

Second SBR Wastewater Treatment Plant, Chile

After the success of implementation of **S::Select® plant** in Chile, a second SBR plant is currently being upgraded with the aerobic granular sludge technology. The plant was originally designed for approximately 145,000 people with an average flow to the plant of 16,000 m³/day. The design load for BOD₅ was 3,200 kg/day.

Currently, the flows have increased, and the organic load is much higher than the design value. Accordingly, it had been planned to increase the biological treatment from four (4) to six (6) SBR tanks to manage the problems in load and with floating sludge. With **S::Select®** the plant will be expanded to treat up to 5,500 kg/day of BOD₅ without any addition of additional bioreactors, an increase of more than 70%.



The **S::Select® technology** achieves significantly better sludge settling velocity by granulation of the sludge. The guaranteed settling velocity is 3 m/h as a minimum. Furthermore, the selectors or hydrocyclones, which are characteristic for this technology, keep the granular sludge in the aeration tank system, and this will stabilize and increase the performance of the aeration tank system. The selectors will also separate the fast-growing bacteria, which are forming the floating sludge, as surplus sludge. Thus, the technology prevents the formation of floating sludge layers.



Installation of **S::Select**[®] is scheduled for February 2025 and the performance tests to follow in May 2025. All the equipment associated with **S::Select**[®] was delivered in Chile in record time.



All associated equipment will be installed in a new building that will house the two skids of sixteen (16) hydrocyclones each for a total of thirty-two (32) hydrocyclones in the plant.

The installation of the S::Select[®] technology will achieve the intended expansion of the WWTP by 70%. The plant would be able to treat the load of BOD₅ from an equivalent 240,000 PE in the existing tanks.