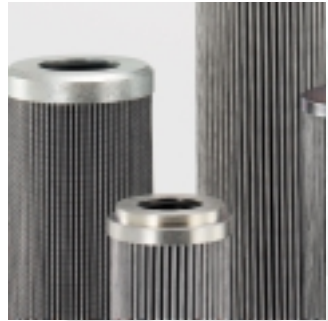


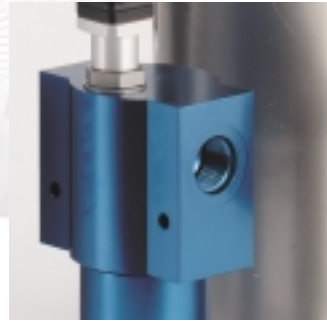


# FILTRATION

[www.filterelement.com](http://www.filterelement.com)



*Fluid Contamination Under Control with . . . Innovative Filtration Products, Support, and Solutions.*



12955 Ford Drive Fishers, Indiana 46038 USA 317.849.3535 Fax 317.849.9201



# Fluid Contamination Under Control With...



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## High Performance Filter Elements

Reduce vendors, consolidate inventory and clean up your system by replacing all major filter manufacturers and OEM spare elements with Hy-Pro upgrades. Replacements for Pall, Parker, Hydac, Schroeder, PTI, EPE, Internormen, Donaldson, Stauff, MP Filtri, Mahle, Fairey Arlon, General Electric, Hilco, Taisei Kogyo, Bosch, Rexroth, Kaydon, and many more.



## Coreless Filter Elements

Reduce rising disposal costs and minimize environmental impact. Hy-Pro elements do not sacrifice performance or structural integrity for disposability.



## Spin-On Filter Assemblies

A range of sizes, ports, and bypass valve settings are available along with true differential pressure indicators. Rated up to 150 psi (10 bar) with flow rates up to 120 gpm (450 lpm).

## High Pressure Filter Assemblies

High pressure applications require cleaner fluid. Achieve and maintain target fluid cleanliness even under severe operating conditions. Rated up to 8700 psi (615 bar).



## Medium Pressure Filter Assemblies

Meet target cleanliness levels and ensure sensitive components operate reliably. Rated up to 3000 psi (210 bar).



## Innovative Filtration Products

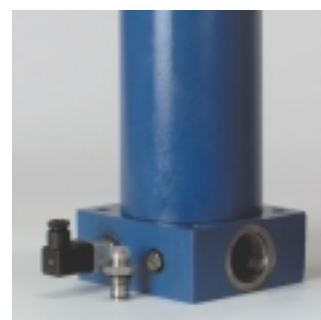


## In-Tank Return Filter Assemblies

A compact solution for high flow return-line requirements, and an alternative to spin-ons.

## High Pressure Base Mounted Filter Assemblies

Protect your system with the option of larger elements and top-loading design for clean and easy service.



## High Flow Filter Assemblies

Featuring coreless element technology with single element and multi-element vessel designs. Ideal for lube, off-line, process fluid, bulk oil handling, and other high flow applications. ASME code stamps available. Rated up to 4000 gpm (15000 lpm).



## Portable Particle Counters

Take ownership and control of oil analysis with your own particle counters. Get immediate feedback whether sampling on-line or with bottle sampling. Avoid unnecessary variables and delayed results associated with lab oil analysis programs.



## Hy-Dry Desiccant Breathers and Suction Strainers.

Remove water from the air that your system inhales and capture oil mist and fume exhaust. Prolong fluid life, maintain fluid lubricity, minimize rust, oxidation and acid production. Hy-Dry also works to enhance filter performance by removing particulate contamination down to 2 micron with 100% efficiency. No reservoir or gearbox should be without one. Suction strainers are available with stainless mesh media with and without bypass.





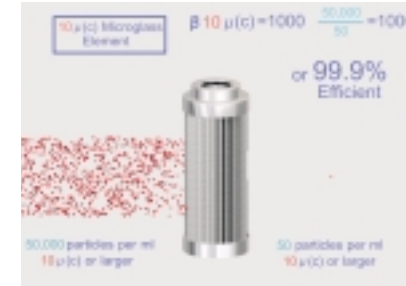
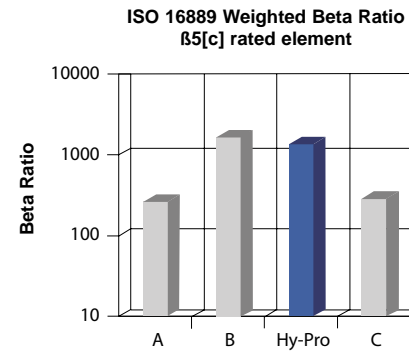


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# Fluid Contamination Under Control With...

## ISO 16889 Multipass Testing

Validation to antiquated minimum industry standard ISO 16889 testing guidelines.

