SIMPSON TECHNOLOGIES

# Controller Information Worksheet: *Batch System*

***Please Note:*** The information contained on these pages is used by Simpson Technologies Corporation, to properly determine the size of water valves, moisture probe and thermocouple length and programming and proper sequencing of equipment associated with the new Hartley compactability controller. Please fill out one form for each mixer carefully and accurately as field changes resulting from insufficient or inaccurate information could result in delayed start-up or additional charges.

## Company Information

**Company Name:** _____ **Purchase Order:** _____

**Address:** _____ **City:** _____

**State/Province:** _____ **Country:** _____ **Zip Code:** _____

**E-mail address:** _____ **Fax No.:** _____

**Contact Name/Title:** _____ **Phone No.:** _____

## Mixer: Describe the muller/mixer that the controller will monitor.

***Skip this section if the Hartley Controller will be provided with a new Simpson or B&P Muller***

1. **Available Power:** ***Voltage:*** _____ ***Frequency:*** _____
2. **Manufacturer & Model:** _____
3. **Number of Discharge Doors:** _____
4. **Batch Size (lbs.):** _____
5. **Motor HP:** _____ **Voltage:** _____ **Amps, Full Load:** _____ **No Load:** _____
6. **Total Cycle Time (sec):** _____
7. **Discharge Time (sec):** _____
8. **Are there any special modifications?** ☐ **Yes** ☐ **No**

   ***If YES, describe:*** _____

   _____

   _____
9. **Equipped with a Damper:** ☐ **Yes** ☐ **No** ***If YES, Location:*** ☐ **Top, Vertical** ☐ **Side, Angle**

## Desired Method of Sand Charging (Please Select One of the Following):

***Skip this section if the Hartley Controller will be provided with a new Simpson or B&P muller.***

**Volumetric:**

☐ **Batch Hopper:** ***Fill Time (sec):*** _____

**1. Hopper Volume ($ft^3$):** _____ **Size:** _____

**2. How Supported:** ☐ **Mixer Dust Hood** ☐ **Overhead**

**By Weight:**

☐ **Weigh Hopper**

**1. Scale Manufacturer:** _____

**2.** ☐ **4-20mA Output Capability (Analog)** ☐ **Dry Contact Output (Digital)**

☐ **Other:** _____

## Desired Method of Filling the Batch/Weigh Hopper:

☐ **Conveyor**

☐ **With Plow** ☐ **Terminate into Hopper**

☐ **Bucket Elevator**

☐ **With Surge Hopper** ☐ **Directly into Hopper**

☐ **Overhead Bin**

☐ **Vibrating Bottom** ☐ **Gate**

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## Current Water Addition:

1. Gallons used per batch: *Max:* _____ *Min:* _____
   - ☐ Clear Water ☐ From Dust Collector
2. Water Supplied By: ☐ City Water ☐ Pump and Tank
3. Water Pressure at Mixer: _____
4. Water Pipe Size at Mixer: _____
5. Indicate any *existing* water problems: _____

## Other:

Sand Temperature (*Indicate ºF or ºC):* *High:* _____ *Average:* _____ Low: _____

Sand Moisture (%): *High:* _____ *Average:* _____ Low: _____

### Existing Limit Switches Indicating:

**Skip this section if the Hartley Controller will be provided with a new Simpson or B&P muller.*

| | | | |
|---|---|---|---|
| Batch/Weigh Hopper Gate: | ☐ Open | ☐ Closed | ☐ None |
| Muller Discharge Door: | ☐ Open | ☐ Closed | ☐ None |
| Stack Damper: | ☐ Open | ☐ Closed | ☐ N/A |
| Blower: | ☐ Open | ☐ Closed | ☐ N/A |
| Bond Dumper: | ☐ Open | ☐ Closed | ☐ N/A |

### Existing Solenoids:

**Skip this section if the Hartley Controller will be provided with a new Simpson or B&P muller.*

Solenoid Voltage: _____

| | | |
|---|---|---|
| Batch Hopper Gate, Energized to: | ☐ Open | ☐ Close |
| Muller Discharge Door, Energized to: | ☐ Open | ☐ Close |
| Stack Damper, Energized to: | ☐ Open | ☐ Close |
| Blower, Energized to: | ☐ Open | ☐ Close |
| Bond Dumper, Energized to: | ☐ Open | ☐ Close |

Does Blower & Stack Damper use the *same* solenoid*?* ☐ Yes ☐ No

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## Existing Sand Demand Method:

Discharge Hopper, Capacity: _____

1. Type of Level Probe: ☐ Capacitive/Conductive ☐ Rotary Paddle ☐ Other
2. Does Discharge Conveyor run: ☐ Continuously ☐ On Demand
3. Will more than one mixer discharge on the same belt? ☐ Yes ☐ No
4. Is the mixer controlled by Hartley Compactability Controller? ☐ Yes ☐ No

