

# Simple Solutions for your Control Applications

# Pumping

## Water & Waste Water

Sprecher + Schuh PFB Pump Control Combination Softstarters are specifically designed for smooth starting and stopping of centrifugal pumping systems, and can eliminate the damaging pressure surges known as "water hammer" that are common with other starting techniques. At the heart of every Series PFB Softstarter is an intelligent controller that automatically senses the actual speed of the motor and adjusts the starter to provide the optimum starting and stopping curve... eliminating water hammer completely. Advanced algorithms and sensing techniques ensure that the motor delivers precisely the right amount of torque to the pump for smooth acceleration and deceleration. The PFB Software reduces mechanical stress on check valves and pump impellers to reduce your total operating costs.

The Sprecher + Schuh PFB Pump Softstarter has been used in a wide variety of water related applications, such as large agricultural irrigation systems, waste water and water treatment plants, water pumping for aquaculture, fish farms, aggregate sorting and cleaning, and manufacturing plants.

## Who We Are

At Sprecher + Schuh, helping our customers succeed is what we do best — with industrial control and informative solutions designed to give our customers a competitive advantage. From stand-alone, motor control components to wide integrated systems, our solutions have proven themselves across a wide range of industries and in some of the most demanding manufacturing environments.



## What We Do

At Sprecher + Schuh, we continue a long-standing tradition of solving problems, achieving goals for our customers and creating new values with innovative, technical solutions.

We consistently work on improving our products and processes, maintaining industry standard certifications (national and international) in order to best serve you in all areas of your business. Sprecher + Schuh's elite panel shop is UL508A and cULus Approved, as well as Atex and ISO 9001 certified.

We focus on quality, safety, reliability and efficiency.

# Where can you use Sprecher + Schuh Control Solutions?

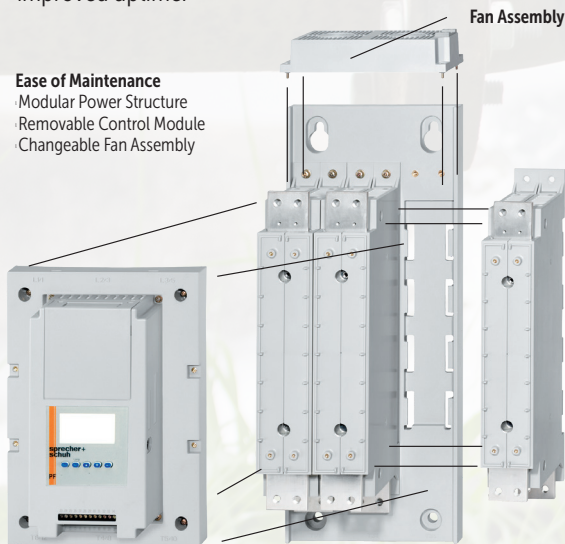
The PF Softstarter Controller provides intelligence, unmatched performance, flexibility, and diagnostics in a modular compact design for controlling either a standard squirrel-cage induction motor or a star-delta motor. The PF Softstarter is available for motors rated 1...480A (up to 400Hp@480V AC), 200...600V AC, 50 and 60Hz. Seven standard, and two optional modes of operation are available within a single controller.

## Pump System Advantages

- Provides smooth motor starting and stopping of pumps
- Reduced current surges on weak electrical systems
- Reduced starting torque of the motor helps to reduce mechanical stress on system components
- Helps meet both local and regional electrical codes when reduced voltage starting is a requirement
- The elimination of the voltage and current spikes associated with traditional wye-delta (star-delta) starters
- Maximize the life of the motor with reduced electrical strain
- Reduces general system maintenance requirements for improved uptime.



