

# Oil and Gas Filtration

Technical Reference Manual 1200/100/Global



## High-Pressure, High-Efficiency Filtration for CNG & RNG Systems

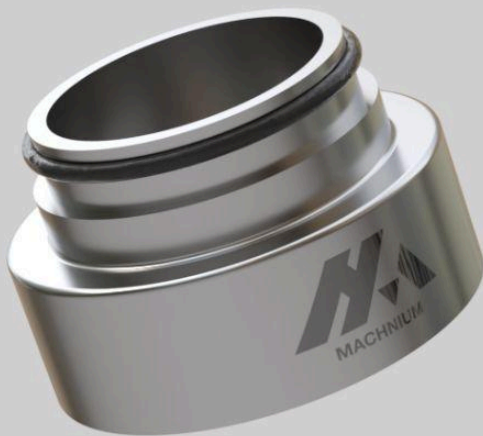


## High-Pressure 2-Stage Cyclonic & Coalescing Filters



## Why Choose Our Oil Filtration System?

Our CNG High-Pressure Oil Filtration System combines advanced 2-stage cyclonic filtration technologies to provide superior oil separation and contaminant removal. Engineered for high-pressure, high-flow environments and built with high-quality stainless steel for extreme conditions. This dual-stage system ensures clean gas flow, enhances equipment durability, overall system safety, and reduces maintenance needs.



## Key Features

### **Advanced 2 Stage Cyclonic Filtration**

Uses high-speed rotational force to separate oil and contaminants. Reduces oil buildup and contamination in CNG and RNG systems.

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### **Washable & Serviceable Design**

Filters are designed for reuse, allowing for periodic cleaning and extended operational life. Lowers operational costs by reducing maintenance and downtime.

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### **High Filtration Efficiency**

Ensures optimal gas purity, enhancing engine, compressor, and pipeline gas quality and performance.

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### **Rugged & Durable Construction**

Built with high-quality stainless steel for extreme conditions, enhances overall system safety and reliability.

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### **Extended Service Life**

Designed for long-term operation with minimal maintenance. Improves the efficiency and lifespan of compressors and engines.

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### **OEM Compatibility**

Seamlessly integrates with various CNG and RNG compression systems.

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### **Low Pressure Drop**

Optimized design ensures efficient gas flow with minimal resistance.

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### **Easy Installation & Maintenance**

User-friendly design for quick servicing and hassle-free replacements, providing a retrofit solution with no downtime for installation.

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## Applications

### **CNG Fuel Stations**

Ensures clean, contaminant-free gas for refueling stations.

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### **RNG Processing & Distribution**

Optimized for Renewable Natural Gas (RNG) applications to maintain high gas purity.

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### **Tube Trailer Refueling Operations**

Prevents oil contamination in high-flow CNG transfer systems.

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### **CNG-Powered Vehicles**

Protects fuel injectors and engines by eliminating oil carryover.

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### **Industrial Gas Processing**

Provides reliable filtration in high-pressure industrial applications.

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### **Pipeline Compression Systems**

Protects compressors and distribution lines from oil contamination.

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## Technical Specifications

Technical Specification	Details
Port Connection	½", ¾", 1" (custom sizes available)
Micron Rating (µm)	0.5
Head Material	ASTM A350 LF2 Forged Carbon Steel – suitable for low-temperature service
Thread Type	SAE, NPT, BSPP (other types available upon request)
Bowl Type	Steel
Plating Type	Nickel Plated
Coating	Epoxy Powder Paint
Seal Material	Fluorocarbon
Maximum Operating Temperature	-40°F (-40°C) to 350°F (176.7°C)
Filter Rating (%)	99.5%
Maximum Operating Pressure	5000 psig, 345 bar
Drain Port Size	¼"–½" (custom sizes available)
Optional Accessories	Horizontal Drain Kit 5500 PSIG
	Vertical Drain Kit 5500 PSIG
	Differential Pressure Gauge and Bracket
Filter Type	Cyclonic Coalescer
Maximum Flow Rate (scfm)	32,230 at 5500 PSI
Serviceability	Washable & Reusable



## Customization Options

### We offer tailored solutions based on:

Specific pressure and flow requirements

Unique inlet/outlet size preferences

Material selection for corrosive environments

Specialized filtration efficiency levels


At Machnium, we provide end-to-end, tailor-made solutions designed to meet the unique challenges of various industries. From initial concept to final manufacturing, we work closely with our clients to design, develop, and implement custom-engineered solutions that address their specific requirements. We handle everything from design, prototyping, and rigorous testing to full-scale production and ongoing support, ensuring that each solution meets the highest industry standards. Our expertise ensures seamless integration with existing systems while optimizing performance, durability, and serviceability.


Whether it's enhancing safety, improving efficiency, or meeting strict operational demands, our comprehensive approach delivers innovative, high-performance solutions built for the most demanding applications.

**For detailed technical data and customization options, please contact us.**

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