

Your shop's duller tool: sump coolant Dazzle 2 sharpens it, and keeps it sharp!

Zebra Skimmers is revolutionizing the way metalworking shops manage the coolant in their sumps because Zebra believes chemical concentrate is a critical tool in a shop's tool crib.

Zebra Skimmers is proud to present Dazzle 2; a fully automated sump management solution delivering precise coolant concentration while maintaining the sump level.

Set concentration target, set sump high and low levels: you're done.

Dazzle does all the work for you. Imagine your sumps locked on the perfect concentration and level throughout the day, every day, and needing no manual intervention!

- Bucket brigades: a thing of the past.
- Spills: a thing of the past.
- Wasted labor: a thing of the past.

Zebra delivers on the promise of fully automated sump fluid management.



**Zebra Skimmers President Steve Davidian with a Dazzle 2 system
Note the multiple sump lines on the wall behind the system**

The Dazzle family includes two product lines: Dazzle 1 and Dazzle 2

DAZZLE 1: AUTOMATED SUMP LEVEL MANAGEMENT

Dazzle 1 is a 2nd generation automated sump level management system.

- This system delivers a water-concentrate mix to maintain a sump's level within a preset range
- The basic components include a pump, a sump controller with level sensor, and a coolant dipstick.

DAZZLE 2: AUTOMATED COOLANT CONCENTRATION MANAGEMENT

Dazzle 2 is our new automated coolant concentration management system which maintains both sump levels and coolant concentrations within preset limits. Dazzle 2 is very flexible and can be configured easily to manage changing needs in a manufacturing environment.

Dazzle 2 can manage multiple sumps:

- Manage the coolant concentrations and fluid levels in up to 10 sumps
- Delivers the proper concentration of a single coolant type across multiple sumps even if the concentration target is different from sump to sump.
- Can manage a very large sump that supports multiple machining centers or a flexible manufacturing line
- In its simplest application, the Dazzle 2 can deliver only water in situations where replacement of evaporated water is the primary requirement

The Dazzle 2's basic components include a Control Center and Pump Station located within the base enclosure and a Coolant dipstick level sensor (one per sump)

Users are responsible for the following:

1. Plumbing and electrical connections between the Dazzle 2 base enclosure and the sumps under management and all utilities (water, shop air pressure, 110 VAC)
2. Internet access for Dazzle via a wired Ethernet connection for a VPN connection to Zebra's cloud analytics server.

COMPARISON OF BENEFITS		
DAZZLE BENEFITS	DAZZLE 1 Automated Sump Level Management	DAZZLE 2 Automated Coolant Concentra- tion Management
REDUCED COOLANT USAGE	√	√
PRECISION COOLANT MIXING	√	√
SUMP LEVEL MANAGEMENT	√	√
MANAGES PIT SUMPS	√	√
MANAGES MACHINE CENTER SUMPS	√	√
COOLANT CONCENTRATION MGMT		√
REMOTE MANAGEMENT		√
DATA CAPTURE & ANALYTICS		√
COMPATIBLE WITH LIGHTS OUT OPERATIONS		√

EASY SUMP CONFIGURATION SCREEN

Set concentration target, set sump high and low levels: you're done.

[Set up waterbugs](#)

Pump Specific Configuration

Sump 5 ▼

Sump Offline

Custom Label

Minimum Level for Sump 5 (mm)

Maximum Level for Sump 5 (mm)

Refractometer Goal for Sump 5

[Save Changes](#)

KEY FEATURES AND SPECIFICATIONS

LEVEL SENSING

Dazzle's level sensing capabilities are based on robust capacitive technology which is not affected by a sump's surface crust or particles in the fluid unlike floats or other mechanical devices.

DISTANCE BETWEEN DAZZLE 2 AND MANAGED SUMPS

Both Island and Archipelago can manage sumps over 1000 feet from the base and can support fluid rises up to 20 feet.

MEASURING COOLANT CONCENTRATION

Dazzle 2 uses a process refractometer to continuously monitor the coolant concentration in sumps under management. The process refractometer is designed to monitor flowing fluids vs other refractometers that measure static samples.

DATA COLLECTION AND ANALYTICS

The base system provides one seat for viewing and making system modifications through a browser connection. The main sump graph, which displays each managed sump in sequential fashion, is displayed below.

