



CONCRETE RECLAIMERS

**Ready Mix Concrete Reclaimer & Environmental Application Data**

Please provide answers to the questions below. Your answers will help us determine the best model to use.

Name: \_\_\_\_\_ Company: \_\_\_\_\_

Plant Address: \_\_\_\_\_

email: \_\_\_\_\_ Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

**Part 1**

In Part 1, we are looking to define **how much** waste concrete needs to be handled, and **how quickly** it needs to be washed thru the equipment.

In order to size the equipment properly, you should base your answers on the **busiest time of day** (end of day, for example) and use the **largest, 'worst case' quantities** that you need to reclaim.

If you use 'average' numbers, it may dictate smaller equipment than you would need to handle the busiest times, meaning that the reclaimer will not handle those busy times as effectively, slowing down your washouts.

We ask for both current and future levels, to ensure that the reclaimer can handle your growth potential over the next 12-15 years.

a. How many Mixer Trucks operate at this location?

Now: \_\_\_\_\_ Future: \_\_\_\_\_

b. Annual Production at this plant? [cubic yards or meters, please indicate]

Now: \_\_\_\_\_ Future: \_\_\_\_\_

c. Please estimate Percentage of Concrete Produced which will become waste:

Now: \_\_\_\_\_ % Future: \_\_\_\_\_ %

d. Based on your answers above, please estimate how much total waste concrete is washed out per day: [cubic yards or meters, please indicate. Use Maximum worst case]

Now: \_\_\_\_\_ Future: \_\_\_\_\_

e. How many total washouts per day? [Use Maximum worst case. Some plants wash-out every truck each time it returns to the plant, others only washout at end-of-day]

Now: \_\_\_\_\_ Future: \_\_\_\_\_

f. Please estimate Percentage of loads using pigment color dyes:

\_\_\_\_\_

g. Please estimate Percentage of loads using fiber mesh or similar materials:

\_\_\_\_\_

f. Maximum Aggregate Size: [inches or mm, please indicate] \_\_\_\_\_

g. How many mixer trucks need to washout at the same time [circle one] 1 2 4 Other: \_\_\_\_\_

**Part 1 continued**

h. How often do washouts occur? [Every "X" minutes, or "Y"-per-hour, for example. Use Maximum worst case]

Now:

Future:

i. Largest amount at once?

[Maximum worst case, largest mixer truck capacity perhaps. Cubic yards or meters, please indicate]

Now:

Future:

j. Describe your application requirements in more detail on additional sheets, if necessary.

**Part 2**

*In Part 2 we are looking to define your **existing** equipment and facility. We want to know how you **currently** handle your washout and left-over concrete, and what **reclaimer experience** you have already had, if any.*

Type of Plant:

Dry Batch

Wet Batch-Central Mix

a. Please circle the item(s) that best describe how you handle your washout and waste concrete.

**[Circle ALL that apply]**

1. We are currently operating a Reclaimer.
2. We had a reclaimer, but it is no longer in service.
3. We washout into a settling pond or bunker.
4. We pour blocks or other forms.  *We are able to sell all the blocks we make*  
 *Excess blocks take up a lot of our yard space*
5. We discharge onto the ground (windrow), let the concrete harden, and then stockpile the material for later crushing or haul-off.
6. Other (define/describe):

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***If you circled number 1 or 2 above, please answer questions 2b through 2d. Otherwise, please skip to question 2e below.***

b. Please describe your Reclaimer: [*manufacturer, make and model if known. Otherwise, type: i.e. auger/screw, paddle wheel, bucket wheel, drag chain, etc.*]

c. How many years is/was the reclaimer in operation: \_\_\_\_\_

d. We were generally **satisfied** **unsatisfied** with this reclaimer. *Please circle one*  
If unsatisfied, was it due to that specific reclaimer's design and operations (too much maintenance and repair requirements, doesn't provide clean reusable aggregates, etc.) or was it due to reclaiming in general (reclaimers take up too much truck time, drivers don't use properly, etc.)? Please explain:

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## Part 2 continued

*Skip to this point if you have never used a reclaimer at this location.*

e. Do you have any existing settling ponds or washout pits? *Please attach dimensioned sketch or drawing.*

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f. Describing your current washout system, what do you do with each of the following?

Rock/Coarse Agg:

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Sand/Fine Agg:

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Cement:

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Water:

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g. We use: *check all*  Poly/Nylon Fibers  Steel Fiber  Color/Pigments  Air Entrainment

## Part 3

*In Part 3 we are trying to determine how you plan on separating the cement from the slurry discharge, and other water issues.*

*In most installations, cement is separated from the water and disposed of. We'd like to find out how you want to accomplish that. The water is then recirculated back to the reclamation equipment and used to wash more incoming waste concrete.*

*Some users wish to use excess water back at the plant. Please check any/all of the following that you have interest in using:*

### Settling Ponds

Settling ponds are the most common method. They must be long enough to allow sufficient settling time to get the cement to fall out of the slurry/water stream. You also need to be able to clean the settled solids out (front-end loader, skid-steerer or hoe). They should be deep enough to allow some stockpiling to minimize the frequency of clean-outs. **Flocculants** (discussed below) help to settle solids more quickly, thereby allowing smaller or fewer ponds.

### Flocculants and Flocc Feeders

Flocculants can provide benefits to a multitude of separation methods. If used with settling ponds, generally the ponds can be made shorter, or you won't need as many, as the flocculants will settle the cement out much more quickly than gravity alone.

Flocculants will also pull solid **color pigments** out of the slurry stream. Additionally, many of the heavy metals will be encapsulated in the flocc particles, thereby removing them from the water. Other benefits to Flocculants include larger particle sizes of waste cement (will pass a Paint Filter test, important for landfill disposal) and dryer material, typically allowing the user to stockpile the waste cement in a bunker without the fear of it "mucking up" again when it gets wet.

Flocculants actually scrub the pump and plumbing clean of built-up cement, minimizing plugging and repairs, and can also aid devices such as filter presses, by making them more efficient.

### pH Adjustment

pH adjustment systems using readily available CO<sub>2</sub>, to lower pH to acceptable levels for release (where allowed), for use in future batches, or for use as yard water (stockpile cooling or dust suppression).

Additionally, CO<sub>2</sub> will help drop out suspended solids, and will also take care of pond foam caused by air entrainment.

### Other:

Other technologies, such as filter presses, or

Define:

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Please answer as completely as possible, and return to BFK via Fax or Email, listed at the top of the page.