



- FORT WAYNE, INDIANA -

THE INSIGNIA CONTROL SYSTEM



TOTAL ASPHALT PLANT AUTOMATION

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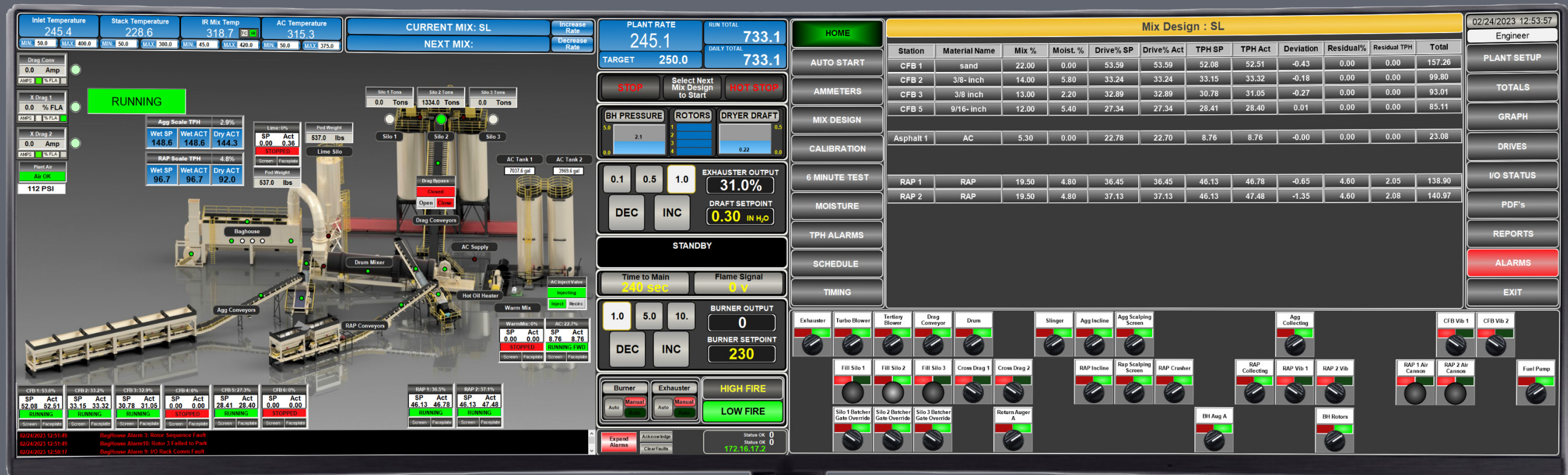
A CONTROL SYSTEM DESIGNED TO UNLEASH YOUR ASPHALT PLANT PERFORMANCE.

The ALmix Insignia Control System (ICS) is a state-of-the-art, total plant control system for drum mix asphalt plants of all sizes. ICS provides a complete command of the blending process as well as individual motor control for every motor. ICS is an information center that allows the Operator to monitor, operate and report all plant functions. ICS yields real-time plant production data, resource consumption tracking, and I/O status unlike any other asphalt plant automation product on the market.

With ICS you can harness the raw information and oversight you need to unleash your asphalt plant performance, improve operational efficiencies, and fuel business decision-making.

INSIGNIA CONTROL SYSTEM STANDARD FEATURES

- Multi-point capability for all calibrations includes cold feeder, RAP feeder, belt scales, silo & tank level, temperature, pressure, etc. This reduces non-linearity error and improves accuracy for the full operating range.
- Automatic burner control with start-up and firing percentage status.
- Ignition diagnostic diagram displays the entire ignition sequence and pinpoints any failure to fire.
- Independent actuators for air, oil, and gas valves allow precise positioning without mechanical linkages.
- Air to Fuel ratios are displayed graphically and may be adjusted infinitely.
- Automatic air damper control with opening percentage (or exhaust fan speed control) and drum negative pressure status.
- Compressed air pressure display.
- Integrated chart recorder for Mix Temperature and AC Temperature.
- Automatic cleaning control with baghouse differential pressure status.
- Automatic batcher and silo selection control with actual batcher position, cross-drag conveyor flop chutes, and silo status.
- Interlocks, warnings, settable limits, and logs for added safety.
- Wide range of reports for production records and material consumption.
- Remote support provision facilitates fine-tuning & troubleshooting of the control system by ALmix engineers via internet or dial-up connection.
- Plant wiring diagrams are stored on the system hard drive for easy reference.



