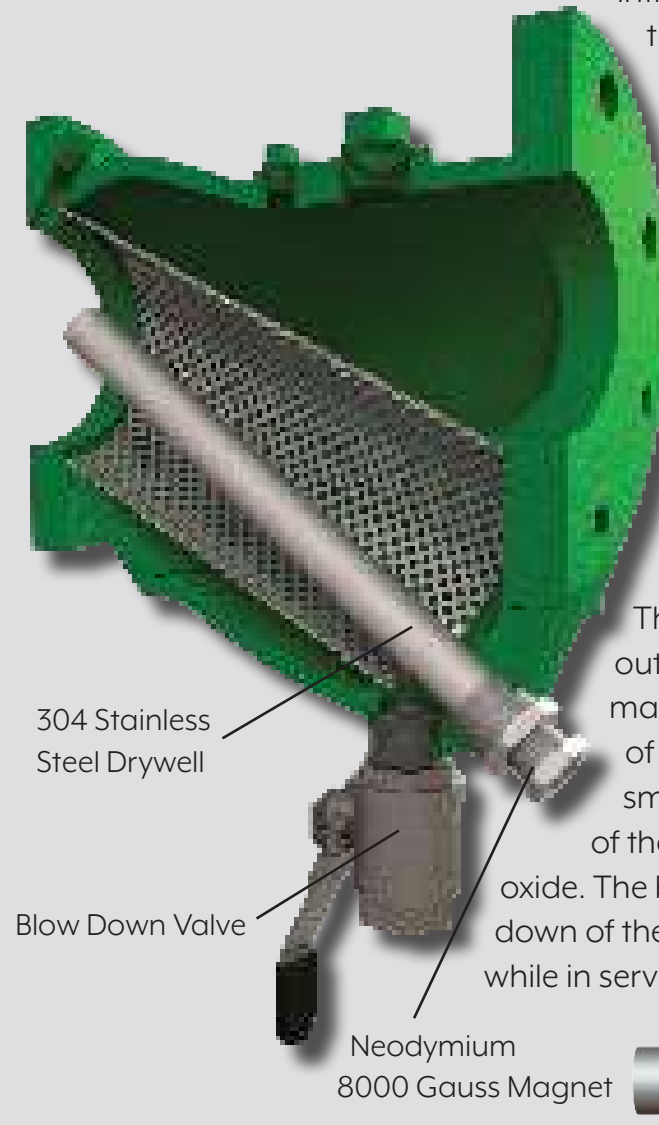


# THE LOWEST PRESSURE DROP Y-STRAINER ON THE MARKET, UPGRADED WITH A MAGNET TO CATCH IRON OXIDES.

Introducing the LPD-Mag from The Metraflex Company—the lowest pressure drop Y-Strainer on the market, upgraded with a Neodymium magnet to catch iron oxides. The LPD-Mag is the industry's first strainer solution to pump seal failures caused by iron oxide within the water system.

The Low Pressure Drop Y-Strainer from Metraflex was the result of a completely re-engineered design of the traditional Y-Strainer. The LPD Y-Strainer provides a much better pressure drop and at the same time a much higher debris capacity than any Y-Strainer or basket strainer on the market.

The LPD-Mag works as a traditional LPD Y-Strainer to filter out debris within the system. The Neodymium rare-earth magnet installed within the strainer assists in the removal of iron oxide buildup, helping to assure your system runs smoothly. The magnet is installed into the collection vortex of the LPD, maximizing the magnet's ability to catch iron oxide. The blow down port is designed to allow for a thorough blow down of the strainer to remove metallic and non-metallic debris, while in service.



304 Stainless Steel Drywell

Blow Down Valve

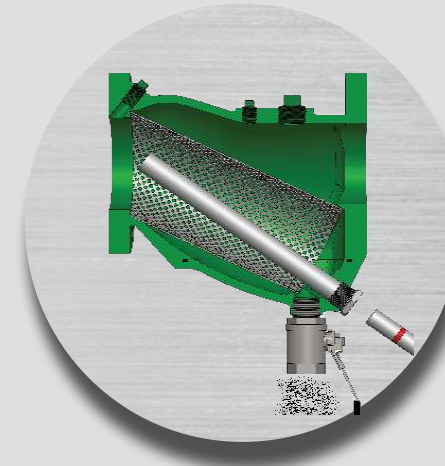
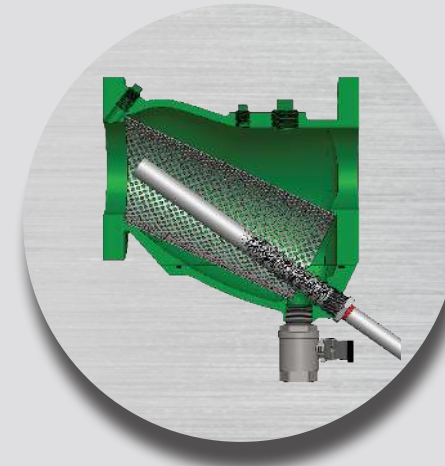
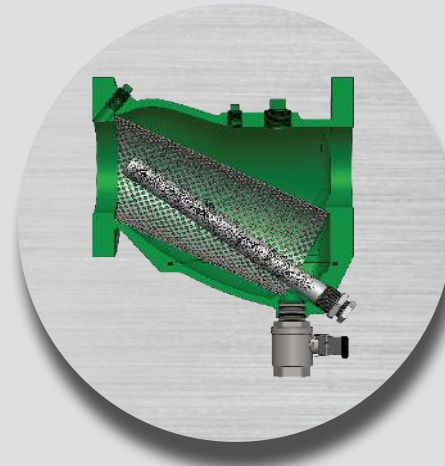
Neodymium 8000 Gauss Magnet



