PCS - Control Systems

An Investment in the Future

We offer alternatively the following control types:

PIV - Control:
the easy way to operate in automatic mode

4 user definable recipes for aggregates
4 user definable recipes for cement
- programmed into the scale indicator

Water quantity programmed into digital impulse counter

The total number of batches is recorded by a batch counter.

Automatic free-fall correction.

MCS-Control

Programming capacity: (99 recipes)
6 aggregates
4 cement sorts
2 water sorts
4 admixtures

Data input and display via LCD/LED displays
manual and automatic free-fall compensation,
sand-water-correction for 2 sand sorts
batch water correction

Our Program:

Complete PCS - control systems for concrete batching plants
for new plants or upgrading existing plants

PCS - Control "Touch"
With Siemens industrial Touch-Panel PC

PCS - Control
With conventional PC

PCS - Control "Compact"
Economic version without statistics

PCS - Control "SmartMix"
Compact design, no need for separate control room

MCS - Control Systems

PIV - Control Systems

We automate various production plants in the Concrete Industry:

Pallet circulation systems
including data transfer to the plotter, pallet utilization program, etc.

Concrete distribution systems

Straightening, cutting and bending machines for reinforcement

We also automate production plants for other industries

Proven in the Precast, Block and Ready-Mix Industry

PCS-Control "Touch"

The PCS Control System ties together plant administration, production, material ordering, consumption monitoring, process supervision, costing, and maintenance information into one efficient reliable system designed for your specific needs.

ACS
ADVANCED CONTROL SYSTEMS INC.
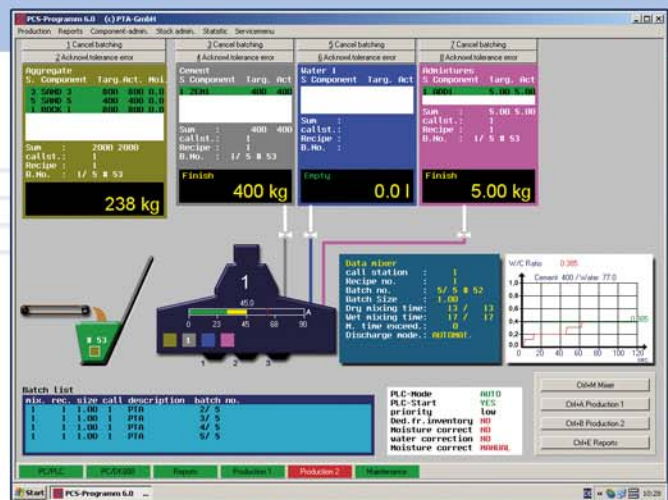a division of Advanced Concrete Technologies, Inc.

Advanced Control Systems Inc.
Pease International Tradeport
139 Flightline Road, Unit 2, Portsmouth, NH 03801
Phone: 603 373 6400 - Fax: 603 431 5547
Email: acscontrols@aol.com

Member of:
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ACS
ADVANCED CONTROL SYSTEMS INC.

Based on the Microsoft Windows operating system and a Siemens PLC, the PCS solution offers concrete producers intuitive point-and-click control over all plant functions, including mixer status, moisture content, batching progress, recipe selection, and inventory tracking.
The PCS control system provides the precision necessary for today's increasingly sophisticated mix designs, including self-compacting concrete (SCC), dry cast and pigmented products.

The fully automatic PCS Control offers:

Control Panel (with integrated Motor Control Center) with schematic operational graphic for manual control (also possible even without PC), main electrical disconnect switch, all motor starters, fuses and overload protection, control and motor control circuit and wiring, ammeter for mixer motor, digital scale indicators for the weighers, Siemens PLC S7 (others on request).
Windows-based PC, monitor and printer can be placed on a desk or optionally housed in a separate enclosure with flip down. (as shown below)

Process-Vizualization on the PC-screen

The compact PCS Control "SmartMix" gives you single point concrete plant monitoring and control. Locate PCS "SmartMix" anywhere in your plant, without expenses of a separate control room.
Designed for easy retrofit installation.

Standard-functions:

- 1000 recipes, with parameters for flexible production of various concrete mixes, including SCC (Self-Compacting Concrete)

- 9 password-protected user codes with definable access

- Sand-water correction for all sand and aggregate sorts (automatically with installation of moisture metering probe - optionally)

- Manual and automatic free-fall correction for all components and monitoring of batching tolerance and time

- Concrete production statistic for the automatically produced concrete, stored for lifetime

- Material consumption statistics for all batched materials (even in manual mode) can be called up in individual time periods

- Inventory administration with silo contents calculation and graphic display on the monitor

- Cost calculation by recipe, by order or as a total value per day and month

- Scheduled maintenance reminder software module

- Diagnostic test module displays actual input/output status on PLC for easy troubleshooting

- Factory bench tested with plant simulation

- Complete documentation on CD and installed on the PC

Further functions are programmed in.

PCS-Control

In this example a bucket conveyor system is integrated as extension.
This single source approach ensures a smooth start-up and operation without finger-pointing

PCS Control "SmartMix"

HYDROTESTER
Moisture probe for aggregates installed in the active flow area under the batching gate for automatic batch yield adjustment for moisture content

The exclusive use of standard components, available on the local market, enables the user to maintain the control easily

For the automation of your production, we offer various call station types to choose from:
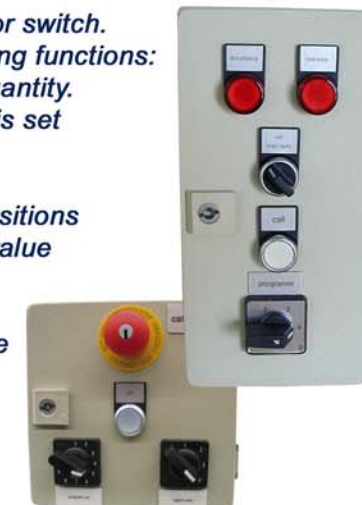

Concrete Call Station with one program. Control box with push-button and status indicator lights. Recipe and quantity is set and changed at the PC by the operator. This station accepts manual orders by pushbutton or automatic orders from a production machine holding hopper probe

Concrete Call Station with 4 position selector switch.
This selector switch has one of the following functions:
- 4 positions for selection of recipe and quantity. The assignment of each selector switch is set and changed at the PC by the operator.
OR:
- Moisture correction – adjustment of 4 positions on the PC either in percent or absolute value (either 5% less or 2 liter less, etc.).
OR:
- 4 positions for 4 different recipes with the same quantity.

Combinations are also possible.

Concrete Call Station with Touch-Panel for total flexibility:
- Selection of recipe
- Enter of req. concrete volume
- Water correction
- Discharge position
- etc.

HYDROMAT
Automatic Microwave Water Metering System automatically controls the concrete water/cement ratio by monitoring 1 wear resistant microwave moisture probe which is built in the mixer.
The target water/cement ratio and actual cement weight are used by the PCS Control to automatically and accurately determine and dose the necessary final water needed to meet the prescribed water/cement ratio.

Teleservice:
To provide support or updating your system our control system experts can access, troubleshoot, and update your control system remotely by modem.
Optional Video-Service via the Internet is available.