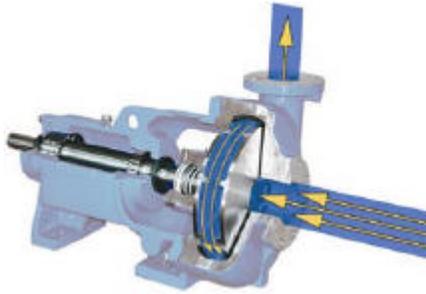


CASE STUDY

Hot Acid Recirculation Pumps

Allegheny Ludlum, Pennsylvania



The Challenge

Pumping hot hydrofluoric/nitric acid with large abrasive solids

Existing pumps failed at least four times a year

Costing \$32,000 minimum in repairs and parts, excl. labor

The Discflo Solution

Disc pump lasted 5 years so far without breakdown or repairs

Pump's 'boundary layer effect' limits abrasive/corrosive wear

Open, no-close-tolerance design ideal for solids up to 4" in size

The Pennsylvania plant of US steelmaker Allegheny Teledyne has had more Discflo pumps installed. Like the other Disc pumps on site, they are being used in some extremely abrasive applications, including pumping hydrofluoric/nitric acid solution at 1800°F containing 1/2" ceramic brick particles. Some of the pumps are made of a non-metallic PVDF material, while the rest are our standard stainless steel construction.

The steel manufacturer originally employed end-suction centrifugal pumps in this application. However, these pumps suffered complete failure at least four times a year, each time costing \$8000 to repair. The first Disc pumps were installed in 1993, and the Discflo equipment has performed exceptionally well ever since.

"In five years, we have never had a pump failure," says Dave Polcha of Steel City Pumps, Discflo's distributor involved in the project. "Every time we've inspected the disc pumps, there has been no sign of appreciable wear on the Discpac".

Based on this success, Allegheny installed another Discflo Disc pump in 2000. The pump, a vertical cantilever 604-14-2HHD Model with a CD4 wet end, is used to pump hot acid recirculate with steel particles of up to 2.375" in size. The pump is designed for a flow rate of 750 GPM at 50 ft TDH.

These successes represents another milestone for Discflo in demonstrating the Disc pump's ability to handle extremely abrasive and corrosive fluids. The savings for the steel company in terms of repair costs and downtime have been considerable since 1993. The pumps are expected to continue to perform well, with minimal wear, for many years to come.



Call Discflo now to find out how our pumps can solve your problems.