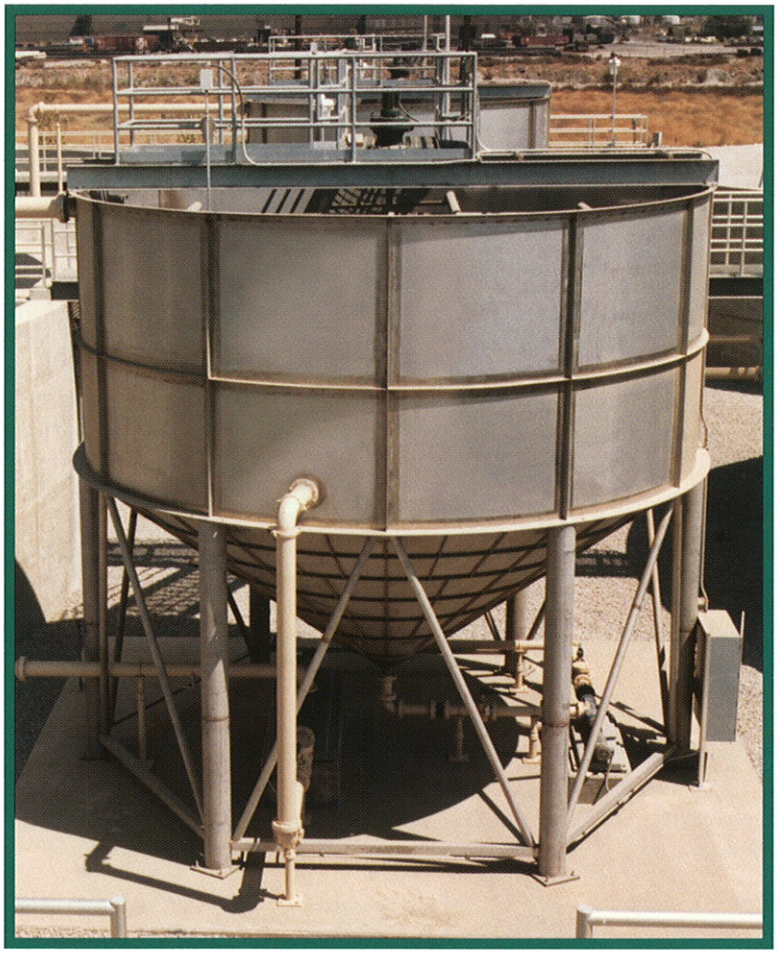


SAC™

BIO-CONTROL SYSTEM

SAC™
BIO-CONTROL SYSTEM

One of the most labor-intensive operations in a wastewater treatment facility is the wasting of activated sludge. Large amounts of manpower are normally required to waste the proper amount of sludge from the aeration basins in order to maintain the proper sludge age. Failure to keep a constant sludge age usually results in the generation of poor settling sludge and the development of adverse biological conditions. Facilities which experience improper wasting and biological control normally do not produce a high-quality effluent, especially during peak flow conditions.

The unique **SAC™** bio-control system is an advanced, state-of-the-art technology that can eliminate the manpower normally associated with sludge wasting and biological control. This proprietary system will automatically waste the proper amount of mixed liquor from the aeration basin on a continual basis in order to establish a constant sludge age. Even under fluctuating influent flows and varying biological loads, the sludge age can be maintained at practically any level. Biological upsets due to improper operations and poor wasting techniques can be minimized, through the use of this patented **SAC™** Sludge Age Control system.

Electronic detection of the sludge blanket level within the unit can be incorporated to automatically adjust the sludge withdrawal rate.