## RARE-EARTH MAGNETS ⚠️

Please be advised that any magnetic field can influence the performance of any cardiac conduction devices (pacemakers, ICDs, etc.) and could be unintentionally deactivated. Most individuals are not familiar with how magnets will react to each other, let alone to their surroundings. Magnets can move unpredictably and the larger the magnet, the more dangerous they become.

## 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.

## 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.

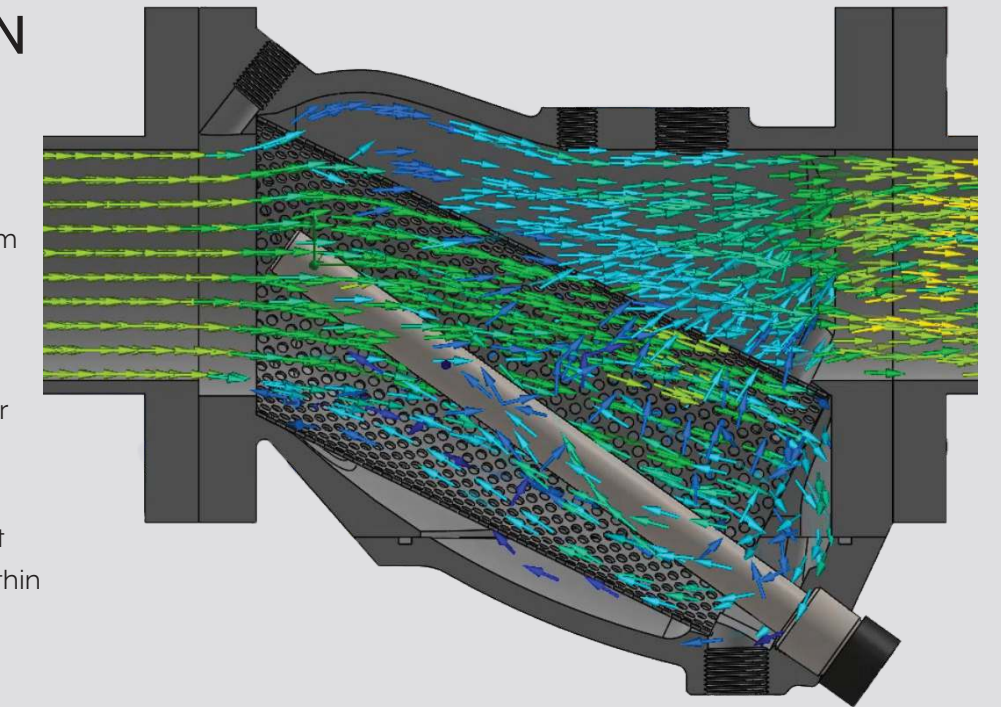
The LPD-Mag is the perfect solution to sludge, ultimately saving you time, energy and money.



Accumulation of sludge within ECM Pump

## 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.



For videos and technical data visit [www.metraflex.com/lpd-m](http://www.metraflex.com/lpd-m)

## SPECIFICATIONS

### 1.0 General

- 1.1 "Y" Pattern pipeline strainers shall be installed where shown on plans or required by equipment manufacturers.
- 1.2 Standards
  - 1.2.1 Strainer body shall be ASTM A126 B Cast Iron.
  - 1.2.2 Flanges shall be ASME B16.5

### 2.0 Product

- 2.1 Y Strainer shall be model "LPD-Mag" as manufactured by The Metraflex Company®, Chicago, IL.
- 2.2 Y Strainer shall be of the low pressure drop design with the following CV values;

2" Pipe	120
2½" Pipe	165
3" Pipe	236
4" Pipe	460
5" Pipe	641
6" Pipe	952
8" Pipe	1580
10" Pipe	2424
12" Pipe	3576

- 2.3 LPD-Mag should be equipped with minimum 8000 Gauss magnet(s)
- 2.4 6" and smaller shall have one magnet, 8" and larger shall have two
- 2.5 Magnets shall be neodymium
- 2.6 304 Stainless steel magnet tube shall be installed in a 304 stainless steel drywell
- 2.7 Screens shall be Type 304 Stainless steel.
- 2.8 Screen perforations shall be;
  - 2.8.1 For liquid service for sizes 2" – 3" perforation shall be .045"
  - 2.8.2 For liquid service for sizes 4" – 12" perforation shall be .125"
  - 2.8.3 For steam service for sizes 2" – 6" perforation shall be .045"
  - 2.8.4 For steam service for sizes 8" – 12" perforation shall be .062"
- 2.9 Strainer shall have a screen pitch of 20-25°
- 2.10 Screens shall be removable via a access cover sealed with O-ring.
- 2.11 Strainer shall be manufactured with .25" pressure differential ports, with one placed on each side of the screen.
- 2.12 Strainer shall be equipped with a dry well port. Port shall be .5" for sizes 2" – 3" and 1" for sizes 4" – 12".
- 2.13 Strainer connection shall be 125 lb. class flange.