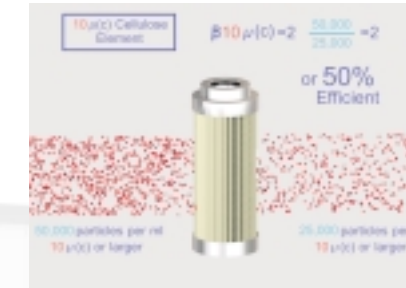
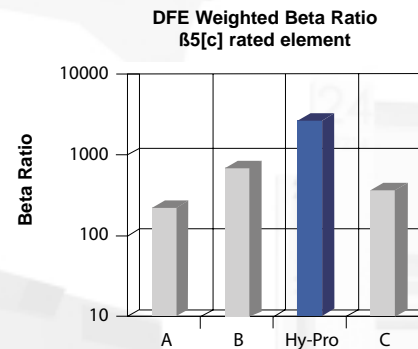


## Achieve a Higher Efficiency

Hy-Pro filter elements are validated to achieve  $\beta_{x(c)} = 1000$  and greater beta ratios. Glass media elements only rated to  $\beta_{x(c)} = 75-200$  can allow ISO fluid cleanliness codes to increase by two to three codes per size. This will lengthen the time interval necessary to achieve target cleanliness codes.

## Dynamic Filter Efficiency (DFE) Multipass Performance Testing

Hy-Pro has developed the highest industrial standard for measuring filter performance. Performance in a dynamic system is simulated with rapid and frequent flow rate changes that represent the stresses a filter experiences when in service.

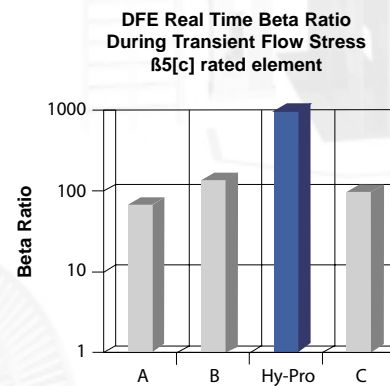


## Upgrade Cellulose to G7 Glass for Cleaner Fluid

Glass media is the standard for high performance filters yet many systems still use antiquated cellulose media technology. Recapture control of runaway contamination levels and high ISO cleanliness codes by upgrading all cellulose filters to Hy-Pro elements featuring G7 Glass media. Once the system has stabilized the glass element will outlast the cellulose by 3-5 times.

## Contaminate Capture and Retention

Don't assume that a filter element will retain the particles it has captured. DFE testing reveals that filter elements designed and validated **ONLY** to antiquated industry standard ISO 16889 (ISO4572) multipass testing are prone to discharge previously captured contamination. When subjected to real world dynamic conditions highly concentrated clouds of contaminate are released by some filter elements. This can inhibit reliability, cause severe damage, and accelerate failure of sensitive components. With DFE rated Hy-Pro elements you get clean fluid under normal **AND** severe operating conditions.



# DFE A Competitive Advantage



## See the Hy-Pro Difference

The Hy-Pro Oil Analysis Patch Kit (PTK1) provides an inside look at system contamination levels and particle type. Reference manual allows quick visual correlation from patch result to approximate ISO Code. Reference manual also helps to identify various types of contamination visually.

## The difference is Clear - Cleaner Fluid

The patch test collects all contaminate 1.2 $\mu$  and larger in 25ml of fluid from a fluid sample 100x field microscope magnification. The dirty patch shows the fluid condition with an inferior element, and the clean patch shows the difference in cleanliness after the Hy-Pro element was installed.

## Develop a Target Fluid Cleanliness Program.

We'll help you formulate a plan to achieve and maintain target fluid cleanliness levels. Arm yourself with the training, tools and practices to operate more efficiently and save money.

Roller Contact Bearing

Current ISO Code	Target ISO Code 2 x Life	Target ISO Code 4 x Life	Target ISO Code 5 x Life
23/21/18	19/17/14	15/13/10	14/12/9
22/20/17	18/16/13	15/13/10	13/11/8
21/19/16	17/15/12	13/11/8	-
20/18/15	16/14/11	-	-
19/17/14	15/13/10	-	-
18/16/13	14/12/9	-	-

Hydraulic Component

Current ISO Code	Target ISO Code 2 x Life	Target ISO Code 4 x Life	Target ISO Code 5 x Life
23/21/18	19/17/15	18/16/13	17/15/12
22/20/17	19/17/14	17/15/12	16/14/11
21/19/16	18/16/13	16/14/11	15/13/10
20/18/15	17/15/12	15/13/10	14/12/9
19/17/14	16/14/11	14/12/9	14/12/8
18/16/13	15/13/10	13/11/8	-

## Cleaner Fluid, Longer Component Life

Lab and field tests prove time and again that Hy-Pro filters deliver lower ISO cleanliness codes, and do it with greater consistency. Improving and stabilizing fluid cleanliness can increase hydraulic component and bearing life exponentially. Cleaner fluid also yields reduced downtime, more reliable equipment performance, fewer maintenance hours, longer fluid life, and reduces costly component replacement or repair expenses.

