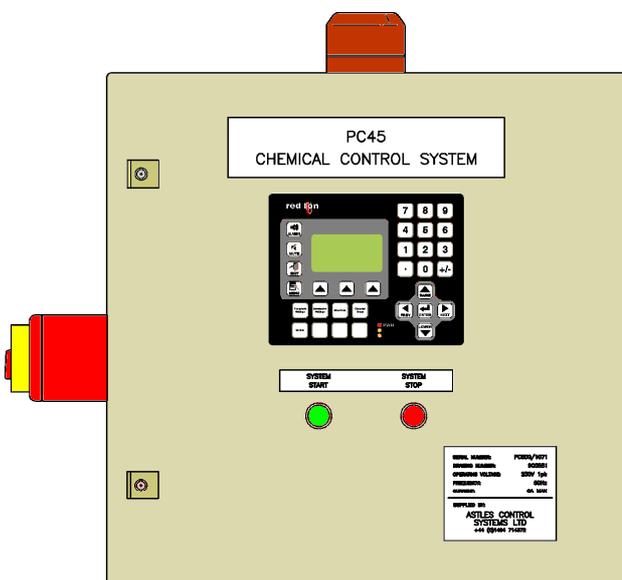




# PC45 Zinc Phosphating Line Controller

*The PC45 is a microprocessor based control system that monitors the critical stages of a metal pretreatment line. The system provides an alarm if any of the measured parameters go out of specification. Control outputs are also provided which are used to automatically control dosing pumps to hold the readings in specification.*

The system can be used with most of the proprietary chemical products currently on the market.



PC45 has three dosing modes of operation, "Auto", "Man" and "Off". Selection of "Auto" operation causes the dosing pump to be controlled automatically by the PID controller to maintain the process at the user-entered setpoint. "Off" prevents the dosing pump from running. In "Man" mode a percentage run time can be entered, for example 25% might be selected - in the event of a sensing system failure - to add chemical at a constant rate.

The system is interlocked to the line and will only dose chemicals when the line is running.

ACS have developed Active™ software for the control of the Phosphate/Accelerator ratio to ensure it is always optimised. An extra dose of accelerator can be added when required, for example after a prolonged line stoppage to compensate for losses.

The PC45 has alarms that can be configured as deviation alarms from the user entered setpoints. Active alarms are indicated on the display and cause the alarm beacon to flash. The alarm can be acknowledged to stop the beacon.

## Features

- ◆ Clear digital bath strength displays
- ◆ Conductivity, pH, Fluoride sensing options
- ◆ Automatic temperature compensation
- ◆ Non contacting conductivity sensor - eliminates fouling problems
- ◆ pH resolution 0.01 pH units
- ◆ User friendly - simple to operate
- ◆ PID controlled time proportioned output
- ◆ Alarm to warn of out of specification conditions
- ◆ Utilises 4~20 mA, 2 wire transmitters for interference free signal transmission.
- ◆ Control panel may be sited up to 1000 meters from transmitter.

## Technical Details

<b>Environmental</b>	Enclosure sealed to IP65
<b>Electrical</b>	110V/230V AC 50/60 Hz, 5 amps Instrument is CE Marked in accordance with EN50081-2, and EN50082-2.
<b>Probe system</b>	Total Acid/Alkali Toroidal (inductive) conductivity sensor with automatic temperature compensation. 2 wire 4~20 mA transmitter.
pH/Fluoride	Industrial pH or Fluoride sensor with double junction reference electrode, integral pre-amplifier, and automatic temperature compensation. 2 wire 4~20 mA transmitter.
<b>Outputs</b>	Relay (110V/230V AC, 2A non inductive load) fully configurable for PID control.
<b>Display ranges</b>	Custom configurable to any desired bath strength units.
<b>Communications</b>	RS232, RS485 and Ethernet data transmission.

### Control Options

The PC45 can run up to three control loops. This means that in addition to a Zinc Phosphate stage it can control two other processes. Some example configurations are given below.

Loop 1	Loop 2	Loop 3
Zinc Phosphate (with Accelerator ratio dose)	Spare	Spare
Zinc Phosphate (with Accelerator ratio dose)	Temperature Monitor	Spare
Alkali Cleaner	Zinc Phosphate (with Accelerator ratio dose)	Spare
Alkali Cleaner	Zinc Phosphate (with Accelerator ratio dose)	Rinse
Alkali Cleaner	Surface Conditioner	Zinc Phosphate (with Accelerator ratio dose)
Alkali Cleaner	Alkali Cleaner	Zinc Phosphate (with Accelerator ratio dose)
Alkali Cleaner	Zinc Phosphate (with Accelerator ratio dose)	Fluoride – in Phosphate stage

### Ordering Information

Please call our sales office on **01494-714372**. One of our sales engineers will be pleased to discuss your application and make a quotation appropriate to your requirements.

### Dosing Pumps

We also supply a range of dosing pumps to suit all requirements. We keep in stock the Grundfos range of Digital Dosing™ Pumps, and the Nikkiso range of motor driven diaphragm pumps.



### Bench Meters

ACS are distributors for the Thermo Orion range of pH, Conductivity, ion selective & colorimetric products. In addition to the excellent range of meters and electrodes from Orion we also sell the Sensolution™ range of electrodes which are compatible with Orion and all other makes of conventional meters.

