



BOOSTER STATION



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DAQUA BOOSTER STATION: OPERATING PRINCIPLE

PUMP TYPE EVALUATION

While flexible and easy to implement, submersible pumps in UG dewatering applications often have a low MTBF requiring numerous back up pumps and disproportionate amounts of man hours.



Booster Station installed in a large UG mine located in Santa Cruz, Argentina

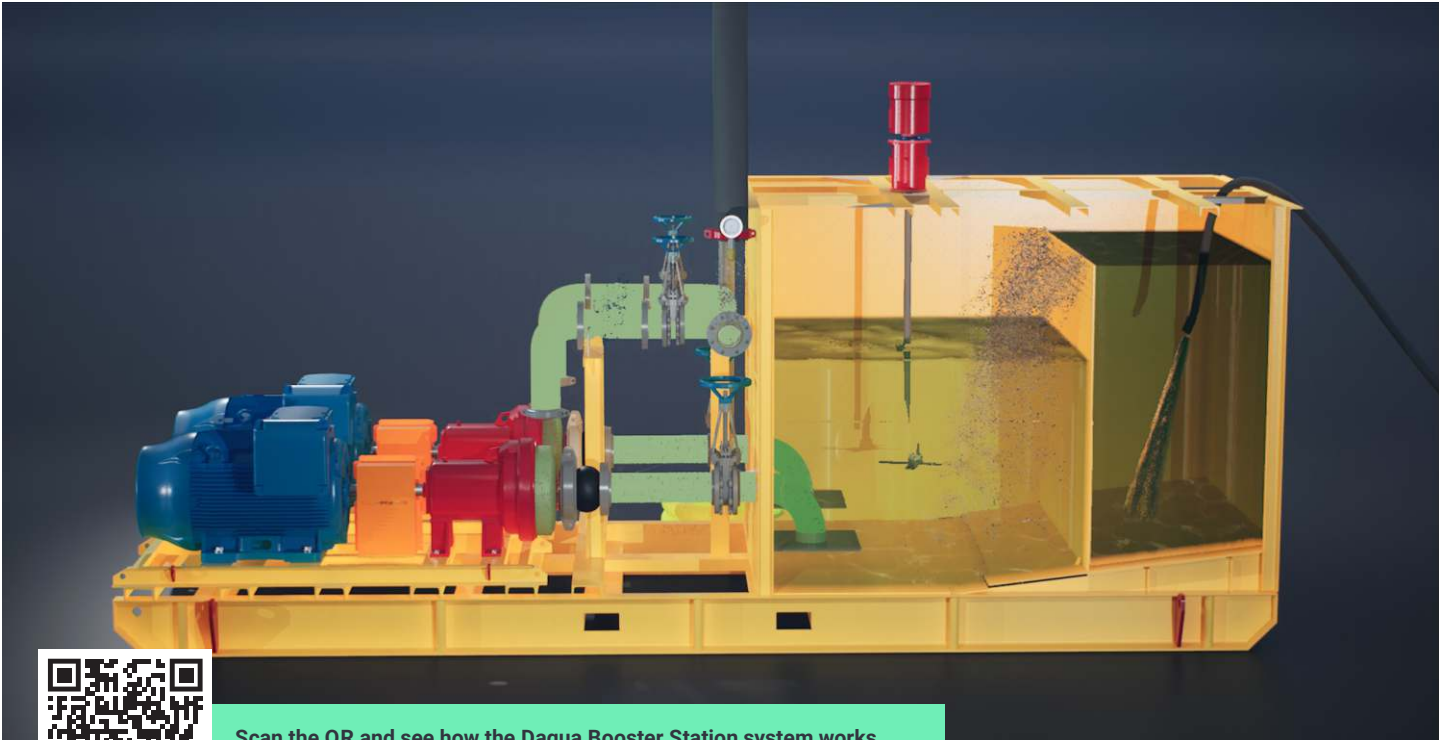
CAPEX vs OPEX

The CAPEX for submersible pumps can seem deceptively low with a relatively low cost per pump however, the sum total of labour, repairs and stock of back up pumps and spare parts can represent a significant part of the mine OPEX.

In addition, the development, maintenance and cleaning of cuddies and sumps increases the total cost of mine dewatering.

WHY A DAQUA BOOSTER UNIT?

The low operating speeds with non-submerged motors result in a drastic reduction of wear and an increase in MTBF. At the same time, the modular design of the Daqua Booster Station avoids the need to develop sumps, increasing operational reliability. The portable design and dump valve makes it easy to collect and remove accumulated fines and unlike fixed sumps the Daqua booster can be relocated to follow the mine face development.



