

# CON

WATER

OIL & GAS

INDUSTRY

MINING

MARINE

## WATER & WASTE WATER



## Why Solcon?

Solcon Soft Starters provide solutions for the most demanding applications in the Water and Waste Water industry. As one of the first companies to penetrate the water and waste water market, Solcon supplied many municipalities with Soft Starters containing Pump Control software. With Solcon's unique algorithm these Soft Starters allow for a choice of unique starting and stopping curves, therefore eliminating the water surge and "Hammer Effect" which may cause pipe damage in water systems. Today, Solcon successfully provides this market niche worldwide, with products known for their long term reliability and robust design, installed in Mines, Sewage systems, Cooling systems, Desalination plants and many other applications, ensuring excellent performance in the harshest environments.

## Typical Applications

- Water pumps
- Sewage pumps
- Vertical Hollow Shaft pumps
- Submersible pumps
- Starting from Diesel Generators (weak mains supply)

## Special Functions for water pumping application:

- Reduced inrush current & mechanical shock
- Smooth, step-less acceleration & deceleration
- Unique soft starting and stopping characteristics
- Heavy duty, fully rated design
- Sophisticated motor protection package
- Ease of installation and operation
- Preparation for harsh environmental conditions
- Prevention of Over Pressure & Water Hammer

## Solcon Product lines for water pumping applications:

- Up to 630KW Low voltage special design Soft Starter - RVS-DX
- Up to 3MW Low voltage Heavy duty design Soft Starter - RVS-DN
- Up to 50MW Medium voltage special design Soft Starter - HRVS-DN

## How can you protect water systems with Solcon Soft Starters?

### Start Curves

Solcon's Soft Starters incorporate an Intelligent Pump Control algorithm that offers selection between five special dynamic voltage ramp-up curves, and Torque or Current curves. Reduces peak torque, thus, extends acceleration time.

Water Pumps - Valparaiso, Chile



### Stop Curves

When pumping to a higher elevation and when the motor is soft stopped, motor torque may quickly fall below load torque causing abrupt stalling instead of smoothly decreasing speed to zero. This may create a Water Hammer phenomenon resulting in a loud noise, disturbances and damage to the piping network. The Pump Control enables selection between four dynamic voltage ramp-down or Torque curves to prevent a stall condition and eliminate Water Hammer.

### Final Torque

Prior to concluding the deceleration process, motor torque reaches a level where the load torque is higher than motor's torque and the valve closes. The motor continues to run against a closed valve (no load) until it stops. The Final Torque feature enables setting a point where the motor stops when the valve closes, thus eliminating operation without water.



Booster Pumps - Medium Voltage

