



Pump Boss

Intelligent Pump Control

- Touch Button Dual Pump Control in One Box
- Replaces Expensive & Complex PLC Designs
- Local or Remote Control with Feed Verification
- Automatic Switchover
- Proportional Dosing of chemical to a process signal
- Multiple Timer Control Options
- Feed Rate Totalizers
- Event Based Automation



End users, engineers, water treaters and contractors are collectively moving towards a preference for fully integrated pump skid and panel packages. Many times, PLC based controls are necessary to meet the application requirements. This increases the cost and complexity of the integrated package and makes the operation and set up of the packaged system a frustrating hassle.

Pump Boss is a specialty controller specifically designed to automatically operate chemical metering pumps for precise dosing applications. This versatile multiuse controller allows the user to execute numerous complex dosing regimes without the extensive cost and complexity of a PLC.

The most common configuration is to use the Pump Boss with two pumps that allow for analog or pulse control and a flow verification device for each pump. Configured in this manner the user can improve chemical metering reliability through the automatic switch over function; giving your application hot back up. Further performance improvement is delivered by the Pump Boss by controlling chemical addition based on a calibrated flow not just pump speed.

The real genius of the Pump Boss is unlocked when you begin to use the timer and proportional flow functions. These features allow you to optimize chemical use to process flows and variables.

Pump Boss is designed to use flow verification and metering pumps to provide precise and repeatable chemical addition automatically. Pump Boss works with a variety of flow metering and verification devices and a broad range of metering pumps to allow for customer choice of preferred pump and device for the application.

The controller can provide the following operations when used with a metering pump that can be controlled via 4-20 mA or pulse and a approved flow verification device.

- Remote and local control of chemical addition
- Flow totalization in GPH
- Auto switch-over between pumps
- Base and trim functions to a process variable
- Proportional dosing of chemical to a process signal
- Feedback feed forward process control
- Dual timer control of dosing via a eight event per day timer, weekly timer, or 28 day timer
- Time based, volume based or proportional to a flow
- Event based automation—Contact closures— On/Off, Number of closures and duration
- Analog Signal—Up or Down threshold crossing

Powerful & Simple

The Pump Boss is designed to allow the user to easily select the type and complexity of control features which best fit the application.

From a simple, timer dual biocide application to proportional feed based on a process variable, the unit is powerful enough, yet simple enough to easily implement the desired dosing control regime.

	BASIC OPERATION FEATURES		ENHANCED OPERATION FEATURES	
Equipment Needed	One or Two Pumps	One or Two Pumps with Analog or Pulse Feed Control	Two Pumps with Analog or Pulse Feed Control and Feed Verification	Two Pumps with Analog or Pulse Feed Control and Feed Verification and Process Flow Meter
Possible Configurations	Timer Control Event Based Trigger	Remote Speed Control Timer Control Event Based Trigger	Remote Speed Control Timer Control Event Based Trigger Automatic Switchover	Remote Speed Control Timer Control Event Based Trigger Automatic Switchover Proportional Chemical Feed

Choose BASIC OPERATION when:

- You need to use timers to control your pump
- You wish to use event based triggers like another pump starting or a change in a analog process variable

Choose ENHANCED OPERATION when :

- You are using a flow verification device with your pump
- Your require auto switch over
- You wish to control meter chemical in proportion to a process flow
- You require a combination of event based trigger and proportional flow
- You require a combination of timers and proportional flow