ICS PRIMARY OPERATING DISPLAY

PRIMARY OPERATING DISPLAY

SELECTABLE SECONDARY DISPLAY



ALMIX STANDARD 49" ULTRA-WIDE MONITOR

OPERATOR SELECTABLE CONTROLS

EASY-TO-NAVIGATE USER EXPERIENCE

Designed with modern tailored graphics, a comprehensive Primary Operating Display, and built-in burner controls, all at the click of a mouse, the ICS control system features a visually appealing user experience that is both easy and intuitive to learn. The system's clearly identified switches, meters, and warnings ensure that the plant operator is in total control of all aspects of plant production.

SELECTABLE SECONDARY DISPLAY

A series of operator-focused incline detail screens are available at the command of the operator. These detail screens display on the Selectable Secondary Display, allowing the Primary Operating Display to always show the most important blending process information.

MORE DATA, MORE INSIGHTS, LESS GUESSING

Calibration Select

Location	Name	Date Created	Date Modified
1	send	08/20/22 12:35:14 PM	08/20/22 1:06:53 PM

Bin Calibration 1

Material Name: sand
Scale Opening: 3.8
Cal Point Select: 8
Tare / Hour: 96.19

Cal Point	Drive %	Cal TPH	Encoder	% Error	Calibration Factor
1	0.0	0.00	0.000	0.000	3.643
2	0.0	0.00	0.000	0.000	3.643
3	20.0	18.86	5.22	0.000	3.643
4	50.0	48.67	12.26	0.000	3.778
5	100.0	96.19	25.92	0.000	3.673

MULTI-POINT CALIBRATIONS

Burner Overview

Mode	Actual	SetPoint
Mix Temperature	318.7	320
BH Inlet Temp	245.4	245
BH Stack Temp	228.8	230

Flame Protection

CB 118
Burner Control Power Available
Honeywell BURNER CONTROL

AUTOMATIC BURNER CONTROL & IGNITION DIAGNOSTICS

Recycle Bin #1

Plant Data: 242.4, 411.3, 255.0, 406.2

60.0%
0.20

325

Hot Oil Heater

Stack Hi Limit: 650 F
Temp Setpoint: 325 F
Deadband: 20 F

Burner E-Stop OK
Burner Switch ON
Webster Switch ON
Low Oil Level
Circ Pump Running
Low Oil Pressure
High Oil Temp
High Stack Relay(NC)
Burner Enabled
Call for Heat
Call for High Fire

HOT OIL HEATER MONITORING

Drag Conveyor: 76%
Cross Drag #1: 0%
Cross Drag #2: 0%
Exhauster: 54%
Fuel Pump: 0%
Drum A: 79%
Drum B: 77%
Drum C: 79%
Drum D: 77%
AC Pump: 72%

DETAILED AMMETER SCREENS

Recycle Bin #1

Motor	Metz	Amps	Status
VANE FEEDER	8	0.0	INLE
SHAKER	N/A	0.0	INLE
BLOWER	N/A	0.0	INLE
Not Present			

Lime Silo

Motor	Metz	Amps	Status
VANE FEEDER	8	0.0	INLE
SHAKER	N/A	0.0	INLE
BLOWER	N/A	0.0	INLE
Not Present			

DEDICATED PLANT COMPONENT DETAIL SCREENS

INTEGRATED BURNER CONTROL

The ALmix Insignia Control System is the only system designed to fully integrate the latest, modern burner controls, eliminating the need to buy costly additional controls that take up space in the control house and require you to work through time-consuming integrations. Our burner control functionality is conveniently nested on the Primary Operating Display, meaning it is always in front of the Operator for easy monitoring during the blending process. In addition to the integrated burner control on the Primary Operating Display, ICS is designed with several Burner Control Detail Screens that provide the plant operator with a suite of tools for burner setup, troubleshooting, and optimization.

