Extract from International Bakery Magazine interview with Massimo Mariola (CEO Carbext (Pty) Ltd - June 2018 edition

HOW A HEATED SOAK TANK CAN CUT COSTS, IMPROVE KITCHEN & RESOURCE EFFICIENCY

According to Massimo Mariola, CEO of Carbext (Pty) Ltd, "*In any discussion about sustainability, it is likely that carbon will enter the discussion at one point or another. In any conversation about sustainability in the kitchen, carbon also has a place, but in more ways than one*."

"*It is not only the carbon emissions from running the lighting, appliances, it is the actual carbon build-up on pots, pans and other cooking and baking items. This build-up is a barrier to heat, which means it can take longer for items to cook or bake.*"

"The longer ovens or stoves run, the higher the electricity bill and related environmental impact. "

"Carbon build-up can also impact the quality of the product cooked or baked and can be a home for bacteria."

Fortunately, Carbext (Pty) offer a heated immersion (soak) tank *that eliminates carbon build-up*.

THE CARBEXT IMMERSION TANK

Removes build-up from metal cookware and kitchen and bakery equipment. It is constructed from Polystone Polypropylene (An extremely efficient material that does not deteriorate over time) and *cleans all types of metal*, including aluminium, cast iron, etc.

The standard tank range comes in *different sizes—*

100 Litres,
150 Litres,
300 Litres, and
500 Litres.

"*We also offer custom sizes for larger applications*" Mariola says. "*We can make a 1000 Litre tank, a 2000 Litre tank, and we recently manufactured a 22,000-litre tank for an industrial chemical plant for chemical separation.*"

Mariola says "*the CARBEXT IMMERSION TANK eliminates a lot of the labour, energy, water and chemicals associated with cleaning pots, pans, vent hood filters and other kitchen equipment.*"

"*Users of the Immersion Tank simply fill it with water, add the Carbon Remover Powder supplied by Carbext which is Intertek (EU) certified as food safe and, load the tank with the dirty items, close the lid and leave the items to soak. The final step is removing and rinsing the items."*

AN INEFFICIENT SINK PROCESS

Those not using a heated immersion tank typically rely on a three-compartment sink for cleaning dirty pots and pans and other items.

Removing caked on grease and carbon this way can be labour intensive, aggravating to employees, and ergonomically impactful over time. The chemicals used also can be harmful. "*You are typically using large quantities of water, sanitizer, and detergent*" Mariola says.

WATER COSTS

"*Water costs are significant because water needs to be replaced three to eight times a day. That water needs to be heated. Sanitizer and detergent also need to be replaced often. "*

"*Also, scrubbing the items can reduce their life expectancy*."

"*Using a heated immersion tank, water can be used for days at a time and the solution in the tank can last for a full month. The immersion Tank typically operates at 70 degrees centigrade.*"

"*Because it is well insulated by the wall thickness of the immersion Tank, the heating element runs very energy efficient whilst a thermostat controls the heat consistently. "*

Mariola says "*There was a time when immersion tanks used cold water and a harsh chemical for cleaning (eg Caustic Soda.) That chemical is extremely hazardous to the operator and the items being cleaned could deteriorate and actually start pitting the kitchen equipment which eventually led to holes in the kitchen equipment."*

Cleaning in cold water was also not very efficient and took a long time.

"*Today's heated immersion tanks are much more efficient and able to do a lot of the functions of the sink but more efficiently and at a much cheaper cost. In the cleaning process, matter either floats to the surface or drops down as heavier sludge.*

"*There are perforations in the lifting basket—the tank within the tank—that allow the sludge to fall to the bottom of the tank."*

HEAT RETENTION

"*The exterior of the Carbext Immersion tank is cool to the touch and will not burn or scold the kitchen staff, therefore reducing heat in the kitchen which builds up with all the appliances in the kitchen."*

"*At the end of each month, the heat is turned off, the tank is drained using the floor drain, and the debris is removed."*

"*The CARBEXT Immersion Tank is fully insulated and thermostatically controlled. Once the appliance reaches a temperature of 70 degrees, the heater will switch off. It will remain off until the temperature drops gradually and then switch on again when it reaches the low set point. While the heater is off, virtually no electricity is being used.*
The heater remains off 75 percent to 80 percent of the time."

CARBX-001 SPECIALLY FORMULATED CHEMICAL

"The CARBEXT Immersion Tank uses specially formulated chemicals which last for a month at a time." This chemical is certified food safe and both EU and SABS compliant."

"At the end of the monthly cycle, the water, residue and chemicals must be replaced."

According to Mariola," Hood *filters cleaned using the CARBEXT Immersion Tank help to keep kitchens cooler as well. Efficient filters also reduce strain on extraction motors."*

TESTS

"Tests conducted by Carbext (Pty) Ltd found the total immersion Tank cost to be significantly less per day (up to 2/3) as compared to a three-compartment sink and further costs for an electric washing machine and other cleaning appliances and further added labour costs. The use of Polystone Polypropylene as a material also reduces the energy required and is hygienic without scaling, etc."

WHAT SHOULD ONE LOOK AT

When asked what one should look at when considering heated immersion tanks, Carbext's Mariola says "*it is important to get an understanding of the volume of filters and other items that need to be cleaned. Space for the machine is also a consideration. However, the immersion tank is resistant of UV rays and can even be placed outside the kitchen, provided a waterproof power point is available"*

CERTIFICATION

*"Also look for Hazard Analysis and Critical Control Points or **HACCP** compliancy. It is the systematic preventive approach to*

food safety from biological, chemical, and physical hazards in production processes that can cause the finished product to be unsafe, and designs measurements to reduce these risks to a safe level.
It is the "Gold Standard" Mariola says. *"The insulation and quality of construction is also important."*

Carbext (Pty) Ltd gives its customers the option of purchasing or renting its soak tanks monthly with included on-site servicing

According to Mariola, "*in recent years heated soak tanks have become much better known. "We have reached a tipping point*," he says. "*You are helping the planet and helping people be safer.*"

Carbext has also introduced a range of chemicals, detergents, etc for various industries as well as manufacturing and maintenance of Fat traps.