No. of Molding Machine Hoppers: _____

1. Is there a Level Probe? ☐ Yes ☐ No
2. Distance of Mold Hoppers from Mixer: _____

## Desired Bond Addition System:

1. Type: ☐ Premix ☐ Bentonite ☐ Seacoal ☐ Cereal
2. Amount per Batch: *High:* _____ *Avg.:* _____ *Low:* _____
3. How Added: ☐ Screw Conveyor ☐ Belt Conveyor ☐ Vane Feeder ☐ Plate Feeder ☐ Pneumatic ☐ Manual ☐ Other:
4. Where is Bond Added: ☐ Batch Hopper ☐ Bond Dumper ☐ Mixer ☐ Other, Explain: _____

## Desired New Sand Addition System:

1. Amount Added per Batch: _____

   Per T/Iron Poured:
2. How Added: ☐ Screw Conveyor ☐ Belt Conveyor ☐ Rotary Vane Feeder ☐ Plate Feeder ☐ Pneumatic ☐ Manual ☐ Other:
3. Where Added: ☐ At Shakeout ☐ Batch Hopper ☐ Mixer ☐ Belt Conveyor ☐ Other: _____

## Existing Sand Characteristics:

1. **Sand Type:** ☐ **Silica** ☐ **Olivine**
2. **Compactability:** _____
3. **Moisture:** _____
4. **Methylene Blue:** _____
5. **Sand to Metal Ratio:** ***High:*** _____ ***Low:*** _____
6. **Green Strength:** _____
7. **Available Clay:** _____

| **Metals Poured:** | ☐ **Iron** | ☐ **Brass** | ☐ **Aluminum** | ☐ **Steel** |
|---|---|---|---|---|

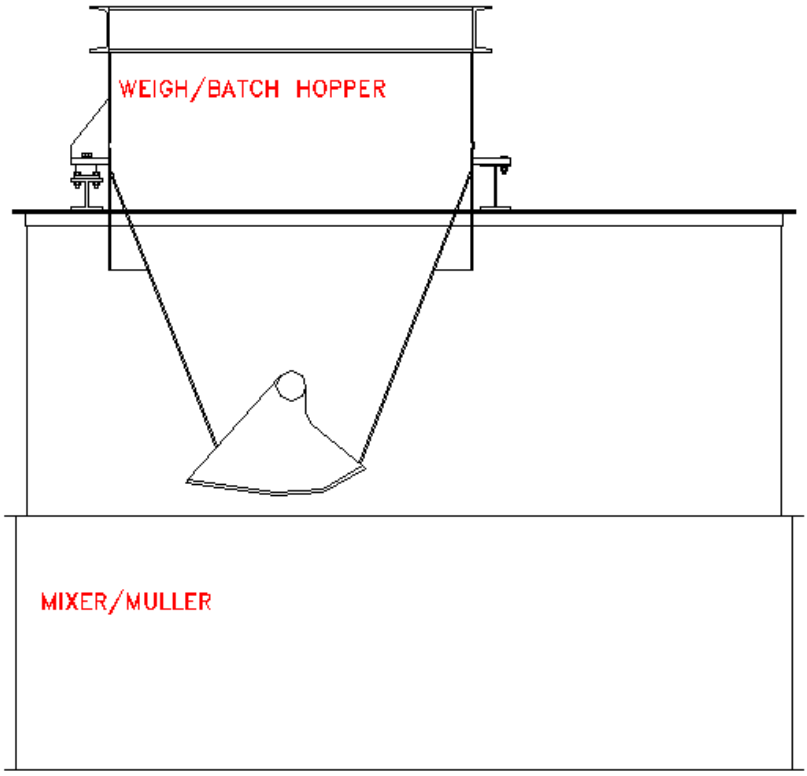
## Special Requirements:

**Please indicate any unique characteristics regarding your system that may not have been mentioned in the previous questions. (i.e. signal exchange with other equipment, bond/additives or new sand addition, bad batch handling):**

## Additional Information:

**On the following page, please sketch the following devices where applicable in relation to the mixer/muller sketch provided:**

- **Batch/Weigh Hopper Feed Device (Conveyor, Elevator or Hopper)**
- **Discharge Devices (Conveyor(s), Hopper/Chutes/Probe)**
- **Bond/New Sand Addition Location**
- **Desired Location of Hartley Compactability Tester**
- **Water Addition Location**
- **Any Associated Limit Switches, Probes or Solenoids**




**By:** _____ **Date:** _____

**RETURN TO:** **Simpson Technologies Corporation**
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