LEVITRONIX®
PUMP SYSTEMS

THE PUREST PUMPS IN WET CLEANING / ETCHING

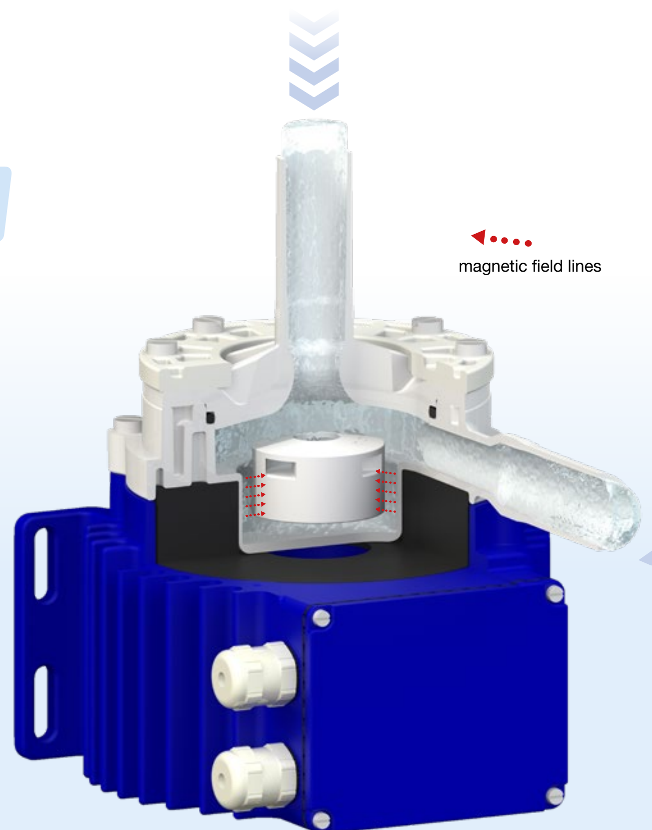
LEVITRONIX®

MEET THE INDUSTRY STANDARD

To meet increasing sensitivity to semiconductor manufacturing contaminants, wafer cleaning has become one of the most critical operations. Minimized particle contamination from process equipment is of paramount importance to obtain a high yield.

In comparison to Levitronix® pumps, pneumatic pumps wear out due to friction of check valves, bellows, diaphragms, and other components. Wear can cause particle shedding that causes wafer defectivity.Furthermore, the pulsating flow of pneumatic pumps may reduce filters' performance due to increased particle release.

Levitronix® pump systems are designed for demanding wet cleaning applications where ultrapure and pulsation-free processing will ensure the highest yield.



The magnetic levitation allows high rpm resulting in continuous, large flows.

ADVANTAGES OF A LEVITRONIX® PUMP SYSTEM

The Purest Pump //
ultra low particle generation

Levitronix® pump systems are based on active magnetic levitation. There is no mechanical coupling between the impeller and the pump head casing, which leads to wear-free operation and, therefore, virtually no particle generation.

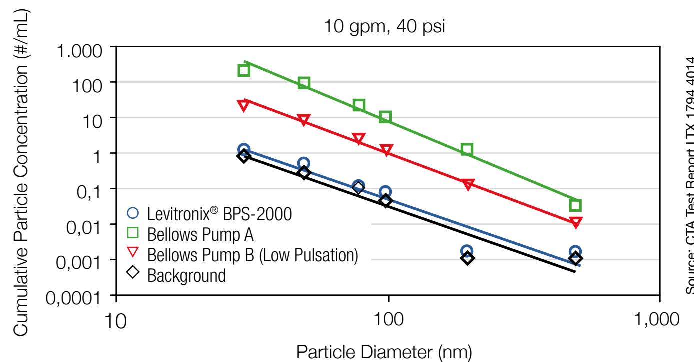
Improved Filter Performance //
pulsation free pumping

Pressure and flow pulsations have been shown to increase particle release from filters and limit their lifetimes.The open pump head design, centrifugal pump principle, and absence of valves lead to a completely pulsation-free flow, improving filter performance and increasing the lifetime.

