



# SERIES R100™

# COALESCING FILTER

## Improved Efficiency, Reduced Maintenance and Operating Cost

### R100™ DESIGN

A horizontal vessel with vertical orientated coalescing filter elements, multistage filtration - utilizes gravitational settling and inertial impaction. Our filter elements incorporate particulate and coalescing sub-micron filtration. The R100™ is an integral slug catcher with (2) sump holding chambers (with additional external options available) providing ease in maintenance and service. To date, nearly 1000's units are in successful service globally utilizing our vertical filtration (not horizontal or vane packs).

The R100™ is a proven vertical coalescing system, a technology improving efficiency and maintenance down time while expanding element life. With our quick opening closures, they require no compressors or impact tools - drastically reducing maintenance time.

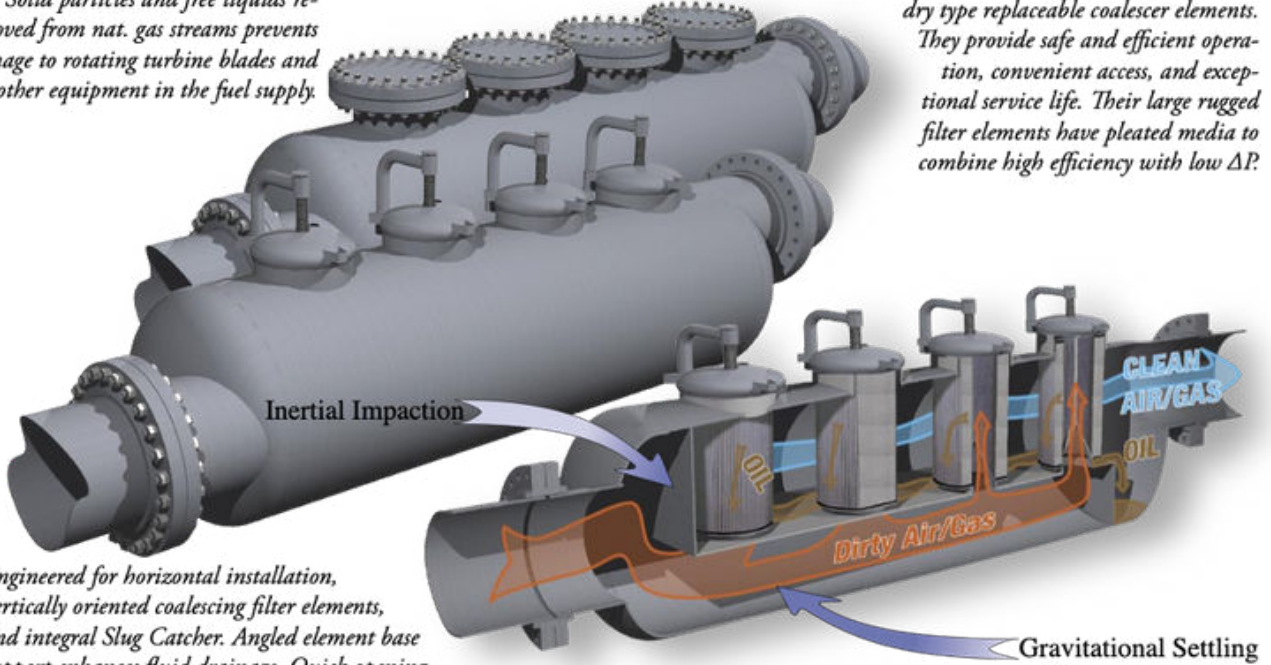
More uptime = More Revenue

## Series R100 Horizontal/Vertical Coalescing Pipeline Filters Multiple Stage

Design Pressures to 3000 psig std.

*Solid particles and free liquids removed from nat. gas streams prevents damage to rotating turbine blades and other equipment in the fuel supply.*

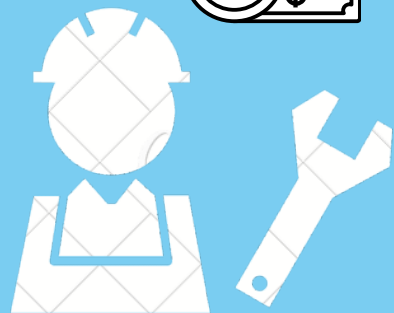
*These coalescing filter-separators use dry type replaceable coalescer elements. They provide safe and efficient operation, convenient access, and exceptional service life. Their large rugged filter elements have pleated media to combine high efficiency with low ΔP.*



*Engineered for horizontal installation, vertically oriented coalescing filter elements, and integral Slug Catcher. Angled element base support enhances fluid drainage. Quick opening closures and alternate element stacks are available.*

## IMPROVED EFFICIENCY, REDUCED MAINTENANCE AND OPERATING COST

The first R100™ replaced a competitive horizontal element unit that required seven 4" x 36" elements, with change out needed every two weeks. The Sparks™ series R100™ filter with only three elements operated continuously for six months without needing any service saving the owner seventy-five hours of remote field maintenance and over \$20,000 in replacement filter elements.



