

# Concrete Batch Controllers

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*Multi-Scale Automated Batching System*

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# CB-3 Concrete Batch Controller

Multi-Scale Automated Batching System



(Note: Factory field installation required, minimum of three days on-site)

## Standard Features

- One aggregate and one cement scale, water scale is standard for P/N 177747
- Manual override controls
- Web server
- 128 GB data storage
- Material usage by day/week/month/year and inventory on-hand with reporting
- Automatic aeration control for cement silos and weigh hoppers
- Multiple freefall values per material
- Split batching for loads larger than plant capacity with pre-weighing next batch
- Automatic dust collection outputs
- Order based batching
- Units: US standard or metric (SI) operation
- Aggregate conveyor
- Loss-in-weight aggregate dispensing
- Three dual or six single speed aggregates
- Two dual or four single speed cements
- Weighed water with water reservoir (P/N 177747)
- Up to eight auxiliary manual controls
- Mixer controls for central mix block or precast plants
- Ethernet TCP/IP
- Up to six admixtures
- Multi-user interface
- Dual moisture probe interface supports 4-20 mA

## Options

- Monitor
- Keyboard
- USB hub four ports
- USB Wi-Fi dongle
- Mouse
- Additional four admixture control system (with program upgrade)
- Portable batch plant system
- Control panel for remote batching
- Customized batch ticket printing

## Specifications Industrial PC

- Model:**  
B&R APC2100
- Processor Type:**  
Intel Atom E3845  
Quad Core
- Data Storage Type:**  
Industrial CFast Card
- Data Storage Capacity:**  
128 GB
- Interfaces:**  
Two USB  
Two Ethernet
- Monitor Output:**  
One SDL/DVI
- Operating System:**  
Linux Ubuntu
- Voltage:**  
24 VDC

## Specifications 920i

- Line Voltages:**  
115 or 230 VAC
- Frequency**  
50 or 60 Hz
- Power Consumption:**  
500 mA, maximum at 115 VAC (26 W) / 240 mA  
at 230 VAC (26 W)
- Full Scale Input Signal:**  
Up to 40 mV
- Excitation Voltage:**  
10 ±0.5 VDC, 16 x 350 Ω or 32 x 700 Ω load cells  
per A/D card
- Sense Amplifier:**  
Differential amplifier with 4 and 6 wire sensing
- Analog Signal Input Range:**  
-10 mV to +40 mV
- Analog Signal Sensitivity:**  
0.3 μV/graduation minimum at 7.5 Hz  
1.0 μV/graduation typical at 120 Hz  
4.0 μV/graduation typical at 960 Hz
- A/D Sample Rate:**  
60 Hz
- Calibration Method:**  
Software, contents stored in flash memory
- Display:**  
(W x H) 4.6 in x 3.4 in (116 mm x 86 mm),  
320 x 240 pixel VGA liquid crystal display (LCD)  
module with adjustable contrast, 75 Hz scan rate  
26,000 cd/m<sup>2</sup> brightness
- Keyboard:**  
27-key membrane panel
- Input Overload:**  
Load cell signal lines ±10 V continuous, ESD  
protected
- RFI/EMI Protection:**  
Signal, excitation and sense lines protected
- Microcomputer:**  
Motorola ColdFire® MCF5307 main processor  
at 90 MHz
- Digital Filter:**  
Software selectable: 1–256, enhanced  
RATTLETRAP® hybrid digital filtering
- Warranty:**  
Two-year limited warranty