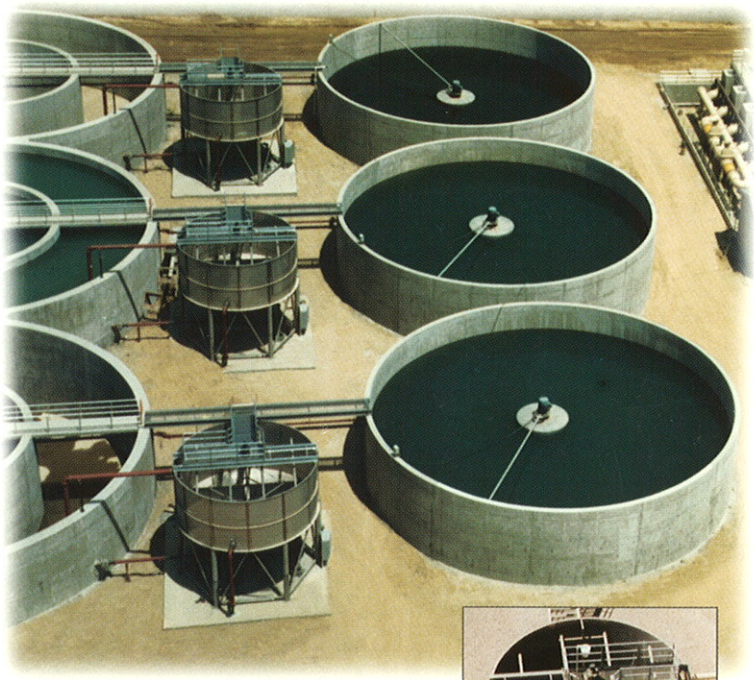
Twin oxidation ditches were utilized to add capacity and upgrade an existing activated sludge/RBC facility. This 1.5 mgd (5678 m3/d) system utilizes a single SAC™ bio-control unit for each ditch. Thickened sludge is continuously pumped to aerated holding/digestion tanks. This system allows for the sludge to meet Class B requirements.

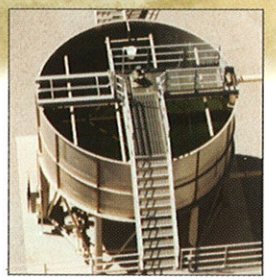
This compact, 0.29mgd (1100m^3/d) treatment facility handles high strength wastes in New Zealand. The SAC™ bio-control system automatically wastes thickened sludge into the holding/digestion tank.

State-of-the-art Technology... eliminating costly manpower.

In addition, the **SAC™** bio-control system will thicken the sludge prior to wasting. This allows for a maximum concentration of the waste sludge, which is thicker than the sludge from a mechanical clarification system. When the units are equipped with polymer feed equipment (optional), an even thicker sludge can be produced. The clear supernatant generated within the SAC™ bio-control system can be returned by gravity to the aeration basin. Thickened sludge is transmitted to any available holding basin on the plant site or to dewatering facilities.

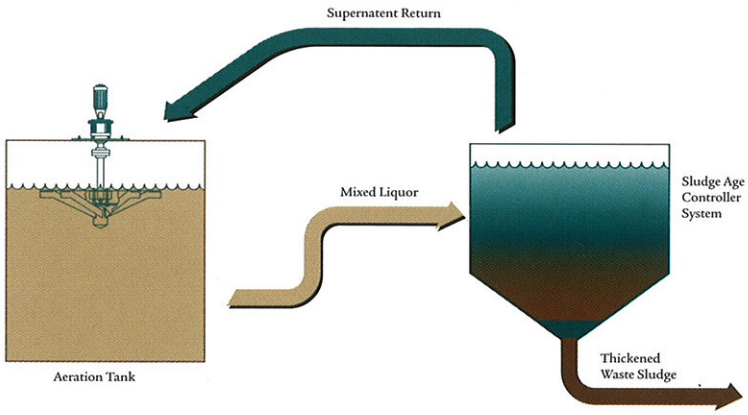
The **SAC™** bio-control system is fabricated in stainless steel and is pre-engineered to be applied to new or existing treatment plants. Smaller units are shipped to the jobsite fully assembled and ready for operation. These units can be used in conjunction with practically any biological treatment system that includes an aeration basin. Retrofitted units can be economically fabricated and installed in just a few weeks and there is no plant "downtime" during installation. Operation and Maintenance costs can also be reduced, due to the reduction in manpower and sampling requirements.





