

# Efficient, environmentally friendly coolant disposal

04 March 2011 – The disposal of spent coolants has become a significant factor in the operational cost of a plant. Especially hard hit are SMEs, since they frequently lack the space, the capital or the technical personnel to utilise the exotic recycling or treatment capabilities which larger companies have turned to. Yet, their costs and liabilities are proportionately the same or greater.

Now, Dimac Tooling, Mulgrave, VIC, presents an entirely different approach to the problem. Used coolants are normally 97% water. If the water is removed, the amount requiring disposal would be reduced to a mere 3% of the original volume.

To achieve this goal, Dimac recommends a piece of equipment known as the 'Water Eater', made by EMC in Santa Fe Springs, CA, USA. The Water Eater is available in gas and electric heated models. Evaporation rates range from 15 to 208 litres per hour. An optional Auto Fill System automates the process and allows for 24 hour operation.

The waste fluids are heated through the floor of the unit. At the same time, a power exhaust system continuously draws air across the surface of the heated liquid to speed evaporation and carry the water vapour out of the unit's stack. Should the unit run dry, an automatic shutoff prevents damage.

A unique feature is that it allows almost complete elimination of the liquid waste. The Water Eater waste water evaporator has been engineered to efficiently evaporate the water content from most non-volatile water-based liquids. A power exhaust system releases the moisture safely into the air, leaving only a small residue requiring disposal. The dry residue is simply scraped from the obstruction-free bottom of the unit periodically. Alternatively, the highly concentrated liquid residue, which remains after many reductions, may be taken out before becoming totally dry.

To minimise cleanout time, a fully removable cover is provided that allows for complete access to the entire tank. Most Water Eaters have a low top frame height which allows easy accessibility without the need of footstools or stands. The harsh environment inside a wastewater evaporator requires that only heavy gauge materials be used. All tanks (carbon and 316L stainless steel) are of mig welded, 12 gauge steel construction (316L stainless steel units also have covers, lid, and vent stack of stainless steel).

To keep the energy costs for evaporation as low as possible, the Water Eater features a large heat transfer area of the burner tube or heat exchanger. The large, 165mm diameter burner tubes on the gas models provide as much as 200% more heat transfer surface than competitive systems, EMC claims, thereby minimising heat-up time and decreasing energy costs. This large surface area has an additional advantage in that fewer hot spots are created and any sludge or scale buildup which can insulate and reduce system efficiency is minimised.

The massive reduction in the volume of liquids requiring disposal not only slashes disposal costs, but also economises by reducing storage area requirements, labour and time for handling, and frequency of disposals. All Water Eaters have been designed to operate simply and efficiently, and are constructed of quality materials and equipment to assure trouble-free operation and long-life service.

For more info please visit [www.dimac.com.au](http://www.dimac.com.au)

## Contacts

Barbara Schulz  
0488771477  
mailto:bschulz@com4tech.com.au