### 1.0 Execution

- 3.1 Y Strainer shall be installed in accordance to manufacturer's recommendations and contact requirements.
- 3.2 Screen perforation shall be in accordance to equipment of manufacturer's



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Metraflex has one of the most extensive offerings of piping products for the commercial HVAC industry with representatives across the country and around the world. Let the experts at Metraflex assist you with your application or installation.

Every engineered pipe system must compensate for noise, vibration, movement and piping alignment.

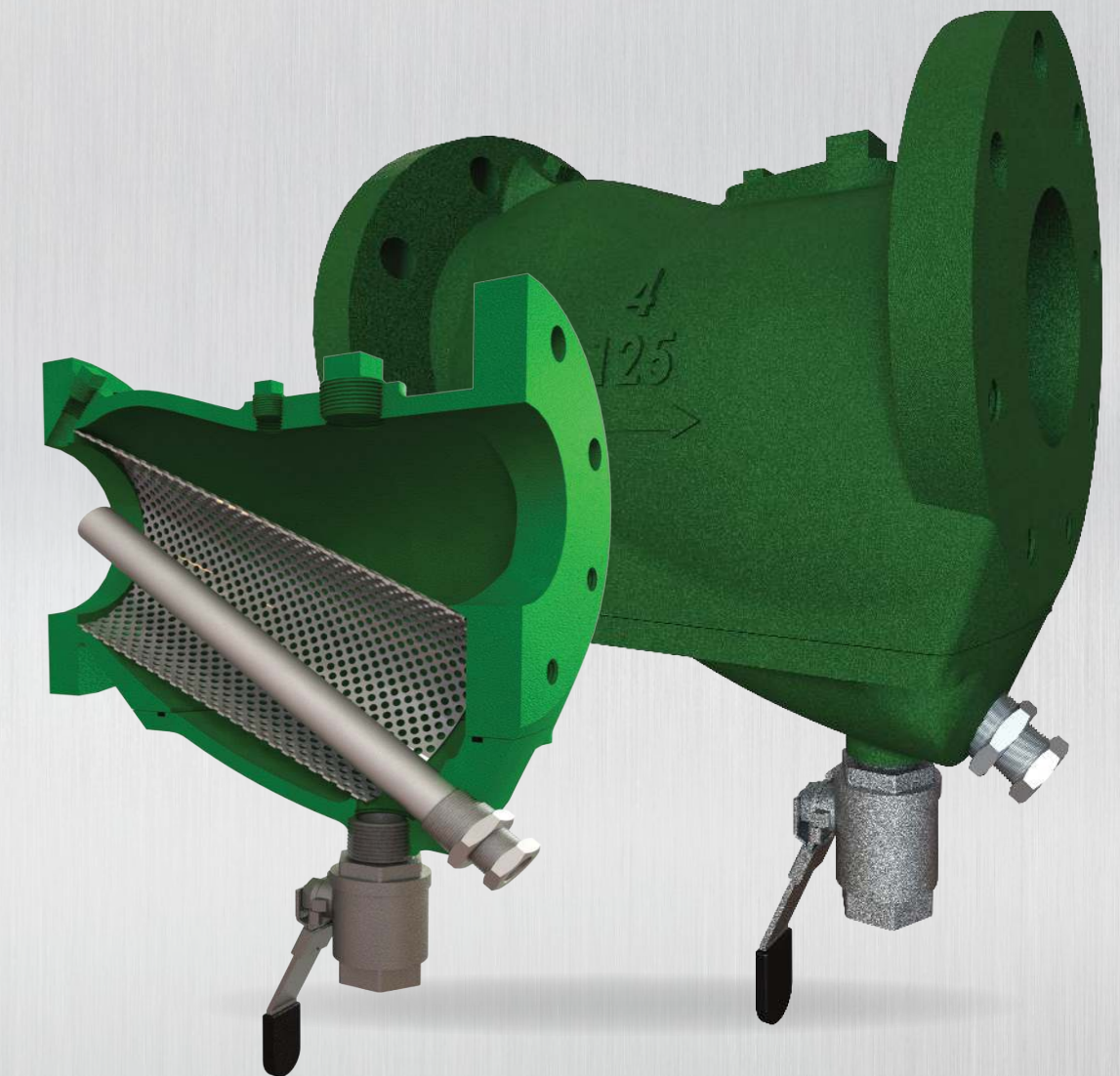
Contact Metraflex today to ensure efficient, protected piping.

**Metraflex**



For videos and technical data visit [www.metraflex.com/lpd](http://www.metraflex.com/lpd)

# THE LPD-Mag



## THE LATEST IN STRAINER TECHNOLOGY FROM

**Metraflex**  
for pipes in motion