme Series grinder pumps and level sensor assemblies.

E/One Grinder Pump Overview

How is the E/One SPD Pump Different from Centrifugal Pumps?



E/One

E/One's low speed, high torque 5.25-in (133 mm) wheel has an inlet velocity of 3.6 ft/sec (1.09 m/sec), which slowly introduces the debris into the cutter and is less likely to jam, bind, or suffocate.

The paddles on E/One's cutter wheel stir the wastewater, which helps keep the tank clean and prevents sediment build up.

E/One's grinder does not require sharpness to function properly and is a true macerator as opposed to a slicer. Slicers do not function properly once blade edges are dulled.



Other

Small, 2.5-in (63.5 mm) diameter cutter wheels have a much higher inlet velocity of 22 ft/sec (6.94 m/sec), which leads to increased jamming, binding, and suffocating.

Higher velocity wheels wear faster and produce less stirring, leading to more retained sediment in the tank.

What's Different about the E/One Grinder Pump vs Other Grinder Pumps?

Unique Progressing Cavity Design



Pump Curves

How the E/One pump curve compares to centrifugal grinder pumps. [Download the E/One pump curve.](#)

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E/One Sentry Alarm Panel — Protect Plus Package



E/One Sentry Protect Plus provides advance warning of pending service needs by monitoring major operating conditions. A Trouble indication is provided when these conditions fall outside of normal ranges, although the grinder pump station may continue to operate.

E/One Sentry panels are supplied with audible and visual high level alarms. They are easily installed in accordance with relevant national and local codes. Standard panels are approved by UL, CSA, CE and NSF to ensure high quality and safety.

The panel features a corrosion-proof, NEMA 4X-rated, thermoplastic enclosure. A padlock is provided to prevent unauthorized entry (dead front).

Several option packages for the E/One Sentry panel are available — Basic, Protect, and Protect Plus.

"Protect Plus" Option Package

The Protect Plus Package includes all of the features of the Basic configuration, including circuit breakers, 240 or 120 VAC service, terminal blocks and ground lugs, audible alarm with manual silence, manual run feature and run indicator, redundant "Start" function with high level alarm, safety front, conformal-coated board, overload protection.

Also included are all of the features of the Protect Package, including a Trouble indication that shuts down the pump temporarily in the event of an unacceptable operating condition (brownout, system over-pressure, run-dry).

Also included:

- Predictive status display module
- Pre-alarm indication for major operating parameters
- Alarm indications for major operating parameters
- Hour meter, cycle counter and alarm delay
- LCD display and user-friendly interface
- Inner cover (dead front)
- Contact group (dry, powered and Remote Sentry)
- Conformal-coated alarm board (both sides)

Additional Options

- Generator receptacle with auto transfer
- E/One Sentry Advisor

Drawings & Brochure

[E/One Sentry brochure \(PDF\)](#)

[E/One Sentry drawings, Protect Plus Package \(PDF\)](#)

[E/One Sentry drawings, Protect Plus Package \(Zipped DXF\)](#)

[NA0113P04 - Installation & Operation Manual for Simplex Protect Plus Panels manufactured before 12/2012](#)

[NA0269P02 - Installation & Operation Manual for Simplex Protect Plus Panels, Hardwired Pumps \(PDF\)*](#)

[NA0269P12 - Installation & Operation Manual for Simplex Protect Plus Panels, Wireless Pumps \(PDF\)*](#)

Video: Changing the Modem in an E/One Sentry Alarm Panel



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