TIME TO MAIN FIRE

BURNER OUTPUT CONTROLS

AUTO/MANUAL SELECTION

Burner Annunciation Window

Time to Main
240 sec

Flame Signal
0 v

1.0

5.0

10.

BURNER OUTPUT
0

DEC

INC

BURNER SETPOINT
230

Burner
Auto Manual

Exhauster
Auto Manual

HIGH FIRE

LOW FIRE

BURNER ANNUNCIATION WINDOW

FLAME SIGNAL INDICATOR

BURNER OUTPUT LEVEL

BURNER SETPOINT

LOW & HIGH FIRE CONTROLS

The screenshot shows the main interface of the ICS Primary Operating Display. It features a 3D model of the plant on the left, a central data panel with various readouts (Inlet Temperature, Stack Temperature, IR Mix Temp, AC Temperature, Plant Rate, etc.), and a right-hand navigation menu. A 'TPH Alarms' window is open, displaying a table of equipment and their respective TPH values. Below the table is a bar chart showing TPH levels. At the bottom, there are numerous control buttons for different plant components like Exhauster, Turbo Blower, Drag Conveyor, Drum, Slinger, etc.

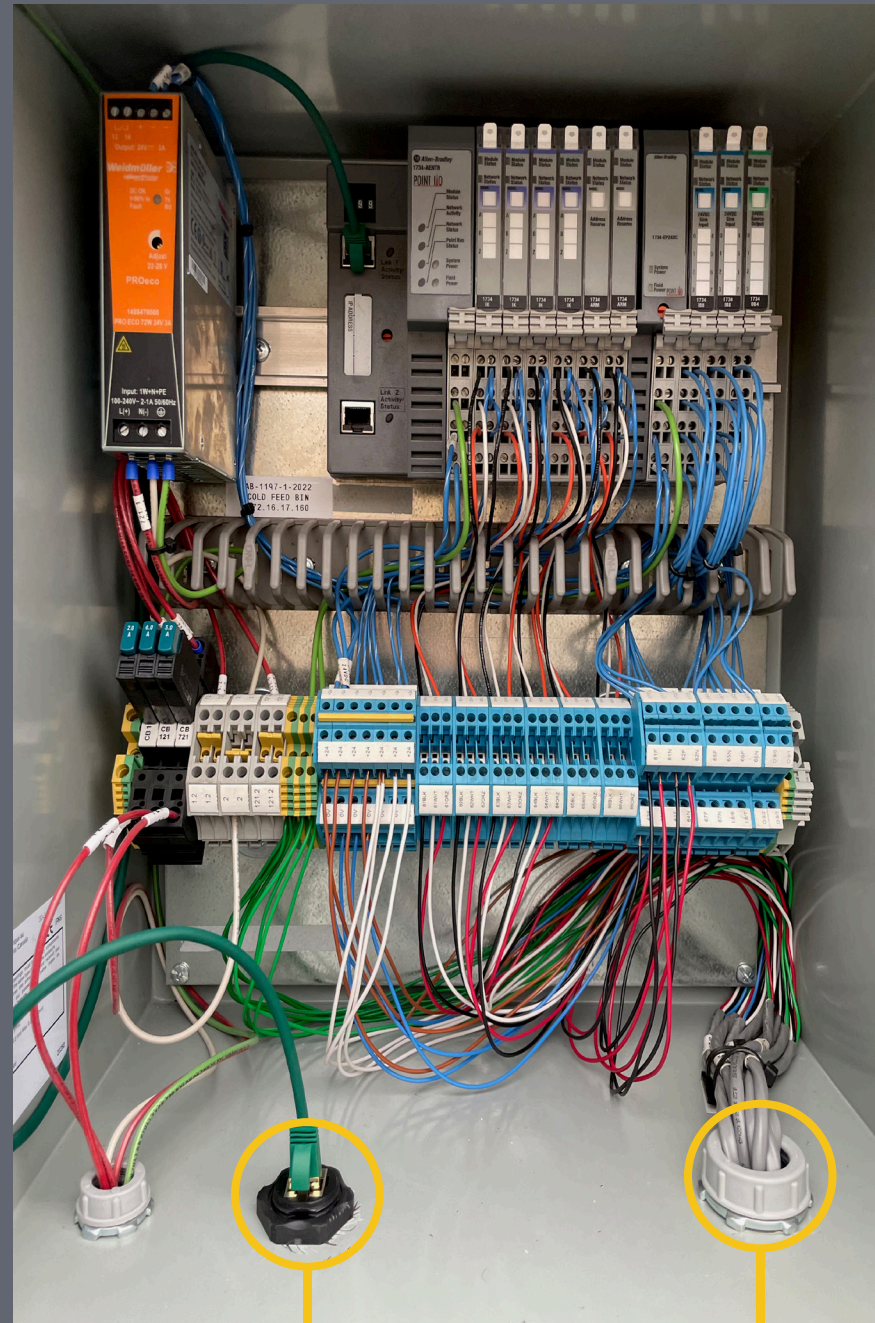
Equipment	Desired TPH	Actual TPH	% High	% Low	Delay
CFB 1	52.1	52.5	6.0	6.0	10
CFB 2	33.1	33.3	5.0	5.0	10
CFB 3	30.8	31.0	5.0	5.0	10
CFB 4	0.0	0.0	5.0	5.0	10
CFB 5	28.4	28.4	6.0	5.0	10
RAP 1	46.1	46.8	10.0	10.0	15
RAP 2	46.1	47.5	20.0	20.0	5
AC	8.8	8.7	10.0	10.0	10