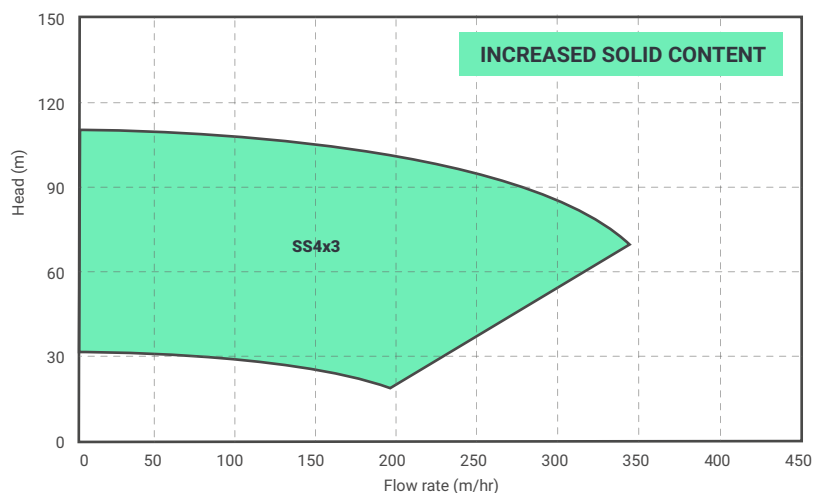
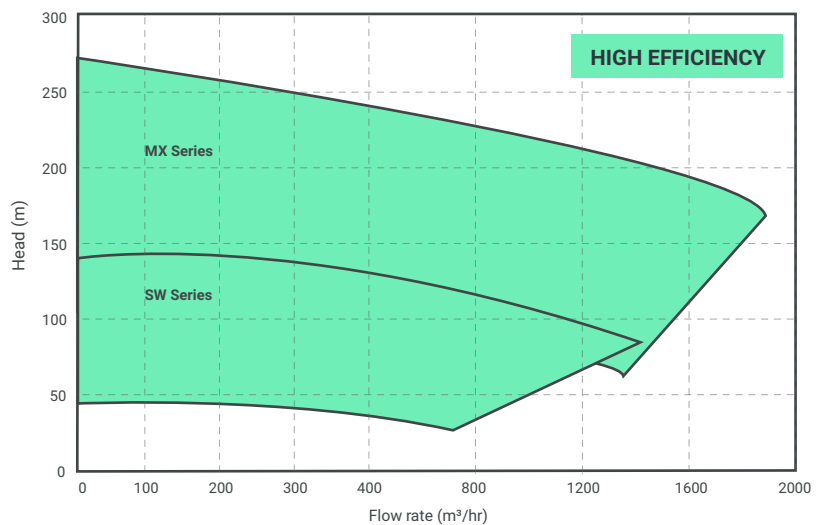
Scan the QR and see how the Daqua Booster Station system works

Components of the Daqua Booster Station:

- Two low rpm, high pressure centrifugal pumps designed for handling abrasive fluids (main and back up pump).
- Standard non-submersible motors.
- Holding tank to ensure sedimentation/solids collection.
- Agitator for mixing or assistance.

Technical information:

- Pressure: up to 270 m3 discharge pressure.
- Flow rate: 1800 m3/h. (140 l/s).
- MOC (Materials of construction): cast iron stainless steel, high chrome.



RELIABILITY AND FLEXIBILITY

Daqua Booster Station replaces multiple submersible pumps delivering more pressure (less pump stations and sumps) while reducing the number of control panels, installations and potential failure points. With one main pump and one backup pump, booster stations ensure reliability. The modular design allows it to follow.



Daqua Booster Station replaces the use of multiple submersible pumps

OPERATING INVESTMENT

The modular design of the Daqua Booster Station, complete with tank and drain valves for cleaning, avoids the need for sump development and maintenance. For both maintenance and relocation considerations to accompany mine face development, the Daqua booster unit represents greater reliability and lowered.

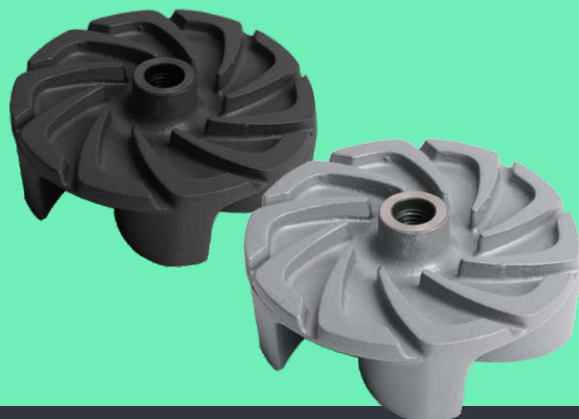


SAFETY AND CONTROL

Fewer pumps mean fewer electric motors and control panels, reducing operating risks for mine personnel.