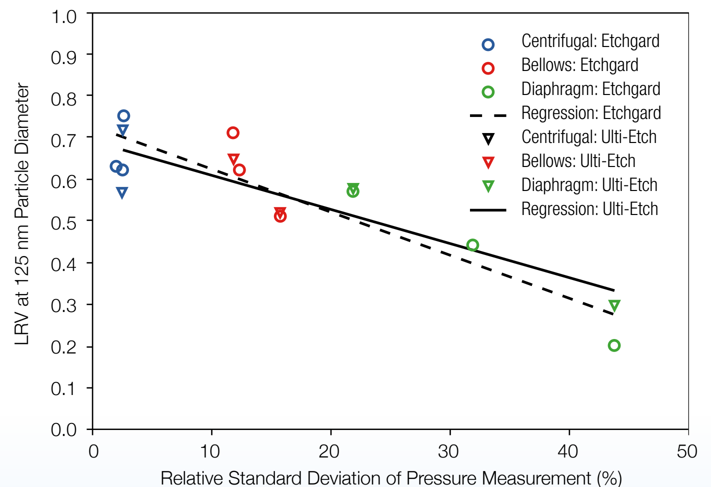
Lowest Trace Metal Contamination //
small wet surface area

The wet surface area of a Levitronix® pump is several times smaller than pneumatic pumps of similar hydraulic performance. This results in reduced exposure to acid chemicals and thus in reduced leach out of trace metals.

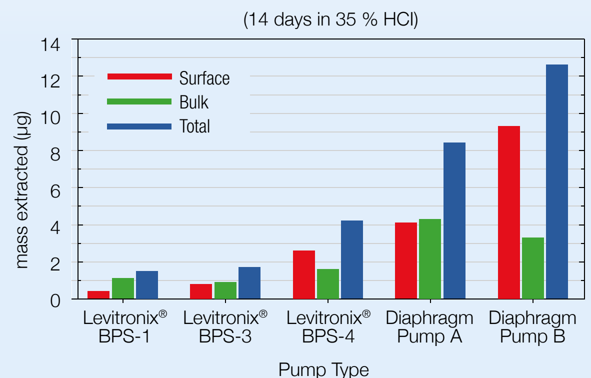
PARTICLE SHEDDING OF A LEVITRONIX® PUMP COMPARED TO TWO BELLOWS PUMPS

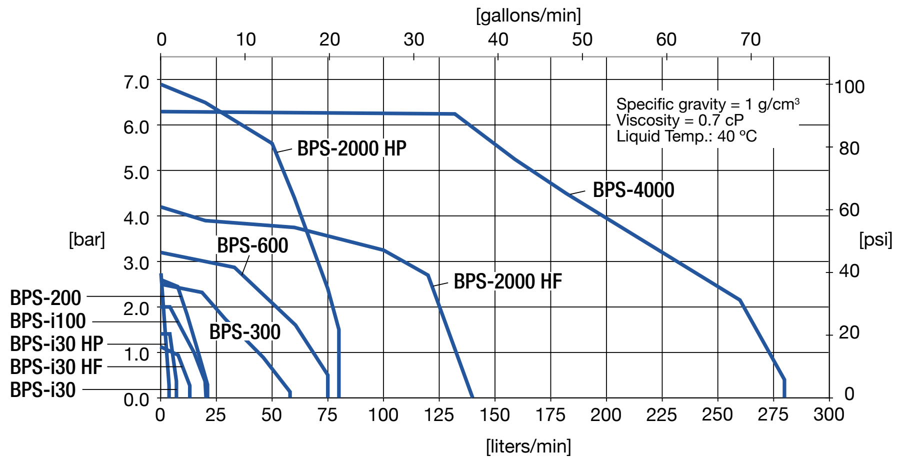


FILTER RETENTION EFFICIENY VS. PRESSURE PULSATION



TRACE METAL EXTRACTION OF THREE LEVITRONIX® PUMPS COMPARED TO TWO DIAPHRAGM PUMPS





Overview //
SU Pump Systems

BPS-i30 Standard
1.5 bar (22 psi)
7.4 l/min (2 gpm)

BPS-i30 High Pressure
2.8 bar (40 psi)
3.8 l/min (1 gpm)

BPS-i30 High Flow
1.1 bar (16 psi)
14.7 l/min (3.9 gpm)

BPS-i100
2 bar (29 psi)
20 l/min (5.3 gpm)

BPS-200
2.6 bar (37.7 psi)
21 l/min (5.5 gpm)

BPS-300
2.5 bar (36.2 psi)
58 l/min (15.3 gpm)

BPS-600
3.2 bar (46 psi)
75 l/min (20 gpm)

BPS-2000 High Pressure
6.9 bar (100 psi)
80 l/min (21 gpm)

BPS-2000 High Flow
4.2 bar (61 psi)
140 l/min (37 gpm)

BPS-4000
6.3 bar (91 psi)
280 l/min (74 gpm)

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