# CB-3 Concrete Batch Controller

Multi-Scale Automated Batching System with PC Program

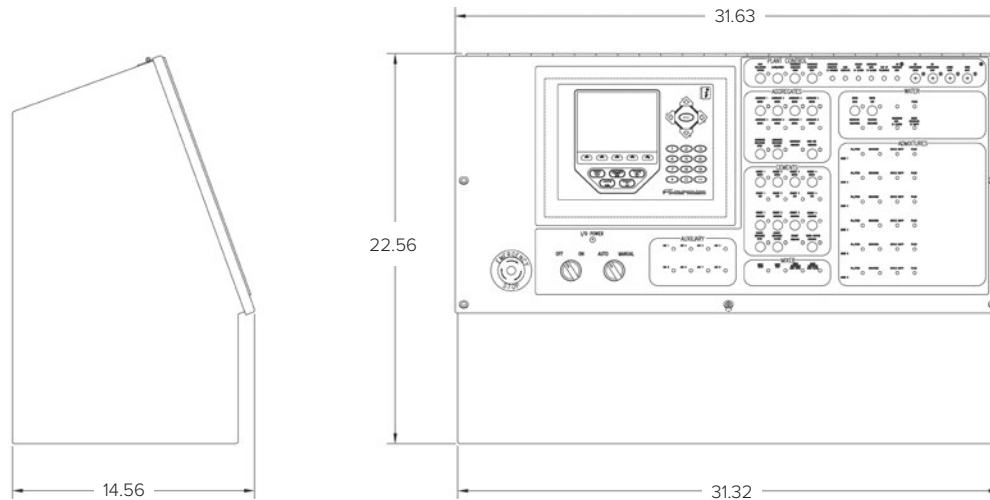
## Part Number/Price

Part#	Description	Est. Weight	Price
177746 *	CB-3 concrete batching controller, metered water, PC included	180 lb	\$26,000.00
177747 *	CB-3 concrete batching controller, weighed water, PC included	180 lb	\$26,500.00
FLD-INSTALL	Factory field installation required (minimum 3 days on site)		\$1,395.00 per day
FLD-INSTALLSA	Factory field installation, Saturday		\$2,095.00
FLD-INSTALLSU	Factory field installation, Sunday		\$2,790.00

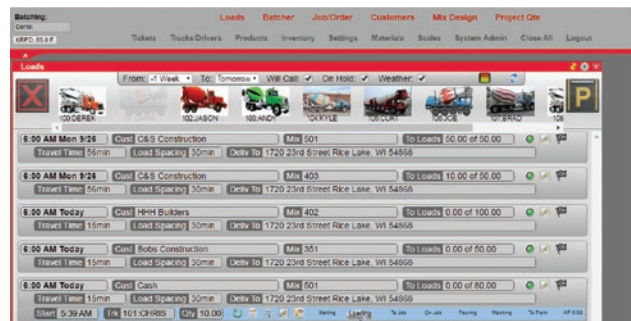
## Options/Accessories

Part #	Description	Price
175877	Upgrade kit CB-2 to CB-3, PC included	\$12,500.00
179209	Accessory kit (includes monitor, keyboard, USB hub and mouse)	\$450.00
179210	Monitor, Acer	\$290.00
179211	Keyboard, Microsoft	\$47.50
179212	Mouse, Microsoft	\$44.50
185667	USB Hub	\$20.00
186277	Wireless USB adapter WI-FI	\$80.00
196700	4 Additional Admix controller	Consult

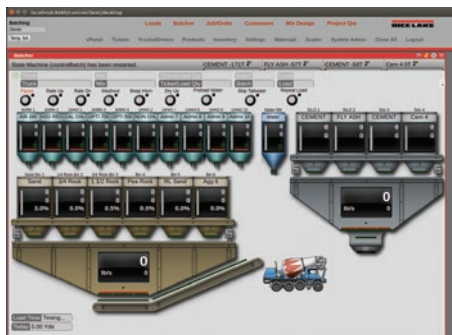
\* Completed questionnaire required prior to ordering this system. Questionnaire available at [www.ricelake.com/resources/product-questionnaires](http://www.ricelake.com/resources/product-questionnaires)



