

Application story



Hydrochloric Acid in Hydrofluoric Acid Waste Stream Treatment

Location	USA	Hydra-Cell model	D10XKNGTTTTTH
Type of application	Hydrochloric Acid in Hydrofluoric Acid Waste Stream Treatment	Flow rate	Up to 30 l/min (8 gpm)
Liquid	Hydrochloric Acid Hydrofluoric Acid	Pressure	10 bar (145 psi)
Application details	Hydrofluoric acid (HF) is an important wet process chemical in the manufacture of semiconductors. The waste HF stream must be treated and as part of this treatment a 47% concentration of hydrochloric acid (HCl) is metered into the waste HF stream. A major US producer of semiconductors previously used Milton Roy single diaphragm metering pumps for this task. With its traditional single diaphragm technology, the replacement cost of this type of pump is very high, while the pump's footprint is very large. The company now uses Hydra-Cell D10 pumps for this application. Duty cycle is 2-3 hours every 3-4 days. The first units have been in service for several years with no issues. The company carries out an annual check on diaphragms, valves and springs. To protect the pumps externally against the corrosive local environment in which they work, they were modified by coating the complete liquid head and hydraulic end with a Halar and Teflon coating.		
Advantages of Hydra-Cell pump on this application	Compact design, with multi-diaphragms in a single head. Replacement of old single-diaphragm technology associated with high initial cost and large footprint.		

www.hydra-cell.co.uk

Wanner Engineering -
World Headquarters & Manufacturing
Minneapolis USA
t: (612) 332-5681
e: sales@wannereng.com

Wanner International
Hampshire UK
t: +44 (0) 1252 816847
e: sales@wannerint.com

Wanner Pumps
Shanghai CHINA
t: +86-21-6876 3700
e: sales@wannerpumps.com

Wanner Pumps
Kowloon HONG KONG
t: +852 3428 6534
e: sales@wannerpumps.com