

# E3-PDS-I

## POLYMER DELIVERY SYSTEM —INLINE

### Inline Polymer Delivery

The E3-PDS-I is a complete inline polymer make-down system integrated onto a compact “aging” stand.

The PMI features the most reliable and most basic controls for reliable solution control. No more chattering throttling valves or clouded rotameters. No more hassling with obsolete low flow switches and no more over engineered activation gimmicks.

Of primary value is the small but necessary low energy aging chamber to deliver a consistent, well mixed and aged polymer solution.

### Equipment Features:

- Simplified Controls
- Neat Polymer Pumps Up To 10 GPH
- Solution Flow Up To 1200 GPH
- Digital flowrate indication
- Digital low flow alarm
- Diaphragm rate control valve
- SS Injection check valve
- (3) Mixing points
- Aging chamber

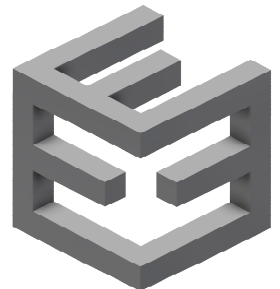


Shown with LMI Diaphragm pump.  
Available with optional Progressive  
Cavity Metering Pump

**E3 Integrated Engineering, LLC**

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Zeeland, MI 49464

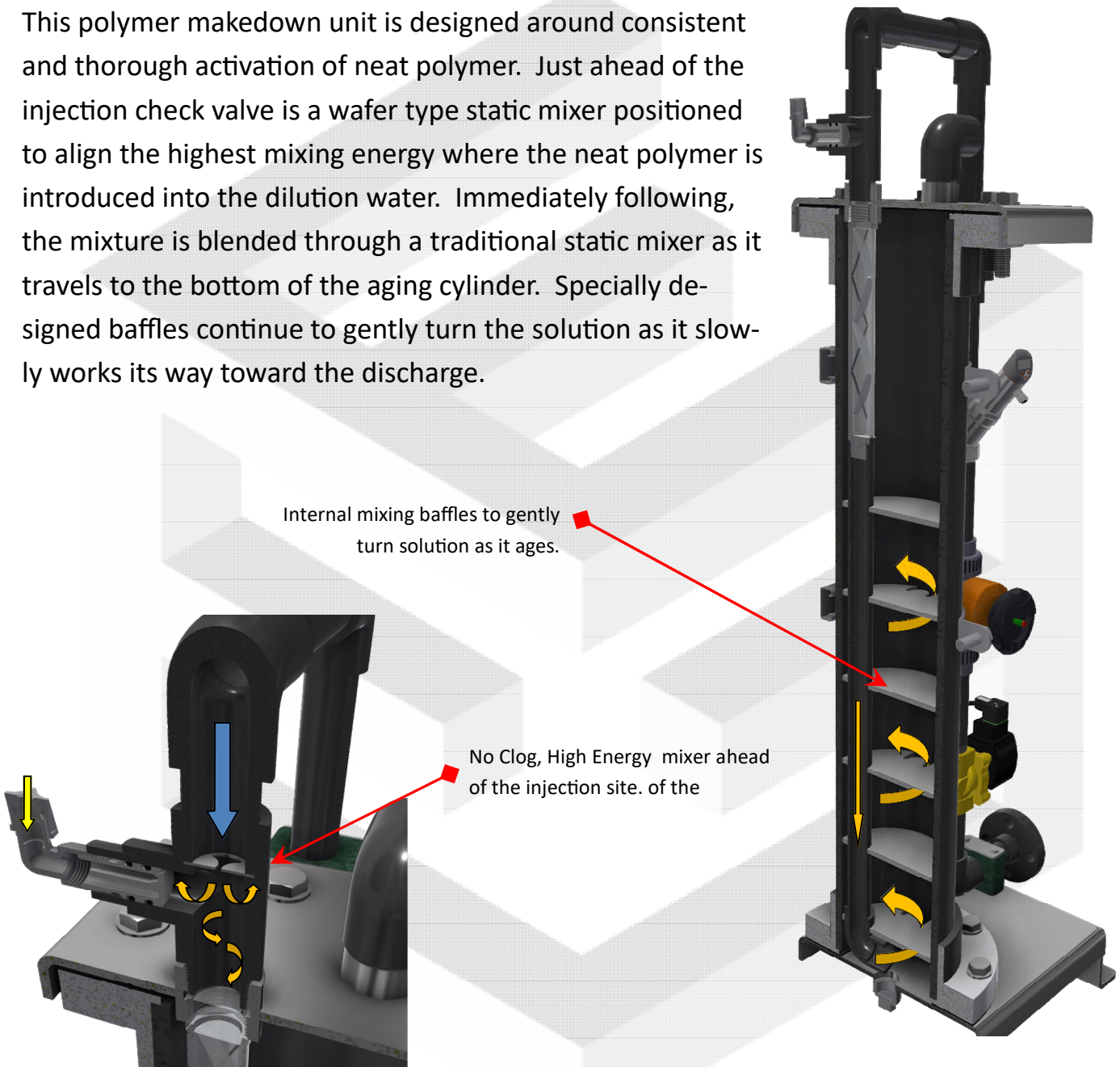


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### Activation and Aging

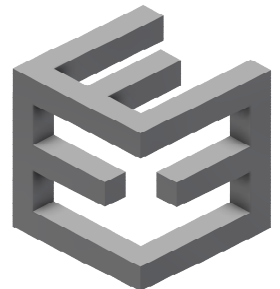
This polymer makedown unit is designed around consistent and thorough activation of neat polymer. Just ahead of the injection check valve is a wafer type static mixer positioned to align the highest mixing energy where the neat polymer is introduced into the dilution water. Immediately following, the mixture is blended through a traditional static mixer as it travels to the bottom of the aging cylinder. Specially designed baffles continue to gently turn the solution as it slowly works its way toward the discharge.



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### OPERATION:

Start: Hand / Off / Auto selector switch allows either manual or interlocked start and stop.

1. With the start command, the water solenoid will open allowing dilution water to flow.
2. Adjust the diaphragm valve to the appropriate dilution water flow rate.
  3. Green numbers on the flowmeter indicate that minimum flow has been met.
  4. Red numbers indicate that the dilution flowrate is below the low flow setpoint.
5. After flow is established, the neat polymer metering pump will start.
  6. Dosing pump should be in (INTERNAL) control mode.
  7. Adjust the pump stroke length and frequency with the pump dials.
8. The polymer system does not require any additional differential pressure to operate properly. The only adjustments should be neat polymer flowrate and dilution water flowrate.
9. Scan the QR code below for a polymer dosing calculator to use on your mobile device.

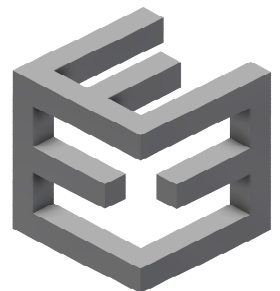
**SCAN ME**



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### MAINTENANCE:

1. A draw-down calibration should be performed at approximately 3 month intervals to verify pump performance.
2. If possible through a programmed auto shutown cycle of your dewatering system, a 1-3 minute flush of the polymer system should be performed ahead of long duration shut-downs.
3. A manual flush can be accomplished by simply switching the pump OFF while operating the dilution water until a slight change can be observed in the discharge view pipe.
4. Periodically remove and check the SS injection check valve. Remove any activated or gelled polymer within the check valve as necessary.
5. Annually, the top mounting shelf should be removed and the baffles removed for inspection and cleaning.

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