CB-3 Ticket Output



CB-3 Truck Monitoring Screen



CB-3 Batcher Screen

# 1280<sup>®</sup> FlexWeigh Systems Concrete Batcher



## Standard Features

- Powered by 1280 Enterprise Series indicator
- Large 12-in color touchscreen display
- Remote batching through web server integration
- Front panel control switches and Emergency Stop
- Automatic or manual batching modes
- Decumulative plant setup
- Configurable from two to five scales (one to two cement scales, and one to three material bins)
- Up to four admixes (bottled or direct)
- Manual entry of moisture compensation percentage
- Metered water controlled by on board DI/O
- Import/export databases via USB, Revolution or Interchange software
- Configurable batch transaction ticket
- Storage for 1,000 transactions, 1,000 mix designs, 500 customers
- Available with English or Spanish operation and in imperial or metric measurements

## Options

- Desktop stand
- Sun visor

## Specifications

### Power:

AC voltages: 100-240 VAC; 50-60 Hz  
Consumption: 60W

### Excitation Voltage:

10 ± 0.5 VDC  
16 x 350 ohm or 32 x 700 ohm load cells per A/D card

### Analog Signal Input Range:

-60 mV to 60 mV

### Analog Signal Sensitivity:

0.3 µV/graduation minimum at 7.5 Hz–120 Hz  
1.0 µV/graduation recommended

### A/D Sample Rate:

7.5 to 960 Hz, software selectable

### Resolution:

Internal: 8 million counts/8,000,000  
Display: 1,000,000

### System Linearity:

± 0.01% full scale

### Communication Ports:

Port 1 & 2: Full duplex RS-232 with CTS/RTS, RS-422/485  
Baud Rate: 1200 to 115200  
Port 3: USB 2.0 Device (Micro)  
USB Host: (2) Type A Connectors max 500 mA  
Ethernet: Wired 10/100 Auto-MDX  
Ethernet: Wireless 802.11 b/g/n 2.4GHz

### On Board:

Selectable filters: Three stage, Adaptive or Damping  
Embedded Linux<sup>®</sup> OS  
8 GB eMMC (system use)  
1 GB DDR3 RAM  
460 MB onboard database (SQLite) storage  
Up to 32 GB micro SD card

### Display:

Twelve-inch, 1280 x 800 pixel,  
1,500 NIT

### Temperature Range:

Certified: 14°F to 104°F (-10°C to 40°C)  
Operating: -4°F to 131°F (-20°C to 55°C)

### Rating/Material:

Painted mild steel enclosure  
NEMA Type 12; NEMA Type 4; IP66

### Dimensions:

20 in x 20 in x 10 in

### Warranty:

Two-year limited warranty

### EMC Immunity:

EN 50082 Part 2 IEC  
EN 61000-4-2, 3, 4, 5, 6, 8, 11

## Part Number/Price

Part #	Description	Est. Weight	Price
208907	Main system		\$14,500.00
212392	Sun visor		\$425.00
212234	Desktop kiosk stand		\$150.00

### Front Panel Switches

Auto/Manual
E-Stop
Conveyor Start/Run*
Bin 1*
Bin 2*
Bin 3*
Cement 1*
Cement 2*
Water*
Admix 1*
Admix 2*
Admix 3*
Admix 4*

\* Available in Manual Mode

### Inputs

Admixture 1 Bottle Empty
Admixture 1 Pulse
Admixture 2 Bottle Empty
Admixture 2 Pulse
Admixture 3 Bottle Empty
Admixture 3 Pulse
Admixture 4 Bottle Empty
Admixture 4 Pulse
Manual Mode
Air Pressure OK
E-Stop
Water Meter Pulse
Conveyor Running

### Outputs

Conveyor Start/Run
Alarm/Horn
Bin 3 Vibrator
Bin 3 Feed
Admixture 1 Fill/Feed
Admixture 1 Discharge
Admixture 2 Fill/Feed
Admixture 2 Discharge
Admixture 3 Fill/Feed
Admixture 3 Discharge
Admixture 4 Fill/Feed
Admixture 4 Discharge
Bin 1 Feed
Bin 2 Feed
Cement 1 Feed
Cement 2 Feed
Water Feed
Bin 1 Vibrator
Bin 2 Vibrator
Cement 1 Air
Cement 2 Air
Dust Collector 1
Dust Collector 2