Automatic Sludge-Age-Control was accomplished at a large water reclamation facility in California which will ultimately treat 28 mgd. Sludge at this facility is dewatered using centrifuges and is then transferred to a composting facility.

This facility in Delaware was retro-fitted with twin bio-control units – one for each aeration tank. Plant down-time was minimal and the manpower requirement for sludge handling was reduced.



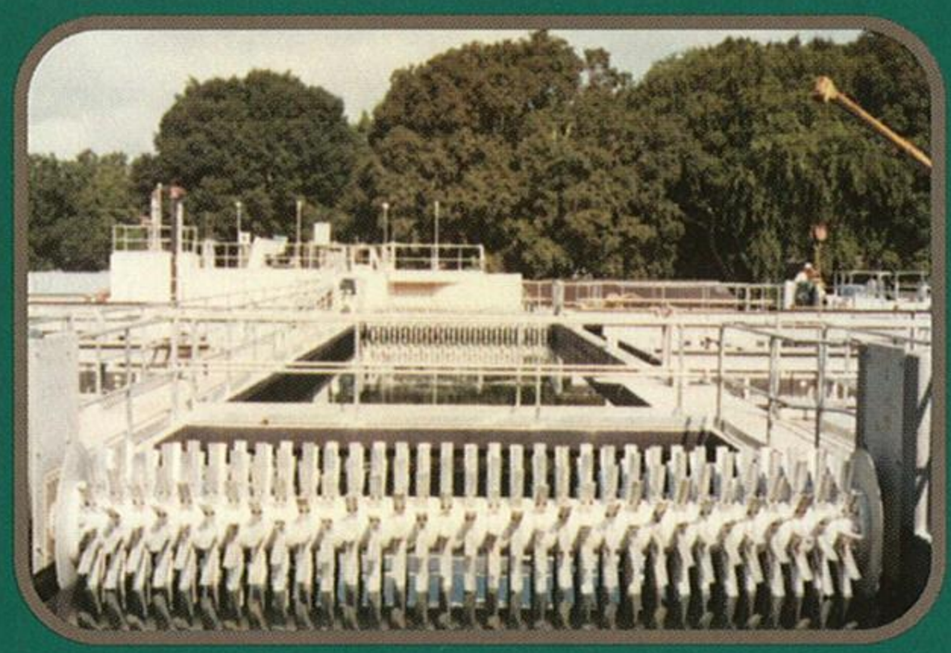
This diagram indicates the relatively simple flow pattern of SAC™ bio-control system. These units can be applied to either new or existing treatment facilities.

UNITED INDUSTRIES, INC.