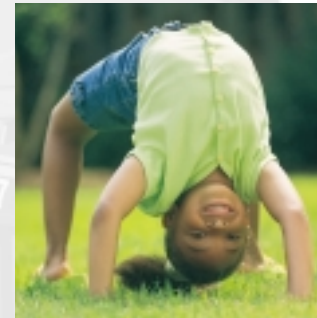
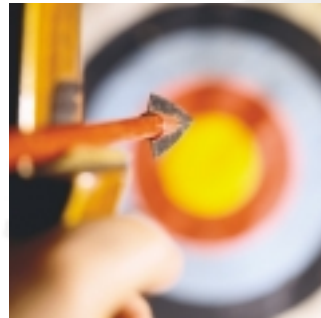


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# Fluid Contamination Under Control With...

## Focused

At Hy-Pro, controlling fluid contamination is our focus. We devote all R&D, time and effort to products and support.

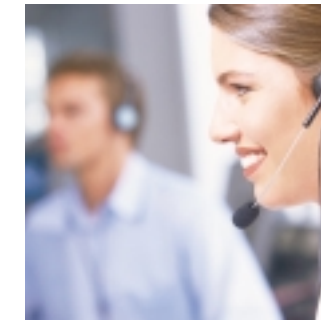


## Flexible

We take pride in being flexible from product range to delivery. In an emergency or if you need a customized product, we want to help in any way we can. Let your challenge become our challenge too.

## Anytime . . . Anywhere

Experienced and available, Hy-Pro sales and service team members are well versed in all aspects of hydraulic and lube systems. We understand the impact and relationship of filters and cleanliness to the entire system. We are here to help tackle your fluid contamination challenge in any industry, anywhere!



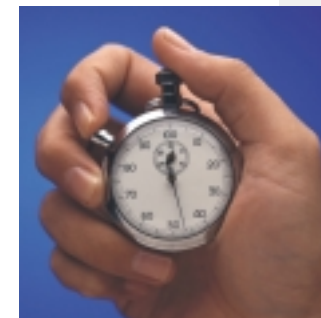
## Knowledgeable, Attentive Customer Service and Tech Support

Our customer support team undergoes extensive filtration, applications, and product training. Put our customer support team to work for you.

# Support and Solutions

## Mill and Plant Level Training

Our distributor partners go through extensive filtration and applications training. We offer that same technical training to maintenance and engineering personnel on the frontline. The training includes preventative maintenance tips, bottle sampling technique, oil analysis, and target cleanliness programs in addition to filtration and contamination basics.



## Quick Delivery

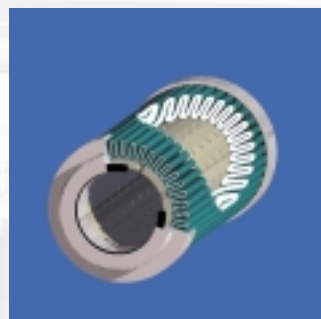
Extensive stock coupled with our flexible manufacturing approach allows us to define delivery in days not weeks. We see rush orders as an opportunity to prove our value to you.

## Experienced Engineering Design

The Hy-Pro Engineering and Design team is ready to partner with you to find a solution driven by combining customer requirements with the most suitable application of our technology.

## Difficult to Source Replacement Elements

Unknown manufacturer, incomplete or no part number, or just unlisted in our interchange guide. . . No problem! We are continuously adding new part numbers to our cross reference. If we cannot identify the element by number we can make a replacement from a sample or the right combination of detailed information.



## Distributor Value Added Services

We work shoulder to shoulder with our network of distributors to offer immediate response, applications expertise, and local stocking. Our distributor partners offer many value added services including inventory consolidation, system trouble shooting, training, oil analysis, fluid conditioning, scheduled filter change outs, system upgrades, power units, and much more.





## Quality

The same commitment to quality that helped us achieve ISO 9000 certification is an integral part of the culture of Hy-Pro. Quality is in the fiber of everything we do whether it is customer service, engineering, manufacturing, product development, or customer training and support. Put the Hy-Pro team to work for you.

## Industry Standards

All Hy-Pro filter and element designs are validated per ISO industry standards.

**ISO 2941 Collapse and burst resistance**

**ISO 2942 Fabrication and integrity test**

**ISO 2943 Material compatibility with fluids**

**ISO 3724 Flow fatigue characteristics**

**ISO 3968 Pressure drop vs flow rate**

**ISO 16889 Multi-Pass performance test**