ICS PRIMARY OPERATING DISPLAY

THE POWER OF ETHERNET

Say goodbye to hard-wiring every I/O to a PLC rack. The ICS system is designed to reduce start-up time, downtime, and total cost of ownership through the use of a high-speed Ethernet network. This network allows the connection of all devices directly to an ALmix plant's PLC via Ethernet, which yields information such as run and error signals, motor amps, diagnostics, auto-device replacement, and more. This design allows our remote program engineers to operate like they are in the control house with you, with instant access to thousands of device parameters and settings.

Through the use of a high-speed Ethernet network, our ICS Ethernet Network simplifies control wiring. Long runs of low-voltage signal wiring that are susceptible to noise, are eliminated and replaced by a few ethernet cables that carry the values digitally back to the PLC in the control house after the analog signals have been gathered at the source.



CONNECTION BACK TO PLC/CONTROL HOUSE

CONNECTIONS TO UNIT DEVICES

REMOTE SUPPORT

The ICS system comes standard with the ability to leverage the ALmix team of program experts for support, right from our facilities to your control house. This remote support provision facilitates fine-tuning and troubleshooting of the ICS system by ALmix engineers through the use of the control house's high-speed internet connection.



THE ALmix LOADOUT SYSTEM

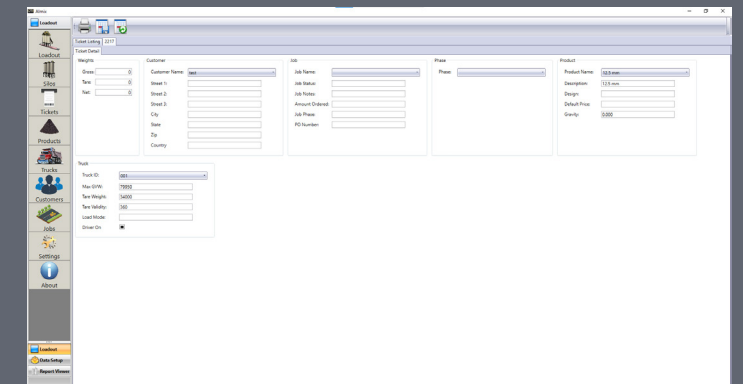
THE ALmix LOADOUT SYSTEM

The ALmix Loadout System has been designed to exceed the requirements of today's plant weighmasters. Like ICS, the loadout system is designed with an easy-to-use, point-and-click operating interface presented within an ergonomic screen layout. The system presents the operator with all the required information at all times for the timely loadout operation of multiple silos over multiple scales.