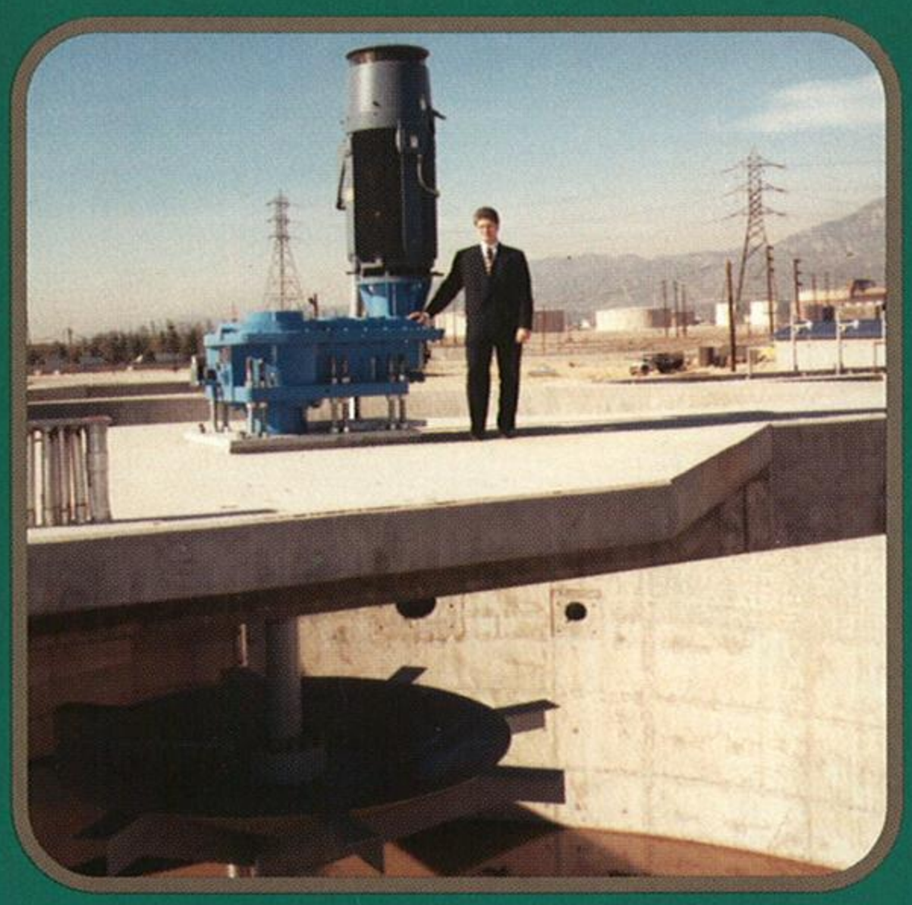
Existing Plant Out of Compliance?

DITCH IT!

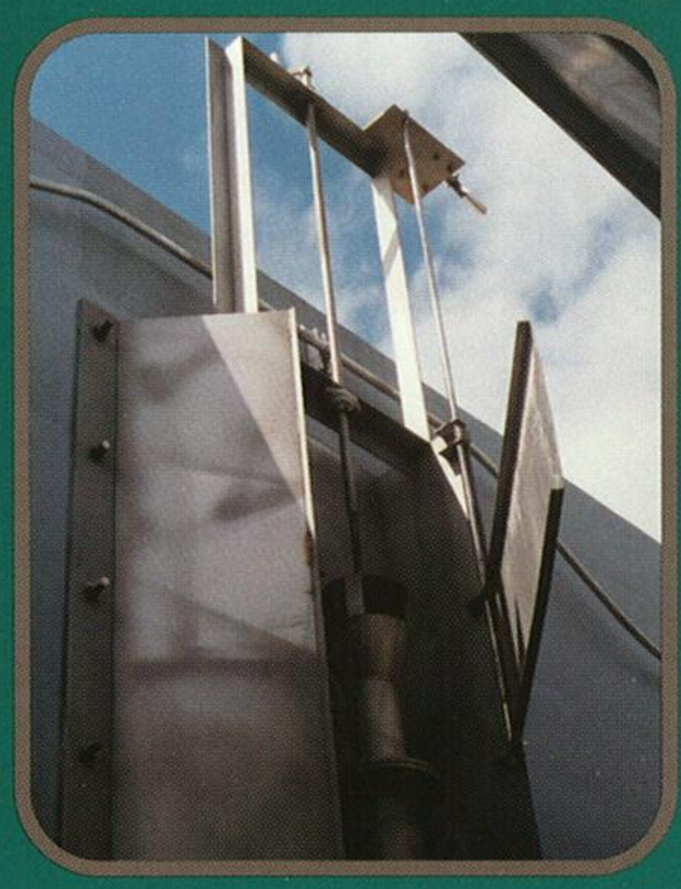
BULLSEYE™ nutrient removal process



Airbrush™ rotor aerators



SIMCAR® Aerators



SCUM SUCKER™ scimmers

BOAT® Intra-Channel Clarifiers

From the leader in oxidation ditch technologies

G J Beard International

&

United Industries, Inc.