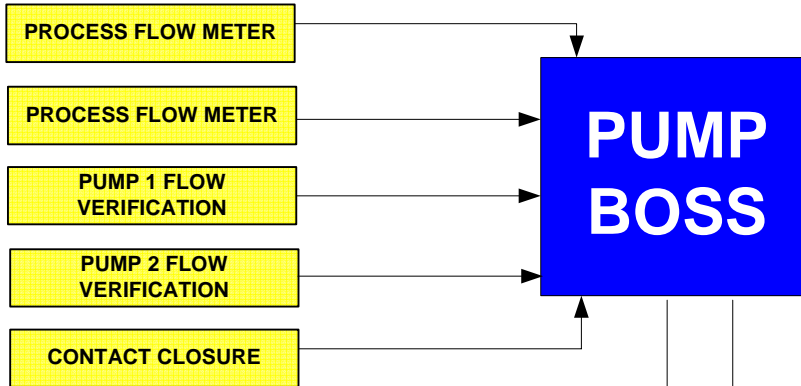
Whatever your application requires, the Pump Boss can be integrated into a pre-packaged skid configuration with your choice of pumps and feed verification devices. Our standard systems are supplied with complete documentation, including:

- PI &D
- General Arrangement
- Electrical
- Pump Manuals
- Pump Boss Manual
- Quick Start Up Guide



Pump Boss

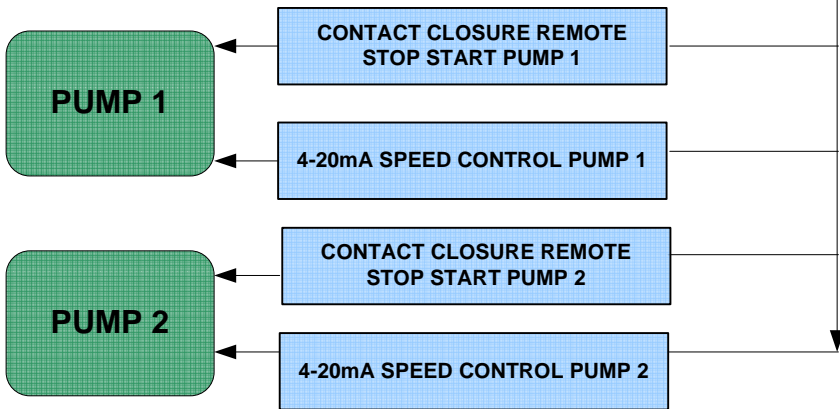
EXTERNAL INPUTS



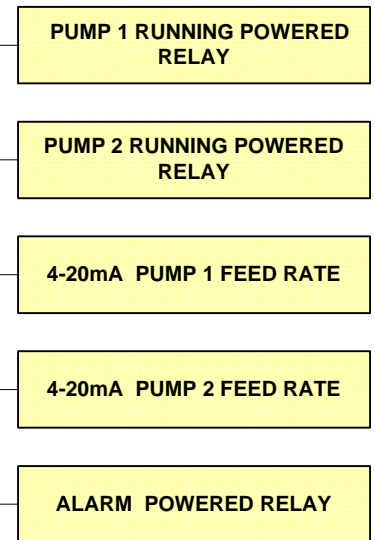
The flow meter input is the process variable for the pumps to be proportionally controlled to. A pump can be dedicated to each flow meter or two pumps can be configured for one process flow meter

The flow meter input is the process variable for the pumps to be proportionally controlled to.

CONTROL OUTPUTS



REPORTING OUTPUTS



Control Options

PROPORTIONAL FLOW CONTROL

Allows for the remote or local control of chemical addition in proportion to a process flow**

FLOW VERIFICATION AND CONTROL

ONE FOR EACH PUMP

Allows for remote or local control of pump with calibrated flow verification*

AUTO SWITCHOVER

When pumps are used in tandem pumps will switch over with loss of chemical feed*

TIMER ONE FOR EACH PUMP

8 events each day settable for each day of week or 28 day timer
Time, Volume*, or PPM**

EVENT BASED START

System will start based on a contact closure, duration of closure, number of closures or crossing of an analog setpoint.

* requires flow verification ** requires flow verification and a process flow meter



Chem - Flow is a leading supplier of standard and custom integrated chemical dosing and monitoring systems designed to administer specialty chemical water treatment and process programs.

Our purpose is to exceed our client's requirements or assist them to identify the proper equipment and controls required to maximize their investment in treatment chemicals.

We differentiate our business through an unique dedication to being a single source of equipment solutions for water treatment and process professionals.



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