# Your shop's dullest 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 2<sup>nd</sup> 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)

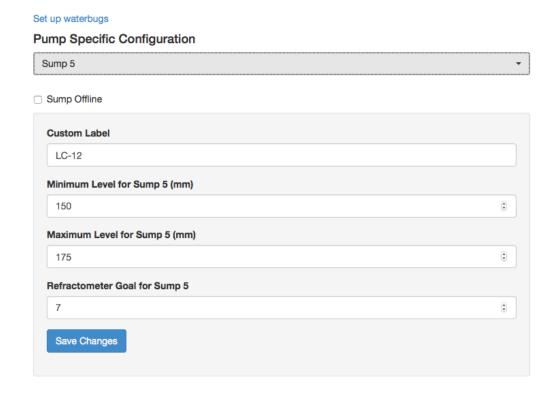
Users are responsible for the following:

- 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 1	DAZZLE 2
DAZZLE BENEFITS	Automated Sump Level Management	Automated Coolant Concentra- tion Management
REDUCED COOLANT USAGE	٧	٧
PRECISION COOLANT MIXING	٧	V
SUMP LEVEL MANAGEMENT	٧	V
MANAGES PIT SUMPS	٧	V
MANAGES MACHINE CENTER SUMPS	٧	V
COOLANT CONCENTRATION MGMT		V
REMOTE MANAGEMENT		٧
DATA CAPTURE & ANALYTICS		V
COMPATIBLE WITH LIGHTS OUT OPERATIONS		V

# **EASY SUMP CONFIGURATION SCREEN**

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



## **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.

