

Salt Processing Operation Replaces Competitor Technology with ZGF Spring Filter Technology to Protect Deep Wells



Wastewater



**ZGF EZ Clean EC100S, 6-Pod
316 stainless steel pods / piping
Design: 150 gpm @ 210 psi**



**Each Pod contains (1) proprietary
ZGF Spring Filter elements
Inonel 625, 50µ absolute gap**

Customer Challenge:

A large salt processing facility generates a brine by-product. This by-product is disposed via injection into a deep well.

This brine must be filtered prior to injection to protect the well from perforation plugging, formation invasion, narrowing of the well bore and well bore fill up. Disposable filter bags and cartridges were used at a great expense, including media costs and disposal. These filters also required significant labor for change out. The plant implemented a competitor's automatic, self-cleaning filter. The competitive product utilized a fixed screen / wedge wire type filter element. The automatic, self-cleaning process was not effective requiring manual cleaning of the filter elements by the maintenance staff.

The facility needed an automatic filter that was effective and reliable that could operate unattended with virtually zero maintenance involvement.

ZGF Solution:

ZGF installed an EC100, 6-Pod automatic filtration system. The brine was high in chlorides so ZGF utilized special materials. The filter pods and piping are 316 stainless steel and Spring Filter elements are Inconel 625.

The proprietary ZGF Spring Filter element overcomes the design disadvantages of the fixed screen competitor's technology.

The ZGF Spring Filter element opens uniformly along its entire length during backwash.

- Particles wedged or lodged are quickly released and washed away as the gap is increased.
- The Spring filter element "shimmers" which further enhances the cleaning process.

Results:

- The ZGF Spring Filter elements are completely cleaned with each automatic backwash cycle.
- The ZGF system operates unattended with virtually zero maintenance.