Concrete Batch Controllers

CONCRETE BATCH
CONTROLLERS

1280 FlexWeigh Systems Concrete Batcher

Decumulative/Accumulative Batcher

Standard Features

- Powered by 1280 Enterprise Series indicator
- Large color touchscreen display
- Remote batching through web server integration
- Front panel control switches and emergency stop
- Automatic or manual batching modes
- 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 onboard DIO
- 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

Part Number/Price

Part #	Description	Price
208907	Decumulative batcher	$15,950.00
216733	Accumulative batcher	$16,950.00
212392	Sun visor	$500.00
212234	Desktop kiosk stand	$450.00

Specifications

Power:
100 to 240 VAC; 50/60 Hz

Excitation Voltage:
10 VDC (± 0.5 Volts)
16 × 350 ohm or 32 × 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 to 120 Hz
1.0 µV/graduation recommended

A/D Sample Rate:
7.5 to 960 Hz, software selectable

Resolution:
Internal: 8,000,000 counts
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 2.4 GHz

On board:
Selectable filters: Three stage, adaptive or damping
Embedded Linux® OS
8 GB eMMC (system use)
1 GB DDR3 RAM
460 MB onboard database (SQLite) storage
Up to 32 GB micro SD card

Display:
12-inch, 1280 × 800 pixel, 1,500 NIT

Temperature:
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 4; IP66

Dimensions:
20 × 20 × 8 in

Warranty:
Two-year limited

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

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Decumulative/Accumulative Batcher

Front Panel Switches

	Decumulative Batcher	Accumulative Batcher
Auto/Manual	x	x
E-Stop	x	x
Conveyor Start/Run*	x	x
Bin 1*	x	x
Bin 2*	x	x
Bin 3*	x	x
Cement 1*	x	x
Cement 2*	x	x
Water*	x	x
Admix 1*	x	x
Admix 2*	x	x
Admix 3*	x	x
Admix 4*	x	x
Aggregate Hopper		x
Cement Hopper		x

* Available in Manual Mode

Outputs

	Decumulative Batcher	Accumulative Batcher
Conveyor Start/Run	x	x
Alarm/Horn	x	x
Bin 3 Vibrator	x	
Bin 3 Feed	x	x
Admixture 1 Fill/Feed	x	x
Admixture 1 Discharge	x	x
Admixture 2 Fill/Feed	x	x
Admixture 2 Discharge	x	x
Admixture 3 Fill/Feed	x	x
Admixture 3 Discharge	x	x
Admixture 4 Fill/Feed	x	x
Admixture 4 Discharge	x	x
Bin 1 Feed	x	x
Bin 2 Feed	x	x
Cement 1 Feed	x	x
Cement 2 Feed	x	x
Water Feed	x	x
Bin 1 Vibrator	x	x
Bin 2 Vibrator	x	
Cement 1 Air	x	x
Cement 2 Air	x	x
Dust Collector 1	x	x
Dust Collector 2	x	x
Aggregate Vibrator		x
Cement Vibrator		x
Aggregate Air		x
Water Discharge		x
Aggregate Gate Open		x
Aggregate Gate Close		x
Cement Gate Open		x
Cement Gate Close		x

Inputs

	Decumulative Batcher	Accumulative Batcher
Admixture 1 Bottle Empty	x	x
Admixture 1 Pulse	x	x
Admixture 2 Bottle Empty	x	x
Admixture 2 Pulse	x	x
Admixture 3 Bottle Empty	x	x
Admixture 3 Pulse	x	x
Admixture 4 Bottle Empty	x	x
Admixture 4 Pulse	x	x
Manual Mode	x	x
Air Pressure OK	x	x
E-Stop	x	x
Water Meter Pulse	x	x
Conveyor Running	x	x
Water Gate Limit Switch		x
Aggregate Gate Limit Switch		x
Cement Gate Limit Switch		x

Concrete Batcher Questionnaire

RICE LAKE
W E I G H I N G   S Y S T E M S

GENERAL INFORMATION:

