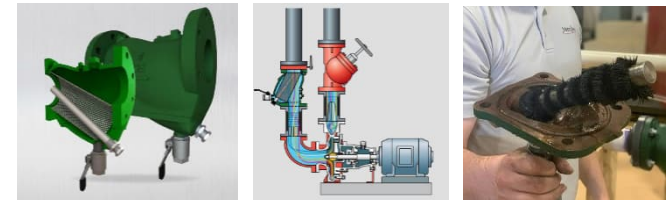


THE LOWEST PRESSURE DROP Y-STRAINER ON THE MARKET, UPGRADED WITH A MAGNET TO CATCH IRON OXIDES.

epiphene

ENERGY SAVING PUMP PROTECTION SOLUTIONS



SIMPLE, IN-SERVICE BLOW DOWN PROCEDURE



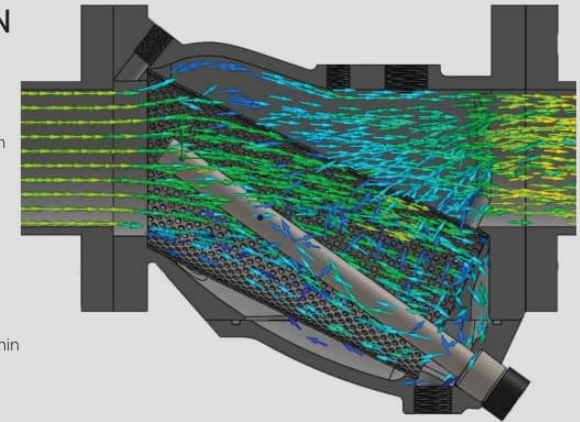
The magnets are constantly collecting magnetic debris while at the same time larger foreign materials are being captured in the perforated stainless steel screen.

To ensure all the particles captured are blown out during the blow down process, slowly draw the magnet(s) out of the drywell and stop when you see the red line.

Open the valve and blow down for 3 to 5 seconds and at the same time pull the magnet the rest of the way out. Then shut the blow down valve. Re-insert the magnet.

THE COLLECTION VORTEX

The very powerful Neodymium magnets work within the system to draw out metal fragments that have been unknowingly interfering with the life of your system. The LPD-Mag Y-Strainer will filter out both metallic and non-metallic debris. Metallic particles will collect and attract other debris, capturing 95% within the first days usage.



STILL THE BEST FLOW IN THE INDUSTRY.

Size	Traditional Y Strainer	LPD Y Strainer
NPS	Cv	Cv
2	70	120
2-1/2	110	165
3	150	236
4	270	460
5	390	641
6	580	952
8	920	1580
10	1600	2424
12	2200	3576

Size	Basket Strainer	LPD Y Strainer
NPS	Cv	Cv
2	62	120
2-1/2	102	165
3	150	236
4	260	460
5	400	641
6	560	952
8	1030	1580
10	1580	2424
12	2500	3576

Cv - The industry standard method to compare flow through products.

Cv equals the number of GPM that will flow through the strainer at 1 psi of pressure drop.

PROTECT YOUR ENTIRE SYSTEM FROM FAILURE

It is very common for users looking for efficient systems to utilize pumps with ECM motors. However, it turns out that using the ECM motors has an unintended consequence. The larger, very powerful magnets within the motor draw iron oxide into the seal area of the pump, causing seal failures.

This large accumulation of iron oxides is known as "sludge". Overtime, sludge can work its way into even the smallest openings in your system, clogging and slowing down system performance and efficiency. This leads to seal failures in pumps, damaged boilers, chillers and heat exchangers.

The LPD-Mag is the perfect solution to sludge, ultimately saving you time, energy and money.



Accumulation of sludge within ECM Pump

Servicing LPD Mag in vertical position to flush the iron particles and pictured close-up below.



Close up of the LPD Strainer magnet assembly with bottom pulled off of the LPD strainer pictured above.



Pulling the bottom off the LPD Mag Separator to show the full effect of the magnetic effect.



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Problem: A residential condo building in downtown Chicago was experiencing repeated pump failures. First the pumps started making excessive noise before starting to leak or seizing up. This new, closed-loop system consisted of 11 individual pumps with ECM motors, 11 LPD Y-Strainers, and boilers that utilized copper heat exchangers. Since the system was put into service in 2017, the building had to replace 30 Pumps with ECM motors due to pump failures within the first two years. Having to replace a pump is no easy or cheap task. “In just one year alone we replaced more than a dozen pumps,” explained the Client Manager. Looking at the pumps, it became evident that the powerful magnets in the ECM motors were attracting iron oxides and other magnetic particulates into the wet rotor of the pump. The buildup on the rotor wore through the housing, resulting in a leak, or the pump seized up.

“It is a brand-new system,” says client manager “so it was weird when the pumps kept failing.” The source of the iron oxides causing the trouble was the carbon steel pipe. Additionally, further analysis determined that the copper heat exchanger was causing galvanic corrosion of the carbon steel pipe. This resulted in additional iron oxides, which ultimately found their way into the ECM pump wet rotor and caused failure.

Solution: After installing the LPD Mag Strainers, no problems after a year and problem solved.