Customers, products, jobs, and trucks are all easily entered into the system. Automatic data match and fill-in of previously recorded information helps speed loadout and prevent ticket errors. Tickets may be emailed directly from the loadout screen, printed within the control house, or sent directly to a remote printer. Remote printers enable the truck drivers to take their own tickets thereby relieving a duty from the plant operator.



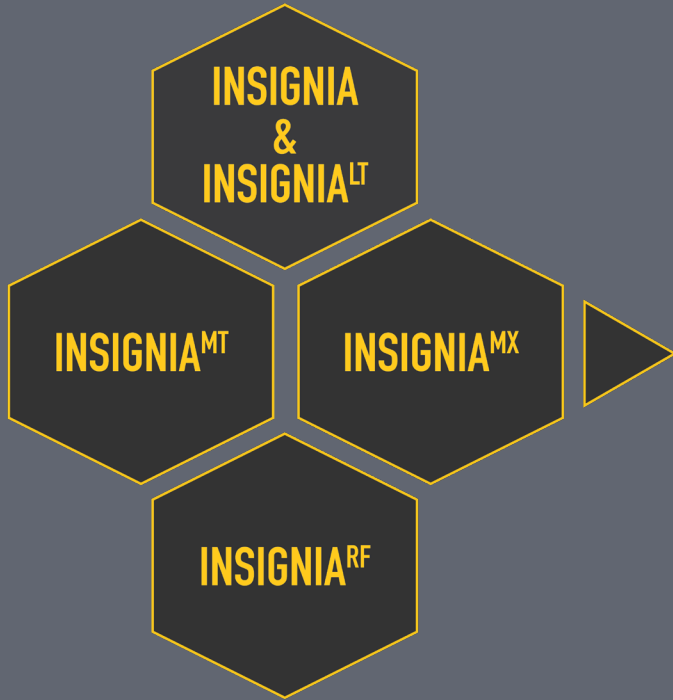
SELF-ERECTING SILO LOADOUT



TICKET DETAIL SCREEN

A FULL SUITE OF CONTROL PRODUCTS

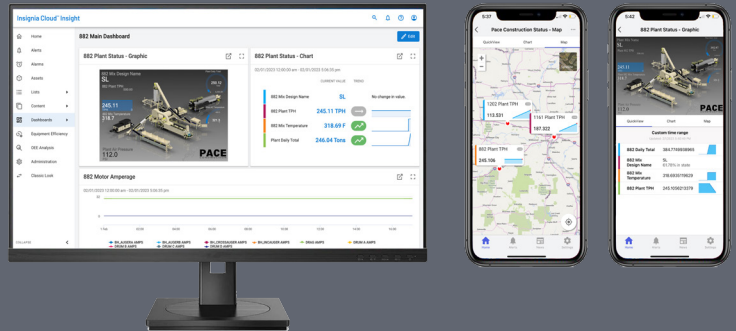
The Insignia Control Suite brings the intuitive design and powerful automation of the award-winning ALmix Insignia Total Plant Control system to a portfolio of asphalt plant control systems. This array of Insignia automation products is designed for a broad range of modern asphalt producers, plant designs, and the latest plant operation requirements.



THE INSIGNIA CLOUD

The entire suite of Insignia Control Systems can be connected to the new Insignia Cloud. The Insignia Cloud is designed to give plant owners more insights into their plants' operation than ever before. Coupled with the ALmix Insignia Control System's ethernet-connected PLC design and customized by our team of program engineers for each customer, Insignia Cloud is the most comprehensive plant data analysis tool on the market.

INSIGNIA CLOUD DATA IS AVAILABLE ON ANY DEVICE, ANYWHERE



INSIGNIA CLOUD DESKTOP AND MOBILE SCREENS



LEARN MORE AT [ALMIX.COM/AUTOMATION](https://almix.com/automation)

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