1. Primary units for batching controller: ❑ Imperial   ❑ Metric

2. Plant batch size requirements (cubic units):   _____ Maximum   _____ Minimum

3. Aggregate scale   _____ Capacity   ×   _____ Divisions

     Cement scale   _____ Capacity   ×   _____ Divisions

5. Weigh Ticket information (example shown), include any custom information needed:

```
Ticket #: 3
Customer: Rice Lake Weighing Systems
Truck #:  1258

Mix ID:   1
Mix Name: Test
Quantity: 1.0 CY

Ingredient        Target       Actual      %ERROR
-----------------------------------------------------
Sand                95 lb      7930 lb     8247.4%
Stone2             196 lb       210 lb        7.1%
Stone1             291 lb      2810 lb      865.6%
Cement             100 lb       250 lb      150.0%
FlyAsh             200 lb       250 lb       25.0%
Admix 1             10 oz        11 oz       10.0%
Admix 2              5 oz         7 oz       40.0%
Admix 3              6 oz         6 oz        0.0%
Admix 4              7 oz         6 oz      -14.3%
Water               20 gal       20 gal       0.0%

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NOTE: When it comes to concrete batching systems, software modifications are often necessary. Some common modifications are available as options. These questions will help us determine if the standard product will need custom software modifications.

6. Batching tracking required: ❑ Inventory usage   ❑ Current inventory

INPUT REQUIREMENTS:

Please indicate all the applicable <u>inputs</u> for this system.

❑ Admix 1 Bottle Empty   ❑ Admix 1 Pulse Meter
❑ Admix 2 Bottle Empty   ❑ Admix 2 Pulse Meter
❑ Admix 3 Bottle Empty   ❑ Admix 3 Pulse Meter
❑ Admix 4 Bottle Empty   ❑ Admix 4 Pulse Meter
❑ Water Pulse Meter   ❑ Conveyor Running
❑ Aggregate Gate Limit Switch   ❑ Cement Gate Limit Switch
❑ Water Gate Limit Switch   ❑ Manual Mode
❑ Air Pressure OK   ❑ E-Stop

Any additional 120V or 240V input requirements not mentioned in the previous list (such as sensors, switches, limit switches, photo eyes)? Please specify any extra requirements here:

OUTPUT REQUIREMENTS:

Please indicate all the applicable <u>outputs</u> for this system.

❑ Cement 1 Feed	❑ Cement 2 Feed
❑ Bin 1 Feed	❑ Bin 2 Feed
❑ Bin 3 Feed	❑ Bin 1 Vibrator
❑ Bin 2 Vibrator	❑ Bin 3 Vibrator
❑ Cement 1 Air	❑ Cement 2 Air
❑ Water Fill	
❑ Cement Discharge Gate Open	❑ Cement Discharge Gate Close
❑ Aggregate Discharge Gate Open	❑ Aggregate Discharge Gate Close
❑ Cement Hopper Vibrator	❑ Aggregate Hopper Vibrator
❑ Conveyor Start/Run	❑ Dust Collector 1
❑ Water Discharge	❑ Dust Collector 2
❑ Alarm/Horn	
❑ Admix 1 Fill	❑ Admix 2 Fill
❑ Admix 3 Fill	❑ Admix 4 Fill
❑ Admix 1 Discharge	❑ Admix 2 Discharge
❑ Admix 3 Discharge	❑ Admix 4 Discharge

Are there any additional 120V or 240V output requirements that were not covered in the previous list (including but not limited to air solenoids, vibrators, aerators, motor starters, horns, lights)?
Please specify any extra requirements here:

WEIGHING AND MOVING AGGREGATES AND CEMENTS:

1. Does the plant use the same weigh hopper to weigh aggregates and cements?   ❑ Yes   ❑ No
   (If yes, explain order of adds)

2. Does the plant weigh aggregate or cement by loss in weight?   ❑ Yes   ❑ No
   (surge/holding hopper is on load cells)

3. What is the total number of weigh hoppers for the plant?   _____ Aggregate   _____ Cement

4. Apart from a feed gate and gravity, does the aggregate require any equipment to move it from a surge bin into the weigh hopper?

5. List equipment used to move aggregate into the truck or mixer:

6. List equipment used to move cement from silo into weigh-hopper:

7. List equipment used to move cement from weigh-hopper into the truck/mixer:

8. **Aggregate** discharge gate only requires power to open and closes automatically when power is removed?
                   ❑ Yes   ❑ No (inching gate)
   Limit switch for aggregate discharge gate?   ❑ Yes   ❑ No

9. **Cement** discharge gate only requires power to open and closes automatically when power is removed?
                   ❑ Yes   ❑ No (inching gate)
   Limit switch for aggregate discharge gate?   ❑ Yes   ❑ No

ADMIXTURES AND WATER

1. Water: ❑ Weighed   or   ❑ Metered

2. How many water supplies?

   Separate water meters?   ❑ Yes   ❑ No
   Describe:

3. Does the process use more than **two** water additions,
   Front- and Tail-water?   ❑ Yes   ❑ No
   Describe:

4. If a water reservoir is used, does it have only one (1) discharge valve?

   If so, how is the wash down water added?

5. How and when is water metered/added to the mix?
         ❑ Single, separate piece of equipment
         ❑ Other:

6. How many admixtures does this system use? (Note: four is the default maximum)

7. Is a single separate piece of equipment used to meter and discharge the admixture?

   If so, how and when is this device activated?

DRAWING OF PLANT

A drawing helps show system integration and design. Please include the location of all moving parts (gates, conveyors, augers), sensors, load cells, bins, silos, water and admixture lines.