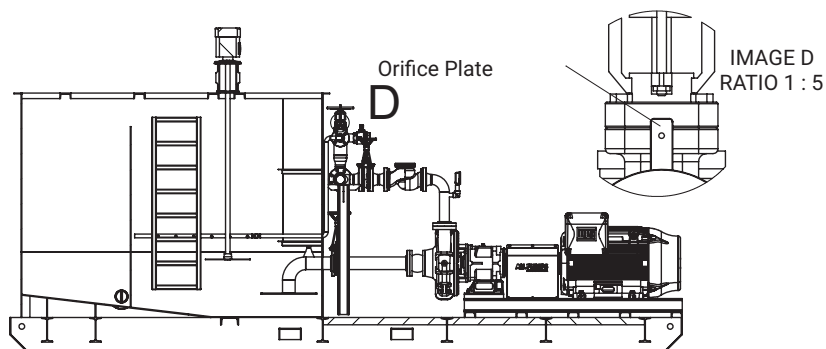
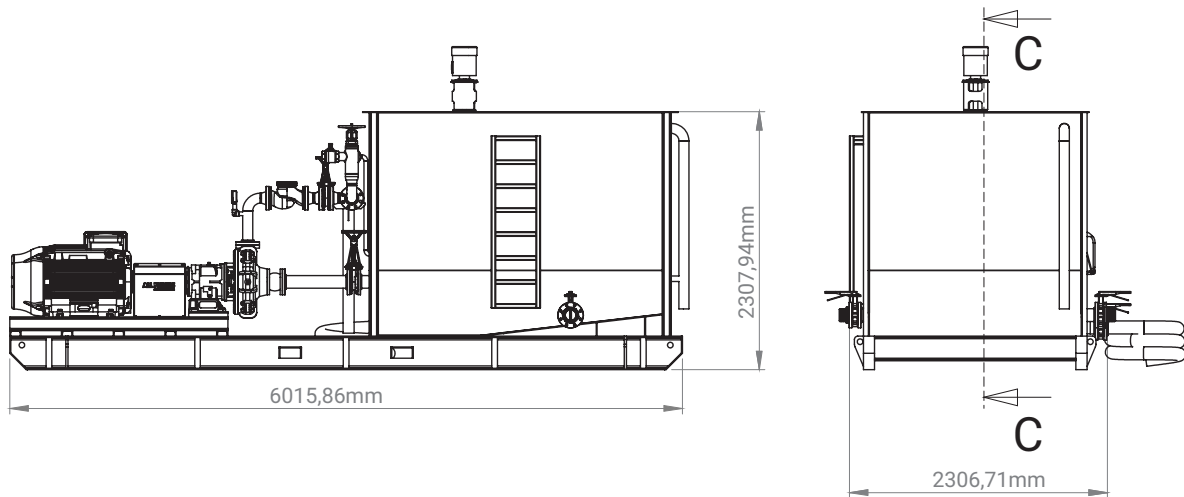
LOW MAINTENANCE AND CONSUMPTION OF SPARE PARTS

The industrial centrifugal pumps used by the Daqua Booster Station operate at low RPMs (typically 20% to 30% below submersible pumps) and therefore suffer less abrasive wear than submersible pumps. A robust sealing system and a rugged design ensures that unlike submersible pumps, mine water.

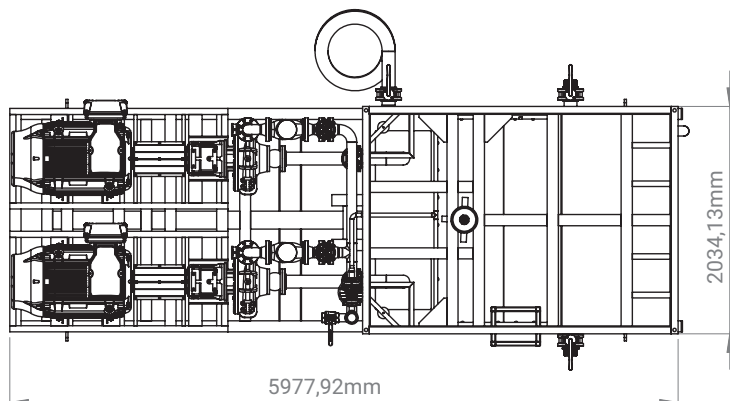


DIMENSIONS

Daqua Booster Station can be designed according to the available space and requirements of each mine.



SECTION c-c





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