



DXL Dicing Additive Injector III

The Dynatex™ DXL Injector III is a compact, low-cost design. It is used to introduce KerfAid™ dicing lubricant into the cutting water for a wafer saw dicing machine.

Applications

- Silicon Wafer Dicing
- Piezo Transducer Cutting
- Wafer Thinning
- Milling

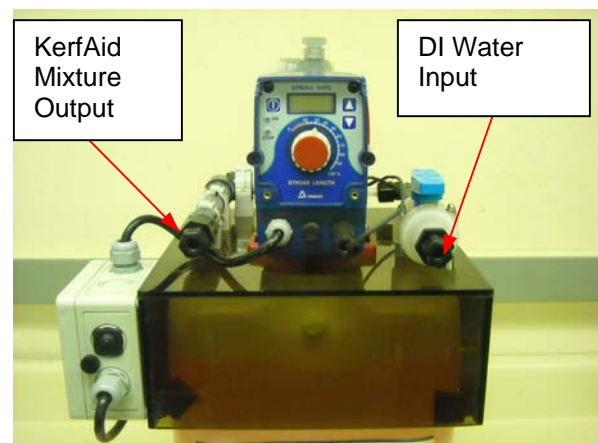


- DXL provides the perfect mixture of water and dicing additive. This ensures the even distribution across the wafer of the dicing additive and thereby makes the additive 100% effective.
- DXL is designed to provide a wide range of dilution ratios for a wide range of saw dicing environments. Accommodates both low flow and high flow applications.
- DXL is easy to install requiring only water in, mixture out and power connections.

Injecting KerfAid into the Dicing Saw Water

When Injecting KerfAid into the dicing saw wafer, the injector pumps a predetermined amount of KerfAid into the water stream. As the KerfAid and DI Water passes through the injector, the mixture becomes homogenous. The mixing of the additive and the water is vital to maintain process performance. To disable the injection of the additive simply power off the injector. Water will flow through the system without the addition of the dicing additive.

Replenishing KerfAid is simply a matter of replacing the empty KerfAid container with a new one.



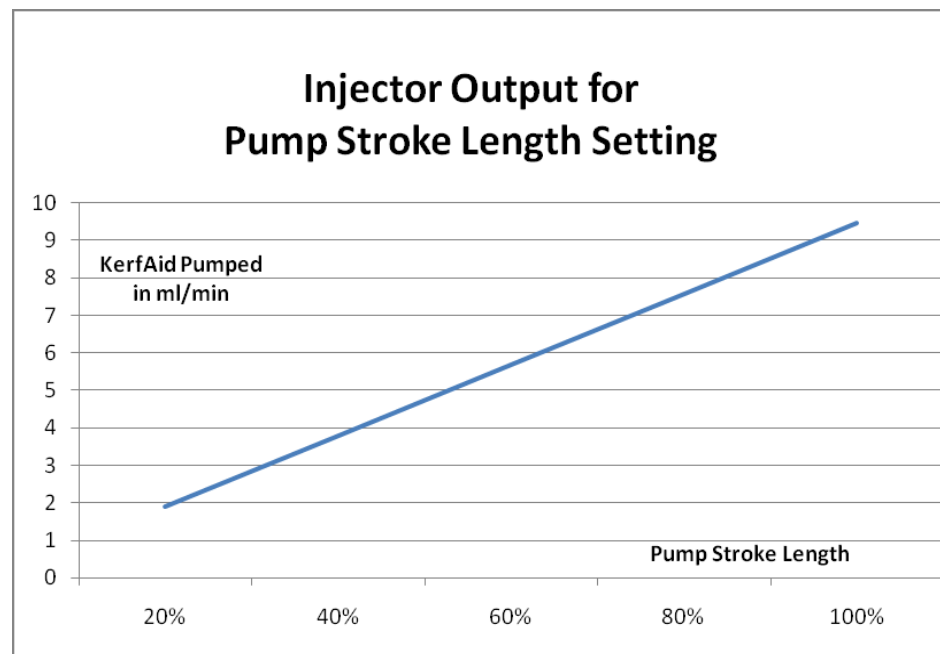


DXL Injector Setting

When setting the injector, determine the KerfAid flow rate from the following formula:

$$\text{KerfAid Flow Rate} = \frac{\text{Water Flow Rate}}{\text{Dilution Ratio}}$$

An example: a water flow rate of 2 liters per minute and a dilution ratio of 500 would require a KerfAid flow rate of 0.004 liters per minute (4ml/min). For the injector characterized in the chart below, a stroke length setting of 40% would be used. This is an ideal setting that would need to be adjusted to suit local conditions such as water pressure, etc.



Note: The chart above is an example of a general configuration of a DXL Injector, your configuration will vary. Adjusting the stroke rate will adjust the injector output proportionately.

DXL Injector Specifications

- Power Requirement – 115 VAC or 220 VAC, 50/60 Hz, 5 Amp
- Inlet and Outlet Connections – 3/8" tubing bulkhead fitting
- Dimensions – 13" (33 cm) Wide, 13.5" (34 cm) High, 12.5" (32 cm) Deep
- Controls – Pump Stroke Rate & Pump Stroke Length

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