

ADVANCED SCREENINGS & GRIT WASHING EQUIPMENT REDUCES OFFSITE DISPOSAL COSTS FOR ALDINGA WWTP

CASE STUDY



THE CLIENT

The Aldinga WWTP was recently upgraded to improve its operational performance and reduce ongoing maintenance costs.

OVERVIEW

As part of the upgrade Hydroflux engaged to supply:

- 2 x HyTorq Vortex Grit Trap Mechanisms
- 2 x HUBER WAP/SL Advanced Wash Presses
- 2 x HUBER Screenings Grinders
- 2 x HUBER RoSF4 Grit Washing Classifiers

The advanced wash presses are fed via a sluice launder from two elevator screens. The screenings are subject to intensive maceration within the WAP/SL washing tank.



Over 97% of the organics are removed from the screenings which allows them to be dewatered to 40%DS. The screenings are clean and dry.

The sewage is de-gritted using HyTorq circular grit traps which capture grit particles sized 200 micron or greater.

Slurry pumps transfer the captured grit mixture to the HUBER RoSF4 Grit Washers. Here, the grit is subject to a fluid bed washing process that removes organics from the captured grit, producing a dry mineral sand that contains 90%DS. Both the screenings and grit washing process produces a dry product that reduces offsite disposal costs and returns much needed carbon to the liquid process stream.

Key Benefits:

- High screenings and grit volume reductions
- Reduced offsite transport costs
- Carbon return to the liquid stream
- No vermin in the skips
- Proven technology Australia wide

A unique aspect of the design is that screenings grinders were included at the discharge of the screenings discharge pipework.

The grinders allow for the breakup of the screenings plug and aids natural gravity discharge of the screenings into the screenings skip.