

Saving Money and Maintaining Efficiency in Suction Line Straining

We have said it over and over many times, the pump in any system must be protected because it protects the “heart” of the system. If the pump goes down, fails, stops, or just ceases to do what it is supposed to do, and that is keep the system operating, the system is dead. Pumps are built to take a beating though.

However, the cost of protecting the pump is insignificant to the benefits it yields. Keep in mind, on the suction line, we merely “strain.” We do not “filter.” And now, the cost is even lower for low-flow operations. For low-flow systems, up to 3 gpm, using an all-nylon suction strainer is an inexpensive way to keep costs to a minimum yet maintain efficiency.



Keeping a system operating at peak efficiency is most important. After all, when a system is needed to work efficiently and it can't for whatever reason, revenue is being lost. Therefore, operators should be leading the charge to keep the system operating at peak performance.

Let's take a look at systems that have flow rates up to 3 gpm. We can look in practically all industries that have applications that can use a suction strainer with the following benefits:

- Economical
- One piece strainer, all nylon construction, nothing to separate or break apart
- Most all fluids, except very caustic or corrosive ones can be used
- Low pressure
- Temperatures up to 290°F
- Pipe sizes ¾" npt female or male
- 30 mesh/595 micron equivalent
- Disposable
- Non-corrosive

All nylon suction strainers can be used in applications that include...

- Seawater
- De-ionized water
- All other waters
- Most chemicals
- Most lubricants
- Most coolants
- Hydraulic oils

If you're not sure your fluid is compatible with the nylon, contact Ohio Fabricators for verification. Heavily caustic and corrosive fluids are usually not compatible for use with this type of strainer.

There are many different kinds of machinery and equipment where the fluid moves slowly because the application requires it. Fluid flow is a part of fluid mechanics and deals with fluid dynamics. This, then, considers the motion of any fluid which gets subjected to unbalanced forces. The strength of the one-piece nylon strainer will withstand most any steady or unsteady velocity of flow without any strainer breakdowns, largely because it is made of one piece molded nylon.

Some examples of where low-flow strainers are used in various markets and industries:

- Small wind turbines and mills inside the gearboxes that holds the hydraulic fluid which changes the blade pitch
- Small hydraulic power units
- Various mobile equipment
- Small carpet cleaning equipment
- Machine shops for straining cutting oil
- Hydraulic reservoirs
- Gearboxes
- Small hydro-power units
- General industrial
- Fluid power strainers
- And many more systems and equipment where low-flow suction is necessary.



White Paper

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There used to be a common thought where suction straining is necessary to protect the pump or even other components. A metal strainer with metal mesh was the “go to” strainer to be used on the suction side. Other materials were not thought of to be used in this area. With advances in technology, research and design, things have changed. Now nylon is used in areas not previously considered.

On the pressure side, other media has, over the years, been developed for filtration. For example, cellulose, micro-glass, polyester, polypropylene, and various other synthetic non-wovens and fibers are used in many specific areas. A simple, all nylon suction strainer is cost efficient, disposable, satisfactory, and clearly an option that can be used as an important aid in protecting both pumps and high pressure filters that are downstream.

[Ohio Fabricators now produces the all nylon suction strainer series, Model “AP.”](#)

It is no secret that a pump using proper straining, runs at peak efficiency. It uses less “fuel,” experiences less downtime, and costs less to operate. Time spent maintaining a pump is an investment in its lifetime, performance and value.

Contact Ohio Fabricators today to see if our Model AP Strainers are right for your application.