PAYBACK ON INVESTMENT IN AS LITTLE AS 9 MONTHS - Similar success stories continue.

## TRADITIONAL SEPARATORS

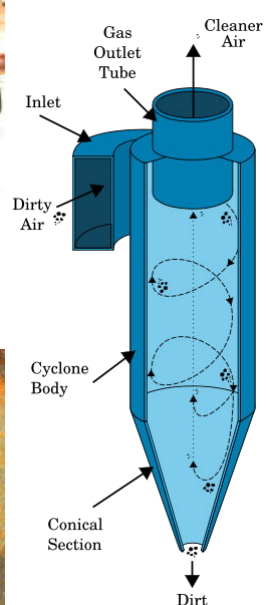
Vane Separators - Pockets and drain piping can easily plug with solids. Difficult to clean. Relatively expensive.

Mesh separators - Very susceptible to plugging. Highly susceptible to corrosion. Expensive.

Centrifugal & Cyclone - Lower efficiency than vane separators. A trap device is needed for liquid collection. Limited liquid handling capacity.



Vane Separators look great when first fabricated - but not so great after a few months in service, 10-20 micron at best.



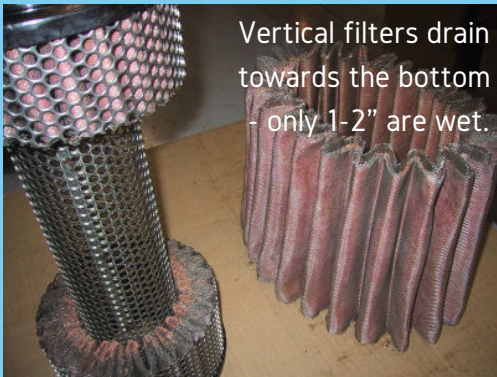
How many are totally wet or useless?



Multiple Horizontal Tubes lose efficiency and quite often bypass at the seals.

# HORIZONTAL VS VERTICAL COALESCING ELEMENTS

Long tube type horizontal coalescing filters can "wet" out and lose up to one third useful area - Element installation and maintenance can be extremely tedious, time consuming and costly



Vertical filters drain towards the bottom - only 1-2" are wet.



## R100™ VS COMPETITION

R100™	Shawndra Products, Inc. <small>maker of Sparks Filters</small>	Competitor
YES	Service in 1-2 Hours	NO
YES	Inline Connection	NO
YES	Inertial Impaction	NO
YES	Gravitational Settling	NO
YES	Slug Catching	NO
NO (not needed but optional)	Secondary Sump	Yes

	R100™	Competitor	R100™2	Competitor2	R100™3	Competitor3
Vessel OD	36"	36"	36"	42"	36"	48"
# Of Elements	3	31	4	38	5	56
Element Length	30"	72"	30"	72"	30"	72"
Total Sq. Ft.	243	224	325	274	405	404

## ENVIRONMENTAL IMPACT



Due to the R100™ vertical design, filter elements not only last longer and require fewer change outs but the R100™ is more environmentally friendly than the competition. With each change out, operators are becoming more and more challenged with proper disposal and growing EPA laws.

With the first R100™ in service, the CMB producer implemented the R100™ to service (7) well heads, replacing units that only serviced (1). The competitive unit required (7) elements to be changed out 26 times a year... times (7) well heads, that equals 1,274 elements a year to the R100's (3)!



## MAKE THE SWITCH TODAY

With nearly 1000 units in service to date and growing, there is no risk in choosing the R100™! Return on investment can be captured in as little as 9 months. We custom design our units to match our customers exact requirements, unlike the competition. If you want extra ancillary ports, changes in orientation etc. don't worry, we will make the changes quickly, without change fees and ensure an optimally engineered solution for your needs, and we do this in days, not months.

Need a solution quick? We have stock units available and can fabricate our 1,2, and 3 stack options in 6 weeks ARO. Leasing options also available upon request.

Contact us today and learn why our solution is the BEST solution for your pipeline application!

