

RBC SERVICES UPDATE

RBC Services
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RBC WEIGHT LOSS PROGRAM

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Among the numerous RBC Service UPDATES you have received to date, you will find several which discuss aeration for biomass control and load cells for monitoring RBC weights.

As with any weight loss program, a scale is needed to determine weight, along with a prescribed diet for weight reduction and exercise to keep the weight off.

In the case of RBCs, the scale is a load cell, the diet is aeration and the exercise is the periodic schedule you follow to keep weights under control.

Regardless of the manufacturer, any RBC can be outfitted with a load cell. While aeration will enhance any RBC process, all but the old Walker BioSpiral type media will benefit from aeration for biomass control and weight reduction.

The majority of RBCs in operation today are 15 to 18 years old. Considering plant designs which were based on 20 years, their lives are coming to an end...or are they?

Many municipalities are expanding their plants and adding more RBCs or upgrading their current equipment. With those expansions or upgrades, the addition of aeration and load cells is the key factor to longer equipment life and better process.

When recommending aeration at particular plants, some RBC operators would explain that aeration wasn't needed because they had no problems with their units for the past 7 to 10 years or so. Then suddenly, media support structures, media or shafts would begin to fail, and they didn't know why.

The problem is there was no means of controlling biomass weight. The heavy load over all those years finally took its toll. Now, you're faced with a major repair project which also carries major expenses - cranes, labor crews, replacement equipment and down-time, which can lead to non-compliance and possible fines.

Could this problem have been avoided? YES! Is it too late to install a protection system for older RBCs? NO!

While stresses imposed to the RBC equipment is cumulative and cannot be reversed, installing a complete control system can guarantee the longest life possible from your RBCs.

On a per unit basis, the cost of aeration and a load cell for an RBC is less than 15% of the cost for a replacement RBC. If your plant has multiple RBCs, the cost for aeration is less, while the cost of repairs or replacements can mount up very quickly, and in some cases, astronomically!

Understandably, most people are skeptical at first when expenses are a factor for additional equipment. But, considering the alternative, it's well worth it. Each operator we've worked with to install aeration for their RBCs has said they wished they had done it sooner.

An aeration system – such as **SideCar** can easily be adapted for your RBCs, regardless of their number or stage configuration. For biomass control only, it is not necessary to aerate all RBCs, just the primary units or stages which experience the heaviest loads.

For the proper application of an aeration system, there are certain air rates which are necessary to perform the task. This also dictates the piping size required to ensure the RBCs are receiving full benefit from the air supplied.

There have been cases when an inadequate aeration system had been installed and failed to perform as expected. While concern whether aeration really worked was valid, it was only a matter of improper air rates and pipe sizes.

In the UPDATE, Issue 1, 1997, an option was mentioned regarding the modification of treatment stages. The problem of overloading units downstream of an enlarged treatment stage could have been alleviated by aeration. Sure, the expense was still there, but it would have been far less than the cost of a replacement RBC.

As we state in our brochure, when you have a special process, it takes a specialist to help keep it running. At RBC Services, that's all we do, and we have the experience to do it right.

If you would like to hear some first hand opinions of how RBC aeration has worked at other plants, just give us a call. We'll be glad to provide some references.

We have more experience with the aftermarket application of RBC aeration than any other firm in the country. Let us put this experience to work for you. Together, we can make a difference. If you have any questions, please don't hesitate to give me a call.