**Ease of Maintenance**  
Modular Power Structure  
Removable Control Module  
Changeable Fan Assembly



**Control Module**

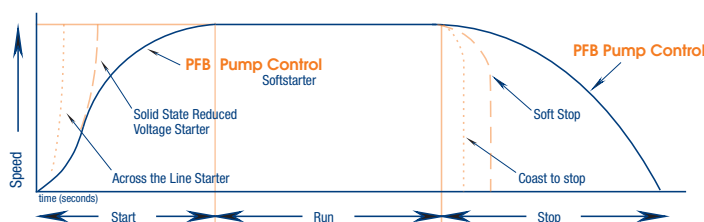
PF Control module with standard built-in keypad and backlit LCD display

**Power Structure**

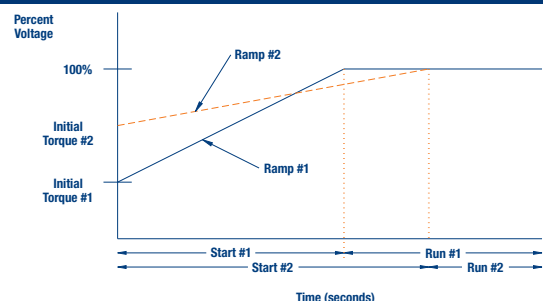
PFB Pump Control Enclosed Combination Includes:

- A thermal magnetic circuit breaker with external operating handle
- A 120V control power transformer with fused primary and secondary
- PF built-in electronic motor overload protection
- PF built-in SCR bypass/run contactor
- UL Type 3R Enclosure
- Hand-Off-Auto Selector Switch

## PFB Pump Controller



## PFS Standard Controller-Dual Ramp





## They're Everywhere!

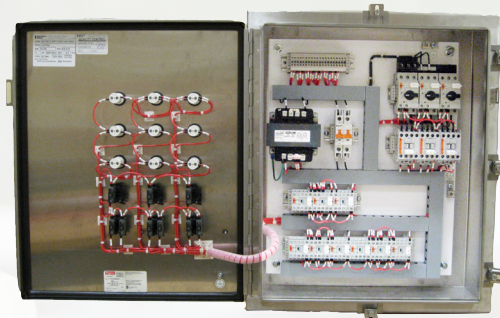
- Irrigation Pivots
- Waste water treatment
- Pumping stations
- Water towers
- Canal systems



### Reduced Voltage starters

Reduced Voltage starters are designed for starting squirrel cage induction motors, where the starting current of a motor is likely to exceed local power company restrictions, interfere with plant operations or where the load may be damaged by high starting torques.

- Up to 600 HP @ 575V
- Across-the-Line
- Autotransformer
- Part Winding
- Wye Delta (up to 1500HP@460V)



### Multispeed starters

Multispeed starters can produce multiple constant speeds by specially arranging the windings of multispeed motors. Motors with two separate windings or one reconnectable winding can be used.

Up to 125 HP @600V

- Constant Torque
- Constant Horsepower
- Variable Torque

Control Options

- Selective
- Compelling
- Progressive
- Decelerating



### Simplex/Duplex Pump Controls

MCCB, Fusible & Non-Fusible

Up to 500 HP @ 575V

Duplex Pump Controllers

- Duplexing and Alternation
- MCCB, Fusible/Non-Fusible & Type E
- Up to 500 HP @ 575V

## Other Products for Pumping & Wastewater



RZ7 Series  
Timers



Motor Disconnect  
Switches



Pilot Devices



Contactors



Overload Relays



L8 and L9  
Circuit Protection



### Why Choose Sprecher + Schuh

Sprecher + Schuh can integrate components into any existing control scheme and assist in the creation of new designs. We pride ourselves in applying our offering with a variety of different manufacturers, temperature and pressure sensors, other types of mechanical or non-contact switching; valves, actuators, and pneumatic controls; and finally, with many types of safety devices and systems.

### There When You Need Us

Our UL 508 Panel Shop in Houston Texas gives you a distinct advantage over other "parts suppliers". We can work closely with the OEM to meet all the unique requirements and needs in this competitive market.

Whether you need components for your own panel manufacturing or a complete control panel system, Sprecher + Schuh will be there for you.



*For more information, contact your  
Sprecher + Schuh Authorized Distributor  
or Sales Representative*

visit **[www.sprecherschuh.com](http://www.sprecherschuh.com)**

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